



**2025-2026**

## **SPEC. HANDBOOK**

- MTB
- TREKKING
- GRAVEL
- ROAD
- LIFESTYLE Active
- LIFESTYLE Comfort
- GENERAL
- E-BIKE

**REMARKS** Mark ✓ : available / Mark - : not available

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# Word definitions

|                |                                |                 |  |
|----------------|--------------------------------|-----------------|--|
| <b>BB</b>      | Bottom bracket                 | <b>HP</b>       | Head parts   |
| <b>BC</b>      | Brake outer casing             | <b>HRB, BR</b>  | Roller brake   |
| <b>BCC</b>     | Charger cord                   | <b>I-SPEC</b>   | Integration mounting system of brake lever and shifter   |
| <b>BCR, EC</b> | Battery charger                |                 |  |
| <b>BH</b>      | Brake hose                     | <b>ID</b>       | CI-DECK  |
| <b>BL</b>      | Brake lever                    | <b>JC</b>       | Junction   |
| <b>BM</b>      | Battery mount                  | <b>LP</b>       | Light  |
| <b>BR</b>      | Brake caliper                  | <b>MF</b>       | Multiple freewheel                                       |
| <b>BTC</b>     | Battery case                   | <b>MU</b>       | Motor unit   |
| <b>BT, BTR</b> | Battery                        | <b>O.L.D.</b>   | Over Locknut Dimension                                   |
| <b>CB</b>      | Coaster brake                  | <b>OT</b>       | Shift outer casing                                       |
| <b>CC, EWC</b> | Wire cover                     | <b>P.C.D.</b>   | Pitch Circle Diameter                                    |
| <b>CD</b>      | Chain device                   | <b>PCE</b>      | PC linkage device  |
| <b>CG</b>      | Chain guard                    | <b>PD</b>       | Pedal  |
| <b>CJ</b>      | Cassette joint                 | <b>PM</b>       | POWER MODULATOR  |
| <b>CN</b>      | Chain                          | <b>QR</b>       | Quick release  |
| <b>CP</b>      | Spoke protector                | <b>RD</b>       | Rear derailleur  |
| <b>CR</b>      | Chainring                      | <b>RT, SMRT</b> | Rotor  |
| <b>CS</b>      | Cassette                       | <b>RTAD</b>     | Rotor adapter  |
| <b>CT</b>      | Chain tensioner                | <b>SB</b>       | REVOSHIFT shifter integrated with brake lever            |
| <b>DH</b>      | Hub dynamo                     |                 |  |
| <b>DU</b>      | Drive unit                     | <b>SC</b>       | Cycle computer, System information display               |
| <b>EW</b>      | Electric wire                  |                 |  |
| <b>EWCP</b>    | Satellite charging port        | <b>SF</b>       | Single freewheel   |
| <b>EWEX</b>    | Di2 adapter, CAN adapter       | <b>SG</b>       | Internal geared hub                                      |
| <b>EWSW</b>    | Satellite system ON/OFF switch | <b>SL</b>       | Shifter  |
| <b>EWV, WU</b> | Wireless unit                  | <b>SPD</b>      | SHIMANO PEDALING DYNAMICS                                |
| <b>FC</b>      | Crankset, Crank arm            | <b>SPD-SL</b>   | SHIMANO PEDALING DYNAMICS-SL                             |
| <b>FD</b>      | Front derailleur               | <b>ST</b>       | DUAL CONTROL LEVER : Shifter integrated with brake lever |
| <b>FH</b>      | FREEHUB                        |                 |  |
| <b>GM</b>      | Grommet                        | <b>SW</b>       | Shift switch, Switch unit, Satellite shifter             |
| <b>HB</b>      | Front hub                      | <b>WH</b>       | Wheel  |



|   | Page      |                |
|---|-----------|----------------|
| <Di2 spec.> <b>Shift Switch</b>           | <b>2</b>  | <b>SW</b>      |
| <b>Rear Derailleur</b>                    | <b>4</b>  | <b>RD</b>      |
| <b>Front Derailleur</b>                   | <b>8</b>  | <b>FD</b>      |
| <b>Mount Adapter for Front Derailleur</b> | <b>9</b>  | <b>SMAD</b>    |
| <b>System Information Display</b>         | <b>10</b> | <b>SC</b>      |
| <Mechanical spec.> <b>Shifter</b>         | <b>11</b> | <b>SL</b>      |
| <b>Seat Post Lever</b>                    | <b>21</b> | <b>SLMT</b>    |
| <b>Integration Unit for Shifter</b>       | <b>21</b> | <b>SMSL</b>    |
| <b>Brake Lever</b> (Hydraulic Disc Brake) | <b>22</b> | <b>BL</b>      |
| <b>Brake Lever</b>                        | <b>25</b> | <b>BL</b>      |
| <b>Rear Derailleur</b>                    | <b>26</b> | <b>RD</b>      |
| <b>Front Derailleur</b>                   | <b>30</b> | <b>FD</b>      |
| <b>Brake</b> (Hydraulic Disc Brake)       | <b>39</b> | <b>BR</b>      |
| <b>Brake</b> (Mechanical Disc Brake)      | <b>44</b> | <b>BR</b>      |
| <b>Brake</b> (V-BRAKE)                    | <b>44</b> | <b>BR</b>      |
| <b>Crankset</b>                           | <b>45</b> | <b>FC</b>      |
| <b>Chain Device</b>                       | <b>55</b> | <b>SMCD</b>    |
| <b>Chainring</b>                          | <b>56</b> | <b>SMCR</b>    |
| <b>Bottom Bracket</b> (HOLLOWTECH II)     | <b>58</b> | <b>BB</b>      |
| <b>Cassette</b>                           | <b>60</b> | <b>CS</b>      |
| <b>Front Hub</b> (Disc Brake)             | <b>63</b> | <b>HB</b>      |
| <b>FREEHUB</b> (Disc Brake)               | <b>68</b> | <b>FH</b>      |
| <b>Wheel</b> (Disc Brake)                 | <b>74</b> | <b>WH</b>      |
| <b>CI-DECK</b>                            | <b>82</b> | <b>CI-DECK</b> |
| <b>Cycle Computer</b> (CI-DECK)           | <b>83</b> | <b>SC</b>      |

# Shift Switch

| Series                            |                           |        | XTR                               | XTR                               | DEORE XT                          | DEORE XT                          | DEORE XT                  | DEORE XT                  |
|-----------------------------------|---------------------------|--------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|---------------------------|---------------------------|
| Model no.                         |                           |        | SW-M9250-R                        | SW-M9250-IR                       | SW-M8250-R                        | SW-M8250-IR                       | SW-M8150-R                | SW-M8150-IR               |
| Switch type                       |                           |        | Adjustable lever position         | Adjustable lever position         | Adjustable lever position         | Adjustable lever position         | Adjustable lever position | Adjustable lever position |
| Position                          |                           |        | Clamp band                        | I-SPEC EV                         | Clamp band                        | I-SPEC EV                         | Clamp band                | I-SPEC EV                 |
| Di2 connectivity wired            | Di2 shifting              |        | -                                 | -                                 | -                                 | -                                 | ✓                         | ✓                         |
| Di2 connectivity wireless         | Di2 shifting              |        | ✓                                 | ✓                                 | ✓                                 | ✓                                 | -                         | -                         |
| Button numbers (pcs)              |                           |        | 3                                 | 3                                 | 3                                 | 3                                 | 3                         | 3                         |
| Master unit                       |                           |        | -                                 | -                                 | -                                 | -                                 | -                         | -                         |
| Firmware update by E-TUBE PROJECT |                           |        | -                                 | -                                 | -                                 | -                                 | ✓                         | ✓                         |
| SD50 port (pcs)                   |                           |        | 0                                 | 0                                 | 0                                 | 0                                 | 0                         | 0                         |
| SD300 port (pcs)                  |                           |        | 0                                 | 0                                 | 0                                 | 0                                 | 1                         | 1                         |
| SD50 connector (pcs)              |                           |        | 0                                 | 0                                 | 0                                 | 0                                 | 0                         | 0                         |
| SD300 connector (pcs)             |                           |        | 0                                 | 0                                 | 0                                 | 0                                 | 0                         | 0                         |
| Switch1                           | Default function          |        | RD outward                        | RD outward                        | RD outward                        | RD outward                        | RD outward                | RD outward                |
|                                   | Multiple input            | 2 step | ✓                                 | ✓                                 | ✓                                 | ✓                                 | -                         | -                         |
|                                   |                           | Hold   | ✓                                 | ✓                                 | ✓                                 | ✓                                 | ✓                         | ✓                         |
|                                   | Adjustable lever position |        | Forward/backward, upward/downward | Forward/backward, upward/downward | Forward/backward, upward/downward | Forward/backward, upward/downward | ✓                         | ✓                         |
| Switch2                           | Default function          |        | RD inward                         | RD inward                         | RD inward                         | RD inward                         | RD inward                 | RD inward                 |
|                                   | Multiple input            | 2 step | ✓                                 | ✓                                 | ✓                                 | ✓                                 | -                         | -                         |
|                                   |                           | Hold   | ✓                                 | ✓                                 | ✓                                 | ✓                                 | ✓                         | ✓                         |
|                                   | Adjustable lever position |        | Forward/backward, upward/downward | Forward/backward, upward/downward | Forward/backward, upward/downward | Forward/backward, upward/downward | ✓                         | ✓                         |
| Switch3                           | Default function          |        | Shifting/Adj. mode                | Shifting/Adj. mode                | Shifting/Adj. mode                | Shifting/Adj. mode                | Auto on/off               | Auto on/off               |
|                                   | Multiple input            | 2 step | -                                 | -                                 | -                                 | -                                 | -                         | -                         |
|                                   |                           | Hold   | ✓                                 | ✓                                 | ✓                                 | ✓                                 | ✓                         | ✓                         |
| Suspension switch                 |                           |        | -                                 | -                                 | -                                 | -                                 | -                         | -                         |
| Battery                           |                           |        | CR1632 x 2                        | CR1632 x 2                        | CR1632 x 2                        | CR1632 x 2                        | -                         | -                         |
| LED                               | Shimano system status     |        | ✓                                 | ✓                                 | ✓                                 | ✓                                 | -                         | -                         |
| Average weight (g)                |                           |        | 104                               | 97                                | 104                               | 97                                | 81                        | 77                        |
| Note                              |                           |        |                                   |                                   |                                   |                                   |                           |                           |

# Shift Switch

| Series                            |                           | DEORE XT          | DEORE XT  | DEORE      | DEORE              |
|-----------------------------------|---------------------------|-------------------|---|------------|--------------------|
| Model no.                         |                           | SW-M8050-R        | SW-M8050-L  | SW-M6250-R | SW-M6250-IR        |
| Switch type                       |                           | FIREBOLT          | FIREBOLT  | -          | -                  |
| Position                          |                           | Clamp band, Right | Clamp band, Left  | Clamp band | I-SPEC EV          |
| Di2 connectivity wired            | Di2 shifting              | ✓                 | ✓   | -          | -                  |
| Di2 connectivity wireless         | Di2 shifting              | -                 | -   | ✓          | ✓                  |
| Button numbers (pcs)              |                           | 2                 | 2   | 3          | 3                  |
| Master unit                       |                           | -                 | -   | -          | -                  |
| Firmware update by E-TUBE PROJECT |                           | ✓                 | ✓   | -          | -                  |
| SD50 port (pcs)                   |                           | 1                 | 1   | 0          | 0                  |
| SD300 port (pcs)                  |                           | 0                 | 0   | 0          | 0                  |
| SD50 connector (pcs)              |                           | 0                 | 0   | 0          | 0                  |
| SD300 connector (pcs)             |                           | 0                 | 0   | 0          | 0                  |
| Switch1                           | Default function          |                   | RD outward  | FD outward | RD outward         |
|                                   | Multiple input            | 2 step            | -   | -          | -                  |
|                                   |                           | Hold              | ✓   | -(✓)       | ✓                  |
|                                   | Adjustable lever position |                   | -   | -          | -                  |
| Switch2                           | Default function          |                   | RD inward   | FD inward  | RD inward          |
|                                   | Multiple input            | 2 step            | -   | -          | -                  |
|                                   |                           | Hold              | ✓   | -(✓)       | ✓                  |
|                                   | Adjustable lever position |                   | -   | -          | -                  |
| Switch3                           | Default function          |                   | -   | -          | Shifting/Adj. mode |
|                                   | Multiple input            | 2 step            | -   | -          | -                  |
|                                   |                           | Hold              | -   | -          | ✓                  |
|                                   | Suspension switch         |                   | -   | -(✓)       | -                  |
| Battery                           |                           | -                 | -   | CR1632 x 2 | CR1632 x 2         |
| LED                               | Shimano system status     | -                 | -   | ✓          | ✓                  |
| Average weight (g)                |                           | 93                | 93  | -          | -                  |
| Note                              |                           |                   | * User can use it for rear derailleur multishift<br>** User can use it for Suspension control | -          | -                  |

SW

RD

FD

SMAD

SC

SL

SLMT

SMSL

BL

BL

RD

FD

BR

BR

BR

FC

SMCD

SMCR

BB

CS

HB

FH

WH

CI-DECK

SC

# Rear Derailleur

| Series  |                          |   | XTR                              | XTR             | XTR             | XTR                        |     |   |
|---|--------------------------|---|----------------------------------|-----------------|-----------------|----------------------------|-----|---|
| Model no.   |                          |   | RD-M9250-GS                      | RD-M9250-SGS    | RD-M9260-12     | RD-M9260-11L               |     |   |
| Color   | 1                        |   | Series color                     | Series color    | Series color    | Series color               |     |   |
|   | 2                        |   | -                                | -               | -               | -                          |     |   |
| Rear speeds   |                          |   | 12                               | 12              | 12              | 11                         |     |   |
| Compatible chain  |                          |   | HG 12-speed                      | HG 12-speed     | HG 12-speed     | LINKGLIDE, HG 11-speed     |     |   |
| RD construction   | SHIMANO SHADOW RD        |   | -                                | -               | -               | -                          |     |   |
|   | SHIMANO SHADOW RD+       |   | -                                | -               | -               | -                          |     |   |
|   | Double servo SHADOW ES   |   | ✓                                | ✓               | ✓               | ✓                          |     |   |
|   | SHIMANO MTB type         | Direct attachment (conventional)        | ✓                                | ✓               | ✓               | ✓                          |     |   |
| SHIMANO ROAD type   |                          |   | Direct attachment (conventional) | -               | -               | -                          | -   |   |
|   |                          |   |                                  | UDH standard    | ✓               | ✓                          | ✓   | ✓ |
|   |                          |   |                                  |                 | -               | -                          | -   | - |
|   | Mode converter           |   |                                  | -               | -               | -                          | -   |   |
| Cable adjuster  |                          |   | -                                | -               | -               | -                          |     |   |
| Max. front difference   |                          |   | 0T                               | 0T              | 0T              | 0T                         |     |   |
| Total capacity  |                          |   | 36T                              | 41T             | 41T             | 39T                        |     |   |
| Low sprocket  | Max.                     |   | 45T                              | 51T             | 51T             | 50T                        |     |   |
|   | Min.                     |   | 45T                              | 51T             | 51T             | 50T                        |     |   |
| Top sprocket  | Max.                     |   | 9T                               | 10T             | 10T             | 11T                        |     |   |
|   | Min.                     |   | 9T                               | 10T             | 10T             | 11T                        |     |   |
| Fluoroc coated link bushings  |                          |   | 8                                | 8               | 8               | 8                          |     |   |
| Pulley  | Guide pulley bearing     |   | Sealed bearing                   | Sealed bearing  | Sealed bearing  | Sealed bearing             |     |   |
|   | Tension pulley bearing   |   | Sealed bearing                   | Sealed bearing  | Sealed bearing  | Sealed bearing             |     |   |
|   | Teeth                    |   | 13T                              | 13T             | 13T             | 13T                        |     |   |
|   | Screws material          |   | Stainless steel                  | Stainless steel | Stainless steel | Stainless steel            |     |   |
|   | Sunken type pulley screw |   | ✓                                | ✓               | ✓               | ✓                          |     |   |
| Bracket   | Material                 |   | -                                | -               | -               | -                          |     |   |
|   | Finish                   |   | -                                | -               | -               | -                          |     |   |
| B-axle  | Hollow axle              |   | ✓                                | ✓               | ✓               | ✓                          |     |   |
|   | Material                 |   | Aluminum                         | Aluminum        | Aluminum        | Aluminum                   |     |   |
| B-axle 2  | Hollow axle              |   | -                                | -               | -               | -                          |     |   |
|   | Material                 |   | -                                | -               | -               | -                          |     |   |
| Bracket body  | Material                 |   | Aluminum                         | Aluminum        | Aluminum        | Aluminum                   |     |   |
|   | Finish                   |   | Painted                          | Painted         | Painted         | Painted                    |     |   |
| P-axle  | Material                 |   | Aluminum                         | Aluminum        | Aluminum        | Aluminum                   |     |   |
|   | Finish                   |   | Anodized                         | Anodized        | Anodized        | Anodized                   |     |   |
| Plate body  | Material                 |   | CFRP                             | CFRP            | CFRP            | CFRP                       |     |   |
|   | Finish                   |   | Painted                          | Painted         | Painted         | Painted                    |     |   |
| Outer link  | Material                 |   | Aluminum                         | Aluminum        | Aluminum        | Aluminum                   |     |   |
|   | Finish                   |   | Painted                          | Painted         | Painted         | Painted                    |     |   |
| Inner link  | Material                 |   | Aluminum                         | Aluminum        | Aluminum        | Aluminum                   |     |   |
|   | Finish                   |   | Painted                          | Painted         | Painted         | Painted                    |     |   |
| Outer plate   | Material                 |   | Carbon                           | Carbon          | Carbon          | Carbon                     |     |   |
|   | Finish                   |   | Painted                          | Painted         | Painted         | Painted                    |     |   |
| Inner plate   | Material                 |   | Aluminum                         | Aluminum        | Aluminum        | Aluminum                   |     |   |
|   | Finish                   |   | Anodized                         | Anodized        | Anodized        | Anodized                   |     |   |
| Cable fixing screw  |                          |   | -                                | -               | -               | -                          |     |   |
| Stroke adjusting screw  |                          |   | -                                | -               | -               | -                          |     |   |
| Di2 connectivity wired  | Di2 shifting             |   | -                                | -               | ✓               | ✓                          |     |   |
|   | Di2 shifting             |   | ✓                                | ✓               | ✓               | ✓                          |     |   |
| Di2 connectivity wireless   | Bluetooth® LE            | Cycling power                           | -                                | -               | -               | -                          |     |   |
|   |                          | Bicycle power                           | -                                | -               | -               | -                          |     |   |
|   | ANT+                     | Adjust mode information                 | ✓                                | ✓               | ✓               | ✓                          |     |   |
|   |                          | Di2 battery level                       | ✓                                | ✓               | -               | -                          |     |   |
|   |                          | Gear position                           | ✓                                | ✓               | ✓               | ✓                          |     |   |
|   |                          | SHIMANO E-BIKE SYSTEM S data items (*1) | ✓                                | ✓               | ✓               | ✓                          |     |   |
|   |                          | Compatible with E-TUBE RIDE             | ✓                                | ✓               | ✓               | ✓                          |     |   |
|   |                          | Compatible with E-TUBE PROJECT          | ✓                                | ✓               | ✓               | ✓                          |     |   |
|   | ANT private (*2)         | Adjust mode information                 | ✓                                | ✓               | ✓               | ✓                          |     |   |
|   |                          | Di2 battery level                       | ✓                                | ✓               | -               | -                          |     |   |
|   |                          | Gear position                           | ✓                                | ✓               | ✓               | ✓                          |     |   |
|   |                          | SHIMANO E-BIKE SYSTEM S data items (*3) | ✓                                | ✓               | ✓               | ✓                          |     |   |
|   |                          | SD50 port (pcs)                         |                                  |                 | 0               | 0                          | 0   |   |
|   |                          | SD300 port (pcs)                        |                                  |                 | 0               | 0                          | 1 * |   |
|   |                          | SD50 connector (pcs)                    |                                  |                 | 0               | 0                          | 0   |   |
| SD300 connector (pcs)   |                          |   | 0                                | 0               | 0               |                            |     |   |
| LED for system status   |                          |   | ✓                                | ✓               | ✓               | ✓                          |     |   |
| Power supply  | Built-in battery         |   | ✓                                | ✓               | -               | -                          |     |   |
|   | Wired                    |   | -                                | -               | ✓               | ✓                          |     |   |
| Charging port   |                          |   | -                                | -               | -               | -                          |     |   |
| Charging cable  |                          |   | -                                | -               | -               | -                          |     |   |
| Average weight (g)  |                          |   | 389                              | 391             | 370             | 370                        |     |   |
| Note *1 Compatible with a Bluetooth LE cycle computer and smartphone/tablet but not freely open profile. *2 Compatible with ANT+ cycle computer but not freely open profile. *3 Will be shown only when connected to SHIMANO E-BIKE SYSTEMS |                          |   | * Compatible with EW-PS300       |                 |                 | * Compatible with EW-PS300 |     |   |

# Rear Derailleur

| Series  |                             |  | XTR  | DEORE XT        | DEORE XT                   | DEORE XT        |     |
|---|-----------------------------|--|--|-----------------|----------------------------|-----------------|-----|
| Model no.   |                             |  | RD-M9050-SGS   | RD-M8250-GS     | RD-M8250-SGS               | RD-M8260-12     |     |
| Color   | 1                           |  | Series color   | Series color    | Series color               | Series color    |     |
|   | 2                           |  | -  | -               | -                          | -               |     |
| Rear speeds   |                             |  | 11   | 12              | 12                         | 12              |     |
| Compatible chain  |                             |  | LINKGLIDE, HG 11-speed   | HG 12-speed     | HG 12-speed                | HG 12-speed     |     |
| RD construction   | SHIMANO SHADOW RD           |  | -  | -               | -                          | -               |     |
|   | SHIMANO SHADOW RD+          |  | ✓  | -               | -                          | -               |     |
|   | Double servo                |  | -  | -               | -                          | -               |     |
|   | SHADOW ES                   |  | -  | ✓               | ✓                          | ✓               |     |
| Applicable derailleur hanger  | SHIMANO MTB type            | Direct attachment (conventional)                     | ✓  | ✓               | ✓                          | ✓               |     |
|   |                             | Direct mount   | ✓  | -               | -                          | -               |     |
|   | SHIMANO ROAD type           | Direct attachment (conventional)                     | -  | -               | -                          | -               |     |
|   |                             | Direct mount   | -  | -               | -                          | -               |     |
|   | UDH standard                |  | -  | ✓               | ✓                          | ✓               |     |
|   | Mode converter              |  | -  | -               | -                          | -               |     |
| Cable adjuster  |                             |  | -  | -               | -                          | -               |     |
| Max. front difference   |                             |  | 18T  | 0T              | 0T                         | 0T              |     |
| Total capacity  |                             |  | 41T**  | 36T             | 41T                        | 41T             |     |
| Low sprocket  | Max.                        | 40T (3x11-speed), 42T (2x11-speed), 46T (1x11-speed) | 45T  | 51T             | 51T                        | 51T             |     |
|   | Min.                        | 40T  | 45T  | 51T             | 51T                        | 51T             |     |
| Top sprocket  | Max.                        | 11T  | 9T   | 10T             | 10T                        | 10T             |     |
|   | Min.                        | 11T  | 9T   | 10T             | 10T                        | 10T             |     |
| Fluoroc coated link bushings  |                             |  | 4  | 8               | 8                          | 8               |     |
| Pulley  | Guide pulley bearing        |  | Sealed Bearing   | Sealed bearing  | Sealed bearing             | Sealed bearing  |     |
|   | Tension pulley bearing      |  | Sealed bearing   | Sealed bearing  | Sealed bearing             | Sealed bearing  |     |
|   | Teeth                       |  | 11T  | 13T             | 13T                        | 13T             |     |
|   | Screws material             |  | Stainless steel  | Stainless steel | Stainless steel            | Stainless steel |     |
|   | Sunken type pulley screw    |  | ✓  | ✓               | ✓                          | ✓               |     |
| Bracket   | Material                    | Aluminum   | -  | -               | -                          | -               |     |
|   | Finish                      | Anodized   | -  | -               | -                          | -               |     |
| B-axle  | Hollow axle                 | ✓  | ✓  | ✓               | ✓                          | ✓               |     |
|   | Material                    | Aluminum   | Stainless steel  | Stainless steel | Stainless steel            | Stainless steel |     |
| B-axle 2  | Finish                      | Anodized   | Coloring   | Coloring        | Coloring                   | Coloring        |     |
|   | Material                    | Aluminum   | -  | -               | -                          | -               |     |
| Bracket body  | Finish                      | Anodized   | -  | -               | -                          | -               |     |
|   | Material                    | Aluminum   | Aluminum   | Aluminum        | Aluminum                   | Aluminum        |     |
| P-axle  | Finish                      | Painted  | Painted  | Painted         | Painted                    | Painted         |     |
|   | Material                    | Steel  | Steel  | Steel           | Steel                      | Steel           |     |
| Plate body  | Material                    | CFRP   | GFRP   | GFRP            | GFRP                       | GFRP            |     |
|   | Finish                      | Painted  | -  | -               | -                          | -               |     |
| Outer link  | Material                    | Aluminum   | Aluminum   | Aluminum        | Aluminum                   | Aluminum        |     |
|   | Finish                      | Anodized   | Painted  | Painted         | Painted                    | Painted         |     |
| Inner link  | Material                    | Aluminum   | Aluminum   | Aluminum        | Aluminum                   | Aluminum        |     |
|   | Finish                      | Anodized   | Painted  | Painted         | Painted                    | Painted         |     |
| Outer plate   | Material                    | Carbon   | Aluminum   | Aluminum        | Aluminum                   | Aluminum        |     |
|   | Finish                      | Painted  | Painted  | Painted         | Painted                    | Painted         |     |
| Inner plate   | Material                    | Aluminum   | Aluminum   | Aluminum        | Aluminum                   | Aluminum        |     |
|   | Finish                      | Anodized   | Anodized   | Anodized        | Anodized                   | Anodized        |     |
| Cable fixing screw  | Material                    | -  | -  | -               | -                          | -               |     |
|   | Finish                      | -  | -  | -               | -                          | -               |     |
| Stroke adjusting screw  | Material                    | Aluminum   | Steel  | Steel           | Steel                      | Steel           |     |
|   | Finish                      | Anodized   | Plated   | Plated          | Plated                     | Plated          |     |
| Di2 connectivity wired  | Di2 shifting                |  | ✓  | -               | -                          | ✓               |     |
|   | Di2 shifting                |  | -  | ✓               | ✓                          | ✓               |     |
| Di2 connectivity wireless   | Bluetooth LE                | Cycling power  | -  | -               | -                          | -               |     |
|   |                             | Bicycle power  | -  | -               | -                          | -               |     |
|   | ANT+                        | Adjust mode information                              | -  | ✓               | ✓                          | ✓               |     |
|   |                             | Di2 battery level                                    | -  | ✓               | ✓                          | -               |     |
|   | Bluetooth LE custom (*1)    | Gear position  | -  | ✓               | ✓                          | ✓               |     |
|   |                             | SHIMANO E-BIKE SYSTEM S data items (*3)              | -  | ✓               | ✓                          | ✓               |     |
|   | Compatible with E-TUBE RIDE | Compatible with E-TUBE RIDE                          | -  | ✓               | ✓                          | ✓               |     |
|   |                             | Compatible with E-TUBE PROJECT                       | -  | ✓               | ✓                          | ✓               |     |
|   | Adjust mode information     | Adjust mode information                              | -  | ✓               | ✓                          | ✓               |     |
|   |                             | Di2 battery level                                    | -  | ✓               | ✓                          | -               |     |
|   | ANT private (*2)            | Gear position  | -  | ✓               | ✓                          | ✓               |     |
|   |                             | SHIMANO E-BIKE SYSTEM S data items (*3)              | -  | ✓               | ✓                          | ✓               |     |
|   | SD50 port (pcs)             |  |  | 1               | 0                          | 0               | 0   |
|   | SD300 port (pcs)            |  |  | 0               | 0                          | 0               | 1 * |
| SD50 connector (pcs)  |                             |  | 0  | 0               | 0                          | 0               |     |
| SD300 connector (pcs)   |                             |  | 0  | 0               | 0                          | 0               |     |
| LED for system status   |                             |  | -  | ✓               | ✓                          | ✓               |     |
| Power supply  | Built-in battery            |  | ✓  | ✓               | ✓                          | ✓               |     |
|   | Wired                       |  | ✓  | -               | -                          | ✓               |     |
| Charging port   |                             |  | -  | -               | -                          | -               |     |
| Charging cable  |                             |  | -  | -               | -                          | -               |     |
| Average weight (g)  |                             |  | 295  | 446             | 449                        | 427             |     |
| Note *1 Compatible with a Bluetooth LE cycle computer and smartphone/tablet but not freely open profile. *2 Compatible with ANT+ cycle computer but not freely open profile. *3 Will be shown only when connected to SHIMANO E-BIKE SYSTEMS bike. |                             |  | * w/o Bracket spec available.<br>** The Di2 system limits cross chain to prevent a chain from getting loose. |                 | * Compatible with EW-PS300 |                 |     |

SW

RD

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SMCD

SMCR

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# Rear Derailleur

| Series  |   | DEORE XT                         | DEORE XT                    | DEORE XT                    | DEORE XT   |
|---|---|----------------------------------|-----------------------------|-----------------------------|--|
| Model no.   |   | RD-M8260-11L                     | RD-M8150-12                 | RD-M8150-11                 | RD-M8050-GS  |
| Color   | 1                                       | Series color                     |                             | Series color                |  |
|   | 2                                       | Series color                     |                             | Series color                |  |
| Rear speeds   |   | 11                               | 12                          | 11                          | 11   |
| Compatible chain  |   | LINKGLIDE, HG 11-speed           | HG 12-speed                 | LINKGLIDE, HG 11-speed      | LINKGLIDE, HG 11-speed   |
| RD construction   | SHIMANO SHADOW RD                       | -                                | -                           | -                           | -  |
|   | SHIMANO SHADOW RD+ Double servo         | -                                | ✓                           | ✓                           | ✓  |
|   | SHIMANO SHADOW ES                       | ✓                                | -                           | -                           | -  |
|   | SHIMANO MTB type                        | Direct attachment (conventional) | ✓                           | ✓                           | ✓  |
| Applicable derailleur hanger  | SHIMANO ROAD type                       | Direct attachment (conventional) | -                           | -                           | ✓  |
|   | SHIMANO ROAD type                       | Direct attachment (conventional) | -                           | -                           | -  |
|   | UDH standard                            | ✓                                | ✓                           | ✓                           | -  |
|   | UDH standard                            | -                                | -                           | -                           | -  |
| Mode converter  |   | -                                | -                           | -                           | -  |
| Cable adjuster  |   | -                                | -                           | -                           | -  |
| Max. front difference   |   | OT                               | OT                          | OT                          | 10T  |
| Total capacity  |   | 39T                              | 41T                         | 39T                         | 35T **   |
| Low sprocket  | Max.                                    | 50T                              | 51T                         | 50T                         | 42T (2x11-speed), 46T (1x11-speed)   |
|   | Min.                                    | 50T                              | 51T                         | 50T                         | 40T  |
| Top sprocket  | Max.                                    | 11T                              | 10T                         | 11T                         | 11T  |
|   | Min.                                    | 11T                              | 10T                         | 11T                         | 11T  |
| Fluoroc coated link bushings  |   | 8                                | 3                           | 3                           | 4  |
| Pulley  | Guide pulley bearing                    | Sealed bearing                   | Sealed Bearing              | Sealed Bearing              | Sealed Bearing   |
|   | Tension pulley bearing                  | Sealed bearing                   | Sealed bearing              | Sealed bearing              | Sealed bearing   |
|   | Teeth                                   | 13T                              | 13T                         | 13T                         | 11T  |
|   | Screws material                         | Stainless steel                  | Stainless steel             | Stainless steel             | Stainless steel  |
| Bracket   | Sunken type pulley screw                | ✓                                | ✓                           | ✓                           | ✓  |
|   | Material                                | -                                | Aluminum Anodized           | Aluminum Anodized           | Aluminum Anodized  |
| B-axle  | Hollow axle                             | ✓                                | ✓                           | ✓                           | ✓  |
|   | Material                                | Stainless steel                  | Aluminum Anodized           | Aluminum Anodized           | Aluminum Anodized  |
| B-axle 2  | Hollow axle                             | -                                | ✓                           | ✓                           | ✓  |
|   | Material                                | -                                | Aluminum Anodized           | Aluminum Anodized           | Aluminum Anodized  |
| Bracket body  | Material                                | Aluminum                         | Aluminum                    | Aluminum                    | Aluminum   |
|   | Finish                                  | Painted                          | Painted                     | Painted                     | Painted  |
| P-axle  | Material                                | Steel                            | Steel                       | Steel                       | Steel  |
|   | Finish                                  | Plated                           | Plated                      | Plated                      | Plated   |
| Plate body  | Material                                | GFRP                             | GFRP                        | GFRP                        | GFRP   |
|   | Finish                                  | -                                | -                           | -                           | -  |
| Outer link  | Material                                | Aluminum                         | Aluminum                    | Aluminum                    | Aluminum   |
|   | Finish                                  | Painted                          | Painted                     | Painted                     | Painted  |
| Inner link  | Material                                | Aluminum                         | Aluminum                    | Aluminum                    | Aluminum   |
|   | Finish                                  | Painted                          | Anodized                    | Anodized                    | Painted  |
| Outer plate   | Material                                | Aluminum                         | Aluminum                    | Aluminum                    | Aluminum   |
|   | Finish                                  | Painted                          | Painted                     | Painted                     | Painted  |
| Inner plate   | Material                                | Aluminum                         | Aluminum                    | Aluminum                    | Aluminum   |
|   | Finish                                  | Anodized                         | Painted                     | Painted                     | Anodized   |
| Cable fixing screw  |   | -                                | -                           | -                           | -  |
| Stroke adjusting screw  | Material                                | -                                | -                           | -                           | -  |
|   | Finish                                  | Steel                            | Steel                       | Steel                       | Steel  |
| Di2 connectivity wired  | Material                                | Plated                           | Plated                      | Plated                      | Plated   |
|   | Finish                                  | -                                | -                           | -                           | -  |
| Di2 connectivity wireless   | Di2 shifting                            | ✓                                | ✓                           | ✓                           | ✓  |
|   | Di2 shifting                            | ✓                                | -                           | -                           | -  |
|   | Bluetooth LE                            | -                                | -                           | -                           | -  |
|   | ANT+                                    | -                                | -                           | -                           | -  |
|   | Adjust mode information                 | ✓                                | -                           | -                           | -  |
|   | Di2 battery level                       | -                                | -                           | -                           | -  |
|   | Gear position                           | ✓                                | -                           | -                           | -  |
|   | SHIMANO E-BIKE SYSTEM S data items (*1) | ✓                                | -                           | -                           | -  |
|   | Compatible with E-TUBE RIDE             | ✓                                | -                           | -                           | -  |
|   | Compatible with E-TUBE PROJECT          | ✓                                | -                           | -                           | -  |
|   | Adjust mode information                 | ✓                                | -                           | -                           | -  |
|   | Di2 battery level                       | -                                | -                           | -                           | -  |
|   | Gear position                           | ✓                                | -                           | -                           | -  |
|   | SHIMANO E-BIKE SYSTEM S data items (*3) | ✓                                | -                           | -                           | -  |
| SD50 port (pcs)   |   | 0                                | 0                           | 0                           | 1  |
| SD300 port (pcs)  |   | 1 *                              | 1                           | 1                           | 0  |
| SD50 connector (pcs)  |   | 0                                | 0                           | 0                           | 0  |
| SD300 connector (pcs)   |   | 0                                | 0                           | 0                           | 0  |
| LED for system status   |   | ✓                                | -                           | -                           | -  |
| Power supply  | Built-in battery                        | ✓                                | ✓                           | ✓                           | ✓  |
|   | Wired                                   | -                                | -                           | -                           | -  |
| Charging port   |   | -                                | -                           | -                           | -  |
| Charging cable  |   | -                                | -                           | -                           | -  |
| Average weight (g)  |   | 427                              | 375                         | 375                         | 319  |
| Note *1 Compatible with a Bluetooth LE cycle computer and smartphone/tablet but not freely open profile. *2 Compatible with ANT+ cycle computer but not freely open profile. *3 Will be shown only when connected to SHIMANO E-BIKE SYSTEMS bike. |   | * Compatible with EW-PS300       | RD-M8150 is only for E-BIKE | RD-M8150 is only for E-BIKE | * w/o Bracket spec available.<br>** The Di2 system limits cross chain to prevent a chain from getting loose. |

# Rear Derailleur

| Series  |  | DEORE           | DEORE                      | DEORE                      |
|---|--|-----------------|----------------------------|----------------------------|
| Model no.   |  | RD-M6250-SGS    | RD-M6260-12                | RD-M6260-11L               |
| Color   | 1  | Series color    |                            |                            |
|   | 2  | Series color    |                            |                            |
| Rear speeds   |  | 12              | 12                         | 11                         |
| Compatible chain  |  | HG 12-speed     | HG 12-speed                | LINKGLIDE, HG 11-speed     |
| RD construction   | SHIMANO SHADOW RD                                  | -               | -                          | -                          |
|   | SHIMANO SHADOW RD+ Double servo                    | -               | -                          | -                          |
|   | SHIMANO SHADOW ES                                  | ✓               | ✓                          | ✓                          |
| Applicable derailleur hanger  | SHIMANO MTB type Direct attachment (conventional)  | ✓               | ✓                          | ✓                          |
|   | SHIMANO MTB type Direct mount                      | -               | -                          | -                          |
|   | SHIMANO ROAD type Direct attachment (conventional) | -               | -                          | -                          |
|   | SHIMANO ROAD type Direct mount                     | -               | -                          | -                          |
|   | UDH standard                                       | ✓               | ✓                          | ✓                          |
| Mode converter  |  | -               | -                          | -                          |
| Cable adjuster  |  | -               | -                          | -                          |
| Max. front difference   |  | 41T             | 41T                        | 39T                        |
| Total capacity  |  | 51T             | 51T                        | 50T                        |
| Low sprocket  | Max.   | 51T             | 51T                        | 50T                        |
|   | Min.   | 10T             | 10T                        | 11T                        |
| Top sprocket  | Max.   | 10T             | 10T                        | 11T                        |
|   | Min.   | 8               | 8                          | 8                          |
| Fluoroc coated link bushings  |  | 8               | 8                          | 8                          |
| Pulley  | Guide pulley bearing                               | Sealed Bearing  | Sealed Bearing             | Sealed Bearing             |
|   | Tension pulley bearing                             | Sealed bearing  | Sealed bearing             | Sealed bearing             |
|   | Teeth  | 13T             | 13T                        | 13T                        |
|   | Screws material                                    | Stainless steel | Stainless steel            | Stainless steel            |
|   | Sunken type pulley screw                           | ✓               | ✓                          | ✓                          |
| Bracket   | Material   | -               | -                          | -                          |
|   | Finish   | -               | -                          | -                          |
| B-axle  | Hollow axle  | ✓               | ✓                          | ✓                          |
|   | Material   | Stainless steel | Stainless steel            | Stainless steel            |
| B-axle 2  | Material   | Stainless steel | Stainless steel            | Stainless steel            |
|   | Finish   | Coloring        | Coloring                   | Coloring                   |
| Bracket body  | Material   | Aluminum        | Aluminum                   | Aluminum                   |
|   | Finish   | Painted         | Painted                    | Painted                    |
| P-axle  | Material   | Steel           | Steel                      | Steel                      |
|   | Finish   | Plated          | Plated                     | Plated                     |
| Plate body  | Material   | GFRP            | GFRP                       | GFRP                       |
|   | Finish   | -               | -                          | -                          |
| Outer link  | Material   | Aluminum        | Aluminum                   | Aluminum                   |
|   | Finish   | Painted         | Painted                    | Painted                    |
| Inner link  | Material   | Aluminum        | Aluminum                   | Aluminum                   |
|   | Finish   | Painted         | Painted                    | Painted                    |
| Outer plate   | Material   | Steel           | Steel                      | Steel                      |
|   | Finish   | Painted         | Painted                    | Painted                    |
| Inner plate   | Material   | Steel           | Steel                      | Steel                      |
|   | Finish   | Painted         | Painted                    | Painted                    |
| Cable fixing screw  |  | -               | -                          | -                          |
| Stroke adjusting screw  | Material   | -               | -                          | -                          |
|   | Finish   | -               | -                          | -                          |
| Di2 connectivity wired  | Di2 shifting                                       | -               | ✓                          | ✓                          |
|   | Di2 shifting                                       | ✓               | ✓                          | ✓                          |
| Di2 connectivity wireless   | Bluetooth LE                                       | -               | -                          | -                          |
|   | ANT+   | -               | -                          | -                          |
|   | Adjust mode information                            | ✓               | ✓                          | ✓                          |
|   | Di2 battery level                                  | ✓               | -                          | -                          |
|   | Gear position                                      | ✓               | ✓                          | ✓                          |
|   | SHIMANO E-BIKE SYSTEM S data items (*1)            | ✓               | ✓                          | ✓                          |
|   | Compatible with E-TUBE RIDE                        | ✓               | ✓                          | ✓                          |
|   | Compatible with E-TUBE PROJECT                     | ✓               | ✓                          | ✓                          |
|   | Adjust mode information                            | ✓               | ✓                          | ✓                          |
|   | Di2 battery level                                  | ✓               | -                          | -                          |
|   | Gear position                                      | ✓               | ✓                          | ✓                          |
|   | SHIMANO E-BIKE SYSTEM S data items (*2)            | ✓               | ✓                          | ✓                          |
|   | Compatible with E-TUBE RIDE                        | ✓               | ✓                          | ✓                          |
|   | Compatible with E-TUBE PROJECT                     | ✓               | ✓                          | ✓                          |
|   | Adjust mode information                            | ✓               | ✓                          | ✓                          |
|   | Di2 battery level                                  | ✓               | -                          | -                          |
|   | Gear position                                      | ✓               | ✓                          | ✓                          |
|   | SHIMANO E-BIKE SYSTEM S data items (*3)            | ✓               | ✓                          | ✓                          |
| SD50 port (pcs)   |  | 0               | 0                          | 0                          |
| SD300 port (pcs)  |  | 0               | 1 *                        | 1 *                        |
| SD50 connector (pcs)  |  | 0               | 0                          | 0                          |
| SD300 connector (pcs)   |  | 0               | 0                          | 0                          |
| LED for system status   |  | ✓               | ✓                          | ✓                          |
| Power supply  | Built-in battery                                   | ✓               | -                          | -                          |
|   | Wired  | -               | ✓                          | ✓                          |
| Charging port   |  | -               | -                          | -                          |
| Charging cable  |  | -               | -                          | -                          |
| Average weight (g)  |  | -               | -                          | -                          |
| Note *1 Compatible with a Bluetooth LE cycle computer and smartphone/tablet but not freely open profile. *2 Compatible with ANT+ cycle computer but not freely open profile. *3 Will be shown only when connected to SHIMANO E-BIKE SYSTEMS bike. |  | -               | * Compatible with EW-PS300 | * Compatible with EW-PS300 |

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# Front Derailleur

|  |                 |                              |  |
|--|-----------------|------------------------------|--|
| Series   |                 |                              | DEORE XT   |
| Model no.  |                 |                              | FD-M8070   |
| Color  | 1               |                              | Series color   |
|  | 2               |                              | -  |
| Front speeds   |                 |                              | 2  |
| Rear speeds  |                 |                              | 11   |
| Compatible chain   |                 |                              | LINKGLIDE, HG 11-speed   |
| Action   | TOP SWING       |                              | -  |
|  | Down swing      |                              | ✓  |
|  | SIDE SWING      |                              | -  |
| Mount  | Clamp band (mm) | 28.6                         | w/ SM-FD905-L, SM-FD905-H  |
|  |                 | 31.8                         | w/ SM-FD905-L, SM-FD905-H  |
|  |                 | 34.9                         | w/ SM-FD905-L, SM-FD905-H  |
|  | E-type          | With bottom bracket plate    | -  |
|  |                 | Without bottom bracket plate | w/ SM-FD905-E**  |
|  | Direct mount    |                              | w/ SM-FD905-D**  |
|  | ISCG05 mount    |                              |  |
| Chain line (mm)  |                 |                              | 48.8 *   |
| Chainstay angle (deg.)                                       |                 |                              | 66-69  |
| Top gear teeth   |                 |                              | 38-34T   |
| Total capacity   |                 |                              | 10T  |
| Applicable top-mid tooth difference                          |                 |                              | -  |
| Angled stroke adjust screw                                   |                 |                              |  |
| Angled clamp band design                                     |                 |                              |  |
| Link bushings  |                 |                              | 7  |
| Front clamp band   | Material        |                              |  |
|  | Finish          |                              |  |
| Rear clamp band, base bracket                                | Material        |                              |  |
|  | Finish          |                              |  |
| Clamp screw  | Material        |                              |  |
|  | Finish          |                              |  |
| Bottom bracket plate   | Material        |                              |  |
|  | Finish          |                              |  |
| Outer link   | Material        |                              | Aluminum   |
|  | Finish          |                              | Painted  |
| Inner link   | Material        |                              | Steel  |
|  | Finish          |                              | Plated   |
| Chain guide  | Material        |                              | Steel  |
|  | Finish          |                              | Nickel plated  |
| Stroke adjusting screw                                       | Material        |                              |  |
|  | Finish          |                              |  |
| Master unit  |                 |                              | -  |
| Firmware update by E-TUBE PROJECT                            |                 |                              | ✓  |
| SD50 port (pcs)  |                 |                              | 1  |
| SD300 port (pcs)   |                 |                              | 0  |
| SD50 connector (pcs)   |                 |                              | 0  |
| SD300 connector (pcs)  |                 |                              | 0  |
| Average weight (g) (band type: L size, direct type w/ screw) |                 |                              | 134  |
| Note   |                 |                              | * For FC 3 mm outboard spec, 51.8 mm<br>** Compatible with the special crankset which chain line is 3 mm outboard. |

# Mount Adapter for Front Derailleur

| Series                   |          | SHIMANO   | SHIMANO   | SHIMANO               | SHIMANO               |
|--------------------------|----------|---|---|-----------------------|-----------------------|
| Model no.                |          | SM-FD905-D  | SM-FD905-E  | SM-FD905-H            | SM-FD905-L            |
| Mount type               |          | Direct mount  | E type mount  | High clamp band       | Low clamp band        |
| Front clamp band         | Material | -   | -   | Aluminum              | Aluminum              |
|                          | Finish   | -   | -   | Painted               | Painted               |
| Rear clamp band          | Material | -   | -   | Aluminum              | Aluminum              |
|                          | Finish   | -   | -   | Painted               | Painted               |
| Clamp band diameter (mm) | 28.6     | -   | -   | *✓                    | *✓                    |
|                          | 31.8     | -   | -   | *✓                    | *✓                    |
|                          | 34.9     | -   | -   | ✓                     | ✓                     |
| Direct mount bracket     | Material | Aluminum  | Aluminum  | -                     | -                     |
|                          | Finish   | Painted   | Painted   | -                     | -                     |
| Crankset top gear teeth  |          | 40T-34T   | 40T-34T   | 40T-34T               | 40T-34T               |
| Average weight (g)       |          | 21.1  | 27.1  | 33                    | 42.1                  |
| Note                     |          | Compatible with the special crankset which chain line is 3 mm outboard. | Compatible with the special crankset which chain line is 3 mm outboard. | * w/ Multi Clamp Band | * w/ Multi Clamp Band |

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# System Information Display

|                                   |   |  |
|-----------------------------------|---|--|
| Series                            |   | SHIMANO  |
| Model no.                         |   | SC-MT800   |
| Compatible system                 |   | E-TUBE   |
| Master unit                       |   | -  |
| Wireless system                   |   | ANT private *<br>Bluetooth®LE  |
| Firmware update by E-TUBE PROJECT |   | ✓  |
| SD50 port (pcs)                   |   | 3  |
| SD300 port (pcs)                  |   | 0  |
| SD50 connector (pcs)              |   | 0  |
| SD300 connector (pcs)             |   | 0  |
| Attachment position               |   | Handle bar**   |
| Display detachable                |   | -  |
| Adjust button                     |   | ✓  |
| Display function***               | Gear indicator (rear)                       | 11   |
|                                   | Gear indicator (front)                      | 1/2/3  |
|                                   | Shifting Mode (manual / SYNCHRONIZED SHIFT) | ✓  |
|                                   | Suspension Mode                             | ✓  |
|                                   | Shifting adjust mode                        | ✓  |
|                                   | Battery charge level                        | ✓  |
| Setting function                  | Shifting adjust                             | ✓  |
| For Di2 system                    | Shifting adjust indicator                   | ✓  |
|                                   | System diagnosis                            | ✓  |
|                                   | Charging port for built-in battery          | ✓  |
|                                   | Compatible charger                          | SM-BCR2  |
|                                   | SYNCHRONIZED SHIFT mode change              | ✓  |
| Average weight (g)                |   | 30   |
| Note                              |   | <p>* ANT private has compatibility with ANT+ cycle computer but not freely open profile.</p> <p>** 2 Spec of clamp band diameter ø31.8 and ø35.0</p> <p>*** Data of list of "Display function" is sent to other digital device by ANT private.</p> |

# Shifter

MTB

| Series                                      |                  |                      | XTR  | XTR  | XTR                                | XTR                                | XTR                          | XTR             |
|---|------------------|----------------------|--|--|------------------------------------|------------------------------------|------------------------------|-----------------|
| Model no.                                   |                  |                      | SL-M9100-R                                 | SL-M9100-IR                                | SL-M9100-L                         | SL-M9100-IL                        | SL-M9000-R                   | SL-M9000-L      |
| Color                                       | 1                |                      | Series color                               | Series color                               | Series color                       | Series color                       | Series color                 | Series color    |
|   | 2                |                      | -  | -  | -                                  | -                                  | -                            | -               |
|   | 3                |                      | -  | -  | -                                  | -                                  | -                            | -               |
| Shifter type                                |                  |                      | RAPIDFIRE PLUS                             | RAPIDFIRE PLUS                             | RAPIDFIRE PLUS MONO                | RAPIDFIRE PLUS MONO                | RAPIDFIRE PLUS               | RAPIDFIRE PLUS  |
| Front speeds                                |                  |                      | -  | -  | 2                                  | 2                                  | -                            | 2/3             |
| Rear speeds                                 |                  |                      | 12   | 12   | -                                  | -                                  | 11                           | -               |
| Compatible rear derailleur type             |                  |                      | 12-speed                                   | 12-speed                                   | -                                  | -                                  | MTB 11-speed                 | -               |
| Mount type                                  | Clamp band       |                      | ✓  | -  | ✓                                  | -                                  | ✓                            | ✓               |
|   | I-SPEC B         |                      | -  | -  | -                                  | -                                  | -                            | -               |
|   | I-SPEC II        |                      | -  | -  | -                                  | -                                  | -                            | -               |
|   | I-SPEC EV        |                      | -  | ✓  | -                                  | ✓                                  | -                            | -               |
| Shift lever position adjust                 |                  |                      | -  | (14 mm slide adjust range)                 | -                                  | (14 mm slide adjust range)         | -                            | -               |
| Shift lever rotation adjust (non I-SPEC EV) |                  |                      | -  | -  | -                                  | -                                  | -                            | -               |
| Shift lever cable adjust                    |                  |                      | ✓  | ✓  | ✓                                  | ✓                                  | ✓                            | ✓               |
| Front 2/3 mode converter                    |                  |                      | -  | -  | -                                  | -                                  | -                            | -               |
| Max. multiple shifts (main lever/rear)      |                  |                      | 4  | 4  | -                                  | -                                  | 4                            | -               |
| Release function                            | MULTI RELEASE    |                      | ✓  | ✓  | -                                  | -                                  | ✓ *                          | -               |
|   | INSTANT RELEASE  |                      | ✓  | ✓  | ✓                                  | ✓                                  | ✓                            | ✓               |
|   | 2-WAY RELEASE    |                      | ✓  | ✓  | ✓                                  | ✓                                  | ✓                            | ✓               |
|   | Adjustable lever |                      | -  | -  | ✓                                  | ✓                                  | -                            | -               |
| OPTICAL GEAR DISPLAY                        | With             |                      | -  | -  | -                                  | -                                  | -                            | -               |
|   | With (removable) |                      | -  | -  | -                                  | -                                  | -                            | -               |
|   | Without          |                      | ✓  | ✓  | ✓                                  | ✓                                  | ✓                            | ✓               |
| Multi-bearing construction                  |                  |                      | 4  | 4  | 4                                  | 4                                  | 4                            | 4               |
| Shift lever bracket                         | Material         |                      | Aluminum                                   | Aluminum                                   | Aluminum                           | Aluminum                           | Aluminum                     | Aluminum        |
|   | Finish           |                      | Anodized                                   | Painted                                    | Anodized                           | Painted                            | Anodized                     | Anodized        |
| Clamp screw                                 | Material         |                      | Stainless steel                            | Stainless steel                            | Stainless steel                    | Stainless steel                    | Stainless steel              | Stainless steel |
|   | Finish           |                      | -  | -  | -                                  | -                                  | -                            | -               |
| Main lever body                             | Material         |                      | Aluminum                                   | Aluminum                                   | Aluminum                           | Aluminum                           | CFRP                         | CFRP            |
|   | Finish           |                      | Painted                                    | Painted                                    | Painted                            | Painted                            | Painted                      | Painted         |
| Release lever body                          | Material         |                      | CFRP                                       | CFRP                                       | -                                  | -                                  | CFRP                         | CFRP            |
|   | Finish           |                      | -  | -  | -                                  | -                                  | -                            | -               |
| Base cover                                  | Material         |                      | CFRP                                       | CFRP                                       | CFRP                               | CFRP                               | CFRP                         | CFRP            |
|   | Finish           |                      | Painted                                    | Painted                                    | Painted                            | Painted                            | Painted                      | Painted         |
| Shift lever cable                           | Inner cable      | Polymer-coated cable | ✓  | ✓  | ✓                                  | ✓                                  | ✓                            | ✓               |
|   |                  | OPTISLICK            | -  | -  | -                                  | -                                  | -                            | -               |
|   |                  | SIL-TEC              | -  | -  | -                                  | -                                  | -                            | -               |
|   |                  | Stainless            | ✓  | ✓  | ✓                                  | ✓                                  | ✓                            | ✓               |
|   |                  | Steel                | -  | -  | -                                  | -                                  | -                            | -               |
| Recommended shift lever outer casing        |                  |                      | OT-SP41                                    | OT-SP41                                    | OT-SP41                            | OT-SP41                            | OT-SP41                      | OT-SP41         |
| Average weight (g)                          |                  |                      | 117 ( /pc)                                 | 112 ( /pc)                                 | 79 ( /pc)                          | 74 ( /pc)                          | 200 ( /pair)                 | 200 ( /pair)    |
| Note  |                  |                      | w/Rubber grooved grip (main/release lever) | w/Rubber grooved grip (main/release lever) | w/Rubber grooved grip (main lever) | w/Rubber grooved grip (main lever) | * Pull: single, push: double |                 |

SW

RD

FD

SMAD

SC

SL

SLMT

SMSL

BL

BL

RD

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BR

BR

BR

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SMCD

SMCR

BB

CS

HB

FH

WH

CI-DECK

SC

# Shifter

| Series                                      |                  |                      | XTR            | XTR            | SAINT                        | SAINT  | DEORE XT                           | DEORE XT                           |
|---|------------------|----------------------|----------------|----------------|------------------------------|--|------------------------------------|------------------------------------|
| Model no.                                   |                  |                      | SL-M980-B-IR   | SL-M980-B-IL   | SL-M820                      | SL-M820-B-I                                      | SL-M8100-R                         | SL-M8100-IR                        |
| Color                                       | 1                |                      | Series color   | Series color   | Series color                 | Series color                                     | Series color                       | Series color                       |
|   | 2                |                      | -              | -              | -                            | -  | -                                  | -                                  |
|   | 3                |                      | -              | -              | -                            | -  | -                                  | -                                  |
| Shifter type                                |                  |                      | RAPIDFIRE PLUS | RAPIDFIRE PLUS | RAPIDFIRE PLUS               | RAPIDFIRE PLUS                                   | RAPIDFIRE PLUS                     | RAPIDFIRE PLUS                     |
| Front speeds                                |                  |                      | -              | 2/3            | -                            | -  | -                                  | -                                  |
| Rear speeds                                 |                  |                      | 10             | -              | 10                           | 10   | 12                                 | 12                                 |
| Compatible rear derailleur type             |                  |                      | MTB 10-speed   | -              | MTB 10-speed                 | MTB 10-speed                                     | 12-speed                           | 12-speed                           |
| Mount type                                  | Clamp band       |                      | -              | -              | ✓                            | -  | ✓                                  | -                                  |
|   | I-SPEC B         |                      | ✓              | ✓              | -                            | ✓ **   | -                                  | -                                  |
|   | I-SPEC II        |                      | -              | -              | -                            | -  | -                                  | -                                  |
|   | I-SPEC EV        |                      | -              | -              | -                            | -  | -                                  | ✓                                  |
| Shift lever position adjust                 |                  |                      | ✓              | ✓              | -                            | ✓  | -                                  | ✓<br>(14 mm slide adjust range)    |
| Shift lever rotation adjust (non I-SPEC EV) |                  |                      | ✓              | ✓              | -                            | ✓  | -                                  | -                                  |
| Shift lever cable adjust                    |                  |                      | ✓ (CFRP)       | ✓ (CFRP)       | ✓ (CFRP)                     | ✓ (CFRP)   | ✓                                  | ✓                                  |
| Front 2/3 mode converter                    |                  |                      | -              | ✓              | -                            | -  | -                                  | -                                  |
| Max. multiple shifts (main lever/rear)      |                  |                      | 4              | -              | 4                            | 4  | 4                                  | 4                                  |
| Release function                            | MULTI RELEASE    |                      | ✓              | -              | ✓ *                          | ✓ *  | ✓                                  | ✓                                  |
|   | INSTANT RELEASE  |                      | ✓              | ✓              | ✓                            | ✓  | ✓                                  | ✓                                  |
|   | 2-WAY RELEASE    |                      | ✓              | ✓              | ✓                            | ✓  | ✓                                  | ✓                                  |
|   | Adjustable lever |                      | -              | -              | -                            | -  | -                                  | -                                  |
| OPTICAL GEAR DISPLAY                        | With             |                      | -              | -              | -                            | -  | -                                  | -                                  |
|   | With (removable) |                      | -              | -              | -                            | -  | -                                  | -                                  |
|   | Without          |                      | ✓              | ✓              | ✓                            | ✓  | ✓                                  | ✓                                  |
| Multi-bearing construction                  |                  |                      | 4              | 4              | 4                            | 4  | 2                                  | 2                                  |
| Shift lever bracket                         | Material         |                      | Aluminum       | Aluminum       | Aluminum                     | Aluminum   | Aluminum                           | Aluminum                           |
|   | Finish           |                      | Anodized       | Anodized       | Painted                      | Painted  | Painted                            | Painted                            |
| Clamp screw                                 | Material         |                      | -              | -              | Stainless steel              | -  | Stainless steel                    | Stainless steel                    |
|   | Finish           |                      | -              | -              | Black                        | -  | Black                              | Black                              |
| Main lever body                             | Material         |                      | Aluminum       | Aluminum       | Aluminum                     | Aluminum   | Aluminum                           | Aluminum                           |
|   | Finish           |                      | Anodized       | Anodized       | Painted                      | Painted  | Painted                            | Painted                            |
| Release lever body                          | Material         |                      | Steel+CFRP     | Steel+CFRP     | Steel+GFRP                   | Steel+GFRP                                       | Steel+GFRP                         | Steel+GFRP                         |
|   | Finish           |                      | -              | -              | -                            | -  | -                                  | -                                  |
| Base cover                                  | Material         |                      | CFRP           | CFRP           | GFRP                         | GFRP   | GFRP                               | GFRP                               |
|   | Finish           |                      | Painted        | Painted        | Painted                      | Painted  | Painted                            | Painted                            |
| Shift lever cable                           | Inner cable      | Polymer-coated cable | -              | -              | -                            | -  | -                                  | -                                  |
|   |                  | OPTISLICK            | -              | -              | -                            | -  | ✓                                  | ✓                                  |
|   |                  | SIL-TEC              | ✓              | ✓              | -                            | -  | -                                  | -                                  |
|   |                  | Stainless            | ✓              | ✓              | ✓                            | ✓  | ✓                                  | ✓                                  |
|   |                  | Steel                | -              | -              | -                            | -  | -                                  | -                                  |
| Recommended shift lever outer casing        |                  |                      | OT-SP41        | OT-SP41        | OT-SP41                      | OT-SP41  | OT-SP41                            | OT-SP41                            |
| Average weight (g)                          |                  |                      | 103 ( /pc)     | 98 ( /pc)      | 123 ( /pc)                   | 114 ( /pc)                                       | 117 ( /pc)                         | 120 ( /pc)                         |
| Note  |                  |                      |                |                | * Pull: single, push: double | * Pull: single, push: double<br>** I-spec B-type | w/Rubber grooved grip (main lever) | w/Rubber grooved grip (main lever) |

# Shifter

MTB

| Series                                      |                  |                      | DEORE XT                            | DEORE XT                            | DEORE XT           | DEORE XT           | DEORE XT                     | DEORE XT        |
|---|------------------|----------------------|-------------------------------------|-------------------------------------|--------------------|--------------------|------------------------------|-----------------|
| Model no.                                   |                  |                      | SL-M8100-L                          | SL-M8100-IL                         | SL-M8130-R11       | SL-M8130-IR11      | SL-M8000-R                   | SL-M8000-L      |
| Color                                       | 1                |                      | Series color                        | Series color                        | Series color       | Series color       | Series color                 | Series color    |
|   | 2                |                      | -                                   | -                                   | -                  | -                  | -                            | -               |
|   | 3                |                      | -                                   | -                                   | -                  | -                  | -                            | -               |
| Shifter type                                |                  |                      | RAPIDFIRE PLUS MONO                 | RAPIDFIRE PLUS MONO                 | RAPIDFIRE PLUS     | RAPIDFIRE PLUS     | RAPIDFIRE PLUS               | RAPIDFIRE PLUS  |
| Front speeds                                |                  |                      | 2                                   | 2                                   | -                  | -                  | -                            | 2/3             |
| Rear speeds                                 |                  |                      | -                                   | -                                   | 11                 | 11                 | 11                           | -               |
| Compatible rear derailleur type             |                  |                      | -                                   | -                                   | LINKGLIDE 11-speed | LINKGLIDE 11-speed | MTB 11-speed                 | -               |
| Mount type                                  | Clamp band       |                      | ✓                                   | -                                   | ✓                  | -                  | ✓                            | ✓               |
|   | I-SPEC B         |                      | -                                   | -                                   | -                  | -                  | -                            | -               |
|   | I-SPEC II        |                      | -                                   | -                                   | -                  | -                  | -                            | -               |
|   | I-SPEC EV        |                      | -                                   | ✓                                   | -                  | ✓                  | -                            | -               |
| Shift lever position adjust                 |                  |                      | -                                   | (14 mm slide adjust range)          | -                  | ✓                  | -                            | -               |
| Shift lever rotation adjust (non I-SPEC EV) |                  |                      | -                                   | -                                   | -                  | -                  | -                            | -               |
| Shift lever cable adjust                    |                  |                      | ✓                                   | ✓                                   | ✓                  | ✓                  | ✓                            | ✓               |
| Front 2/3 mode converter                    |                  |                      | -                                   | -                                   | -                  | -                  | -                            | -               |
| Max. multiple shifts (main lever/rear)      |                  |                      | -                                   | -                                   | 2                  | 2                  | 4                            | -               |
| Release function                            | MULTI RELEASE    |                      | -                                   | -                                   | -                  | -                  | ✓ *                          | -               |
|   | INSTANT RELEASE  |                      | ✓                                   | ✓                                   | ✓                  | ✓                  | ✓                            | ✓               |
|   | 2-WAY RELEASE    |                      | ✓                                   | ✓                                   | ✓                  | ✓                  | ✓                            | ✓               |
|   | Adjustable lever |                      | ✓                                   | ✓                                   | -                  | -                  | -                            | -               |
| OPTICAL GEAR DISPLAY                        | With             |                      | -                                   | -                                   | -                  | -                  | -                            | -               |
|   | With (removable) |                      | -                                   | -                                   | -                  | -                  | ✓                            | ✓               |
|   | Without          |                      | ✓                                   | ✓                                   | ✓                  | ✓                  | ✓                            | ✓               |
| Multi-bearing construction                  |                  |                      | 2                                   | 2                                   | 2                  | 2                  | 2                            | 2               |
| Shift lever bracket                         | Material         |                      | Aluminum                            | Aluminum                            | Aluminum           | Aluminum           | Aluminum                     | Aluminum        |
|   | Finish           |                      | Painted                             | Painted                             | Painted            | Painted            | Painted                      | Painted         |
| Clamp screw                                 | Material         |                      | Stainless steel                     | Stainless steel                     | Stainless steel    | Stainless steel    | Stainless steel              | Stainless steel |
|   | Finish           |                      | Black                               | Black                               | Black              | Black              | -                            | -               |
| Main lever body                             | Material         |                      | Aluminum                            | Aluminum                            | Aluminum           | Aluminum           | Aluminum                     | Aluminum        |
|   | Finish           |                      | Painted                             | Painted                             | Painted            | Painted            | Painted                      | Painted         |
| Release lever body                          | Material         |                      | Steel+GFRP                          | Steel+GFRP                          | Steel+GFRP         | Steel+GFRP         | Steel+GFRP                   | Steel+GFRP      |
|   | Finish           |                      | -                                   | -                                   | -                  | -                  | -                            | -               |
| Base cover                                  | Material         |                      | GFRP                                | GFRP                                | GFRP               | GFRP               | GFRP                         | GFRP            |
|   | Finish           |                      | Painted                             | Painted                             | Painted            | Painted            | Painted                      | Painted         |
| Shift lever cable                           | Inner cable      | Polymer-coated cable | -                                   | -                                   | -                  | -                  | -                            | -               |
|   |                  | OPTISLICK            | ✓                                   | ✓                                   | ✓                  | ✓                  | ✓                            | ✓               |
|   |                  | SIL-TEC              | -                                   | -                                   | -                  | -                  | -                            | -               |
|   |                  | Stainless            | ✓                                   | ✓                                   | ✓                  | ✓                  | ✓                            | ✓               |
|   |                  | Steel                | -                                   | -                                   | -                  | -                  | -                            | -               |
| Recommended shift lever outer casing        |                  |                      | OT-SP41                             | OT-SP41                             | OT-SP41            | OT-SP41            | OT-SP41                      | OT-SP41         |
| Average weight (g)                          |                  |                      | 78 (/pc)                            | 78 (/pc)                            | 117 (/pc)          | 120 (/pc)          | 127 (/pc)                    | 117 (/pc)       |
| Note  |                  |                      | w/Rubber, grooved grip (main lever) | w/Rubber, grooved grip (main lever) | -                  | -                  | * Pull: single, push: double |                 |

SW

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FD

SMAD

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SLMT

SMSL

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BL

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BR

BR

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SMCD

SMCR

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CS

HB

FH

WH

CI-DECK

SC



# Shifter

| Series                                      |                  |                      | DEORE XT                     | DEORE XT       | DEORE XT                     | DEORE XT       | DEORE XT       | DEORE XT        |
|---|------------------|----------------------|------------------------------|----------------|------------------------------|----------------|----------------|-----------------|
| Model no.                                   |                  |                      | SL-M8000-IR                  | SL-M8000-IL    | SL-M8000-B-IR                | SL-M780-B-IR   | SL-M780-B-IL   | SL-M780-R       |
| Color                                       | 1                |                      | Series color                 | Series color   | Series color                 | Series color   | Series color   | Series color    |
|   | 2                |                      | -                            | -              | -                            | -              | -              | -               |
|   | 3                |                      | -                            | -              | -                            | -              | -              | -               |
| Shifter type                                |                  |                      | RAPIDFIRE PLUS               | RAPIDFIRE PLUS | RAPIDFIRE PLUS               | RAPIDFIRE PLUS | RAPIDFIRE PLUS | RAPIDFIRE PLUS  |
| Front speeds                                |                  |                      | -                            | 2/3            | -                            | -              | 2/3            | -               |
| Rear speeds                                 |                  |                      | 11                           | -              | 11                           | 10             | -              | 10              |
| Compatible rear derailleur type             |                  |                      | MTB 11-speed                 | -              | MTB 11-speed                 | MTB 10-speed   | -              | MTB 10-speed    |
| Mount type                                  | Clamp band       |                      | -                            | -              | -                            | -              | -              | ✓               |
|   | I-SPEC B         |                      | -                            | -              | ✓                            | ✓              | ✓              | -               |
|   | I-SPEC II        |                      | ✓                            | ✓              | -                            | -              | -              | -               |
|   | I-SPEC EV        |                      | -                            | -              | -                            | -              | -              | -               |
| Shift lever position adjust                 |                  |                      | ✓                            | ✓              | ✓                            | ✓              | ✓              | -               |
| Shift lever rotation adjust (non I-SPEC EV) |                  |                      | ✓                            | ✓              | ✓                            | ✓              | ✓              | -               |
| Shift lever cable adjust                    |                  |                      | ✓                            | ✓              | ✓                            | ✓              | ✓              | ✓               |
| Front 2/3 mode converter                    |                  |                      | -                            | -              | -                            | -              | ✓              | -               |
| Max. multiple shifts (main lever/rear)      |                  |                      | 4                            | -              | 4                            | 4              | -              | 4               |
| Release function                            | MULTI RELEASE    |                      | ✓ *                          | -              | ✓ *                          | ✓              | -              | ✓               |
|   | INSTANT RELEASE  |                      | ✓                            | ✓              | ✓                            | ✓              | ✓              | ✓               |
|   | 2-WAY RELEASE    |                      | ✓                            | ✓              | ✓                            | ✓              | ✓              | ✓               |
|   | Adjustable lever |                      | -                            | -              | -                            | -              | -              | -               |
| OPTICAL GEAR<br>DISPLAY                     | With             |                      | -                            | -              | -                            | -              | -              | -               |
|   | With (removable) |                      | -                            | -              | -                            | -              | -              | ✓               |
|   | Without          |                      | ✓                            | ✓              | ✓                            | ✓              | ✓              | ✓               |
| Multi-bearing construction                  |                  |                      | 2                            | 2              | 2                            | 2              | 2              | 2               |
| Shift lever bracket                         | Material         |                      | Aluminum                     | Aluminum       | Aluminum                     | Aluminum       | Aluminum       | Aluminum        |
|   | Finish           |                      | Painted                      | Painted        | Painted                      | Painted        | Painted        | Painted         |
| Clamp screw                                 | Material         |                      | -                            | -              | -                            | -              | -              | Stainless steel |
|   | Finish           |                      | -                            | -              | -                            | -              | -              | -               |
| Main lever body                             | Material         |                      | Aluminum                     | Aluminum       | Aluminum                     | Aluminum       | Aluminum       | Aluminum        |
|   | Finish           |                      | Painted                      | Painted        | Painted                      | Painted        | Painted        | Painted         |
| Release lever body                          | Material         |                      | Steel+GFRP                   | Steel+GFRP     | Steel+GFRP                   | Steel+GFRP     | Steel+GFRP     | Steel+GFRP      |
|   | Finish           |                      | -                            | -              | -                            | -              | -              | -               |
| Base cover                                  | Material         |                      | GFRP                         | GFRP           | GFRP                         | GFRP           | GFRP           | GFRP            |
|   | Finish           |                      | Painted                      | Painted        | Painted                      | Painted        | Painted        | Painted         |
| Shift lever cable                           | Inner cable      | Polymer-coated cable | -                            | -              | -                            | -              | -              | -               |
|   |                  | OPTISLICK            | ✓                            | ✓              | ✓                            | -              | -              | -               |
|   |                  | SIL-TEC              | -                            | -              | -                            | -              | -              | -               |
|   |                  | Stainless            | ✓                            | ✓              | ✓                            | ✓              | ✓              | ✓               |
|   |                  | Steel                | -                            | -              | -                            | -              | -              | -               |
| Recommended shift lever outer casing        |                  |                      | OT-SP41                      | OT-SP41        | OT-SP41                      | OT-SP41        | OT-SP41        | OT-SP41         |
| Average weight (g)                          |                  |                      | 120 (/pc)                    | 110 (/pc)      | 117 (/pc)                    | 114 (/pc)      | 106 (/pc)      | 128 (/pc)       |
| Note  |                  |                      | * Pull: single, push: double |                | * Pull: single, push: double |                |                |                 |

# Shifter

MTB

| Series                                      |                  |                      | DEORE XT        | DEORE XT        | DEORE XT        | SLX             | SLX                             | SLX                 |
|---|------------------|----------------------|-----------------|-----------------|-----------------|-----------------|---------------------------------|---------------------|
| Model no.                                   |                  |                      | SL-M780-L       | SL-M770-A-R     | SL-M770-A-L     | SL-M7100-R      | SL-M7100-IR                     | SL-M7100-L          |
| Color                                       | 1                |                      | Series color    | Series color    | Series color    | Series color    | Series color                    | Series color        |
|   | 2                |                      | -               | -               | -               | -               | -                               | -                   |
|   | 3                |                      | -               | -               | -               | -               | -                               | -                   |
| Shifter type                                |                  |                      | RAPIDFIRE PLUS  | RAPIDFIRE PLUS  | RAPIDFIRE PLUS  | RAPIDFIRE PLUS  | RAPIDFIRE PLUS                  | RAPIDFIRE PLUS MONO |
| Front speeds                                |                  |                      | 2/3             | -               | 3               | -               | -                               | 2                   |
| Rear speeds                                 |                  |                      | -               | 9               | -               | 12              | 12                              | -                   |
| Compatible rear derailleur type             |                  |                      | -               | MTB 9-speed     | -               | 12-speed        | 12-speed                        | -                   |
| Mount type                                  | Clamp band       |                      | ✓               | ✓               | ✓               | ✓               | -                               | ✓                   |
|   | I-SPEC B         |                      | -               | -               | -               | -               | -                               | -                   |
|   | I-SPEC II        |                      | -               | -               | -               | -               | -                               | -                   |
|   | I-SPEC EV        |                      | -               | -               | -               | -               | ✓                               | -                   |
| Shift lever position adjust                 |                  |                      | -               | -               | -               | -               | ✓<br>(14 mm slide adjust range) | -                   |
| Shift lever rotation adjust (non I-SPEC EV) |                  |                      | -               | -               | -               | -               | -                               | -                   |
| Shift lever cable adjust                    |                  |                      | ✓               | ✓               | ✓               | ✓               | ✓                               | ✓                   |
| Front 2/3 mode converter                    |                  |                      | ✓               | -               | -               | -               | -                               | -                   |
| Max. multiple shifts (main lever/rear)      |                  |                      | -               | 4               | -               | 3               | 3                               | -                   |
| Release function                            | MULTI RELEASE    |                      | -               | -               | -               | -               | -                               | -                   |
|   | INSTANT RELEASE  |                      | ✓               | ✓               | ✓               | -               | -                               | ✓                   |
|   | 2-WAY RELEASE    |                      | ✓               | ✓               | ✓               | ✓               | ✓                               | ✓                   |
|   | Adjustable lever |                      | -               | -               | -               | -               | -                               | ✓                   |
| OPTICAL GEAR DISPLAY                        | With             |                      | -               | -               | -               | -               | -                               | -                   |
|   | With (removable) |                      | ✓               | ✓               | ✓               | -               | -                               | -                   |
|   | Without          |                      | ✓               | ✓               | ✓               | ✓               | ✓                               | ✓                   |
| Multi-bearing construction                  |                  |                      | 2               | 2               | 2               | -               | -                               | -                   |
| Shift lever bracket                         | Material         |                      | Aluminum        | Aluminum        | Aluminum        | Aluminum        | Aluminum                        | Aluminum            |
|   | Finish           |                      | Painted         | Painted         | Painted         | Painted         | Painted                         | Painted             |
| Clamp screw                                 | Material         |                      | Stainless steel | Stainless steel | Stainless steel | Stainless steel | Stainless steel                 | Stainless steel     |
|   | Finish           |                      | -               | -               | -               | -               | -                               | -                   |
| Main lever body                             | Material         |                      | Aluminum        | Aluminum        | Aluminum        | Steel+GFRP      | Steel+GFRP                      | Steel+GFRP          |
|   | Finish           |                      | Painted         | Painted         | Painted         | -               | -                               | -                   |
| Release lever body                          | Material         |                      | Steel+GFRP      | Steel+GFRP      | Steel+GFRP      | Steel+GFRP      | Steel+GFRP                      | Steel+GFRP          |
|   | Finish           |                      | -               | -               | -               | -               | -                               | -                   |
| Base cover                                  | Material         |                      | GFRP            | Resin           | Resin           | GFRP            | GFRP                            | GFRP                |
|   | Finish           |                      | Painted         | Painted         | Painted         | -               | -                               | -                   |
| Shift lever cable                           | Inner cable      | Polymer-coated cable | -               | -               | -               | -               | -                               | -                   |
|   |                  | OPTISLICK            | -               | -               | -               | ✓               | ✓                               | ✓                   |
|   |                  | SIL-TEC              | -               | -               | -               | -               | -                               | -                   |
|   |                  | Stainless            | ✓               | ✓               | ✓               | ✓               | ✓                               | ✓                   |
|   |                  | Steel                | -               | -               | -               | -               | -                               | -                   |
| Recommended shift lever outer casing        |                  |                      | OT-SP41         | OT-SP41         | OT-SP41         | OT-SP41         | OT-SP41                         | OT-SP41             |
| Average weight (g)                          |                  |                      | 121 ( /pc)      | 255 ( /pair)    | 255 ( /pair)    | 117 ( /pc)      | 117 ( /pc)                      | 77 ( /pc)           |
| Note  |                  |                      |                 |                 |                 |                 |                                 |                     |

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# Shifter

| Series                                      |                  |                      | SLX                          | SLX             | SLX             | SLX            | SLX            | SLX             |
|---|------------------|----------------------|------------------------------|-----------------|-----------------|----------------|----------------|-----------------|
| Model no.                                   |                  |                      | SL-M7100-IL                  | SL-M7000-11-R   | SL-M7000-L      | SL-M7000-11-IR | SL-M7000-IL    | SL-M7000-10-R   |
| Color                                       | 1                |                      | Series color                 | Series color    | Series color    | Series color   | Series color   | Series color    |
|   | 2                |                      | -                            | -               | -               | -              | -              | -               |
|   | 3                |                      | -                            | -               | -               | -              | -              | -               |
| Shifter type                                |                  |                      | RAPIDFIRE PLUS MONO          | RAPIDFIRE PLUS  | RAPIDFIRE PLUS  | RAPIDFIRE PLUS | RAPIDFIRE PLUS | RAPIDFIRE PLUS  |
| Front speeds                                |                  |                      | 2                            | -               | 2/3             | -              | 2/3            | -               |
| Rear speeds                                 |                  |                      | -                            | 11              | -               | 11             | -              | 10              |
| Compatible rear derailleur type             |                  |                      | -                            | MTB 11-speed    | -               | MTB 11-speed   | -              | MTB 10-speed    |
| Mount type                                  | Clamp band       |                      | -                            | ✓               | ✓               | -              | -              | ✓               |
|   | I-SPEC B         |                      | -                            | -               | -               | -              | -              | -               |
|   | I-SPEC II        |                      | -                            | -               | -               | ✓              | ✓              | -               |
|   | I-SPEC EV        |                      | ✓                            | -               | -               | -              | -              | -               |
| Shift lever position adjust                 |                  |                      | (14 mm slide adjust range) ✓ | -               | -               | ✓              | ✓              | -               |
| Shift lever rotation adjust (non I-SPEC EV) |                  |                      | -                            | -               | -               | ✓              | ✓              | -               |
| Shift lever cable adjust                    |                  |                      | ✓                            | ✓               | ✓               | ✓              | ✓              | ✓               |
| Front 2/3 mode converter                    |                  |                      | -                            | -               | -               | -              | -              | -               |
| Max. multiple shifts (main lever/rear)      |                  |                      | -                            | 3               | -               | 3              | -              | 3               |
| Release function                            | MULTI RELEASE    |                      | -                            | -               | -               | -              | -              | -               |
|   | INSTANT RELEASE  |                      | ✓                            | -               | -               | -              | -              | -               |
|   | 2-WAY RELEASE    |                      | ✓                            | ✓               | ✓               | ✓              | ✓              | ✓               |
|   | Adjustable lever |                      | ✓                            | -               | -               | -              | -              | -               |
| OPTICAL GEAR DISPLAY                        | With             |                      | -                            | -               | -               | -              | -              | -               |
|   | With (removable) |                      | -                            | ✓               | ✓               | -              | -              | ✓               |
|   | Without          |                      | ✓                            | ✓               | ✓               | ✓              | ✓              | ✓               |
| Multi-bearing construction                  |                  |                      | -                            | -               | -               | -              | -              | -               |
| Shift lever bracket                         | Material         |                      | Aluminum                     | Aluminum        | Aluminum        | Aluminum       | Aluminum       | Aluminum        |
|   | Finish           |                      | Painted                      | Painted         | Painted         | Painted        | Painted        | Painted         |
| Clamp screw                                 | Material         |                      | Stainless steel              | Stainless steel | Stainless steel | -              | -              | Stainless steel |
|   | Finish           |                      | -                            | -               | -               | -              | -              | -               |
| Main lever body                             | Material         |                      | Steel+GFRP                   | Steel+GFRP      | Steel+GFRP      | Steel+GFRP     | Steel+GFRP     | Steel+GFRP      |
|   | Finish           |                      | -                            | -               | -               | -              | -              | -               |
| Release lever body                          | Material         |                      | Steel+GFRP                   | Steel+GFRP      | Steel+GFRP      | Steel+GFRP     | Steel+GFRP     | Steel+GFRP      |
|   | Finish           |                      | -                            | -               | -               | -              | -              | -               |
| Base cover                                  | Material         |                      | GFRP                         | GFRP            | GFRP            | GFRP           | GFRP           | GFRP            |
|   | Finish           |                      | -                            | -               | -               | -              | -              | -               |
| Shift lever cable                           | Inner cable      | Polymer-coated cable | -                            | -               | -               | -              | -              | -               |
|   |                  | OPTISLIC K           | ✓                            | ✓               | ✓               | ✓              | ✓              | ✓               |
|   |                  | SIL-TEC              | -                            | -               | -               | -              | -              | -               |
|   |                  | Stainless            | ✓                            | ✓               | ✓               | ✓              | ✓              | ✓               |
|   |                  | Steel                | -                            | -               | -               | -              | -              | -               |
| Recommended shift lever outer casing        |                  |                      | OT-SP41                      | OT-SP41         | OT-SP41         | OT-SP41        | OT-SP41        | OT-SP41         |
| Average weight (g)                          |                  |                      | 77 (/pc)                     | 135 (/pc)       | 130 (/pc)       | 120 (/pc)      | 115 (/pc)      | 135 (/pc)       |
| Note  |                  |                      |                              |                 |                 |                |                |                 |

# Shifter

MTB

| Series                                      |                  |                      | SLX            | SLX              | SLX            | SLX            | DEORE           | DEORE   |
|---|------------------|----------------------|----------------|------------------|----------------|----------------|-----------------|---|
| Model no.                                   |                  |                      | SL-M7000-10-IR | SL-M7000-10-B-IR | SL-M670-B-IR   | SL-M670-B-IL   | SL-M6100-R      | SL-M6100-IR   |
| Color                                       | 1                |                      | Series color   | Series color     | Series color   | Series color   | Series color    | Series color  |
|   | 2                |                      | -              | -                | -              | -              | -               | -   |
|   | 3                |                      | -              | -                | -              | -              | -               | -   |
| Shifter type                                |                  |                      | RAPIDFIRE PLUS | RAPIDFIRE PLUS   | RAPIDFIRE PLUS | RAPIDFIRE PLUS | RAPIDFIRE PLUS  | RAPIDFIRE PLUS  |
| Front speeds                                |                  |                      | -              | -                | -              | 2/3            | -               | -   |
| Rear speeds                                 |                  |                      | 10             | 10               | 10             | -              | 12              | 12  |
| Compatible rear derailleur type             |                  |                      | MTB 10-speed   | MTB 10-speed     | MTB 10-speed   | -              | MTB 12-speed    | MTB 12-speed  |
| Mount type                                  | Clamp band       |                      | -              | -                | -              | -              | ✓               | -   |
|   | I-SPEC B         |                      | -              | ✓                | ✓              | ✓              | -               | -   |
|   | I-SPEC II        |                      | ✓              | -                | -              | -              | -               | -   |
|   | I-SPEC EV        |                      | -              | -                | -              | -              | -               | ✓   |
| Shift lever position adjust                 |                  |                      | ✓              | ✓                | ✓              | ✓              | -               | ✓ (14 mm slide adjust range, w/o OPTICAL GEAR DISPLAY)<br>- (w/ OPTICAL GEAR DISPLAY) |
| Shift lever rotation adjust (non I-SPEC EV) |                  |                      | ✓              | ✓                | ✓              | ✓              | -               | -   |
| Shift lever cable adjust                    |                  |                      | ✓              | ✓                | ✓              | ✓              | ✓               | ✓   |
| Front 2/3 mode converter                    |                  |                      | -              | -                | -              | ✓              | -               | -   |
| Max. multiple shifts (main lever/rear)      |                  |                      | 3              | 3                | 3              | -              | 3               | 3   |
| Release function                            | MULTI RELEASE    |                      | -              | -                | -              | -              | -               | -   |
|   | INSTANT RELEASE  |                      | -              | -                | -              | -              | -               | -   |
|   | 2-WAY RELEASE    |                      | ✓              | ✓                | ✓              | ✓              | ✓               | ✓   |
|   | Adjustable lever |                      | -              | -                | -              | -              | -               | -   |
| OPTICAL GEAR DISPLAY                        | With             |                      | -              | -                | -              | -              | ✓               | ✓   |
|   | With (removable) |                      | -              | -                | -              | -              | -               | -   |
|   | Without          |                      | ✓              | ✓                | ✓              | ✓              | ✓               | ✓   |
| Multi-bearing construction                  |                  |                      | -              | -                | -              | -              | -               | -   |
| Shift lever bracket                         | Material         |                      | Aluminum       | Aluminum         | Aluminum       | Aluminum       | Aluminum        | Aluminum  |
|   | Finish           |                      | Painted        | Painted          | Painted        | Painted        | Painted         | Painted   |
| Clamp screw                                 | Material         |                      | -              | -                | -              | -              | Stainless steel | Stainless steel   |
|   | Finish           |                      | -              | -                | -              | -              | -               | -   |
| Main lever body                             | Material         |                      | Steel+GFRP     | Steel+GFRP       | Steel+GFRP     | Steel+GFRP     | Steel+GFRP      | Steel+GFRP  |
|   | Finish           |                      | -              | -                | -              | -              | -               | -   |
| Release lever body                          | Material         |                      | Steel+GFRP     | Steel+GFRP       | Steel+GFRP     | Steel+GFRP     | Steel+GFRP      | Steel+GFRP  |
|   | Finish           |                      | -              | -                | -              | -              | -               | -   |
| Base cover                                  | Material         |                      | GFRP           | GFRP             | GFRP           | GFRP           | GFRP            | GFRP  |
|   | Finish           |                      | -              | -                | -              | -              | -               | -   |
| Shift lever cable                           | Inner cable      | Polymer-coated cable | -              | -                | -              | -              | -               | -   |
|   |                  | OPTISLIC K           | ✓              | ✓                | -              | -              | ✓               | ✓   |
|   |                  | SIL-TEC              | -              | -                | -              | -              | -               | -   |
|   |                  | Stainless            | ✓              | ✓                | ✓              | ✓              | ✓               | ✓   |
|   |                  | Steel                | -              | -                | -              | -              | -               | -   |
| Recommended shift lever outer casing        |                  |                      | OT-SP41        | OT-SP41          | OT-SP41        | OT-SP41        | OT-SP41         | OT-SP41   |
| Average weight (g)                          |                  |                      | 120 (/pc)      | 127 (/pc)        | 121 (/pc)      | 116 (/pc)      | -               | -   |
| Note  |                  |                      |                |                  |                |                |                 |   |

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# Shifter

| Series                                      |                  |                         | DEORE           | DEORE           | DEORE          | DEORE          | DEORE           | DEORE   |
|---|------------------|-------------------------|-----------------|-----------------|----------------|----------------|-----------------|---|
| Model no.                                   |                  |                         | SL-M6000-R      | SL-M6000-L      | SL-M6000-IR    | SL-M6000-IL    | SL-M5100-R      | SL-M5100-IR   |
| Color                                       | 1                |                         | Series black    | Series black    | Series black   | Series black   | Series color    | Series color  |
|   | 2                |                         | -               | -               | -              | -              | -               | -   |
|   | 3                |                         | -               | -               | -              | -              | -               | -   |
| Shifter type                                |                  |                         | RAPIDFIRE PLUS  | RAPIDFIRE PLUS  | RAPIDFIRE PLUS | RAPIDFIRE PLUS | RAPIDFIRE PLUS  | RAPIDFIRE PLUS  |
| Front speeds                                |                  |                         | -               | 2/3             | -              | 2/3            | -               | -   |
| Rear speeds                                 |                  |                         | 10              | -               | 10             | -              | 11              | 11  |
| Compatible rear derailleur type             |                  |                         | MTB 10-speed    | -               | MTB 10-speed   | -              | MTB 11-speed    | MTB 11-speed  |
| Mount type                                  | Clamp band       |                         | ✓               | ✓               | -              | -              | ✓               | -   |
|   | I-SPEC B         |                         | -               | -               | -              | -              | -               | -   |
|   | I-SPEC II        |                         | -               | -               | ✓              | ✓              | -               | -   |
|   | I-SPEC EV        |                         | -               | -               | -              | -              | -               | ✓   |
| Shift lever position adjust                 |                  |                         | -               | -               | -              | -              | -               | ✓ (14 mm slide<br>adjust range, w/o<br>OPTICAL GEAR<br>DISPLAY)<br>- (w/ OPTICAL GEAR<br>DISPLAY) |
| Shift lever rotation adjust (non I-SPEC EV) |                  |                         | -               | -               | ✓              | ✓              | -               | -   |
| Shift lever cable adjust                    |                  |                         | ✓               | ✓               | ✓              | ✓              | ✓               | ✓   |
| Front 2/3 mode converter                    |                  |                         | -               | -               | -              | -              | -               | -   |
| Max. multiple shifts (main lever/rear)      |                  |                         | 3               | -               | 3              | -              | 3               | 3   |
| Release function                            | MULTI RELEASE    |                         | -               | -               | -              | -              | -               | -   |
|   | INSTANT RELEASE  |                         | -               | -               | -              | -              | -               | -   |
|   | 2-WAY RELEASE    |                         | ✓               | ✓               | ✓              | ✓              | ✓               | ✓   |
|   | Adjustable lever |                         | -               | -               | -              | -              | -               | -   |
| OPTICAL GEAR<br>DISPLAY                     | With             |                         | ✓               | ✓               | -              | -              | ✓               | ✓   |
|   | With (removable) |                         | -               | -               | -              | -              | -               | -   |
|   | Without          |                         | ✓               | ✓               | ✓              | ✓              | ✓               | ✓   |
| Multi-bearing construction                  |                  |                         | -               | -               | -              | -              | -               | -   |
| Shift lever bracket                         | Material         |                         | Aluminum        | Aluminum        | Aluminum       | Aluminum       | Aluminum        | Aluminum  |
|   | Finish           |                         | Painted         | Painted         | Painted        | Painted        | Painted         | Painted   |
| Clamp screw                                 | Material         |                         | Stainless steel | Stainless steel | -              | -              | Stainless steel | Stainless steel   |
|   | Finish           |                         | -               | -               | -              | -              | -               | -   |
| Main lever body                             | Material         |                         | Steel+GFRP      | Steel+GFRP      | Steel+GFRP     | Steel+GFRP     | Steel+GFRP      | Steel+GFRP  |
|   | Finish           |                         | -               | -               | -              | -              | -               | -   |
| Release lever body                          | Material         |                         | Steel+GFRP      | Steel+GFRP      | Steel+GFRP     | Steel+GFRP     | Steel+GFRP      | Steel+GFRP  |
|   | Finish           |                         | -               | -               | -              | -              | -               | -   |
| Base cover                                  | Material         |                         | GFRP            | GFRP            | GFRP           | GFRP           | GFRP            | GFRP  |
|   | Finish           |                         | -               | -               | -              | -              | -               | -   |
| Shift lever cable                           | Inner<br>cable   | Polymer-coated<br>cable | -               | -               | -              | -              | -               | -   |
|   |                  | OPTISLIC<br>K           | ✓               | ✓               | ✓              | ✓              | ✓               | ✓   |
|   |                  | SIL-TEC                 | -               | -               | -              | -              | -               | -   |
|   |                  | Stainless               | ✓               | ✓               | ✓              | ✓              | ✓               | ✓   |
|   |                  | Steel                   | -               | -               | -              | -              | -               | -   |
| Recommended shift lever outer casing        |                  |                         | OT-SP41         | OT-SP41         | OT-SP41        | OT-SP41        | OT-SP41         | OT-SP41   |
| Average weight (g)                          |                  |                         | -               | -               | -              | -              | -               | -   |
| Note  |                  |                         |                 |                 |                |                |                 |   |

# Shifter

MTB

| Series                                      |                  |                      | DEORE               | DEORE                        | DEORE              | DEORE           | DEORE   | DEORE          |
|---|------------------|----------------------|---------------------|------------------------------|--------------------|-----------------|---|----------------|
| Model no.                                   |                  |                      | SL-M5100-L          | SL-M5100-IL                  | SL-M5130-R10       | SL-M4100-R      | SL-M4100-IR   | SL-M610-IR     |
| Color                                       | 1                |                      | Series color        | Series color                 | Series color       | Series color    | Series color  | Series color   |
|   | 2                |                      | -                   | -                            | -                  | -               | -   | -              |
|   | 3                |                      | -                   | -                            | -                  | -               | -   | -              |
| Shifter type                                |                  |                      | RAPIDFIRE PLUS MONO | RAPIDFIRE PLUS MONO          | RAPIDFIRE PLUS     | RAPIDFIRE PLUS  | RAPIDFIRE PLUS  | RAPIDFIRE PLUS |
| Front speeds                                |                  |                      | 2                   | 2                            | -                  | -               | -   | -              |
| Rear speeds                                 |                  |                      | -                   | -                            | 10                 | 10              | 10  | 10             |
| Compatible rear derailleur type             |                  |                      | -                   | -                            | LINKGLIDE 10-speed | MTB 10-speed    | MTB 10-speed  | MTB 10-speed   |
| Mount type                                  | Clamp band       |                      | ✓                   | -                            | ✓                  | ✓               | -   | -              |
|   | I-SPEC B         |                      | -                   | -                            | -                  | -               | -   | ✓              |
|   | I-SPEC II        |                      | -                   | -                            | -                  | -               | -   | -              |
|   | I-SPEC EV        |                      | -                   | ✓                            | -                  | -               | ✓   | -              |
| Shift lever position adjust                 |                  |                      | -                   | (14 mm slide adjust range) ✓ | -                  | -               | ✓ (w/o OPTICAL GEAR DISPLAY)<br>- (w/ OPTICAL GEAR DISPLAY) * | -              |
| Shift lever rotation adjust (non I-SPEC EV) |                  |                      | -                   | -                            | -                  | -               | -   | ✓              |
| Shift lever cable adjust                    |                  |                      | ✓                   | ✓                            | ✓                  | ✓               | ✓   | ✓              |
| Front 2/3 mode converter                    |                  |                      | -                   | -                            | -                  | -               | -   | -              |
| Max. multiple shifts (main lever/rear)      |                  |                      | -                   | -                            | 2                  | 3               | 3   | 3              |
| Release function                            | MULTI RELEASE    |                      | -                   | -                            | -                  | -               | -   | -              |
|   | INSTANT RELEASE  |                      | -                   | -                            | -                  | -               | -   | -              |
|   | 2-WAY RELEASE    |                      | ✓                   | ✓                            | ✓                  | ✓               | ✓   | ✓              |
|   | Adjustable lever |                      | -                   | -                            | -                  | -               | -   | -              |
| OPTICAL GEAR DISPLAY                        | With             |                      | -                   | -                            | ✓                  | ✓               | ✓   | -              |
|   | With (removable) |                      | -                   | -                            | -                  | -               | -   | -              |
|   | Without          |                      | ✓                   | ✓                            | ✓                  | ✓               | ✓   | ✓              |
| Multi-bearing construction                  |                  |                      | -                   | -                            | -                  | -               | -   | -              |
| Shift lever bracket                         | Material         |                      | Aluminum            | Aluminum                     | Aluminum           | Aluminum        | Aluminum  | Aluminum       |
|   | Finish           |                      | Painted             | Painted                      | Painted            | Painted         | Painted   | Painted        |
| Clamp screw                                 | Material         |                      | Stainless steel     | Stainless steel              | Stainless steel    | Stainless steel | Stainless steel   | -              |
|   | Finish           |                      | -                   | -                            | -                  | -               | -   | -              |
| Main lever body                             | Material         |                      | Steel+GFRP          | Steel+GFRP                   | Steel+GFRP         | Steel+GFRP      | Steel+GFRP  | Steel+GFRP     |
|   | Finish           |                      | -                   | -                            | -                  | -               | -   | -              |
| Release lever body                          | Material         |                      | -                   | -                            | Steel+GFRP         | Steel+Resin     | Steel+Resin   | Steel+GFRP     |
|   | Finish           |                      | -                   | -                            | -                  | -               | -   | -              |
| Base cover                                  | Material         |                      | GFRP                | GFRP                         | GFRP               | GFRP            | GFRP  | GFRP           |
|   | Finish           |                      | -                   | -                            | -                  | -               | -   | -              |
| Shift lever cable                           | Inner cable      | Polymer-coated cable | -                   | -                            | -                  | -               | -   | -              |
|   |                  | OPTISLICK            | ✓                   | ✓                            | ✓                  | ✓               | ✓   | -              |
|   |                  | SIL-TEC              | -                   | -                            | -                  | -               | -   | -              |
|   |                  | Stainless            | -                   | -                            | ✓                  | -               | -   | ✓              |
|   |                  | Steel                | ✓                   | ✓                            | -                  | ✓               | ✓   | -              |
| Recommended shift lever outer casing        |                  |                      | OT-SP41             | OT-SP41                      | OT-SP41            | OT-SP41         | OT-SP41   | OT-SP41        |
| Average weight (g)                          |                  |                      | -                   | -                            | -                  | -               | -   | -              |
| Note  |                  |                      |                     |                              | -                  |                 |   |                |

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# Shifter

| Series                                      |                  |                      | DEORE          | DEORE           | DEORE           |
|---|------------------|----------------------|----------------|-----------------|-----------------|
| Model no.                                   |                  |                      | SL-M610-IL     | SL-M590-R       | SL-M590-L       |
| Color                                       | 1                |                      | Series color   | Series color    | Series color    |
|   | 2                |                      | -              | -               | -               |
|   | 3                |                      | -              | -               | -               |
| Shifter type                                |                  |                      | RAPIDFIRE PLUS | RAPIDFIRE PLUS  | RAPIDFIRE PLUS  |
| Front speeds                                |                  |                      | 2/3            | -               | 3               |
| Rear speeds                                 |                  |                      | -              | 9               | -               |
| Compatible rear derailleur type             |                  |                      | -              | MTB 9-speed     | -               |
| Mount type                                  | Clamp band       |                      | -              | ✓               | ✓               |
|   | I-SPEC B         |                      | ✓              | -               | -               |
|   | I-SPEC II        |                      | -              | -               | -               |
|   | I-SPEC EV        |                      | -              | -               | -               |
| Shift lever position adjust                 |                  |                      | -              | -               | -               |
| Shift lever rotation adjust (non I-SPEC EV) |                  |                      | ✓              | -               | -               |
| Shift lever cable adjust                    |                  |                      | ✓              | ✓               | ✓               |
| Front 2/3 mode converter                    |                  |                      | ✓              | -               | -               |
| Max. multiple shifts (main lever/rear)      |                  |                      | -              | 3               | -               |
| Release function                            | MULTI RELEASE    |                      | -              | -               | -               |
|   | INSTANT RELEASE  |                      | -              | -               | -               |
|   | 2-WAY RELEASE    |                      | ✓              | ✓               | ✓               |
|   | Adjustable lever |                      | -              | -               | -               |
| OPTICAL GEAR DISPLAY                        | With             |                      | -              | ✓               | ✓               |
|   | With (removable) |                      | -              | -               | -               |
|   | Without          |                      | ✓              | -               | -               |
| Multi-bearing construction                  |                  |                      | -              | -               | -               |
| Shift lever bracket                         | Material         |                      | Aluminum       | Aluminum        | Aluminum        |
|   | Finish           |                      | Painted        | Painted         | Painted         |
| Clamp screw                                 | Material         |                      | -              | Stainless steel | Stainless steel |
|   | Finish           |                      | -              | -               | -               |
| Main lever body                             | Material         |                      | Steel+GFRP     | Steel+GFRP      | Steel+GFRP      |
|   | Finish           |                      | -              | -               | -               |
| Release lever body                          | Material         |                      | Steel+GFRP     | Steel+GFRP      | Steel+GFRP      |
|   | Finish           |                      | -              | -               | -               |
| Base cover                                  | Material         |                      | GFRP           | GFRP            | GFRP            |
|   | Finish           |                      | -              | -               | -               |
| Shift lever cable                           | Inner cable      | Polymer-coated cable | -              | -               | -               |
|   |                  | OPTISLIC K           | -              | -               | -               |
|   |                  | SIL-TEC              | -              | -               | -               |
|   |                  | Stainless            | ✓              | ✓               | ✓               |
|   |                  | Steel                | -              | -               | -               |
| Recommended shift lever outer casing        |                  |                      | OT-SP41        | OT-SP41         | OT-SP41         |
| Average weight (g)                          |                  |                      | -              | -               | -               |
| Note  |                  |                      |                |                 |                 |

# Seat Post Lever

| Series                                |            | SHIMANO   | SHIMANO   | SHIMANO   |
|---------------------------------------|------------|---|---|---|
| Model no.                             |            | SL-MT800-IL                                       | SL-MT500-L  | SL-MT500-IL                                       |
| Color                                 | 1          | Black   | Black   | Black   |
|                                       | 2          | -   | -   | -   |
| Lever type                            |            | Seat post lever                                   | Seat post lever                                   | Seat post lever                                   |
| Mount type                            | Clamp band | -   | ✓   | -   |
|                                       | I-SPEC B   | -   | -   | -   |
|                                       | I-SPEC II  | -   | -   | -   |
|                                       | I-SPEC EV  | ✓   | -   | ✓   |
| Lever position adjust                 |            | ✓   | -   | ✓   |
| Lever rotation adjust (non I-SPEC EV) |            | -   | -   | -   |
| Cable adjuster                        |            | ✓   | ✓   | ✓   |
| Multi bearing construction            |            | ✓   | -   | -   |
| Lever bracket                         | Material   | Aluminum  | Aluminum  | Aluminum  |
|                                       | Finish     | Painted   | Painted   | Painted   |
| Clamp screw                           | Material   | Stainless steel                                   | Stainless steel                                   | Stainless steel                                   |
|                                       | Finish     | Black oxide finish                                | -   | -   |
| Lever body                            | Material   | Aluminum  | Aluminum  | Aluminum  |
|                                       | Finish     | Painted   | Painted   | Painted   |
| Lever cable                           | Material   | Stainless steel                                   | Steel   | Steel   |
|                                       | Finish     | OPTISLICK   | OPTISLICK   | OPTISLICK   |
| Recommended shift lever outer casing  |            | OT-SP41   | OT-SP41   | OT-SP41   |
| Average weight (g)                    |            | 37  | -   | -   |
| Note                                  |            | 7 mm Cable Pitch,<br>1800 mm inner wire<br>length | 9 mm Cable Pitch,<br>1800 mm inner wire<br>length | 9 mm Cable Pitch,<br>1800 mm inner wire<br>length |

# Integration Unit for Shifter

| Series              |          | XTR                           | XTR                           | DEORE XT                      | DEORE XT                      |
|---------------------|----------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Model no.           |          | SM-SL98-B-R                   | SM-SL98-B-L                   | SM-SL78-B-R                   | SM-SL78-B-L                   |
| Base cover material |          | CFRP                          | CFRP                          | GFRP                          | GFRP                          |
| Shift lever bracket | Material | Aluminum                      | Aluminum                      | Aluminum                      | Aluminum                      |
|                     | Finish   | Anodized                      | Anodized                      | Painted                       | Painted                       |
| I-SPEC compatible   |          | ✓*                            | ✓*                            | ✓*                            | ✓*                            |
| Compatible shifter  |          | SL-M980                       | SL-M980                       | SL-M780                       | SL-M780                       |
| Note                |          | * I-SPEC B-type<br>compatible | * I-SPEC B-type<br>compatible | * I-SPEC B-type<br>compatible | * I-SPEC B-type<br>compatible |

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## Brake Lever (Hydraulic Disc Brake)

| Series  |            | XTR                       | XTR                       | DEORE XT                     | XTR                  | XTR                  | SAINT                |
|---|------------|---------------------------|---------------------------|------------------------------|----------------------|----------------------|----------------------|
| Model no.   |            | BL-M9200                  | BL-M9220                  | BL-M8200                     | BL-M9100             | BL-M9120             | BL-M820-B            |
| Brake type  |            | Hydraulic disc brake      | Hydraulic disc brake      | Hydraulic disc brake         | Hydraulic disc brake | Hydraulic disc brake | Hydraulic disc brake |
| Lever size (finger)                                   |            | 2                         | 2                         | 2                            | 2                    | 2                    | 2                    |
| Color   | 1          | Series color              | Series color              | Series color                 | Series color         | Series color         | Series color         |
|   | 2          | -                         | -                         | -                            | -                    | -                    | -                    |
|   | 3          | -                         | -                         | -                            | -                    | -                    | -                    |
| Brake hose (kit)                                      |            | SM-BH90-SS                | SM-BH90-SBM               | SM-BH90-SBM                  | SM-BH90-SS           | SM-BH90-SBM          | SM-BH90-SBLS         |
| Hose joint  |            | Straight                  | Straight                  | Straight                     | Straight             | Straight             | Straight             |
| Brake hose color (kit)                                | 1          | Black                     | Black                     | Black                        | Black                | Black                | Black                |
|   | 2          | -                         | -                         | -                            | -                    | -                    | White                |
| J-Kit spec (for OEM)                                  |            | ✓                         | ✓                         | ✓                            | ✓                    | ✓                    | ✓                    |
| SERVO WAVE  |            | -                         | ✓                         | ✓                            | -                    | ✓                    | ✓                    |
| Reach adjust  | Toolless   | -                         | ✓                         | ✓                            | -                    | ✓                    | ✓                    |
|   | Tool       | ✓                         | -                         | -                            | ✓                    | -                    | -                    |
| Free stroke adjust                                    |            | -                         | ✓                         | ✓                            | -                    | ✓                    | ✓                    |
| Compatible shifter mount                              | Clamp band | ✓                         | ✓                         | ✓                            | ✓                    | ✓                    | ✓                    |
|   | I-SPEC B   | -                         | -                         | -                            | -                    | -                    | ✓                    |
|   | I-SPEC II  | -                         | -                         | -                            | -                    | -                    | -                    |
|   | I-SPEC EV  | ✓                         | ✓                         | ✓                            | ✓                    | ✓                    | -                    |
| Clamp band  | Open clamp | ✓                         | ✓                         | ✓                            | ✓                    | ✓                    | ✓                    |
| Shifter rotation angle adjust range (I-SPEC EV; deg.) |            | 60                        | 60                        | 60                           | 60                   | 60                   | -                    |
| Recommended brake caliper                             |            | BR-M9200, BR-MT805        | BR-M9220                  | BR-M8200, BR-M8220, BR-MT805 | BR-M9100, BR-M9110-R | BR-M9120             | BR-M820              |
| Oil   |            | SHIMANO LOW VISCOSITY OIL | SHIMANO LOW VISCOSITY OIL | SHIMANO LOW VISCOSITY OIL    | SHIMANO mineral      | SHIMANO mineral      | SHIMANO mineral      |
| Funnel bleeding                                       |            | ✓                         | ✓                         | ✓                            | ✓                    | ✓                    | ✓                    |
| Clamp screw   | Material   | Aluminum                  | Stainless steel           | Stainless steel              | Aluminum             | Stainless steel      | Stainless steel      |
|   | Finish     | Anodized                  | Painted                   | Painted                      | Anodized             | Painted              | Painted              |
| Brake lever   | Material   | Carbon                    | Aluminum                  | Aluminum                     | Carbon               | Aluminum             | Aluminum             |
|   | Finish     | Painted                   | Anodized                  | Anodized                     | Painted              | Anodized             | Anodized             |
| Master cylinder                                       | Material   | Magnesium                 | Aluminum                  | Aluminum                     | Magnesium            | Aluminum             | Aluminum             |
|   | Finish     | Painted                   | Painted                   | Painted                      | Painted              | Painted              | Painted              |
| Average weight (g)                                    |            | 67                        | 112                       | 114                          | 66                   | 97                   | 104                  |
| Note  |            |                           |                           |                              |                      |                      |                      |

# Brake Lever (Hydraulic Disc Brake)

| Series   |            | DEORE XT                       | DEORE XT             | SLX                            | DEORE                | SHIMANO   | SHIMANO   |
|--|------------|--------------------------------|----------------------|--------------------------------|----------------------|---|---|
| Model no.  |            | BL-M8100                       | BL-M8000             | BL-M7100                       | BL-M6100             | BL-M4100  | BL-MT501  |
| Brake type   |            | Hydraulic disc brake           | Hydraulic disc brake | Hydraulic disc brake           | Hydraulic disc brake | Hydraulic disc brake                                      | Hydraulic disc brake                                      |
| Lever size (finger)                                    |            | 2                              | 2                    | 2                              | 2                    | 2   | 2   |
| Color  | 1          | Series color                   | Series color         | Series color                   | Series color         | Black (SHIMANO logo)                                      | Black   |
|  | 2          | -                              | -                    | -                              | Black (SHIMANO logo) | -   | -   |
|  | 3          | -                              | -                    | -                              | -                    | -   | -   |
| Brake hose (kit)                                       |            | SM-BH90-SBM                    | SM-BH90-SBM          | SM-BH90-SBM                    | SM-BH90-SS           | SM-BH59-JK-SS (for BR-MT410)<br>SM-BH90-SS (for BR-MT420) | SM-BH59-JK-SS (for BR-MT500)<br>SM-BH90-SS (for BR-MT520) |
| Hose joint   |            | Straight                       | Straight             | Straight                       | Straight             | Straight  | Straight  |
| Brake hose color (kit)                                 | 1          | Black                          | Black                | Black                          | Black                | Black   | Black   |
|  | 2          | -                              | -                    | -                              | -                    | -   | -   |
| J-Kit spec (for OEM)                                   |            | ✓                              | ✓                    | ✓                              | ✓                    | ✓   | ✓   |
| SERVO WAVE   |            | ✓                              | ✓                    | ✓                              | ✓                    | -   | ✓   |
| Reach adjust   | Toolless   | ✓                              | ✓                    | ✓                              | -                    | -   | -   |
|  | Tool       | -                              | -                    | -                              | ✓                    | ✓   | ✓   |
| Free stroke adjust                                     |            | ✓                              | ✓                    | -                              | -                    | -   | -   |
| Compatible shifter mount                               | Clamp band | ✓                              | ✓                    | ✓                              | ✓                    | ✓   | ✓   |
|  | I-SPEC B   | -                              | -                    | -                              | -                    | -   | -   |
|  | I-SPEC II  | -                              | ✓                    | -                              | -                    | -   | ✓   |
|  | I-SPEC EV  | ✓                              | -                    | ✓                              | ✓                    | ✓   | -   |
| Clamp band   | Open clamp | ✓                              | ✓                    | ✓                              | ✓                    | ✓   | ✓   |
| Shifter rotation angle adjust range (I-SPEC EV ; deg.) |            | 20                             | -                    | 20                             | 10                   | 10  | -   |
| Recommended brake caliper                              |            | BR-M8100, BR-M8110-R, BR-M8120 | BR-M8000             | BR-M7100, BR-M7110-R, BR-M7120 | BR-M6100<br>BR-M6120 | BR-MT410<br>BR-MT420                                      | BR-MT500<br>BR-MT520                                      |
| Oil  |            | SHIMANO mineral                | SHIMANO mineral      | SHIMANO mineral                | SHIMANO mineral      | SHIMANO mineral   | SHIMANO mineral   |
| Funnel bleeding  |            | ✓                              | ✓                    | ✓                              | ✓                    | ✓   | ✓   |
| Clamp screw  | Material   | Stainless steel                | Stainless steel      | Stainless steel                | Stainless steel      | Stainless steel   | Stainless steel   |
|  | Finish     | Painted                        | -                    | Painted                        | -                    | -   | -   |
| Brake lever  | Material   | Aluminum                       | Aluminum             | Aluminum                       | Aluminum             | Aluminum  | Aluminum  |
|  | Finish     | Anodized                       | Anodized             | Anodized                       | Anodized             | Anodized  | Anodized  |
| Master cylinder  | Material   | Aluminum                       | Aluminum             | Aluminum                       | Aluminum             | Aluminum  | Aluminum  |
|  | Finish     | Painted                        | Painted              | Painted                        | Painted              | Painted   | Painted   |
| Average weight (g)                                     |            | 105                            | 104                  | 107                            | -                    | -   | -   |
| Note   |            |                                |                      |                                |                      |   | -   |

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## Brake Lever (Hydraulic Disc Brake)

| Series  |            | SHIMANO   | SHIMANO   | SHIMANO                     | SHIMANO              | SHIMANO                     | SHIMANO              |
|---|------------|---|---|-----------------------------|----------------------|-----------------------------|----------------------|
| Model no.   |            | BL-MT401  | BL-MT402-3A   | BL-MT402-ABS                | BL-MT201             | BL-MT200-ABS                | BL-MT200             |
| Brake type  |            | Hydraulic disc brake                                      | Hydraulic disc brake                                      | Hydraulic disc brake        | Hydraulic disc brake | Hydraulic disc brake        | Hydraulic disc brake |
| Lever size (finger)                                   |            | 2   | 3   | 3                           | 3                    | 3                           | 3                    |
| Color   | 1          | Black (metallic silver lever)                             | Black   | Black                       | Black                | Black                       | Black                |
|   | 2          | Black (black lever)                                       | Silver *  | -                           | -                    | -                           | -                    |
|   | 3          | -   | -   | -                           | -                    | -                           | -                    |
| Brake hose (kit)                                      |            | SM-BH59-JK-SS (for BR-MT410)<br>SM-BH90-SS (for BR-MT420) | SM-BH59-JK-SS (for BR-MT410)<br>SM-BH90-SS (for BR-MT420) | SM-BH90-SS (for BR-MT420)   | SM-BH59-JK-SS        | SM-BH59-JK-SS               | SM-BH59-JK-SS        |
| Hose joint  |            | Straight  | Straight  | Straight                    | Straight             | Straight                    | Straight             |
| Brake hose color (kit)                                | 1          | Black   | Black   | Black                       | Black                | Black                       | Black                |
|   | 2          | -   | -   | -                           | -                    | -                           | -                    |
| J-Kit spec (for OEM)                                  |            | ✓   | ✓   | ✓                           | ✓                    | ✓                           | ✓                    |
| SERVO WAVE  |            | -   | -   | -                           | -                    | -                           | -                    |
| Reach adjust  | Toolless   | -   | -   | -                           | -                    | -                           | -                    |
|   | Tool       | ✓   | ✓   | ✓                           | ✓                    | ✓                           | ✓                    |
| Free stroke adjust                                    |            | -   | -   | -                           | -                    | -                           | -                    |
| Compatible shifter mount                              | Clamp band | ✓   | ✓   | ✓                           | ✓                    | ✓                           | ✓                    |
|   | I-SPEC B   | -   | -   | -                           | -                    | -                           | -                    |
|   | I-SPEC II  | -   | -   | -                           | -                    | -                           | -                    |
|   | I-SPEC EV  | -   | -   | -                           | -                    | -                           | -                    |
| Clamp band  | Open clamp | -   | -   | -                           | -                    | -                           | -                    |
| Shifter rotation angle adjust range (I-SPEC EV; deg.) |            | -   | -   | -                           | -                    | -                           | -                    |
| Recommended brake caliper                             |            | BR-MT410<br>BR-MT420                                      | BR-MT410<br>BR-MT420                                      | BR-MT420                    | BR-MT200<br>BR-UR300 | BR-MT200                    | BR-MT200<br>BR-UR300 |
| Oil   |            | SHIMANO mineral   | SHIMANO mineral   | SHIMANO mineral             | SHIMANO mineral      | SHIMANO mineral             | SHIMANO mineral      |
| Funnel bleeding                                       |            | ✓   | ✓   | ✓                           | ✓                    | ✓                           | ✓                    |
| Clamp screw   | Material   | Steel   | Steel   | Steel                       | Steel                | Steel                       | Steel                |
|   | Finish     | Plated  | Plated  | Plated                      | Plated               | Plated                      | Plated               |
| Brake lever   | Material   | Aluminum  | Aluminum  | Aluminum                    | Aluminum             | Steel                       | Steel                |
|   | Finish     | Anodized  | Anodized  | Anodized                    | Anodized             | Painted                     | Painted              |
| Master cylinder                                       | Material   | Aluminum  | Aluminum  | Aluminum                    | Aluminum             | Aluminum                    | Aluminum             |
|   | Finish     | Painted   | Painted   | Painted                     | Painted              | Painted                     | Painted              |
| Average weight (g)                                    |            | -   | -   | -                           | -                    | -                           | -                    |
| Note  |            | -   | * The option color part is master cylinder                | Special J-kit for BOSCH ABS | -                    | Special J-kit for BOSCH ABS | -                    |

# Brake Lever

| Series                      |                              | DXR          |
|-----------------------------|------------------------------|--------------|
| Model no.                   |                              | BL-MX70      |
| Color                       | 1                            | Series color |
|                             | 2                            | -            |
|                             | 3                            | -            |
| Compatible brake type       | V-BRAKE                      | ✓            |
|                             | Mechanical disc brake (MTB)  | ✓            |
|                             | Mechanical disc brake (Road) | -            |
|                             | Caliper (NEW SUPER SLR)      | -            |
|                             | Caliper (SUPER SLR)          | -            |
|                             | Cantilever brake             | -            |
|                             | Roller brake                 | -            |
| Recommended POWER MODULATOR | V-BRAKE                      | -            |
|                             | Mechanical disc brake (MTB)  | -            |
| Clamp band                  | Open clamp band              | -            |
|                             | I-SPEC                       | -            |
|                             | Diameter (mm)                | -            |
| Internal bumper stop        |                              | -            |
| Lever size (finger)         |                              | 2            |
| Brake cable type            |                              | T-type       |
| Power adjuster              |                              | -            |
| SERVO WAVE                  |                              | -            |
| Reach adjust                |                              | ✓            |
| Cable adjust                |                              | ✓            |
| Cable adjust type           |                              | One hand     |
| Brake lever                 | Material                     | Aluminum     |
|                             | Finish                       | Anodized     |
| Brake bracket               | Material                     | Aluminum     |
|                             | Finish                       | Painted      |
| Stainless clamp screw       |                              | ✓            |
| Average weight (g)          |                              | 175 (/pair)  |
| Note                        |                              | For BMX      |

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# Rear Derailleur

| Series                       |                          | XTR                              | XTR                     | XTR               | DEORE XT                | DEORE XT                | DEORE XT          |
|------------------------------|--------------------------|----------------------------------|-------------------------|-------------------|-------------------------|-------------------------|-------------------|
| Model no.                    |                          | RD-M9100-GS                      | RD-M9100-SGS            | RD-M9120-SGS      | RD-M8100-GS             | RD-M8100-SGS            | RD-M8120-SGS      |
| Color                        | 1                        | Series color                     | Series color            | Series color      | Series color            | Series color            | Series color      |
|                              | 2                        | -                                | -                       | -                 | -                       | -                       | -                 |
| Rear speeds                  |                          | 12                               | 12                      | 12 (Front double) | 12                      | 12                      | 12 (Front double) |
| Compatible chain             |                          | HG 12-speed                      | HG 12-speed             | HG 12-speed       | HG 12-speed             | HG 12-speed             | HG 12-speed       |
| RD construction              | SHIMANO SHADOW RD        | -                                | -                       | -                 | -                       | -                       | -                 |
|                              | SHIMANO SHADOW RD+       | ✓                                | ✓                       | ✓                 | ✓                       | ✓                       | ✓                 |
|                              | Double servo             | -                                | -                       | -                 | -                       | -                       | -                 |
| Applicable derailleur hanger | SHIMANO MTB type         | Direct attachment (conventional) | ✓                       | ✓                 | ✓                       | ✓                       | ✓                 |
|                              |                          | Direct mount                     | -                       | -                 | -                       | -                       | -                 |
|                              | SHIMANO ROAD type        | Direct attachment (conventional) | -                       | -                 | -                       | -                       | -                 |
|                              |                          | Direct mount                     | -                       | -                 | -                       | -                       | -                 |
|                              | UDH standard             |                                  | ✓                       | ✓                 | ✓                       | ✓                       | ✓                 |
|                              | Riveted adapter          | ROAD type                        | -                       | -                 | -                       | -                       | -                 |
|                              |                          | BMX-track type                   | -                       | -                 | -                       | -                       | -                 |
|                              | Mode converter           |                                  | -                       | -                 | -                       | -                       | -                 |
| Cable adjuster               |                          | -                                | -                       | -                 | -                       | -                       | -                 |
| Max. front difference        |                          | 0T                               | 0T                      | 10T               | 0T                      | 0T                      | 10T               |
| Total capacity               |                          | 35T                              | 41T                     | 41T               | 35T                     | 41T                     | 45T               |
| Low sprocket                 | Max.                     | 45T                              | 51T                     | 45T               | 45T                     | 51T                     | 45T               |
|                              | Min.                     | 45T                              | 51T                     | 45T               | 45T                     | 51T                     | 45T               |
| Top sprocket                 | Max.                     | 10T                              | 10T                     | 10T               | 10T                     | 10T                     | 10T               |
|                              | Min.                     | 10T                              | 10T                     | 10T               | 10T                     | 10T                     | 10T               |
| Fluoroc coated link bushings |                          | 8                                | 8                       | 8                 | 4                       | 7                       | 7                 |
| Pulley                       | Guide pulley bearing     | Sealed Bearing                   | Sealed Bearing          | Sealed Bearing    | Sealed Bearing          | Sealed Bearing          | Sealed Bearing    |
|                              | Tension pulley bearing   | Sealed bearing                   | Sealed bearing          | Sealed bearing    | Sealed bearing          | Sealed bearing          | Sealed bearing    |
|                              | Teeth                    | 13T                              | 13T                     | 13T               | 13T                     | 13T                     | 13T               |
|                              | Screws material          | Stainless steel                  | Stainless steel         | Stainless steel   | Stainless steel         | Stainless steel         | Stainless steel   |
|                              | Sunken type pulley screw | ✓                                | ✓                       | ✓                 | ✓                       | ✓                       | ✓                 |
| Bracket                      | Material                 | -                                | -                       | -                 | -                       | -                       | -                 |
|                              | Finish                   | -                                | -                       | -                 | -                       | -                       | -                 |
| B-axle                       | Hollow axle              | ✓                                | ✓                       | ✓                 | ✓                       | ✓                       | ✓                 |
|                              | Material                 | Aluminum                         | Aluminum                | Aluminum          | Stainless steel         | Stainless steel         | Stainless steel   |
|                              | Finish                   | Anodized                         | Anodized                | Anodized          | -                       | -                       | -                 |
| B-axle 2                     | Hollow axle              | -                                | -                       | -                 | -                       | -                       | -                 |
|                              | Material                 | -                                | -                       | -                 | -                       | -                       | -                 |
|                              | Finish                   | -                                | -                       | -                 | -                       | -                       | -                 |
| Bracket body                 | Material                 | Aluminum                         | Aluminum                | Aluminum          | Aluminum                | Aluminum                | Aluminum          |
|                              | Finish                   | Anodized                         | Anodized                | Anodized          | Painted                 | Painted                 | Painted           |
| P-axle                       | Material                 | Steel                            | Steel                   | Steel             | Steel                   | Steel                   | Steel             |
|                              | Finish                   | -                                | -                       | -                 | -                       | -                       | -                 |
| Plate body                   | Material                 | CFRP                             | CFRP                    | CFRP              | GFRP                    | GFRP                    | GFRP              |
|                              | Finish                   | Painted                          | Painted                 | Painted           | -                       | -                       | -                 |
| Outer link                   | Material                 | Aluminum                         | Aluminum                | Aluminum          | Aluminum                | Aluminum                | Aluminum          |
|                              | Finish                   | Anodized                         | Anodized                | Anodized          | Painted                 | Painted                 | Painted           |
| Inner link                   | Material                 | Aluminum                         | Aluminum                | Aluminum          | Aluminum                | Aluminum                | Aluminum          |
|                              | Finish                   | Anodized                         | Anodized                | Anodized          | Painted                 | Painted                 | Painted           |
| Outer plate                  | Material                 | Carbon                           | Carbon                  | Carbon            | Aluminum                | Aluminum                | Aluminum          |
|                              | Finish                   | Painted                          | Painted                 | Painted           | Painted                 | Painted                 | Painted           |
| Inner plate                  | Material                 | Aluminum                         | Aluminum                | Aluminum          | Aluminum                | Aluminum                | Aluminum          |
|                              | Finish                   | Anodized                         | Anodized                | Anodized          | Painted                 | Painted                 | Painted           |
| Cable fixing screw           | Material                 | Stainless steel                  | Stainless steel         | Stainless steel   | Stainless steel         | Stainless steel         | Stainless steel   |
|                              | Finish                   | Black                            | Black                   | Black             | -                       | -                       | -                 |
| Stroke adjusting screw       | Material                 | Aluminum                         | Aluminum                | Aluminum          | Steel                   | Steel                   | Steel             |
|                              | Finish                   | Anodized                         | Anodized                | Anodized          | Plated                  | Plated                  | Plated            |
| Average weight (g)           |                          | 237                              | 240                     | 241               | 286                     | 284                     | 287               |
| Note                         |                          |                                  | w/Bumper on pulley cage |                   | w/Bumper on pulley cage | w/Bumper on pulley cage |                   |

# Rear Derailleur

| Series                       |                          |                                  | SLX                    | SLX               | DEORE           | DEORE XT               | DEORE XT   | DEORE                  |
|------------------------------|--------------------------|----------------------------------|------------------------|-------------------|-----------------|------------------------|--|------------------------|
| Model no.                    |                          |                                  | RD-M7100-SGS           | RD-M7120-SGS      | RD-M6100-SGS    | RD-M8130-SGS           | RD-M8000-SGS   | RD-M5100-SGS           |
| Color                        | 1                        |                                  | Series color           | Series color      | Series color    | Series color           | Series color   | Series color           |
|                              | 2                        |                                  | -                      | -                 | -               | -                      | -  | -                      |
| Rear speeds                  |                          |                                  | 12                     | 12 (Front double) | 12              | 11                     | 11   | 11                     |
| Compatible chain             |                          |                                  | HG 12-speed            | HG 12-speed       | HG 12-speed     | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed                               | LINKGLIDE, HG 11-speed |
| RD construction              | SHIMANO SHADOW RD        |                                  | -                      | -                 | -               | -                      | -  | -                      |
|                              | SHIMANO SHADOW RD+       |                                  | ✓                      | ✓                 | ✓               | ✓                      | ✓  | ✓                      |
|                              | Double servo             |                                  | -                      | -                 | -               | -                      | -  | -                      |
| Applicable derailleur hanger | SHIMANO MTB type         | Direct attachment (conventional) | ✓                      | ✓                 | ✓               | ✓                      | ✓  | ✓                      |
|                              |                          | Direct mount                     | -                      | -                 | -               | -                      | ✓  | -                      |
|                              | SHIMANO ROAD type        | Direct attachment (conventional) | -                      | -                 | -               | -                      | -  | -                      |
|                              |                          | Direct mount                     | -                      | -                 | -               | -                      | -  | -                      |
|                              | UDH standard             |                                  | ✓                      | ✓                 | ✓               | ✓                      | -  | -                      |
|                              | Riveted adapter          | ROAD type                        | -                      | -                 | -               | -                      | -  | -                      |
|                              |                          | BMX-track type                   | -                      | -                 | -               | -                      | -  | -                      |
| Mode converter               |                          |                                  | -                      | -                 | -               | -                      | -  | -                      |
| Cable adjuster               |                          |                                  | -                      | -                 | -               | -                      | -  | -                      |
| Max. front difference        |                          |                                  | 0T                     | 10T               | 0T              | 0T                     | 18T  | 0T                     |
| Total capacity               |                          |                                  | 41T                    | 45T               | 41T             | 39T                    | 47T  | 40T                    |
| Low sprocket                 | Max.                     |                                  | 51T                    | 45T               | 51T             | 50T                    | 40T (3x11-speed), 42T (2x11-speed), 46T (1x11-speed) | 51T                    |
|                              | Min.                     |                                  | 51T                    | 45T               | 51T             | 50T                    | 40T  | 51T                    |
| Top sprocket                 | Max.                     |                                  | 10T                    | 10T               | 10T             | 11T                    | 11T  | 11T                    |
|                              | Min.                     |                                  | 10T                    | 10T               | 10T             | 11T                    | 11T  | 11T                    |
| Fluoric coated link bushings |                          |                                  | 7                      | 7                 | 7               | 7                      | 4  | 7                      |
| Pulley                       | Guide pulley bearing     |                                  | -                      | -                 | -               | Sealed Bearing         | Sealed Bearing                                       | -                      |
|                              | Tension pulley bearing   |                                  | -                      | -                 | -               | Sealed bearing         | Sealed bearing                                       | -                      |
|                              | Teeth                    |                                  | 13T                    | 13T               | 13T             | 13T                    | 11T  | 13T                    |
|                              | Screws material          |                                  | Stainless steel        | Stainless steel   | Stainless steel | Stainless steel        | Stainless steel                                      | Stainless steel        |
|                              | Sunken type pulley screw |                                  | ✓                      | ✓                 | ✓               | ✓                      | ✓  | ✓                      |
| Bracket                      | Material                 |                                  | -                      | -                 | -               | -                      | Aluminum   | -                      |
|                              | Finish                   |                                  | -                      | -                 | -               | -                      | Painted  | -                      |
| B-axle                       | Hollow axle              |                                  | ✓                      | ✓                 | ✓               | ✓                      | ✓  | ✓                      |
|                              | Material                 |                                  | Stainless steel        | Stainless steel   | Stainless steel | Stainless steel        | Stainless steel                                      | Stainless steel        |
|                              | Finish                   |                                  | -                      | -                 | -               | -                      | -  | -                      |
| B-axle 2                     | Hollow axle              |                                  | -                      | -                 | -               | -                      | ✓  | -                      |
|                              | Material                 |                                  | -                      | -                 | -               | -                      | Stainless steel                                      | -                      |
|                              | Finish                   |                                  | -                      | -                 | -               | -                      | -  | -                      |
| Bracket body                 | Material                 |                                  | Aluminum               | Aluminum          | Aluminum        | Aluminum               | Aluminum   | Aluminum               |
|                              | Finish                   |                                  | Painted                | Painted           | Painted         | Painted                | Painted  | Painted                |
| P-axle                       | Material                 |                                  | Steel                  | Steel             | Steel           | Steel                  | Steel  | Steel                  |
|                              | Finish                   |                                  | -                      | -                 | -               | -                      | -  | -                      |
| Plate body                   | Material                 |                                  | GFRP                   | GFRP              | GFRP            | GFRP                   | GFRP   | GFRP                   |
|                              | Finish                   |                                  | -                      | -                 | -               | -                      | -  | -                      |
| Outer link                   | Material                 |                                  | Aluminum               | Aluminum          | Aluminum        | Aluminum               | Aluminum   | Aluminum               |
|                              | Finish                   |                                  | Painted                | Painted           | Painted         | Painted                | Painted  | Painted                |
| Inner link                   | Material                 |                                  | Aluminum               | Aluminum          | Aluminum        | Aluminum               | Aluminum   | Aluminum               |
|                              | Finish                   |                                  | Painted                | Painted           | Painted         | Painted                | Painted  | Painted                |
| Outer plate                  | Material                 |                                  | Steel                  | Aluminum          | Steel           | Aluminum               | Aluminum   | Steel                  |
|                              | Finish                   |                                  | Painted                | Painted           | Painted         | Painted                | Painted  | Painted                |
| Inner plate                  | Material                 |                                  | Aluminum               | Steel             | Steel           | Aluminum               | Aluminum   | Steel                  |
|                              | Finish                   |                                  | Painted                | Painted           | Painted         | Painted                | Painted  | Painted                |
| Cable fixing screw           | Material                 |                                  | Stainless steel        | Stainless steel   | Stainless steel | Stainless steel        | Stainless steel                                      | Stainless steel        |
|                              | Finish                   |                                  | -                      | -                 | -               | -                      | -  | -                      |
| Stroke adjusting screw       | Material                 |                                  | Steel                  | Steel             | Steel           | Steel                  | Steel  | Steel                  |
|                              | Finish                   |                                  | Plated                 | Plated            | Plated          | Plated                 | Plated   | Plated                 |
| Average weight (g)           |                          |                                  | 313                    | 307               | -               | 308                    | 275  | -                      |
| Note                         |                          |                                  | w/Bumper on pully cage |                   |                 | w/Bumper on pully cage | * w/o Bracket spec. available                        |                        |

SW

RD

FD

SMAD

SC

SL

SLMT

SMSL

BL

BL

RD

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BR

BR

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SMCD

SMCR

BB

CS

HB

FH

WH

CI-DECK

SC

# Rear Derailleur

| Series                          |                          |                                  | DEORE  | DEORE                            | SAINT                         | SLX                           | SLX                           | SLX                           |
|---------------------------------|--------------------------|----------------------------------|--|----------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Model no.                       |                          |                                  | RD-M5120-SGS                                     | RD-M4120-SGS                     | RD-M820-SS                    | RD-M7000-10-SGS               | RD-M670-GS                    | RD-M670-SGS                   |
| Color                           | 1                        |                                  | Series color                                     | Series color                     | Series color                  | Series color                  | Series color                  | Series color                  |
|                                 | 2                        |                                  | -  | -                                | -                             | -                             | -                             | -                             |
| Rear speeds                     |                          |                                  | 11/10  | 11/10                            | 10                            | 10                            | 10                            | 10                            |
| Compatible chain                |                          |                                  | HG-X11 11-speed<br>HG-X 10-speed                 | HG-X11 11-speed<br>HG-X 10-speed | HG-X 10-speed                 | HG-X 10-speed                 | HG-X 10-speed                 | HG-X 10-speed                 |
| RD construction                 | SHIMANO SHADOW RD        |                                  | -  | ✓                                | -                             | -                             | ✓                             | ✓                             |
|                                 | SHIMANO SHADOW RD+       |                                  | ✓  | -                                | ✓                             | ✓                             | -                             | -                             |
|                                 | Double servo             |                                  | -  | -                                | -                             | -                             | -                             | -                             |
| Applicable<br>derailleur hanger | SHIMANO MTB type         | Direct attachment (conventional) | ✓  | ✓                                | ✓                             | ✓                             | ✓                             | ✓                             |
|                                 |                          | Direct mount                     | ✓  | ✓                                | ✓                             | ✓                             | ✓                             | ✓                             |
|                                 | SHIMANO ROAD type        | Direct attachment (conventional) | -  | -                                | -                             | -                             | -                             | -                             |
|                                 |                          | Direct mount                     | -  | -                                | -                             | -                             | -                             | -                             |
|                                 | UDH standard             |                                  | -  | -                                | -                             | -                             | -                             | -                             |
|                                 | Riveted adapter          | ROAD type                        | -  | -                                | -                             | -                             | -                             | -                             |
|                                 |                          | BMX-track type                   | -  | -                                | -                             | -                             | -                             | -                             |
| Mode converter                  |                          |                                  | -  | -                                | ✓                             | -                             | -                             | -                             |
| Cable adjuster                  |                          |                                  | -  | -                                | -                             | -                             | -                             | -                             |
| Max. front difference           |                          |                                  | 10T  | 10T                              | Single                        | 22T                           | 18T                           | 22T                           |
| Total capacity                  |                          |                                  | 41T  | 41T                              | 25T                           | 43T                           | 35T                           | 43T                           |
| Low sprocket                    | Max.                     |                                  | 46T (1x11/<br>1x10-speed), 42T (2x11/2x10-speed) | 42T                              | 28T, 36T                      | 36T                           | 36T                           | 36T                           |
|                                 | Min.                     |                                  | 42T  | 42T                              | 23T                           | 32T                           | 32T                           | 32T                           |
| Top sprocket                    | Max.                     |                                  | 11T  | 11T                              | 12T                           | 11T                           | 11T                           | 11T                           |
|                                 | Min.                     |                                  | 11T  | 11T                              | 11T                           | 11T                           | 11T                           | 11T                           |
| Fluoric coated link bushings    |                          |                                  | 4  | 3                                | 5                             | 2                             | 3                             | 3                             |
| Pulley                          | Guide pulley bearing     |                                  | -  | -                                | -                             | -                             | -                             | -                             |
|                                 | Tension pulley bearing   |                                  | -  | -                                | Sealed bearing                | -                             | -                             | -                             |
|                                 | Teeth                    |                                  | 11T  | 11T                              | 11T                           | 11T                           | 11T                           | 11T                           |
|                                 | Screws material          |                                  | Stainless steel                                  | Stainless steel                  | Stainless steel               | Stainless steel               | Stainless steel               | Stainless steel               |
|                                 | Sunken type pulley screw |                                  | ✓  | ✓                                | ✓                             | ✓                             | ✓                             | ✓                             |
| Bracket                         | Material                 |                                  | Steel  | Steel                            | Aluminum                      | Steel                         | Steel                         | Steel                         |
|                                 | Finish                   |                                  | Painted  | Painted                          | Painted                       | Painted                       | Painted                       | Painted                       |
| B-axle                          | Hollow axle              |                                  | ✓  | ✓                                | ✓                             | ✓                             | ✓                             | ✓                             |
|                                 | Material                 |                                  | Stainless steel                                  | Stainless steel                  | Aluminum                      | Stainless steel               | Stainless steel               | Stainless steel               |
|                                 | Finish                   |                                  | -  | -                                | Anodized                      | -                             | -                             | -                             |
| B-axle 2                        | Hollow axle              |                                  | ✓  | ✓                                | ✓                             | ✓                             | -                             | -                             |
|                                 | Material                 |                                  | Stainless steel                                  | Stainless steel                  | Stainless steel               | Stainless steel               | Stainless steel               | Stainless steel               |
|                                 | Finish                   |                                  | -  | -                                | -                             | -                             | -                             | -                             |
| Bracket body                    | Material                 |                                  | Aluminum   | Aluminum                         | Aluminum                      | Aluminum                      | Aluminum                      | Aluminum                      |
|                                 | Finish                   |                                  | Painted  | Painted                          | Painted                       | Painted                       | Painted                       | Painted                       |
| P-axle                          | Material                 |                                  | Steel  | Steel                            | Steel                         | Steel                         | Steel                         | Steel                         |
|                                 | Finish                   |                                  | -  | Zinc plated                      | -                             | -                             | -                             | -                             |
| Plate body                      | Material                 |                                  | Resin  | Resin                            | Aluminum                      | Aluminum                      | Aluminum                      | Aluminum                      |
|                                 | Finish                   |                                  | -  | Painted                          | Painted                       | Painted                       | Painted                       | Painted                       |
| Outer link                      | Material                 |                                  | Aluminum   | Aluminum                         | Aluminum                      | Aluminum                      | Aluminum                      | Aluminum                      |
|                                 | Finish                   |                                  | Painted  | Painted                          | Painted                       | Painted                       | Painted                       | Painted                       |
| Inner link                      | Material                 |                                  | Resin  | Resin                            | Aluminum                      | Steel                         | Steel                         | Steel                         |
|                                 | Finish                   |                                  | -  | Painted                          | Painted                       | Painted                       | Painted                       | Painted                       |
| Outer plate                     | Material                 |                                  | Steel  | Steel                            | Aluminum                      | Steel                         | Steel                         | Steel                         |
|                                 | Finish                   |                                  | Painted  | Painted                          | Painted                       | Painted                       | Painted                       | Painted                       |
| Inner plate                     | Material                 |                                  | Steel  | Steel                            | Aluminum                      | Aluminum                      | Aluminum                      | Aluminum                      |
|                                 | Finish                   |                                  | Painted  | Painted                          | Painted                       | Painted                       | Painted                       | Painted                       |
| Cable fixing screw              | Material                 |                                  | Stainless steel                                  | Stainless steel                  | Stainless steel               | Stainless steel               | Stainless steel               | Stainless steel               |
|                                 | Finish                   |                                  | -  | -                                | Black                         | -                             | -                             | -                             |
| Stroke adjusting screw          | Material                 |                                  | Steel  | Steel                            | Steel                         | Steel                         | Steel                         | Steel                         |
|                                 | Finish                   |                                  | Plated   | Plated                           | Plated                        | Plated                        | Plated                        | Plated                        |
| Average weight (g)              |                          |                                  | -  | -                                | 280 (w/o mode converter)      | 313                           | 278                           | 281                           |
| Note                            |                          |                                  |  |                                  | * w/o Bracket spec. available | * w/o Bracket spec. available | * w/o Bracket spec. available | * w/o Bracket spec. available |

# Rear Derailleur

| Series                       |                          |                                  | DEORE                         | DEORE                         | DEORE                  | DEORE                         | DEORE                         |
|------------------------------|--------------------------|----------------------------------|-------------------------------|-------------------------------|------------------------|-------------------------------|-------------------------------|
| Model no.                    |                          |                                  | RD-M6000-GS                   | RD-M6000-SGS                  | RD-M5130-GS            | RD-M610-GS                    | RD-M610-SGS                   |
| Color                        | 1                        |                                  | Series black                  | Series black                  | Series color           | Black                         | Black                         |
|                              | 2                        |                                  | -                             | -                             | -                      | Silver                        | Silver                        |
| Rear speeds                  |                          |                                  | 10                            | 10                            | 10                     | 10                            | 10                            |
| Compatible chain             |                          |                                  | HG-X 10-speed                 | HG-X 10-speed                 | LINKGLIDE, HG 11-speed | HG-X 10-speed                 | HG-X 10-speed                 |
| RD construction              | SHIMANO SHADOW RD        |                                  | -                             | -                             | -                      | ✓                             | ✓                             |
|                              | SHIMANO SHADOW RD+       |                                  | ✓                             | ✓                             | ✓                      | -                             | -                             |
|                              | Double servo             |                                  | -                             | -                             | -                      | -                             | -                             |
| Applicable derailleur hanger | SHIMANO MTB type         | Direct attachment (conventional) | ✓                             | ✓                             | ✓                      | ✓                             | ✓                             |
|                              |                          | Direct mount                     | ✓                             | ✓                             | -                      | ✓                             | ✓                             |
|                              | SHIMANO ROAD type        | Direct attachment (conventional) | -                             | -                             | -                      | -                             | -                             |
|                              |                          | Direct mount                     | -                             | -                             | -                      | -                             | -                             |
|                              | UDH standard             |                                  | -                             | -                             | ✓                      | -                             | -                             |
|                              | Riveted adapter          | ROAD type                        | -                             | -                             | -                      | -                             | -                             |
|                              |                          | BMX-track type                   | -                             | -                             | -                      | -                             | -                             |
|                              | Mode converter           |                                  |                               | -                             | -                      | -                             | -                             |
| Cable adjuster               |                          |                                  | -                             | -                             | -                      | -                             | -                             |
| Max. front difference        |                          |                                  | 10T                           | 22T                           | 0T                     | 18T                           | 22T                           |
| Total capacity               |                          |                                  | 41T                           | 43T                           | 32T                    | 35T                           | 43T                           |
| Low sprocket                 | Max.                     |                                  | 42T                           | 36T                           | 43T                    | 36T                           | 36T                           |
|                              | Min.                     |                                  | 42T                           | 32T                           | 43T                    | 32T                           | 32T                           |
| Top sprocket                 | Max.                     |                                  | 11T                           | 11T                           | 11T                    | 11T                           | 11T                           |
|                              | Min.                     |                                  | 11T                           | 11T                           | 11T                    | 11T                           | 11T                           |
| Fluoric coated link bushings |                          |                                  | 4                             | 3                             | 7                      | 3                             | 3                             |
| Pulley                       | Guide pulley bearing     |                                  | -                             | -                             | Bush                   | -                             | -                             |
|                              | Tension pulley bearing   |                                  | -                             | -                             | Bush                   | -                             | -                             |
|                              | Teeth                    |                                  | 11T                           | 11T                           | 13T                    | 11T                           | 11T                           |
|                              | Screws material          |                                  | Stainless steel               | Stainless steel               | Stainless steel        | Stainless steel               | Stainless steel               |
|                              | Sunken type pulley screw |                                  | ✓                             | ✓                             | ✓                      | ✓                             | ✓                             |
| Bracket                      | Material                 |                                  | Steel                         | Steel                         | -                      | Steel                         | Steel                         |
|                              | Finish                   |                                  | Painted                       | Painted                       | -                      | Painted                       | Painted                       |
| B-axle                       | Hollow axle              |                                  | ✓                             | ✓                             | -                      | ✓                             | ✓                             |
|                              | Material                 |                                  | Stainless steel               | Stainless steel               | Stainless steel        | Stainless steel               | Stainless steel               |
|                              | Finish                   |                                  | -                             | -                             | -                      | -                             | -                             |
| B-axle 2                     | Hollow axle              |                                  | ✓                             | ✓                             | -                      | ✓                             | ✓                             |
|                              | Material                 |                                  | Stainless steel               | Stainless steel               | -                      | Stainless steel               | Stainless steel               |
|                              | Finish                   |                                  | -                             | -                             | -                      | -                             | -                             |
| Bracket body                 | Material                 |                                  | Aluminum                      | Aluminum                      | Aluminum               | Aluminum                      | Aluminum                      |
|                              | Finish                   |                                  | Painted                       | Painted                       | Painted                | Painted                       | Painted                       |
| P-axle                       | Material                 |                                  | Steel                         | Steel                         | Steel                  | Steel                         | Steel                         |
|                              | Finish                   |                                  | Painted                       | -                             | -                      | -                             | -                             |
| Plate body                   | Material                 |                                  | GFRP                          | Aluminum                      | GFRP                   | Aluminum                      | Aluminum                      |
|                              | Finish                   |                                  | -                             | Painted                       | -                      | Painted                       | Painted                       |
| Outer link                   | Material                 |                                  | Aluminum                      | Aluminum                      | Aluminum               | Aluminum                      | Aluminum                      |
|                              | Finish                   |                                  | Painted                       | Painted                       | Painted                | Painted                       | Painted                       |
| Inner link                   | Material                 |                                  | Aluminum                      | Steel                         | Aluminum               | Steel                         | Steel                         |
|                              | Finish                   |                                  | Painted                       | Painted                       | Painted                | Painted                       | Painted                       |
| Outer plate                  | Material                 |                                  | Steel                         | Steel                         | Steel                  | Steel                         | Steel                         |
|                              | Finish                   |                                  | Painted                       | Painted                       | Painted                | Painted                       | Painted                       |
| Inner plate                  | Material                 |                                  | Steel                         | Steel                         | Steel                  | Steel                         | Steel                         |
|                              | Finish                   |                                  | Painted                       | Painted                       | Painted                | Painted                       | Painted                       |
| Cable fixing screw           | Material                 |                                  | Steel                         | Steel                         | Stainless steel        | Steel                         | Steel                         |
|                              | Finish                   |                                  | Plated                        | Plated                        | -                      | Plated                        | Plated                        |
| Stroke adjusting screw       | Material                 |                                  | Steel                         | Steel                         | Steel                  | Steel                         | Steel                         |
|                              | Finish                   |                                  | Plated                        | Plated                        | Plated                 | Plated                        | Plated                        |
| Average weight (g)           |                          |                                  | -                             | -                             | -                      | -                             | -                             |
| Note                         |                          |                                  | * w/o Bracket spec. available | * w/o Bracket spec. available | -                      | * w/o Bracket spec. available | * w/o Bracket spec. available |

SW

RD

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# Front Derailleur

| Series   |                     | XTR  | XTR  | XTR   | DEORE XT                                   | DEORE XT                                   | DEORE XT  |
|--|---------------------|--|--|---|--|--|---|
| Model no.  |                     | FD-M9100-D                                 | FD-M9100-E                                 | FD-M9100-M  | FD-M8100-D                                 | FD-M8100-E                                 | FD-M8100-M  |
| Color  | 1                   | Series color                               | Series color                               | Series color  | Series color                               | Series color                               | Series color  |
|  | 2                   | -  | -  | -   | -  | -  | -   |
| Front speeds   |                     | 2  | 2  | 2   | 2  | 2  | 2   |
| Rear speeds  |                     | 12   | 12   | 12  | 12   | 12   | 12  |
| Compatible chain   |                     | HG 12-speed                                | HG 12-speed                                | HG 12-speed   | HG 12-speed                                | HG 12-speed                                | HG 12-speed   |
| Action   | TOP SWING           | -  | -  | -   | -  | -  | -   |
|  | Down swing          | -  | -  | -   | -  | -  | -   |
|  | SIDE SWING          | ✓  | ✓  | ✓   | ✓  | ✓  | ✓   |
| Mount  | Clamp band (mm)     | 28.6                                       | -  | -   | - *  | -  | - *   |
|  |                     | 31.8                                       | -  | -   | ✓ (w/ M size adapter)                      | -  | ✓ (w/ M size adapter)   |
|  |                     | 34.9                                       | -  | -   | ✓  | -  | ✓   |
|  | E-type              | With bottom bracket plate                  | -  | -   | -  | -  | -   |
|  |                     | Without bottom bracket plate               | -  | ✓   | -  | ✓  | -   |
|  | Direct mount        |  | ✓  | -   | -  | ✓  | -   |
| Cable route type   | Dual-pull           |  | -  | -   | -  | -  | -   |
|  | Top-pull exclusive  |  | -  | -   | -  | -  | -   |
|  | Down-pull exclusive |  | -  | -   | -  | -  | -   |
|  | Front-pull          |  | ✓  | ✓   | ✓  | ✓  | ✓   |
| Chain line (mm)  |                     | 48.8 (142 mm O.L.D.), 51.8 (148 mm O.L.D.) | 48.8 (142 mm O.L.D.), 51.8 (148 mm O.L.D.) | 48.8 (142 mm O.L.D.), 51.8 (148 mm O.L.D.)  | 48.8 (142 mm O.L.D.), 51.8 (148 mm O.L.D.) | 48.8 (142 mm O.L.D.), 51.8 (148 mm O.L.D.) | 48.8 (142 mm O.L.D.), 51.8 (148 mm O.L.D.)  |
| Chainstay angle (deg.)                                       |                     | 66-69                                      | 66-69                                      | 66-69   | 66-69                                      | 66-69                                      | 66-69   |
| Top gear teeth   |                     | 38T  | 38T  | 38T   | 36-38T                                     | 36-38T                                     | 36-38T  |
| Total capacity   |                     | 10T  | 10T  | 10T   | 10T  | 10T  | 10T   |
| Applicable top-mid tooth difference                          |                     | -  | -  | -   | -  | -  | -   |
| Multi access cable fixing screw                              |                     | -  | -  | -   | -  | -  | -   |
| Angled stroke adjust screw                                   |                     | ✓  | ✓  | ✓   | ✓  | ✓  | ✓   |
| Angled clamp band design                                     |                     | -  | -  | -   | -  | -  | ✓   |
| Link bushings  |                     | 6  | 6  | 6   | 6  | 6  | 6   |
| Front clamp band   | Material            | -  | -  | Aluminum  | -  | -  | Aluminum  |
|  | Finish              | -  | -  | Painted   | -  | -  | Painted   |
| Rear clamp band, base bracket                                | Material            | Aluminum                                   | Aluminum                                   | Aluminum  | Aluminum                                   | Aluminum                                   | Aluminum  |
|  | Finish              | Painted                                    | Painted                                    | Painted   | Painted                                    | Painted                                    | Painted   |
| Clamp screw  | Material            | -  | -  | Stainless steel   | -  | -  | Stainless steel   |
|  | Finish              | -  | -  | -   | -  | -  | -   |
| Bottom bracket plate   | Material            | -  | -  | -   | -  | -  | -   |
|  | Finish              | -  | -  | -   | -  | -  | -   |
| Outer link   | Material            | Aluminum                                   | Aluminum                                   | Aluminum  | Aluminum                                   | Aluminum                                   | Aluminum  |
|  | Finish              | Painted                                    | Painted                                    | Painted   | Painted                                    | Painted                                    | Painted   |
| Inner link   | Material            | Aluminum                                   | Aluminum                                   | Aluminum  | Aluminum                                   | Aluminum                                   | Aluminum  |
|  | Finish              | Painted                                    | Painted                                    | Painted   | Painted                                    | Painted                                    | Painted   |
| Chain guide  | Material            | Aluminum                                   | Aluminum                                   | Aluminum  | Steel                                      | Steel                                      | Steel   |
|  | Finish              | Plated                                     | Plated                                     | Plated  | Plated                                     | Plated                                     | Plated  |
| Cable fixing screw   | Material            | Stainless steel                            | Stainless steel                            | Stainless steel   | Stainless steel                            | Stainless steel                            | Stainless steel   |
|  | Finish              | -  | -  | -   | -  | -  | -   |
| Stroke adjusting screw                                       | Material            | Steel                                      | Steel                                      | Steel   | Steel                                      | Steel                                      | Steel   |
|  | Finish              | Black                                      | Black                                      | Black   | Black                                      | Black                                      | Black   |
| Average weight (g) (band type: L size, direct type w/ screw) |                     | 110  | 88   | 99  | 135  | 106  | 114   |
| Note   |                     | -  | -  | * S-size adapter is available in OTC package only<br>Chain line 48.8 mm, 51.8 mm compatible |  |  | * S-size adapter is available in OTC package only<br>Chain line 48.8 mm, 51.8 mm compatible |

# Front Derailleur

| Series   |                     | SLX  | SLX  | SLX   | SLX                    | SLX  | SLX  |
|--|---------------------|--|--|---|------------------------|--|--|
| Model no.  |                     | FD-M7100-D                                 | FD-M7100-E                                 | FD-M7100-M  | FD-M7025-11-D          | FD-M7025-11-H                                      | FD-M7025-11-L                                      |
| Color  | 1                   | Series color                               | Series color                               | Series color  | Series color           | Series color                                       | Series color                                       |
|  | 2                   | -  | -  | -   | -                      | -  | -  |
| Front speeds   |                     | 2  | 2  | 2   | 2                      | 2  | 2  |
| Rear speeds  |                     | 12   | 12   | 12  | 11                     | 11   | 11   |
| Compatible chain   |                     | HG 12-speed                                | HG 12-speed                                | HG 12-speed   | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed                             | LINKGLIDE, HG 11-speed                             |
| Action   | TOP SWING           |  | -  | -   | -                      | -  | ✓  |
|  | Down swing          |  | -  | -   | ✓                      | ✓  | -  |
|  | SIDE SWING          |  | ✓  | ✓   | ✓                      | -  | -  |
| Mount  | Clamp band (mm)     | 28.6                                       | -  | -   | - *                    | - *  | - *  |
|  |                     | 31.8                                       | -  | -   | ✓ (w/ M size adapter)  | ✓ (w/ M size adapter)                              | ✓ (w/ M size adapter)                              |
|  |                     | 34.9                                       | -  | -   | ✓                      | ✓  | ✓  |
|  | E-type              | With bottom bracket plate                  | -  | -   | ✓                      | -  | -  |
|  |                     | Without bottom bracket plate               | -  | ✓   | -                      | -  | -  |
|  | Direct mount        |  | ✓  | -   | -                      | ✓  | -  |
| Cable route type   | Dual-pull           |  | -  | -   | -                      | ✓  | -  |
|  | Top-pull exclusive  |  | -  | -   | -                      | -  | -  |
|  | Down-pull exclusive |  | -  | -   | -                      | -  | ✓  |
|  | Front-pull          |  | ✓  | ✓   | ✓                      | -  | -  |
| Chain line (mm)  |                     | 48.8 (142 mm O.L.D.), 51.8 (148 mm O.L.D.) | 48.8 (142 mm O.L.D.), 51.8 (148 mm O.L.D.) | 48.8 (142 mm O.L.D.), 51.8 (148 mm O.L.D.)  | 48.8                   | 48.8   | 48.8   |
| Chainstay angle (deg.)                                       |                     | 66-69                                      | 66-69                                      | 66-69   | 66-69                  | 66-69  | 66-69  |
| Top gear teeth   |                     | 36-38T                                     | 36-38T                                     | 36-38T  | 34-38T                 | 34-38T   | 34-38T   |
| Total capacity   |                     | 10T  | 10T  | 10T   | 10T                    | 10T  | 10T  |
| Applicable top-mid tooth difference                          |                     | -  | -  | -   | -                      | -  | -  |
| Multi access cable fixing screw                              |                     | -  | -  | -   | -                      | -  | -  |
| Angled stroke adjust screw                                   |                     | ✓  | ✓  | ✓   | ✓                      | ✓  | ✓  |
| Angled clamp band design                                     |                     | -  | -  | ✓   | -                      | ✓  | ✓  |
| Link bushings  |                     | 6  | 6  | 6   | 6                      | 6  | 6  |
| Front clamp band   | Material            | -  | -  | Aluminum  | -                      | Aluminum   | Aluminum   |
|  | Finish              | -  | -  | Painted   | -                      | Painted  | Painted  |
| Rear clamp band, base bracket                                | Material            | Aluminum                                   | Aluminum                                   | Aluminum  | Aluminum               | Aluminum   | Aluminum   |
|  | Finish              | Painted                                    | Painted                                    | Painted   | Painted                | Painted  | Painted  |
| Clamp screw  | Material            | -  | -  | Stainless steel   | -                      | Stainless steel                                    | Stainless steel                                    |
|  | Finish              | -  | -  | -   | -                      | -  | -  |
| Bottom bracket plate   | Material            | -  | -  | -   | -                      | -  | -  |
|  | Finish              | -  | -  | -   | -                      | -  | -  |
| Outer link   | Material            | Aluminum                                   | Aluminum                                   | Aluminum  | Aluminum               | Aluminum   | Aluminum   |
|  | Finish              | Painted                                    | Painted                                    | Painted   | Painted                | Painted  | Painted  |
| Inner link   | Material            | Aluminum                                   | Aluminum                                   | Aluminum  | Aluminum               | Aluminum   | Aluminum   |
|  | Finish              | Painted                                    | Painted                                    | Painted   | Painted                | Painted  | Painted  |
| Chain guide  | Material            | Steel                                      | Steel                                      | Steel   | Steel                  | Steel  | Steel  |
|  | Finish              | Plated                                     | Plated                                     | Plated  | Plated                 | Plated   | Plated   |
| Cable fixing screw   | Material            | Stainless steel                            | Stainless steel                            | Stainless steel   | Stainless steel        | Stainless steel                                    | Stainless steel                                    |
|  | Finish              | -  | -  | -   | -                      | -  | -  |
| Stroke adjusting screw                                       | Material            | Steel                                      | Steel                                      | Steel   | Stainless steel        | Stainless steel                                    | Stainless steel                                    |
|  | Finish              | Black                                      | Black                                      | Black   | -                      | -  | -  |
| Average weight (g) (band type: L size, direct type w/ screw) |                     | 135  | 106  | 114   | 140                    | 152  | 133  |
| Note   |                     |  |  | * S-size adapter is available in OTC package only<br>Chain line 48.8 mm, 51.8 mm compatible |                        | * S-size adapter is available in OTC package only. | * S-size adapter is available in OTC package only. |

# Front Derailleur

| Series   |                     | DEORE XT                                  | DEORE XT              | DEORE XT        | DEORE XT              | DEORE XT                                  | DEORE XT              |
|--|---------------------|---|-----------------------|-----------------|-----------------------|---|-----------------------|
| Model no.  |                     | FD-M785                                   | FD-M785-E2            | FD-M786         | FD-M786-D             | FD-M770                                   | FD-M770-E             |
| Color  | 1                   | Black                                     | Black                 | Black           | Black                 | Series color                              | Series color          |
|  | 2                   | -   | -                     | Silver          | Silver                | -   | -                     |
| Front speeds   |                     | 2   | 2                     | 2               | 2                     | 3   | 3                     |
| Rear speeds  |                     | 10  | 10                    | 10              | 10                    | 9   | 9                     |
| Compatible chain   |                     | HG-X 10-speed                             | HG-X 10-speed         | HG-X 10-speed   | HG-X 10-speed         | HG 9-speed                                | HG 9-speed            |
| Action   | TOP SWING           | ✓   | ✓                     | -               | -                     | ✓   | ✓                     |
|  | Down swing          | -   | -                     | ✓               | ✓                     | -   | -                     |
|  | SIDE SWING          | -   | -                     | -               | -                     | -   | -                     |
| Mount  | Clamp band (mm)     | 28.6                                      | ✓ (w/ S size adapter) | -               | ✓ (w/ S size adapter) | -   | ✓ (w/ S size adapter) |
|  |                     | 31.8                                      | ✓ (w/ M size adapter) | -               | ✓ (w/ M size adapter) | -   | ✓ (w/ M size adapter) |
|  |                     | 34.9                                      | ✓                     | -               | ✓                     | -   | ✓                     |
|  | E-type              | With bottom bracket plate                 | -                     | -               | -                     | -   | ✓                     |
|  |                     | Without bottom bracket plate              | -                     | ✓               | -                     | -   | ✓                     |
|  | Direct mount        |   | -                     | -               | -                     | ✓   | -                     |
| Cable route type   | Dual-pull           |   | ✓                     | ✓               | ✓                     | ✓   | ✓                     |
|  | Top-pull exclusive  |   | -                     | -               | ✓                     | -   | -                     |
|  | Down-pull exclusive |   | -                     | -               | -                     | -   | -                     |
|  | Front-pull          |   | -                     | -               | -                     | -   | -                     |
| Chain line (mm)  |                     | 48.8                                      | 48.8                  | 48.8            | 48.8                  | 50  | 50                    |
| Chainstay angle (deg.)                                       |                     | 66-69                                     | 66-69                 | 66-69           | 66-69                 | 66-69                                     | 66-69                 |
| Top gear teeth   |                     | 38-44T                                    | 38-44T                | 38-44T          | 38-44T                | 44T, 48T                                  | 44T                   |
| Total capacity   |                     | 14T                                       | 14T                   | 14T             | 14T                   | 22T                                       | 22T                   |
| Applicable top-mid tooth difference                          |                     | -   | -                     | -               | -                     | 12T                                       | 12T                   |
| Multi access cable fixing screw                              |                     | ✓   | ✓                     | -               | -                     | -   | -                     |
| Angled stroke adjust screw                                   |                     | ✓   | ✓                     | ✓               | ✓                     | ✓   | ✓                     |
| Angled clamp band design                                     |                     | ✓   | -                     | ✓               | -                     | ✓   | -                     |
| Link bushings  |                     | 2   | 2                     | 8               | 8                     | 2   | 2                     |
| Front clamp band   | Material            | Aluminum                                  | -                     | Aluminum        | -                     | Aluminum                                  | -                     |
|  | Finish              | Painted                                   | -                     | Painted         | -                     | Painted                                   | -                     |
| Rear clamp band, base bracket                                | Material            | Aluminum                                  | Aluminum              | Aluminum        | Aluminum              | Aluminum                                  | Aluminum              |
|  | Finish              | Painted                                   | Painted               | Painted         | Painted               | Painted                                   | Painted               |
| Clamp screw  | Material            | Stainless steel                           | -                     | Stainless steel | -                     | Stainless steel                           | -                     |
|  | Finish              | -   | -                     | -               | -                     | -   | -                     |
| Bottom bracket plate   | Material            | -   | -                     | -               | -                     | -   | Aluminum              |
|  | Finish              | -   | -                     | -               | -                     | -   | Painted               |
| Outer link   | Material            | Steel                                     | Steel                 | Aluminum        | Aluminum              | Steel                                     | Steel                 |
|  | Finish              | Painted                                   | Painted               | Painted         | Painted               | Painted                                   | Painted               |
| Inner link   | Material            | Aluminum                                  | Aluminum              | Aluminum        | Aluminum              | Aluminum                                  | Aluminum              |
|  | Finish              | Painted                                   | Painted               | Painted         | Painted               | Painted                                   | Painted               |
| Chain guide  | Material            | Steel                                     | Steel                 | Steel           | Steel                 | Steel                                     | Steel                 |
|  | Finish              | Chrome plated                             | Chrome plated         | Chrome plated   | Chrome plated         | Chrome plated                             | Chrome plated         |
| Cable fixing screw   | Material            | Stainless steel                           | Stainless steel       | Stainless steel | Stainless steel       | Stainless steel                           | Stainless steel       |
|  | Finish              | -   | -                     | -               | -                     | -   | -                     |
| Stroke adjusting screw                                       | Material            | Stainless steel                           | Stainless steel       | Stainless steel | Stainless steel       | Stainless steel                           | Stainless steel       |
|  | Finish              | -   | -                     | -               | -                     | -   | -                     |
| Average weight (g) (band type: L size, direct type w/ screw) |                     | 136                                       | 127                   | 155             | 146                   | 152                                       | 166                   |
| Note   |                     | * Outer casing stopper integrated design. |                       |                 |                       | * Outer casing stopper integrated design. |                       |

# Front Derailleur

| Series   |                     |                              | DEORE XT              | DEORE XT        | DEORE XT              | SLX                                       | SLX                   | DEORE                 |
|--|---------------------|------------------------------|-----------------------|-----------------|-----------------------|---|-----------------------|-----------------------|
| Model no.  |                     |                              | FD-M771               | FD-M771-D       | FD-M772A              | FD-M660                                   | FD-M661               | FD-M6000-H            |
| Color  | 1                   |                              | Series color          | Series color    | Series color          | Series color                              | Series color          | Series black          |
|  | 2                   |                              | -                     | -               | -                     | -   | -                     | -                     |
| Front speeds   |                     |                              | 3                     | 3               | 3                     | 3   | 3                     | 3                     |
| Rear speeds  |                     |                              | 9                     | 9               | 9                     | 9   | 9                     | 10                    |
| Compatible chain   |                     |                              | HG 9-speed            | HG 9-speed      | HG 9-speed            | HG 9-speed                                | HG 9-speed            | HG-X 10-speed         |
| Action   | TOP SWING           |                              | -                     | -               | ✓                     | ✓   | -                     | -                     |
|  | Down swing          |                              | ✓                     | ✓               | -                     | -   | ✓                     | -                     |
|  | SIDE SWING          |                              | -                     | -               | -                     | -   | -                     | ✓                     |
| Mount  | Clamp band (mm)     | 28.6                         | ✓ (w/ S size adapter) | -               | ✓ (w/ S size adapter) | ✓ (w/ S size adapter)                     | ✓ (w/ S size adapter) | ✓ (w/ S size adapter) |
|  |                     | 31.8                         | ✓ (w/ M size adapter) | -               | ✓ (w/ M size adapter) | ✓ (w/ M size adapter)                     | ✓ (w/ M size adapter) | ✓ (w/ M size adapter) |
|  |                     | 34.9                         | ✓                     | -               | ✓                     | ✓   | ✓                     | ✓                     |
|  | E-type              | With bottom bracket plate    | -                     | -               | -                     | -   | -                     | -                     |
|  |                     | Without bottom bracket plate | -                     | -               | -                     | -   | -                     | -                     |
|  | Direct mount        |                              | -                     | ✓               | -                     | -   | -                     | -                     |
| Cable route type   | Dual-pull           |                              | ✓                     | ✓               | ✓ (w/ M size adapter) | ✓   | ✓                     | -                     |
|  | Top-pull exclusive  |                              | -                     | -               | ✓                     | -   | -                     | -                     |
|  | Down-pull exclusive |                              | -                     | -               | -                     | -   | -                     | -                     |
|  | Front-pull          |                              | -                     | -               | -                     | -   | -                     | ✓                     |
| Chain line (mm)  |                     |                              | 50                    | 50              | 50                    | 50  | 50                    | 50                    |
| Chainstay angle (deg.)                                       |                     |                              | 66-69                 | 66-69           | 63-66                 | 66-69                                     | 66-69                 | 66-69                 |
| Top gear teeth   |                     |                              | 44T                   | 44T             | 44T, 48T              | 44T                                       | 44T                   | 40-42T                |
| Total capacity   |                     |                              | 22T                   | 22T             | 22T                   | 22T                                       | 22T                   | 18T                   |
| Applicable top-mid tooth difference                          |                     |                              | 12T                   | 12T             | 12T                   | 12T                                       | 12T                   | 10T                   |
| Multi access cable fixing screw                              |                     |                              | -                     | -               | -                     | -   | -                     | -                     |
| Angled stroke adjust screw                                   |                     |                              | ✓                     | ✓               | -                     | ✓   | ✓                     | ✓                     |
| Angled clamp band design                                     |                     |                              | ✓                     | -               | ✓                     | ✓   | ✓                     | ✓                     |
| Link bushings  |                     |                              | 8                     | 8               | 2                     | 2   | 8                     | 4                     |
| Front clamp band   | Material            |                              | Aluminum              | -               | Aluminum              | Aluminum                                  | Aluminum              | Aluminum              |
|  | Finish              |                              | Painted               | -               | Painted               | Painted                                   | Painted               | Painted               |
| Rear clamp band, base bracket                                | Material            |                              | Aluminum              | -               | Aluminum              | Aluminum                                  | Aluminum              | Aluminum              |
|  | Finish              |                              | Painted               | -               | Painted               | Painted                                   | Painted               | Painted               |
| Clamp screw  | Material            |                              | Stainless steel       | -               | Stainless steel       | Stainless steel                           | Stainless steel       | Stainless steel       |
|  | Finish              |                              | -                     | -               | -                     | -   | -                     | -                     |
| Bottom bracket plate   | Material            |                              | -                     | -               | -                     | -   | -                     | -                     |
|  | Finish              |                              | -                     | -               | -                     | -   | -                     | -                     |
| Outer link   | Material            |                              | Aluminum              | Aluminum        | Steel                 | Steel                                     | Aluminum              | GFRP+Steel            |
|  | Finish              |                              | Painted               | Painted         | Painted               | Painted                                   | Painted               | -                     |
| Inner link   | Material            |                              | Aluminum              | Aluminum        | Aluminum              | Aluminum                                  | Aluminum              | Aluminum              |
|  | Finish              |                              | Painted               | Painted         | Painted               | Painted                                   | Painted               | Painted               |
| Chain guide  | Material            |                              | Steel                 | Steel           | Steel                 | Steel                                     | Steel                 | Steel                 |
|  | Finish              |                              | Chrome plated         | Chrome plated   | Chrome plated         | Chrome plated                             | Chrome plated         | Plated                |
| Cable fixing screw   | Material            |                              | Stainless steel       | Stainless steel | Stainless steel       | Stainless steel                           | Stainless steel       | Stainless steel       |
|  | Finish              |                              | -                     | -               | -                     | -   | -                     | -                     |
| Stroke adjusting screw                                       | Material            |                              | Stainless steel       | Stainless steel | Stainless steel       | Stainless steel                           | Stainless steel       | Steel                 |
|  | Finish              |                              | -                     | -               | -                     | -   | -                     | Black                 |
| Average weight (g) (band type: L size, direct type w/ screw) |                     |                              | 155                   | 147             | 160                   | 155                                       | 158                   | -                     |
| Note   |                     |                              |                       |                 |                       | * Outer casing stopper integrated design. |                       |                       |

# Front Derailleur

| Series   |                     |                              | DEORE                 | DEORE                 | DEORE           | DEORE           | DEORE                 | DEORE                 |
|--|---------------------|------------------------------|-----------------------|-----------------------|-----------------|-----------------|-----------------------|-----------------------|
| Model no.  |                     |                              | FD-M6000-M            | FD-M6000-L            | FD-M6000-D      | FD-M6000-E      | FD-M6025-H            | FD-M6025-L            |
| Color  | 1                   |                              | Series black          | Series black          | Series black    | Series black    | Series black          | Series black          |
|  | 2                   |                              | -                     | -                     | -               | -               | -                     | -                     |
| Front speeds   |                     |                              | 3                     | 3                     | 3               | 3               | 2                     | 2                     |
| Rear speeds  |                     |                              | 10                    | 10                    | 10              | 10              | 10                    | 10                    |
| Compatible chain   |                     |                              | HG-X 10-speed         | HG-X 10-speed         | HG-X 10-speed   | HG-X 10-speed   | HG-X 10-speed         | HG-X 10-speed         |
| Action   | TOP SWING           |                              | -                     | -                     | -               | -               | -                     | ✓                     |
|  | Down swing          |                              | -                     | -                     | -               | -               | ✓                     | -                     |
|  | SIDE SWING          |                              | ✓                     | ✓                     | ✓               | ✓               | -                     | -                     |
| Mount  | Clamp band (mm)     | 28.6                         | ✓ (w/ S size adapter) | ✓ (w/ S size adapter) | -               | -               | ✓ (w/ S size adapter) | ✓ (w/ S size adapter) |
|  |                     | 31.8                         | ✓ (w/ M size adapter) | ✓ (w/ M size adapter) | -               | -               | ✓ (w/ M size adapter) | ✓ (w/ M size adapter) |
|  |                     | 34.9                         | ✓                     | ✓                     | -               | -               | ✓                     | ✓                     |
|  | E-type              | With bottom bracket plate    | -                     | -                     | -               | -               | -                     | -                     |
|  |                     | Without bottom bracket plate | -                     | -                     | -               | ✓               | -                     | -                     |
|  | Direct mount        |                              | -                     | -                     | ✓               | -               | -                     | -                     |
| Cable route type   | Dual-pull           |                              | -                     | -                     | -               | -               | ✓                     | -                     |
|  | Top-pull exclusive  |                              | -                     | -                     | -               | -               | -                     | -                     |
|  | Down-pull exclusive |                              | -                     | -                     | -               | -               | -                     | ✓                     |
|  | Front-pull          |                              | ✓                     | ✓                     | ✓               | ✓               | -                     | -                     |
| Chain line (mm)  |                     |                              | 50                    | 50                    | 50              | 50              | 48.8                  | 48.8                  |
| Chainstay angle (deg.)                                       |                     |                              | 66-69                 | 66-69                 | 66-69           | 66-69           | 66-69                 | 66-69                 |
| Top gear teeth   |                     |                              | 40-42T                | 40-42T                | 40-42T          | 40-42T          | 34-38T                | 34-38T                |
| Total capacity   |                     |                              | 18T                   | 18T                   | 18T             | 18T             | 10T                   | 10T                   |
| Applicable top-mid tooth difference                          |                     |                              | 10T                   | 10T                   | 10T             | 10T             | -                     | -                     |
| Multi access cable fixing screw                              |                     |                              | -                     | -                     | -               | -               | -                     | -                     |
| Angled stroke adjust screw                                   |                     |                              | ✓                     | ✓                     | ✓               | ✓               | ✓                     | ✓                     |
| Angled clamp band design                                     |                     |                              | ✓                     | ✓                     | -               | -               | ✓                     | ✓                     |
| Link bushings  |                     |                              | 4                     | 4                     | 4               | 4               | 8                     | 2                     |
| Front clamp band   | Material            |                              | Aluminum              | Aluminum              | -               | -               | Aluminum              | Aluminum              |
|  | Finish              |                              | Painted               | Painted               | -               | -               | Painted               | Painted               |
| Rear clamp band, base bracket                                | Material            |                              | Aluminum              | Aluminum              | Aluminum        | Aluminum        | Aluminum              | Aluminum              |
|  | Finish              |                              | Painted               | Painted               | Painted         | Painted         | Painted               | Painted               |
| Clamp screw  | Material            |                              | Stainless steel       | Stainless steel       | -               | -               | Stainless steel       | Stainless steel       |
|  | Finish              |                              | -                     | -                     | -               | -               | -                     | -                     |
| Bottom bracket plate   | Material            |                              | -                     | -                     | -               | -               | -                     | -                     |
|  | Finish              |                              | -                     | -                     | -               | -               | -                     | -                     |
| Outer link   | Material            |                              | GFRP+Steel            | GFRP+Steel            | GFRP+Steel      | GFRP+Steel      | Aluminum              | Steel                 |
|  | Finish              |                              | -                     | -                     | -               | -               | Painted               | Painted               |
| Inner link   | Material            |                              | Aluminum              | Aluminum              | Aluminum        | Aluminum        | Aluminum              | Aluminum              |
|  | Finish              |                              | Painted               | Painted               | Painted         | Painted         | Painted               | Painted               |
| Chain guide  | Material            |                              | Steel                 | Steel                 | Steel           | Steel           | Steel                 | Steel                 |
|  | Finish              |                              | Plated                | Plated                | Plated          | Plated          | Plated                | Plated                |
| Cable fixing screw   | Material            |                              | Stainless steel       | Stainless steel       | Stainless steel | Stainless steel | Stainless steel       | Stainless steel       |
|  | Finish              |                              | -                     | -                     | -               | -               | -                     | -                     |
| Stroke adjusting screw                                       | Material            |                              | Steel                 | Steel                 | Steel           | Steel           | Stainless steel       | Stainless steel       |
|  | Finish              |                              | Black                 | Black                 | Black           | Black           | -                     | -                     |
| Average weight (g) (band type: L size, direct type w/ screw) |                     |                              | -                     | -                     | -               | -               | -                     | -                     |
| Note   |                     |                              |                       |                       |                 |                 |                       |                       |

# Front Derailleur

MTB

| Series   |                     | DEORE   | DEORE                  | DEORE                  | DEORE  | DEORE                 | DEORE           |
|--|---------------------|---|------------------------|------------------------|--|-----------------------|-----------------|
| Model no.  |                     | FD-M6025-D  | FD-M5100-D             | FD-M5100-E             | FD-M5100-M   | FD-M4100-D            | FD-M4100-E      |
| Color  | 1                   | Series black  | Series color           | Series color           | Series color                                       | Series color          | Series color    |
|  | 2                   | -   | -                      | -                      | -  | -                     | -               |
| Front speeds   |                     | 2   | 2                      | 2                      | 2  | 2                     | 2               |
| Rear speeds  |                     | 10  | 11                     | 11                     | 11   | 10                    | 10              |
| Compatible chain   |                     | HG-X 10-speed   | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed                             | HG-X 10-speed         | HG-X 10-speed   |
| Action   | TOP SWING           | -   | -                      | -                      | -  | -                     | -               |
|  | Down swing          | ✓   | -                      | -                      | -  | -                     | -               |
|  | SIDE SWING          | -   | ✓                      | ✓                      | ✓  | ✓                     | ✓               |
| Mount  | Clamp band (mm)     | 28.6  | -                      | -                      | -  | - *                   | -               |
|  |                     | 31.8  | -                      | -                      | -  | ✓ (w/ M size adapter) | -               |
|  |                     | 34.9  | -                      | -                      | -  | ✓                     | -               |
|  | E-type              | With bottom bracket plate   | -                      | -                      | -  | -                     | -               |
|  |                     | Without bottom bracket plate  | -                      | -                      | ✓  | -                     | ✓               |
|  | Direct mount        |   | ✓                      | ✓                      | -  | ✓                     | -               |
| Cable route type   | Dual-pull           |   | ✓                      | -                      | -  | -                     | -               |
|  | Top-pull exclusive  |   | -                      | -                      | -  | -                     | -               |
|  | Down-pull exclusive |   | -                      | -                      | -  | -                     | -               |
|  | Front-pull          |   | -                      | ✓                      | ✓  | ✓                     | ✓               |
| Chain line (mm)  |                     | 48.8/51.8 *   | 48.8/51.8              | 48.8/51.8              | 48.8/51.8  | 48.8/51.8             | 48.8/51.8       |
| Chainstay angle (deg.)                                       |                     | 66-69   | 66-69                  | 66-69                  | 66-69  | 66-69                 | 66-69           |
| Top gear teeth   |                     | 34-38T  | 36T                    | 36T                    | 36T  | 36T                   | 36T             |
| Total capacity   |                     | 10T   | 10T                    | 10T                    | 10T  | 10T                   | 10T             |
| Applicable top-mid tooth difference                          |                     | -   | -                      | -                      | -  | -                     | -               |
| Multi access cable fixing screw                              |                     | -   | -                      | -                      | -  | -                     | -               |
| Angled stroke adjust screw                                   |                     | ✓   | ✓                      | ✓                      | ✓  | ✓                     | ✓               |
| Angled clamp band design                                     |                     | -   | -                      | -                      | ✓  | -                     | -               |
| Link bushings  |                     | 8   | 4                      | 4                      | 4  | 4                     | 4               |
| Front clamp band   | Material            | -   | -                      | -                      | Aluminum   | -                     | -               |
|  | Finish              | -   | -                      | -                      | Painted  | -                     | -               |
| Rear clamp band, base bracket                                | Material            | Aluminum  | Aluminum               | Aluminum               | Aluminum   | Aluminum              | Aluminum        |
|  | Finish              | Painted   | Painted                | Painted                | Painted  | Painted               | Painted         |
| Clamp screw  | Material            | Stainless steel   | -                      | -                      | Stainless steel                                    | -                     | -               |
|  | Finish              | -   | -                      | -                      | -  | -                     | -               |
| Bottom bracket plate   | Material            | -   | -                      | -                      | -  | -                     | -               |
|  | Finish              | -   | -                      | -                      | -  | -                     | -               |
| Outer link   | Material            | Aluminum  | GFRP+Steel             | GFRP+Steel             | GFRP+Steel   | GFRP+Steel            | GFRP+Steel      |
|  | Finish              | Painted   | -                      | -                      | -  | -                     | -               |
| Inner link   | Material            | Aluminum  | Aluminum               | Aluminum               | Aluminum   | Aluminum              | Aluminum        |
|  | Finish              | Painted   | Painted                | Painted                | Painted  | Painted               | Painted         |
| Chain guide  | Material            | Steel   | Steel                  | Steel                  | Steel  | Steel                 | Steel           |
|  | Finish              | Plated  | Plated                 | Plated                 | Plated   | Plated                | Plated          |
| Cable fixing screw   | Material            | Stainless steel   | Stainless steel        | Stainless steel        | Stainless steel                                    | Stainless steel       | Stainless steel |
|  | Finish              | -   | -                      | -                      | -  | -                     | -               |
| Stroke adjusting screw                                       | Material            | Stainless steel   | Stainless steel        | Stainless steel        | Stainless steel                                    | Stainless steel       | Stainless steel |
|  | Finish              | -   | Black                  | Black                  | Black  | Black                 | Black           |
| Average weight (g) (band type: L size, direct type w/ screw) |                     | -   | -                      | -                      | -  | -                     | -               |
| Note   |                     | * Compatible with the special crankset which chain line is 3 mm outboard. |                        |                        | * S-size adapter is available in OTC package only. |                       |                 |

SW

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CI-DECK

SC

# Front Derailleur

| Series   |                     | DEORE  | DEORE                 | DEORE                 | DEORE   | DEORE   | DEORE   |
|--|---------------------|--|-----------------------|-----------------------|---|---|---|
| Model no.  |                     | FD-M4100-M   | FD-M617-H             | FD-M617-L             | FD-M617-D   | FD-M617-E   | FD-M618-E   |
| Color  | 1                   | Series color                                       | Black                 | Black                 | Black   | Black   | Black   |
|  | 2                   | -  | -                     | -                     | -   | -   | -   |
| Front speeds   |                     | 2  | 2                     | 2                     | 2   | 2   | 2   |
| Rear speeds  |                     | 10   | 10                    | 10                    | 10  | 10  | 10  |
| Compatible chain   |                     | HG-X 10-speed                                      | HG-X 10-speed         | HG-X 10-speed         | HG-X 10-speed   | HG-X 10-speed   | HG-X 10-speed   |
| Action   | TOP SWING           |  | -                     | -                     | -   | -   | ✓   |
|  | Down swing          |  | -                     | -                     | -   | -   | -   |
|  | SIDE SWING          |  | ✓                     | ✓                     | ✓   | ✓   | -   |
| Mount  | Clamp band (mm)     | 28.6   | - *                   | ✓ (w/ S size adapter) | ✓ (w/ S size adapter)   | -   | -   |
|  |                     | 31.8   | ✓ (w/ M size adapter) | ✓ (w/ M size adapter) | ✓ (w/ M size adapter)   | -   | -   |
|  |                     | 34.9   | ✓                     | ✓                     | ✓   | -   | -   |
|  | E-type              | With bottom bracket plate                          | -                     | -                     | -   | -   | -   |
|  |                     | Without bottom bracket plate                       | -                     | -                     | -   | ✓   | ✓   |
|  | Direct mount        |  | -                     | -                     | -   | ✓   | -   |
| Cable route type   | Dual-pull           |  | -                     | -                     | -   | -   | -   |
|  | Top-pull exclusive  |  | -                     | -                     | -   | -   | -   |
|  | Down-pull exclusive |  | -                     | -                     | -   | -   | ✓   |
|  | Front-pull          |  | ✓                     | ✓                     | ✓   | ✓   | -   |
| Chain line (mm)  |                     | 48.8/51.8  | 48.8                  | 48.8                  | 48.8  | 48.8  | 48.8 *  |
| Chainstay angle (deg.)                                       |                     | 66-69  | 66-69                 | 66-69                 | 66-69   | 66-69   | 66-69   |
| Top gear teeth   |                     | 36T  | 36-38T                | 36-38T                | 36-38T  | 36-38T  | 36-38T  |
| Total capacity   |                     | 10T  | 14T                   | 14T                   | 14T   | 14T   | 14T   |
| Applicable top-mid tooth difference                          |                     | -  | -                     | -                     | -   | -   | -   |
| Multi access cable fixing screw                              |                     | -  | -                     | -                     | -   | -   | -   |
| Angled stroke adjust screw                                   |                     | ✓  | ✓                     | ✓                     | ✓   | ✓   | ✓   |
| Angled clamp band design                                     |                     | ✓  | ✓                     | ✓                     | -   | -   | -   |
| Link bushings  |                     | 4  | 4                     | 4                     | 4   | 4   | 2   |
| Front clamp band   | Material            | Aluminum   | Aluminum              | Aluminum              | -   | -   | -   |
|  | Finish              | Painted  | Painted               | Painted               | -   | -   | -   |
| Rear clamp band, base bracket                                | Material            | Aluminum   | Aluminum              | Aluminum              | Aluminum  | Aluminum  | Aluminum  |
|  | Finish              | Painted  | Painted               | Painted               | Painted   | Painted   | Painted   |
| Clamp screw  | Material            | Stainless steel                                    | Stainless steel       | Stainless steel       | -   | -   | Stainless steel   |
|  | Finish              | -  | -                     | -                     | -   | -   | -   |
| Bottom bracket plate   | Material            | -  | -                     | -                     | -   | -   | -   |
|  | Finish              | -  | -                     | -                     | -   | -   | -   |
| Outer link   | Material            | GFRP+Steel   | GFRP+Steel            | GFRP+Steel            | GFRP+Steel  | GFRP+Steel  | Steel   |
|  | Finish              | -  | -                     | -                     | -   | -   | Painted   |
| Inner link   | Material            | Aluminum   | Aluminum              | Aluminum              | Aluminum  | Aluminum  | Aluminum  |
|  | Finish              | Painted  | Painted               | Painted               | Painted   | Painted   | Painted   |
| Chain guide  | Material            | Steel  | Steel                 | Steel                 | Steel   | Steel   | Steel   |
|  | Finish              | Plated   | Pearl bright          | Pearl bright          | Pearl bright  | Pearl bright  | Pearl bright  |
| Cable fixing screw   | Material            | Stainless steel                                    | Stainless steel       | Stainless steel       | Stainless steel   | Stainless steel   | Stainless steel   |
|  | Finish              | -  | -                     | -                     | -   | -   | -   |
| Stroke adjusting screw                                       | Material            | Stainless steel                                    | Steel                 | Steel                 | Steel   | Steel   | Stainless steel   |
|  | Finish              | Black  | Black                 | Black                 | Black   | Black   | -   |
| Average weight (g) (band type: L size, direct type w/ screw) |                     | -  | -                     | -                     | -   | -   | -   |
| Note   |                     | * S-size adapter is available in OTC package only. |                       |                       | * Compatible with the special crankset which chain line is 3 mm outboard. | * Compatible with the special crankset which chain line is 3 mm outboard. | * Compatible with the special crankset which chain line is 3 mm outboard. |

# Front Derailleur

| Series   |                     |                              | DEORE                 | DEORE           | DEORE                 | DEORE           | DEORE                 | DEORE         |
|--|---------------------|------------------------------|-----------------------|-----------------|-----------------------|-----------------|-----------------------|---------------|
| Model no.  |                     |                              | FD-M610-B             | FD-M610-E       | FD-M611-B             | FD-M611-D       | FD-M615-B             | FD-M615-E2    |
| Color  | 1                   |                              | Black                 | Black           | Black                 | Black           | Black                 | Black         |
|  | 2                   |                              | -                     | -               | -                     | -               | -                     | -             |
| Front speeds   |                     |                              | 3                     | 3               | 3                     | 3               | 2                     | 2             |
| Rear speeds  |                     |                              | 10                    | 10              | 10                    | 10              | 10                    | 10            |
| Compatible chain   |                     |                              | HG-X 10-speed         | HG-X 10-speed   | HG-X 10-speed         | HG-X 10-speed   | HG-X 10-speed         | HG-X 10-speed |
| Action   | TOP SWING           |                              | ✓                     | ✓               | -                     | -               | ✓                     | ✓             |
|  | Down swing          |                              | -                     | -               | ✓                     | ✓               | -                     | -             |
|  | SIDE SWING          |                              | -                     | -               | -                     | -               | -                     | -             |
| Mount  | Clamp band (mm)     | 28.6                         | ✓ (w/ S size adapter) | -               | ✓ (w/ S size adapter) | -               | ✓ (w/ S size adapter) | -             |
|  |                     | 31.8                         | ✓ (w/ M size adapter) | -               | ✓ (w/ M size adapter) | -               | ✓ (w/ M size adapter) | -             |
|  |                     | 34.9                         | ✓                     | -               | ✓                     | -               | ✓                     | -             |
|  | E-type              | With bottom bracket plate    | -                     | -               | -                     | -               | -                     | -             |
|  |                     | Without bottom bracket plate | -                     | ✓               | -                     | -               | -                     | ✓             |
|  | Direct mount        |                              | -                     | -               | -                     | ✓               | -                     | -             |
| Cable route type   | Dual-pull           |                              | ✓                     | ✓               | ✓                     | ✓               | ✓                     | ✓             |
|  | Top-pull exclusive  |                              | -                     | -               | ✓                     | ✓               | -                     | -             |
|  | Down-pull exclusive |                              | -                     | -               | -                     | -               | -                     | -             |
|  | Front-pull          |                              | -                     | -               | -                     | -               | -                     | -             |
| Chain line (mm)  |                     |                              | 50                    | 50              | 50                    | 50              | 48.8                  | 48.8          |
| Chainstay angle (deg.)                                       |                     |                              | 66-69                 | 66-69           | 66-69                 | 66-69           | 66-69                 | 66-69         |
| Top gear teeth   |                     |                              | 40-42T                | 40-42T          | 40-42T                | 40-42T          | 38-44T                | 38-40T        |
| Total capacity   |                     |                              | 18T                   | 18T             | 18T                   | 18T             | 14T                   | 14T           |
| Applicable top-mid tooth difference                          |                     |                              | 10T                   | 10T             | 10T                   | 10T             | -                     | -             |
| Multi access cable fixing screw                              |                     |                              | ✓                     | ✓               | -                     | -               | ✓                     | ✓             |
| Angled stroke adjust screw                                   |                     |                              | ✓                     | ✓               | ✓                     | ✓               | ✓                     | ✓             |
| Angled clamp band design                                     |                     |                              | ✓                     | -               | ✓                     | -               | ✓                     | -             |
| Link bushings  |                     |                              | 2                     | 2               | 8                     | 8               | 2                     | 2             |
| Front clamp band   | Material            | Aluminum                     | -                     | Aluminum        | -                     | Aluminum        | -                     |               |
|  | Finish              | Painted                      | -                     | Painted         | -                     | Painted         | -                     |               |
| Rear clamp band, base bracket                                | Material            | Aluminum                     | Aluminum              | Aluminum        | Aluminum              | Aluminum        | Aluminum              |               |
|  | Finish              | Painted                      | Painted               | Painted         | Painted               | Painted         | Painted               |               |
| Clamp screw  | Material            | Stainless steel              | -                     | Stainless steel | -                     | Stainless steel | -                     |               |
|  | Finish              | -                            | -                     | -               | -                     | -               | -                     |               |
| Bottom bracket plate   | Material            | -                            | -                     | -               | -                     | -               | -                     |               |
|  | Finish              | -                            | -                     | -               | -                     | -               | -                     |               |
| Outer link   | Material            | Steel                        | Steel                 | Aluminum        | Aluminum              | Steel           | Steel                 |               |
|  | Finish              | Painted                      | Painted               | Painted         | Painted               | Painted         | Painted               |               |
| Inner link   | Material            | Aluminum                     | Aluminum              | Aluminum        | Aluminum              | Aluminum        | Aluminum              |               |
|  | Finish              | Painted                      | Painted               | Painted         | Painted               | Painted         | Painted               |               |
| Chain guide  | Material            | Steel                        | Steel                 | Steel           | Steel                 | Steel           | Steel                 |               |
|  | Finish              | Pearl bright                 | Pearl bright          | Pearl bright    | Pearl bright          | Pearl bright    | Pearl bright          |               |
| Cable fixing screw   | Material            | Stainless steel              | Stainless steel       | Stainless steel | Stainless steel       | Stainless steel | Stainless steel       |               |
|  | Finish              | -                            | -                     | -               | -                     | -               | -                     |               |
| Stroke adjusting screw                                       | Material            | Stainless steel              | Stainless steel       | Stainless steel | Stainless steel       | Stainless steel | Stainless steel       |               |
|  | Finish              | -                            | -                     | -               | -                     | -               | -                     |               |
| Average weight (g) (band type: L size, direct type w/ screw) |                     |                              | -                     | -               | -                     | -               | -                     |               |
| Note   |                     |                              |                       |                 |                       |                 |                       |               |

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# Front Derailleur

| Series   |                     | DEORE                        | DEORE                 |
|--|---------------------|------------------------------|-----------------------|
| Model no.  |                     | FD-M616-B                    | FD-M616-D             |
| Color  | 1                   | Black                        | Black                 |
|  | 2                   | -                            | -                     |
| Front speeds   |                     | 2                            | 2                     |
| Rear speeds  |                     | 10                           | 10                    |
| Compatible chain   |                     | HG-X 10-speed                | HG-X 10-speed         |
| Action   | TOP SWING           | -                            | -                     |
|  | Down swing          | ✓                            | ✓                     |
|  | SIDE SWING          | -                            | -                     |
| Mount  | Clamp band (mm)     | 28.6                         | ✓ (w/ S size adapter) |
|  |                     | 31.8                         | ✓ (w/ M size adapter) |
|  |                     | 34.9                         | ✓                     |
|  | E-type              | With bottom bracket plate    | -                     |
|  |                     | Without bottom bracket plate | -                     |
|  | Direct mount        | -                            | ✓                     |
| Cable route type   | Dual-pull           | ✓                            | ✓                     |
|  | Top-pull exclusive  | ✓                            | ✓                     |
|  | Down-pull exclusive | -                            | -                     |
|  | Front-pull          | -                            | -                     |
| Chain line (mm)  |                     | 48.8                         | 48.8                  |
| Chainstay angle (deg.)                                       |                     | 66-69                        | 66-69                 |
| Top gear teeth   |                     | 38-44T                       | 38-44T                |
| Total capacity   |                     | 14T                          | 14T                   |
| Applicable top-mid tooth difference                          |                     | -                            | -                     |
| Multi access cable fixing screw                              |                     | -                            | -                     |
| Angled stroke adjust screw                                   |                     | ✓                            | ✓                     |
| Angled clamp band design                                     |                     | ✓                            | -                     |
| Link bushings  |                     | 8                            | 8                     |
| Front clamp band   | Material            | Aluminum                     | -                     |
|  | Finish              | Painted                      | -                     |
| Rear clamp band, base bracket                                | Material            | Aluminum                     | Aluminum              |
|  | Finish              | Painted                      | Painted               |
| Clamp screw  | Material            | Stainless steel              | -                     |
|  | Finish              | -                            | -                     |
| Bottom bracket plate   | Material            | -                            | -                     |
|  | Finish              | -                            | -                     |
| Outer link   | Material            | Aluminum                     | Aluminum              |
|  | Finish              | Painted                      | Painted               |
| Inner link   | Material            | Aluminum                     | Aluminum              |
|  | Finish              | Painted                      | Painted               |
| Chain guide  | Material            | Steel                        | Steel                 |
|  | Finish              | Pearl bright                 | Pearl bright          |
| Cable fixing screw   | Material            | Stainless steel              | Stainless steel       |
|  | Finish              | -                            | -                     |
| Stroke adjusting screw                                       | Material            | Stainless steel              | Stainless steel       |
|  | Finish              | -                            | -                     |
| Average weight (g) (band type: L size, direct type w/ screw) |                     | -                            | -                     |
| Note   |                     |                              |                       |

# Brake (Hydraulic Disc Brake)

| Series   |                    | XTR  | XTR                       | DEORE XT                  | DEORE XT                  | SHIMANO  | XTR                      |
|--|--------------------|--|---------------------------|---------------------------|---------------------------|--|--------------------------|
| Model no.  |                    | BR-M9200   | BR-M9220                  | BR-M8200                  | BR-M8220                  | BR-MT805   | BR-M9100                 |
| Color  | 1                  | Series color   | Series color              | Series color              | Series color              | Black (SHIMANO logo)   | Series color             |
|  | 2                  | -  | -                         | -                         | -                         | -  | -                        |
|  | 3                  | -  | -                         | -                         | -                         | -  | -                        |
| Brake type   |                    | Hydraulic disc brake   | Hydraulic disc brake      | Hydraulic disc brake      | Hydraulic disc brake      | Hydraulic disc brake   | Hydraulic disc brake     |
| Brake hose (kit)   |                    | SM-BH90-SS   | SM-BH90-SBM               | SM-BH90-SBM               | SM-BH90-SBM               | SM-BH90-SS   | SM-BH90-SS               |
| Hose joint   |                    | Straight   | Banjo                     | Banjo                     | Banjo                     | Straight   | Straight                 |
| Brake hose color (kit)   | 1                  | Black  | Black                     | Black                     | Black                     | Black  | Black                    |
|  | 2                  | -  | -                         | -                         | -                         | -  | -                        |
| J-Kit spec (for OEM)   |                    | ✓  | ✓                         | ✓                         | ✓                         | ✓  | ✓                        |
| ICE TECHNOLOGIES pad compatible caliper  |                    | -  | ✓                         | ✓                         | ✓                         | ✓  | -                        |
| Pad  | Standard 1         | K05Ti-RX Resin (w/o fin)   | P03A-RF Resin (w/ fin)    | G05A-RX Resin (w/o fin)   | P03A-RF Resin (w/ fin)    | K05S-RX Resin (w/o fin)  | K05Ti-RX Resin (w/o fin) |
|  | Standard 2         | K04Ti-MX Metal (w/o fin)   | P04C-MF Metal (w/ fin)    | G04S-MX Metal (w/o fin)   | P04C-MF Metal (w/ fin)    | K04S-MX Metal (w/o fin)  | K04Ti-MX Metal (w/o fin) |
|  | Option 1           | -  | D03S-RX Resin (w/o fin)   | J05A-RF Resin (w/ fin)    | D03S-RX Resin (w/o fin)   | L05A-RF Resin (w/ fin)   | -                        |
|  | Option 2           | -  | D02S-MX Metal (w/o fin)   | J04C-MF Metal (w/ fin)    | D02S-MX Metal (w/o fin)   | L04C-MF Metal (w/ fin)   | -                        |
| Fixing screw spec for rear mount   | 10 mm mount        | -  | -                         | -                         | -                         | -  | -                        |
|  | 15 mm mount        | -  | -                         | -                         | -                         | -  | -                        |
|  | 20 mm mount        | -  | -                         | -                         | -                         | ✓  | -                        |
|  | 25 mm mount        | -  | -                         | -                         | -                         | ✓  | -                        |
|  | 30 mm mount        | -  | -                         | -                         | -                         | ✓  | -                        |
|  | 35 mm mount        | -  | -                         | -                         | -                         | -  | -                        |
| Recommended brake lever  |                    | BL-M9200   | BL-M9220                  | BL-M8200                  | BL-M8200                  | BL-M9200, BL-M9220, BL-M8200   | BL-M9100                 |
| Recommended disc brake rotor   |                    | RT-CL900, RT-MT905   | RT-CL900, RT-MT905        | RT-CL800, SM-RT86         | RT-CL800, SM-RT86         | RT-CL900, RT-MT905, RT-CL800, SM-RT86                                      | RT-MT900                 |
| Compatible rotor size  | 140 mm (SS)        | ✓  | -                         | ✓                         | -                         | ✓  | ✓                        |
|  | 160 mm (S)         | ✓  | ✓                         | ✓                         | ✓                         | ✓  | ✓                        |
|  | 180 mm (M)         | ✓  | ✓                         | ✓                         | ✓                         | ✓  | ✓                        |
|  | 203 mm (L)         | -  | ✓                         | ✓                         | ✓                         | -  | -                        |
|  | 220 mm (LL)        | -  | ✓                         | ✓                         | ✓                         | -  | -                        |
| Oil  |                    | SHIMANO LOW VISCOSITY OIL  | SHIMANO LOW VISCOSITY OIL | SHIMANO LOW VISCOSITY OIL | SHIMANO LOW VISCOSITY OIL | SHIMANO LOW VISCOSITY OIL  | SHIMANO mineral          |
| ONE WAY BLEEDING   |                    | ✓  | -                         | ✓                         | -                         | ✓  | ✓                        |
| Mount type   |                    | Post type  | Post type                 | Post type                 | Post type                 | Flat mount   | Post type                |
| Piston   |                    | 2  | 4                         | 2                         | 4                         | 2  | 2                        |
| Piston material  |                    | Resin  | Resin                     | Resin                     | Resin                     | Resin  | Ceramic                  |
| Caliper  | MONO-BODY          | ✓  | ✓                         | -                         | -                         | -  | ✓                        |
|  | Material           | Aluminum   | Aluminum                  | Aluminum                  | Aluminum                  | Aluminum   | Aluminum                 |
|  | Finish             | Anodized   | Anodized                  | Painted                   | Painted                   | Painted  | Anodized                 |
| Caliper fixing screw   | Material           | Ti   | Steel                     | Steel                     | Steel                     | Steel  | Ti                       |
|  | Tool size          | ** 4 mm  | 5 mm                      | 5 mm                      | 5 mm                      | 4 mm   | ** 4 mm                  |
|  | Anti loosen method | Wiring   | Snap ring                 | Snap ring                 | Snap ring                 | Screw fix pin+Snap ring  | Wiring                   |
| Pad mount  |                    | Pad axle   | Pad axle                  | Pad axle                  | Pad axle                  | Pad axle   | Pad axle                 |
| Average weight (g)   |                    | 91   | 134                       | 113                       | 148                       | 125  | 92                       |
| Average weight (g) (kit for front 800 mm, w/ pad (Standard 1), w/o adapter, w/ 2 screws) |                    | 192 (BL-M9200 Front)<br>212 (BL-M9200 Rear)<br>240 (BL-M9220 Front)<br>260 (BL-M9220 Rear) | 294 (Front)<br>314 (Rear) | 276 (Front)<br>296 (Rear) | 310 (Front)<br>330 (Rear) | Kit for rear 1700 mm<br>252 (BL-M9200)<br>300 (BL-M9220)<br>302 (BL-M8200) | 193                      |
| Note   |                    | ** Titanium  |                           |                           |                           | For rear only.   | ** Titanium              |

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## Brake (Hydraulic Disc Brake)

| Series   |                    | XTR   | XTR                    | SAINT                  | DEORE XT                | DEORE XT                | DEORE XT                |
|--|--------------------|---|------------------------|------------------------|-------------------------|-------------------------|-------------------------|
| Model no.  |                    | BR-M9110  | BR-M9120               | BR-M820                | BR-M8100                | BR-M8110                | BR-M8120                |
| Color  | 1                  | Series color  | Series color           | Series color           | Series color            | Series color            | Series color            |
|  | 2                  | -   | -                      | -                      | -                       | -                       | -                       |
|  | 3                  | -   | -                      | -                      | -                       | -                       | -                       |
| Brake type   |                    | Hydraulic disc brake                                | Hydraulic disc brake   | Hydraulic disc brake   | Hydraulic disc brake    | Hydraulic disc brake    | Hydraulic disc brake    |
| Brake hose (kit)   |                    | SM-BH90-SS  | SM-BH90-SBM            | SM-BH90-SBLS           | SM-BH90-SBM             | SM-BH90-SS              | SM-BH90-SBM             |
| Hose joint   |                    | Straight  | Banjo                  | Banjo                  | Banjo                   | Straight                | Banjo                   |
| Brake hose color (kit)   | 1                  | Black   | Black                  | Black                  | Black                   | Black                   | Black                   |
|  | 2                  | -   | -                      | White                  | -                       | -                       | -                       |
| J-Kit spec (for OEM)   |                    | ✓   | ✓                      | ✓                      | ✓                       | ✓                       | ✓                       |
| ICE TECHNOLOGIES pad compatible caliper  |                    | ✓   | ✓                      | ✓                      | ✓                       | ✓                       | ✓                       |
| Pad  | Standard 1         | K05Ti-RX Resin (w/o fin)                            | N03A-RF Resin (w/ fin) | H03A-RF Resin (w/ fin) | G05A-RX Resin (w/o fin) | K05S-RX Resin (w/o fin) | N03A-RF Resin (w/ fin)  |
|  | Standard 2         | K04Ti-MX Metal (w/o fin)                            | N04C-MF Metal (w/ fin) | H03C-MF Metal (w/ fin) | G04S-MX Metal (w/o fin) | K04S-MX Metal (w/o fin) | N04C-MF Metal (w/ fin)  |
|  | Option 1           | -   | -                      | -                      | J05A-RF Resin (w/ fin)  | L05A-RF Resin (w/ fin)  | D03S-RX Resin (w/o fin) |
|  | Option 2           | -   | -                      | -                      | J04C-MF Metal (w/ fin)  | L04C-MF Metal (w/ fin)  | D02S-MX Metal (w/o fin) |
| Fixing screw spec for rear mount   | 10 mm mount        | -   | -                      | -                      | -                       | -                       | -                       |
|  | 15 mm mount        | -   | -                      | -                      | -                       | -                       | -                       |
|  | 20 mm mount        | ✓   | -                      | -                      | -                       | ✓                       | -                       |
|  | 25 mm mount        | ✓   | -                      | -                      | -                       | ✓                       | -                       |
|  | 30 mm mount        | ✓   | -                      | -                      | -                       | ✓                       | -                       |
|  | 35 mm mount        | -   | -                      | -                      | -                       | -                       | -                       |
| Recommended brake lever  |                    | BL-M9100  | BL-M9120               | BL-M820                | BL-M8100<br>BL-T8100    | BL-M8100                | BL-M8100<br>BL-T8100    |
| Recommended disc brake rotor   |                    | RT-MT900  | RT-MT900               | SM-RT99, SM-RT86       | RT-MT800                | RT-MT800                | RT-MT800                |
| Compatible rotor size  | 140 mm (SS)        | ✓   | ✓                      | ✓                      | ✓                       | ✓                       | ✓                       |
|  | 160 mm (S)         | ✓   | ✓                      | ✓                      | ✓                       | ✓                       | ✓                       |
|  | 180 mm (M)         | -   | ✓                      | ✓                      | ✓                       | ✓                       | ✓                       |
|  | 203 mm (L)         | -   | ✓                      | ✓                      | ✓                       | -                       | ✓                       |
|  | 220 mm (LL)        | -   | ✓                      | ✓                      | ✓                       | -                       | ✓                       |
| Oil  |                    | SHIMANO mineral                                     | SHIMANO mineral        | SHIMANO mineral        | SHIMANO mineral         | SHIMANO mineral         | SHIMANO mineral         |
| ONE WAY BLEEDING   |                    | ✓   | -                      | ✓                      | ✓                       | ✓                       | -                       |
| Mount type   |                    | Flat mount  | Post type              | Post type              | Post type               | Flat mount              | Post type               |
| Piston   |                    | 2   | 4                      | 4                      | 2                       | 2                       | 4                       |
| Piston material  |                    | Ceramic   | Ceramic                | Ceramic                | Ceramic                 | Ceramic                 | Ceramic                 |
| Caliper  | MONO-BODY          | -   | -                      | -                      | -                       | -                       | -                       |
|  | Material           | Aluminum  | Aluminum               | Aluminum               | Aluminum                | Aluminum                | Aluminum                |
|  | Finish             | Anodized  | Painted                | Painted                | Painted                 | Painted                 | Painted                 |
| Caliper fixing screw   | Material           | Steel   | Ti                     | Steel                  | Steel                   | Steel                   | Steel                   |
|  | Tool size          | 4 mm  | ** 4 mm                | 5 mm                   | 5 mm                    | 4 mm                    | 5 mm                    |
|  | Anti loosen method | Screw fix pin+Snap ring                             | Wiring                 | Snap ring              | Snap ring               | Screw fix pin+Snap ring | Snap ring               |
| Pad mount  |                    | Pad axle  | Pad axle               | Pad axle               | Pad axle                | Pad axle                | Pad axle                |
| Average weight (g)   |                    | 108   | 131                    | 153                    | 121                     | 126                     | 141                     |
| Average weight (g) (kit for front 800 mm, w/ pad (Standard 1), w/o adapter, w/ 2 screws) |                    | 203   | 262                    | 303                    | 269                     | 260                     | 289                     |
| Note   |                    | For rear only, 140 mm disc brake rotor direct mount | ** Titanium            |                        |                         | For rear only.          |                         |

# Brake (Hydraulic Disc Brake)

| Series   |                    | DEORE XT                | DEORE XT                                 | SLX                     | SLX                     | SLX                     | DEORE                                     |
|--|--------------------|-------------------------|--|-------------------------|-------------------------|-------------------------|---|
| Model no.  |                    | BR-M8000                | BR-M8020                                 | BR-M7100                | BR-M7110                | BR-M7120                | BR-M6100                                  |
| Color  | 1                  | Series color            | Series color                             | Series color            | Series color            | Series color            | Series color                              |
|  | 2                  | -                       | -  | -                       | -                       | -                       | Black (SHIMANO logo) ***                  |
|  | 3                  | -                       | -  | -                       | -                       | -                       | -   |
| Brake type   |                    | Hydraulic disc brake    | Hydraulic disc brake                     | Hydraulic disc brake    | Hydraulic disc brake    | Hydraulic disc brake    | Hydraulic disc brake                      |
| Brake hose (kit)   |                    | SM-BH90-SB              | SM-BH90-SBLS                             | SM-BH90-SBM             | SM-BH90-SS              | SM-BH90-SBM             | SM-BH90-SS                                |
| Hose joint   |                    | Banjo                   | Banjo                                    | Banjo                   | Straight                | Banjo                   | Straight                                  |
| Brake hose color (kit)   | 1                  | Black                   | Black                                    | Black                   | Black                   | Black                   | Black                                     |
|  | 2                  | -                       | -  | -                       | -                       | -                       | -   |
| J-Kit spec (for OEM)   |                    | -                       | ✓  | ✓                       | ✓                       | ✓                       | ✓   |
| ICE TECHNOLOGIES pad compatible caliper  |                    | ✓                       | ✓  | ✓                       | ✓                       | ✓                       | ✓   |
| Pad  | Standard 1         | G05A-RX Resin (w/o fin) | H03A-RF Resin (w/ fin)                   | G05S-RX Resin (w/o fin) | K05S-RX Resin (w/o fin) | D03S-RX Resin (w/o fin) | G05S-RX Resin (w/o fin)                   |
|  | Standard 2         | J05A-RF Resin (w/ fin)  | -  | G04S-MX Metal (w/o fin) | K04S-MX Metal (w/o fin) | N03A-RF Resin (w/ fin)  | J05A-RF Resin (w/ fin)                    |
|  | Option 1           | G04S-MX Metal (w/o fin) | D03S-RX Resin (w/o fin)                  | J05A-RF Resin (w/ fin)  | L05A-RF Resin (w/ fin)  | D02S-MX Metal (w/o fin) | G04S-MX Metal (w/o fin)                   |
|  | Option 2           | J04C-MF Metal (w/ fin)  | H03C-MF Metal (w/ fin)                   | J04C-MF Metal (w/ fin)  | L04C-MF Metal (w/ fin)  | N04C-MF Metal (w/ fin)  | -   |
| Fixing screw spec for rear mount   | 10 mm mount        | -                       | -  | -                       | -                       | -                       | -   |
|  | 15 mm mount        | -                       | -  | -                       | -                       | -                       | -   |
|  | 20 mm mount        | -                       | -  | -                       | ✓                       | -                       | -   |
|  | 25 mm mount        | -                       | -  | -                       | ✓                       | -                       | -   |
|  | 30 mm mount        | -                       | -  | -                       | ✓                       | -                       | -   |
|  | 35 mm mount        | -                       | -  | -                       | -                       | -                       | -   |
| Recommended brake lever  |                    | BL-M8000<br>BL-T8000    | BL-M8000                                 | BL-M7100                | BL-M7100                | BL-M7100                | BL-M6100                                  |
| Recommended disc brake rotor   |                    | RT-MT800, SM-RT86       | RT-MT800, SM-RT99,<br>RT-EM810, RT-EM910 | SM-RT70                 | SM-RT70                 | SM-RT70                 | SM-RT54 *, SM-RT56 *,<br>SM-RT64, SM-RT66 |
| Compatible rotor size  | 140 mm (SS)        | ✓                       | ✓  | ✓                       | ✓                       | ✓                       | ✓   |
|  | 160 mm (S)         | ✓                       | ✓  | ✓                       | ✓                       | ✓                       | ✓   |
|  | 180 mm (M)         | ✓                       | ✓  | ✓                       | ✓                       | ✓                       | ✓   |
|  | 203 mm (L)         | ✓                       | ✓  | ✓                       | -                       | ✓                       | ✓   |
|  | 220 mm (LL)        | ✓                       | ✓  | ✓                       | -                       | ✓                       | ✓   |
| Oil  |                    | SHIMANO mineral         | SHIMANO mineral                          | SHIMANO mineral         | SHIMANO mineral         | SHIMANO mineral         | SHIMANO mineral                           |
| ONE WAY BLEEDING   |                    | ✓                       | ✓  | ✓                       | ✓                       | -                       | ✓   |
| Mount type   |                    | Post type               | Post type                                | Post type               | Flat mount              | Post type               | Post type                                 |
| Piston   |                    | 2                       | 4  | 2                       | 2                       | 4                       | 2   |
| Piston material  |                    | Ceramic                 | Ceramic                                  | Ceramic                 | Ceramic                 | Ceramic                 | Resin                                     |
| Caliper  | MONO-BODY          | -                       | -  | -                       | -                       | -                       | -   |
|  | Material           | Aluminum                | Aluminum                                 | Aluminum                | Aluminum                | Aluminum                | Aluminum                                  |
|  | Finish             | Painted                 | Painted                                  | Painted                 | Painted                 | Painted                 | Painted                                   |
| Caliper fixing screw   | Material           | Steel                   | Steel                                    | Steel                   | Steel                   | Steel                   | Steel                                     |
|  | Tool size          | 5 mm                    | 5 mm                                     | 5 mm                    | 4 mm                    | 5 mm                    | 5 mm                                      |
|  | Anti loosen method | Snap ring               | Snap ring                                | Snap ring               | Screw fix pin+Snap ring | Snap ring               | Snap ring                                 |
| Pad mount  |                    | Pad axle                | Pad axle                                 | Pad axle                | Pad axle                | Pad axle                | Split pin (stainless steel)               |
| Average weight (g)   |                    | 118                     | 153                                      | 121                     | 125                     | 142                     | -   |
| Average weight (g) (kit for front 800 mm, w/ pad (Standard 1), w/o adapter, w/ 2 screws) |                    | 266                     | 303                                      | 271                     | 262                     | 293                     | -   |
| Note   |                    |                         |  |                         | For rear only.          |                         | *: Only compatible with resin pad         |

# Brake (Hydraulic Disc Brake)

| Series   |                    | DEORE                                  | DEORE   | SHIMANO                 | SHIMANO                          | SHIMANO                                  | SHIMANO                          |
|--|--------------------|--|---|-------------------------|----------------------------------|--|----------------------------------|
| Model no.  |                    | BR-M6120                               | BR-M6000  | BR-MT520                | BR-MT500                         | BR-MT420                                 | BR-MT410                         |
| Color  | 1                  | Series color                           | Series black  | Black                   | Black                            | Black                                    | Black (SHIMANO logo)             |
|  | 2                  | Black (SHIMANO logo) ***               | Series silver *   | -                       | -                                | -  | -                                |
|  | 3                  | -                                      | Black (SHIMANO logo) ***  | -                       | -                                | -  | -                                |
| Brake type   |                    | Hydraulic disc brake                   | Hydraulic disc brake  | Hydraulic disc brake    | Hydraulic disc brake             | Hydraulic disc brake                     | Hydraulic disc brake             |
| Brake hose (kit)   |                    | SM-BH90-SS                             | SM-BH90-SS  | SM-BH90-SS              | SM-BH59-JK-SS                    | SM-BH90-SS                               | SM-BH59-JK-SS                    |
| Hose joint   |                    | Straight                               | Straight  | Straight                | Straight                         | Straight                                 | Straight                         |
| Brake hose color (kit)   | 1                  | Black                                  | Black   | Black                   | Black                            | Black                                    | Black                            |
|  | 2                  | -                                      | -   | -                       | -                                | -  | -                                |
| J-Kit spec (for OEM)   |                    | ✓                                      | ✓   | ✓                       | ✓                                | ✓  | ✓                                |
| ICE TECHNOLOGIES pad compatible caliper  |                    | -                                      | ✓   | -                       | -                                | -  | -                                |
| Pad  | Standard 1         | D03S-RX Resin (w/o fin)                | G05A-RX Resin (w/o fin)   | D03S-RX Resin (w/o fin) | B05S-RX Resin (w/o fin)          | D03S-RX Resin (w/o fin)                  | B05S-RX Resin (w/o fin)          |
|  | Standard 2         | -                                      | J05A-RF Resin (w/ fin)  | D02S-MX Metal (w/o fin) | -                                | D02S-MX Metal (w/o fin)                  | -                                |
|  | Option 1           | D02S-MX Metal (w/o fin)                | G04S-MX Metal (w/o fin)   | -                       | -                                | -  | -                                |
|  | Option 2           | -                                      | -   | -                       | -                                | -  | -                                |
| Fixing screw spec for rear mount   | 10 mm mount        | -                                      | -   | -                       | -                                | -  | -                                |
|  | 15 mm mount        | -                                      | -   | -                       | -                                | -  | -                                |
|  | 20 mm mount        | -                                      | -   | -                       | -                                | -  | -                                |
|  | 25 mm mount        | -                                      | -   | -                       | -                                | -  | -                                |
|  | 30 mm mount        | -                                      | -   | -                       | -                                | -  | -                                |
|  | 35 mm mount        | -                                      | -   | -                       | -                                | -  | -                                |
| Recommended brake lever  |                    | BL-M6100                               | BL-M6100<br>BL-MT501<br>BL-T6000  | BL-MT501                | BL-MT500                         | BL-MT401, BL-MT402-3A                    | BL-M4100, BL-MT401, BL-MT402-3A  |
| Recommended disc brake rotor   |                    | SM-RT54 *, SM-RT56 *, SM-RT64, SM-RT66 | SM-RT54 ****, SM-RT56 ****, SM-RT64, SM-RT66  | SM-RT70                 | SM-RT54 *, SM-RT56               | SM-RT30 *, SM-RT54 *, SM-RT56 *, SM-RT64 | SM-RT30 *, SM-RT54 *, SM-RT56 *  |
| Compatible rotor size  | 140 mm (SS)        | ✓                                      | ✓   | ✓                       | -                                | ✓  | ✓                                |
|  | 160 mm (S)         | ✓                                      | ✓   | ✓                       | ✓                                | ✓  | ✓                                |
|  | 180 mm (M)         | ✓                                      | ✓   | ✓                       | ✓                                | ✓  | ✓                                |
|  | 203 mm (L)         | ✓                                      | ✓   | ✓                       | -                                | ✓  | ✓                                |
|  | 220 mm (LL)        | ✓                                      | -   | ✓                       | -                                | ✓  | -                                |
| Oil  |                    | SHIMANO mineral                        | SHIMANO mineral   | SHIMANO mineral         | SHIMANO mineral                  | SHIMANO mineral                          | SHIMANO mineral                  |
| ONE WAY BLEEDING   |                    | ✓                                      | ✓   | ✓                       | ✓                                | ✓  | ✓                                |
| Mount type   |                    | Post type                              | Post type   | Post type               | Post type                        | Post type                                | Post type                        |
| Piston   |                    | 4                                      | 2   | 4                       | 2                                | 4  | 2                                |
| Piston material  |                    | Ceramic                                | Resin   | Ceramic                 | Resin                            | Resin                                    | Resin                            |
| Caliper  | MONO-BODY          | -                                      | -   | -                       | -                                | -  | -                                |
|  | Material           | Aluminum                               | Aluminum  | Aluminum                | Aluminum                         | Aluminum                                 | Aluminum                         |
|  | Finish             | Painted                                | Painted   | Painted                 | Painted                          | Painted                                  | Painted                          |
| Caliper fixing screw   | Material           | Steel                                  | Steel   | Steel                   | Steel                            | Steel                                    | Steel                            |
|  | Tool size          | 5 mm                                   | 5 mm  | 5 mm                    | 5 mm                             | 5 mm                                     | 5 mm                             |
|  | Anti loosen method | Snap ring                              | Snap ring   | Snap ring               | Snap ring                        | Snap ring                                | Snap ring                        |
| Pad mount  |                    | Split pin (stainless steel)            | Split pin (stainless steel)   | Split pin               | Split pin (stainless steel)      | Split pin                                | Split pin (stainless steel)      |
| Average weight (g)   |                    | -                                      | -   | -                       | -                                | -  | -                                |
| Average weight (g) (kit for front 800 mm, w/ pad (Standard 1), w/o adapter, w/ 2 screws) |                    | -                                      | -   | -                       | -                                | -  | -                                |
| Note   |                    | *: Only compatible with resin pad      | J-Kit spec available<br>* T6000 kit only<br>** M6000 kit only<br>*** Both M6000 kit and T6000 kit<br>***** Only compatible with resin pad |                         | * Only compatible with resin pad | * Only compatible with resin pad         | * Only compatible with resin pad |

# Brake (Hydraulic Disc Brake)

|  |                    |                                  |
|--|--------------------|----------------------------------|
| Series   |                    | SHIMANO                          |
| Model no.  |                    | BR-MT200                         |
| Color  | 1                  | Black                            |
|  | 2                  | -                                |
|  | 3                  | -                                |
| Brake type   |                    | Hydraulic disc brake             |
| Brake hose (kit)   |                    | SM-BH59-JK-SS                    |
| Hose joint   |                    | Straight                         |
| Brake hose color (kit)   | 1                  | Black                            |
|  | 2                  | -                                |
| J-Kit spec (for OEM)   |                    | ✓                                |
| ICE TECHNOLOGIES pad compatible caliper  |                    | -                                |
| Pad  | Standard 1         | B05S-RX Resin (w/o fin)          |
|  | Standard 2         | -                                |
|  | Option 1           | -                                |
|  | Option 2           | -                                |
| Fixing screw spec for rear mount   | 10 mm mount        | -                                |
|  | 15 mm mount        | -                                |
|  | 20 mm mount        | -                                |
|  | 25 mm mount        | -                                |
|  | 30 mm mount        | -                                |
|  | 35 mm mount        | -                                |
| Recommended brake lever  |                    | BL-MT201<br>BL-MT200             |
| Recommended disc brake rotor   |                    | SM-RT10 *, SM-RT26 *             |
| Compatible rotor size  | 140 mm (SS)        | ✓                                |
|  | 160 mm (S)         | ✓                                |
|  | 180 mm (M)         | ✓                                |
|  | 203 mm (L)         | -                                |
|  | 220 mm (LL)        | -                                |
| Oil  |                    | SHIMANO mineral                  |
| ONE WAY BLEEDING   |                    | ✓                                |
| Mount type   |                    | Post type                        |
| Piston   |                    | 2                                |
| Piston material  |                    | Resin                            |
| Caliper  | MONO-BODY          | -                                |
|  | Material           | Aluminum                         |
|  | Finish             | Painted                          |
| Caliper fixing screw   | Material           | Steel                            |
|  | Tool size          | 5 mm                             |
|  | Anti loosen method | Snap ring                        |
| Pad mount  |                    | Split pin                        |
| Average weight (g)   |                    | -                                |
| Average weight (g) (kit for front 800 mm, w/ pad (Standard 1), w/o adapter, w/ 2 screws) |                    | -                                |
| Note   |                    | * Only compatible with resin pad |

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SC

## Brake (Mechanical Disc Brake)

| Series                                  |                    | SHIMANO                             |
|---|--------------------|-------------------------------------|
| Model no.                               |                    | BR-M375                             |
| Color                                   | 1                  | Black                               |
|   | 2                  | -                                   |
|   | 3                  | -                                   |
| Brake type                              |                    | Mechanical disc brake               |
| ICE TECHNOLOGIES pad compatible caliper |                    | -                                   |
| Pad                                     | Standard 1         | B05S-RX Resin (w/o fin)             |
|   | Standard 2         | -                                   |
|   | Option 1           | -                                   |
|   | Option 2           | -                                   |
| Recommended brake lever                 |                    | V-BRAKE BL (1.5-2.5 finger)         |
| Recommended disc brake rotor            |                    | SM-RT10, SM-RT30, RT-CL300, SM-RT26 |
| Mount type                              |                    | Post type                           |
| Piston                                  |                    | 1                                   |
| Piston material                         |                    | -                                   |
| Caliper                                 | MONO-BODY          | -                                   |
|   | Material           | Aluminum                            |
|   | Finish             | Painted                             |
| Caliper fixing screw                    | Material           | Steel                               |
|   | Tool size          | 5 mm                                |
|   | Anti loosen method | Snap ring                           |
| Pad mount                               |                    | Split pin                           |
| Average weight (g)                      |                    | -                                   |
| Note                                    |                    |                                     |

## Brake (V-BRAKE)

| Series                            |                   | DXR                |
|-----------------------------------|-------------------|--------------------|
| Model no.                         |                   | BR-MX70            |
| Color                             | 1                 | Series color       |
|                                   | 2                 | -                  |
|                                   | 3                 | -                  |
| Brake type                        |                   | V-BRAKE            |
| Brake shoe                        | Standard 1        | S70C               |
|                                   | Standard 2        | -                  |
|                                   | Option 1          | M70T4              |
|                                   | Option 2          | M70T3              |
| Cartridge shoe holder             |                   | ✓                  |
| Arch size (mm)                    |                   | 103                |
| Spacer type                       | X type            | ✓                  |
|                                   | Y type            | ✓                  |
| Compatible lead pipe angle (deg.) |                   | 45/90/135          |
| Sleeve & bushing axle             |                   | ✓                  |
| V-arm/caliper                     | Material          | Aluminum           |
|                                   | Finish            | Anodized           |
|                                   | Light weight link | ✓                  |
| Cover                             | Material          | Aluminum           |
|                                   | Finish            | Anodized           |
| Fixing screw length (mm)          | 16                | ✓                  |
|                                   | 25                | ✓                  |
| Fixing screw                      | Material          | Stainless steel    |
|                                   | Finish            | Plated             |
|                                   | Chamfered screw   | ✓                  |
| POWER MODULATOR                   |                   | ✓ (option SM-PM70) |
| Linear spring                     |                   | ✓                  |
| Stainless cable fixing screw      |                   | ✓                  |
| Average weight (g)                |                   | 184                |
| Note                              |                   |                    |

# Crankset

MTB

| Series  |                          | XTR                     | XTR                | XTR               | XTR               | XTR                     | XTR                     |
|---|--------------------------|-------------------------|--------------------|-------------------|-------------------|-------------------------|-------------------------|
| Model no.                                       |                          | FC-M9200                | FC-M9220           | FC-M9100-2        | FC-M9120-B2       | FC-M9100-1              | FC-M9120-1              |
| Color   | 1                        | Series color            | Series color       | Series color      | Series color      | Series color            | Series color            |
|   | 2                        | -                       | -                  | -                 | -                 | -                       | -                       |
| Rear speeds                                     |                          | 12                      | 12                 | 12 (Front double) | 12 (Front double) | 12                      | 12                      |
| Compatible chain                                |                          | HG 12-speed             | HG 12-speed        | HG 12-speed       | HG 12-speed       | HG 12-speed             | HG 12-speed             |
| Chain line (mm)                                 |                          | 55                      | 55                 | 48.8              | 51.8              | 52                      | 52                      |
| O.L.D.  | Thru (mm)                | 148                     | 148                | 142               | 148               | 142, 148                | 142, 148                |
|   | QR/Nut (mm)              | -                       | -                  | 135               | 141               | 135, 141                | 135, 141                |
| P.C.D. (mm)                                     |                          | Direct                  | Direct             | Direct            | Direct            | Direct                  | Direct                  |
| Spider/gear arms                                |                          | -                       | -                  | 4                 | 4                 | 4                       | 4                       |
| Chainring combination                           |                          | 30T, 32T, 34T, 36T, 38T | 28T, 30T, 32T, 34T | 38-28T            | 38-28T            | 30T, 32T, 34T, 36T, 38T | 30T, 32T, 34T, 36T, 38T |
| Q-factor (mm)                                   |                          | 170                     | 176                | 162               | 168               | 162                     | 168                     |
| Crank arm length (mm)                           | 160                      | -                       | ✓                  | -                 | -                 | -                       | -                       |
|   | 165                      | ✓                       | ✓                  | ✓                 | ✓                 | ✓                       | ✓                       |
|   | 167.5                    | -                       | -                  | -                 | -                 | -                       | -                       |
|   | 170                      | ✓                       | ✓                  | ✓                 | ✓                 | ✓                       | ✓                       |
|   | 172.5                    | -                       | -                  | -                 | -                 | -                       | -                       |
|   | 175                      | ✓                       | ✓                  | ✓                 | ✓                 | ✓                       | ✓                       |
|   | 177.5                    | -                       | -                  | -                 | -                 | -                       | -                       |
|   | 180                      | -                       | -                  | -                 | -                 | -                       | -                       |
| Optional chain guard                            | With bash guard          | -                       | -                  | -                 | -                 | -                       | -                       |
|   | With chain guard         | -                       | -                  | -                 | -                 | -                       | -                       |
|   | Without chain/bash guard | ✓                       | ✓                  | ✓                 | ✓                 | ✓                       | ✓                       |
| HOLLOWTECH II                                   |                          | ✓                       | ✓                  | ✓                 | ✓                 | ✓                       | ✓                       |
| 2-PIECE CRANKSET                                |                          | -                       | -                  | -                 | -                 | -                       | -                       |
| HOLLOWTECH crank arm                            |                          | -                       | -                  | -                 | -                 | -                       | -                       |
| OCTALINK  |                          | -                       | -                  | -                 | -                 | -                       | -                       |
| HOLLOWGLIDE                                     |                          | -                       | -                  | -                 | -                 | -                       | -                       |
| Compatible bottom bracket type                  | Outboard                 | ✓                       | ✓                  | ✓                 | ✓                 | ✓                       | ✓                       |
|   | OCTALINK                 | -                       | -                  | -                 | -                 | -                       | -                       |
|   | Square                   | -                       | -                  | -                 | -                 | -                       | -                       |
| Recommended bottom bracket                      | Threaded (normal)        | SM-BB93                 | SM-BB93            | SM-BB93           | SM-BB93           | SM-BB93                 | SM-BB93                 |
|   | Threaded (E-type)        | -                       | -                  | -                 | -                 | -                       | -                       |
|   | Threaded (chain case)    | -                       | -                  | -                 | -                 | -                       | -                       |
|   | Press-Fit                | SM-BB94-41A             | SM-BB94-41A        | SM-BB94-41A       | SM-BB94-41A       | SM-BB94-41A             | SM-BB94-41A             |
| Axle length of BB-UN/ES (mm)                    |                          | -                       | -                  | -                 | -                 | -                       | -                       |
| Threaded bottom bracket shell width (mm)        | 68                       | ✓                       | ✓                  | ✓                 | ✓                 | ✓                       | ✓                       |
|   | 73                       | ✓                       | ✓                  | ✓                 | ✓                 | ✓                       | ✓                       |
|   | 83                       | -                       | -                  | -                 | -                 | -                       | -                       |
| Chain case compatible                           |                          | -                       | -                  | -                 | -                 | -                       | -                       |
| Crank arm                                       | Material                 | Aluminum                | Aluminum           | Aluminum          | Aluminum          | Aluminum                | Aluminum                |
|   | Finish                   | Anodized                | Anodized           | Anodized          | Anodized          | Anodized                | Anodized                |
| Crank axle                                      | Material                 | Steel                   | Steel              | Steel             | Steel             | Steel                   | Steel                   |
|   | Finish                   | Plated                  | Plated             | Plated            | Plated            | Plated                  | Plated                  |
| Spider arm                                      | Material                 | -                       | -                  | -                 | -                 | -                       | -                       |
|   | Finish                   | -                       | -                  | -                 | -                 | -                       | -                       |
| Spider arm cover                                | Material                 | -                       | -                  | -                 | -                 | -                       | -                       |
|   | Finish                   | -                       | -                  | -                 | -                 | -                       | -                       |
| Outer ring                                      | Material                 | Aluminum                | Aluminum           | Aluminum          | Aluminum          | Aluminum                | Aluminum                |
|   | Finish                   | Anodized                | Anodized           | Plated            | Plated            | Plated                  | Plated                  |
| Middle ring                                     | Material                 | -                       | -                  | -                 | -                 | -                       | -                       |
|   | Finish                   | -                       | -                  | -                 | -                 | -                       | -                       |
| Inner ring                                      | Material                 | -                       | -                  | Aluminum          | Aluminum          | -                       | -                       |
|   | Finish                   | -                       | -                  | Plated            | Plated            | -                       | -                       |
| Outer/middle ring fixing bolt                   | Material                 | -                       | -                  | Aluminum          | Aluminum          | Aluminum                | Aluminum                |
|   | Finish                   | -                       | -                  | Anodized          | Anodized          | Anodized                | Anodized                |
| Inner ring fixing screw                         | Material                 | -                       | -                  | Aluminum          | Aluminum          | -                       | -                       |
|   | Finish                   | -                       | -                  | Anodized          | Anodized          | -                       | -                       |
| Stainless chain guard fixing screw              |                          | -                       | -                  | -                 | -                 | -                       | -                       |
| Crank fixing screw included                     |                          | ✓                       | ✓                  | ✓                 | ✓                 | ✓                       | ✓                       |
| Average weight (g) (170 mm, w/o bottom bracket) | 571 (30T)                | -                       | 582 (28T)          | -                 | -                 | 527 (30T)               | 546 (30T)               |
|   | 572 (32T)                | -                       | 587 (30T)          | 606               | 627               | 530 (32T)               | 549 (32T)               |
|   | 577 (34T)                | -                       | 588 (32T)          | -                 | -                 | 543 (34T)               | 563 (34T)               |
|   | 586 (36T)                | -                       | 593 (34T)          | -                 | -                 | 542 (36T)               | 562 (36T)               |
|   | 592 (38T)                | -                       | -                  | -                 | -                 | 550 (38T)               | 570 (38T)               |
| Note  |                          | -                       | -                  | -                 | -                 | -                       | -                       |

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HB

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CI-DECK

SC



# Crankset

| Series  |                          | XTR                    | XTR                                 | DEORE XT  | DEORE XT          | DEORE XT          | DEORE XT  |
|---|--------------------------|------------------------|-------------------------------------|---|-------------------|-------------------|---|
| Model no.                                       |                          | FC-M9125-1             | FC-M9130-1                          | FC-M8200  | FC-M8100-2        | FC-M8120-B2       | FC-M8100-1  |
| Color   | 1                        | Series color           | Series color                        | Series color  | Series color      | Series color      | Series color  |
|   | 2                        | -                      | -                                   | -   | -                 | -                 | -   |
| Rear speeds                                     |                          | 12                     | 12                                  | 12  | 12 (Front double) | 12 (Front double) | 12  |
| Compatible chain                                |                          | HG 12-speed            | HG 12-speed                         | HG 12-speed   | HG 12-speed       | HG 12-speed       | HG 12-speed   |
| Chain line (mm)                                 |                          | 55                     | 56.5                                | 55  | 48.8              | 51.8              | 52  |
| O.L.D.  | Thru (mm)                | 148                    | 157                                 | 148   | 142               | 148               | 142, 148  |
|   | QR/Nut (mm)              | -                      | -                                   | -   | 135               | 141               | 135, 141  |
| P.C.D. (mm)                                     |                          | Direct                 | Direct                              | Direct  | Direct            | Direct            | Direct  |
| Spider/gear arms                                |                          | 4                      | 4                                   | -   | 4                 | 4                 | 4   |
| Chainring combination                           |                          | 32T, 34T               | 30T, 32T, 34T                       | 28T, 30T, 32T, 34T, 36T                                       | 36-26T            | 36-26T            | 28T, 30T, 32T, 34T, 36T                                       |
| Q-factor (mm)                                   |                          | 174                    | 171                                 | 176   | 172               | 178               | 172   |
| Crank arm length (mm)                           | 160                      | -                      | -                                   | ✓   | -                 | -                 | -   |
|   | 165                      | ✓                      | ✓                                   | ✓   | ✓                 | ✓                 | ✓   |
|   | 167.5                    | -                      | -                                   | -   | -                 | -                 | -   |
|   | 170                      | ✓                      | ✓                                   | ✓   | ✓                 | ✓                 | ✓   |
|   | 172.5                    | -                      | -                                   | -   | -                 | -                 | -   |
|   | 175                      | ✓                      | ✓                                   | ✓   | ✓                 | ✓                 | ✓   |
|   | 177.5                    | -                      | -                                   | -   | -                 | -                 | -   |
|   | 180                      | -                      | -                                   | -   | ✓                 | ✓                 | ✓   |
| Optional chain guard                            | With bash guard          | -                      | -                                   | -   | -                 | -                 | -   |
|   | With chain guard         | -                      | -                                   | -   | -                 | -                 | -   |
|   | Without chain/bash guard | ✓                      | ✓                                   | ✓   | ✓                 | ✓                 | ✓   |
| HOLLOWTECH II                                   |                          | ✓                      | ✓                                   | ✓   | ✓                 | ✓                 | ✓   |
| 2-PIECE CRANKSET                                |                          | -                      | -                                   | -   | -                 | -                 | -   |
| HOLLOWTECH crank arm                            |                          | -                      | -                                   | -   | -                 | -                 | -   |
| OCTALINK  |                          | -                      | -                                   | -   | -                 | -                 | -   |
| HOLLOWGLIDE                                     |                          | -                      | -                                   | -   | -                 | -                 | -   |
| Compatible bottom bracket type                  | Outboard                 | ✓                      | ✓                                   | ✓   | ✓                 | ✓                 | ✓   |
|   | OCTALINK                 | -                      | -                                   | -   | -                 | -                 | -   |
|   | Square                   | -                      | -                                   | -   | -                 | -                 | -   |
| Recommended bottom bracket                      | Threaded (normal)        | SM-BB93                | SM-BB93                             | BB-MT801  | BB-MT801          | BB-MT801          | BB-MT801  |
|   | Threaded (E-type)        | -                      | -                                   | -   | -                 | -                 | -   |
|   | Threaded (chain case)    | -                      | -                                   | -   | -                 | -                 | -   |
|   | Press-Fit                | SM-BB94-41A            | SM-BB94-41A                         | BB-MT800-PA   | BB-MT800-PA       | BB-MT800-PA       | BB-MT800-PA   |
| Axle length of BB-UN/ES (mm)                    |                          | -                      | -                                   | -   | -                 | -                 | -   |
| Threaded bottom bracket shell width (mm)        | 68                       | ✓                      | ✓                                   | ✓   | ✓                 | ✓                 | ✓   |
|   | 73                       | ✓                      | ✓                                   | ✓   | ✓                 | ✓                 | ✓   |
|   | 83                       | -                      | -                                   | -   | -                 | -                 | -   |
| Chain case compatible                           |                          | -                      | -                                   | -   | -                 | -                 | -   |
| Crank arm                                       | Material                 | Aluminum               | Aluminum                            | Aluminum  | Aluminum          | Aluminum          | Aluminum  |
|   | Finish                   | Anodized               | Anodized                            | Anodized  | Anodized          | Anodized          | Anodized  |
| Crank axle                                      | Material                 | Steel                  | Steel                               | Steel   | Steel             | Steel             | Steel   |
|   | Finish                   | Plated                 | Plated                              | Plated  | Plated            | Plated            | Plated  |
| Spider arm                                      | Material                 | -                      | -                                   | -   | -                 | -                 | -   |
|   | Finish                   | -                      | -                                   | -   | -                 | -                 | -   |
| Spider arm cover                                | Material                 | -                      | -                                   | -   | -                 | -                 | -   |
|   | Finish                   | -                      | -                                   | -   | -                 | -                 | -   |
| Outer ring                                      | Material                 | Aluminum               | Aluminum                            | Aluminum  | Aluminum          | Aluminum          | Steel (teeth), CFRP (body), Aluminum (arm)                    |
|   | Finish                   | Plated                 | Plated                              | Anodized  | Anodized          | Anodized          | Painted (teeth), Anodized (arm)                               |
| Middle ring                                     | Material                 | -                      | -                                   | -   | -                 | -                 | -   |
|   | Finish                   | -                      | -                                   | -   | -                 | -                 | -   |
| Inner ring                                      | Material                 | -                      | -                                   | -   | Steel             | Steel             | -   |
|   | Finish                   | -                      | -                                   | -   | Painted           | Painted           | -   |
| Outer/middle ring fixing bolt                   | Material                 | Aluminum               | Aluminum                            | Aluminum  | Aluminum          | Aluminum          | Aluminum  |
|   | Finish                   | Anodized               | Anodized                            | Anodized  | Anodized          | Anodized          | Anodized  |
| Inner ring fixing screw                         | Material                 | -                      | -                                   | -   | Aluminum          | Aluminum          | -   |
|   | Finish                   | -                      | -                                   | -   | Anodized          | Anodized          | -   |
| Stainless chain guard fixing screw              |                          | -                      | -                                   | -   | -                 | -                 | -   |
| Crank fixing screw included                     |                          | ✓                      | ✓                                   | ✓   | ✓                 | ✓                 | ✓   |
| Average weight (g) (170 mm, w/o bottom bracket) |                          | 578 (32T)<br>592 (34T) | 559 (30T)<br>562 (32T)<br>576 (34T) | 580 (28T)<br>582 (30T)<br>591 (32T)<br>597 (34T)<br>607 (36T) | 657               | 668               | 612 (28T)<br>626 (30T)<br>624 (32T)<br>637 (34T)<br>655 (36T) |
| Note  |                          |                        |                                     |   |                   |                   |   |

# Crankset

MTB

| Series  |                          | DEORE XT                                   | DEORE XT                                   | SLX               | SLX               | SLX  | SLX  |
|---|--------------------------|--|--|-------------------|-------------------|--|--|
| Model no.                                       |                          | FC-M8120-1                                 | FC-M8130-1                                 | FC-M7100-2        | FC-M7120-B2       | FC-M7100-1                                 | FC-M7120-1                                 |
| Color   | 1                        | Series color                               | Series color                               | Series color      | Series color      | Series color                               | Series color                               |
|   | 2                        | -  | -  | -                 | -                 | -  | -  |
| Rear speeds                                     |                          | 12   | 12   | 12 (Front double) | 12 (Front double) | 12   | 12   |
| Compatible chain                                |                          | HG 12-speed                                | HG 12-speed                                | HG 12-speed       | HG 12-speed       | HG 12-speed                                | HG 12-speed                                |
| Chain line (mm)                                 |                          | 55   | 56.5                                       | 48.8              | 51.8              | 52   | 55   |
| O.L.D.  | Thru (mm)                | 148  | 157  | 142               | 148               | 142, 148                                   | 148  |
|   | QR/Nut (mm)              | 141  | -  | 135               | 141               | 135, 141                                   | 141  |
| P.C.D. (mm)                                     |                          | Direct                                     | Direct                                     | Direct            | Direct            | Direct                                     | Direct                                     |
| Spider/gear arms                                |                          | 4  | 4  | 4                 | 4                 | 4  | 4  |
| Chainring combination                           |                          | 28T, 30T, 32T, 34T, 36T                    | 28T, 30T, 32T, 34T                         | 36-26T            | 36-26T            | 30T, 32T, 34T                              | 30T, 32T, 34T                              |
| Q-factor (mm)                                   |                          | 178  | 181  | 172               | 178               | 172  | 178  |
| Crank arm length (mm)                           | 160                      | -  | -  | -                 | -                 | -  | -  |
|   | 165                      | ✓  | ✓  | ✓                 | ✓                 | ✓  | ✓  |
|   | 167.5                    | -  | -  | -                 | -                 | -  | -  |
|   | 170                      | ✓  | ✓  | ✓                 | ✓                 | ✓  | ✓  |
|   | 172.5                    | -  | -  | -                 | -                 | -  | -  |
|   | 175                      | ✓  | ✓  | ✓                 | ✓                 | ✓  | ✓  |
|   | 177.5                    | -  | -  | -                 | -                 | -  | -  |
|   | 180                      | ✓  | ✓  | -                 | -                 | -  | -  |
| Optional chain guard                            | With bash guard          | -  | -  | -                 | -                 | -  | -  |
|   | With chain guard         | -  | -  | -                 | -                 | -  | -  |
|   | Without chain/bash guard | ✓  | ✓  | ✓                 | ✓                 | ✓  | ✓  |
| HOLLOWTECH II                                   |                          | ✓  | ✓  | ✓                 | ✓                 | ✓  | ✓  |
| 2-PIECE CRANKSET                                |                          | -  | -  | -                 | -                 | -  | -  |
| HOLLOWTECH crank arm                            |                          | -  | -  | -                 | -                 | -  | -  |
| OCTALINK  |                          | -  | -  | -                 | -                 | -  | -  |
| HOLLOWGLIDE                                     |                          | -  | -  | -                 | -                 | -  | -  |
| Compatible bottom bracket type                  | Outboard                 | ✓  | ✓  | ✓                 | ✓                 | ✓  | ✓  |
|   | OCTALINK                 | -  | -  | -                 | -                 | -  | -  |
|   | Square                   | -  | -  | -                 | -                 | -  | -  |
| Recommended bottom bracket                      | Threaded (normal)        | BB-MT801                                   | BB-MT801                                   | BB-MT801          | BB-MT801          | BB-MT801                                   | BB-MT801                                   |
|   | Threaded (E-type)        | -  | -  | -                 | -                 | -  | -  |
|   | Threaded (chain case)    | -  | -  | -                 | -                 | -  | -  |
|   | Press-Fit                | BB-MT800-PA                                | BB-MT800-PA                                | BB-MT800-PA       | BB-MT800-PA       | BB-MT800-PA                                | BB-MT800-PA                                |
| Axle length of BB-UN/ES (mm)                    |                          | -  | -  | -                 | -                 | -  | -  |
| Threaded bottom bracket shell width (mm)        | 68                       | ✓  | ✓  | ✓                 | ✓                 | ✓  | ✓  |
|   | 73                       | ✓  | ✓  | ✓                 | ✓                 | ✓  | ✓  |
|   | 83                       | -  | -  | -                 | -                 | -  | -  |
| Chain case compatible                           |                          | -  | -  | -                 | -                 | -  | -  |
| Crank arm                                       | Material                 | Aluminum                                   | Aluminum                                   | Aluminum          | Aluminum          | Aluminum                                   | Aluminum                                   |
|   | Finish                   | Anodized                                   | Anodized                                   | Anodized          | Anodized          | Anodized                                   | Anodized                                   |
| Crank axle                                      | Material                 | Steel                                      | Steel                                      | Steel             | Steel             | Steel                                      | Steel                                      |
|   | Finish                   | Plated                                     | Plated                                     | Plated            | Plated            | Plated                                     | Plated                                     |
| Spider arm                                      | Material                 | -  | -  | -                 | -                 | -  | -  |
|   | Finish                   | -  | -  | -                 | -                 | -  | -  |
| Spider arm cover                                | Material                 | -  | -  | -                 | -                 | -  | -  |
|   | Finish                   | -  | -  | -                 | -                 | -  | -  |
| Outer ring                                      | Material                 | Steel (teeth), CFRP (body), Aluminum (arm) | Steel (teeth), CFRP (body), Aluminum (arm) | Aluminum          | Aluminum          | Steel (teeth), GFRP (body), Aluminum (arm) | Steel (teeth), GFRP (body), Aluminum (arm) |
|   | Finish                   | Painted (teeth), Anodized (arm)            | Painted (teeth), Anodized (arm)            | Painted           | Painted           | Plated (teeth), Painted (body)             | Plated (teeth), Painted (body)             |
| Middle ring                                     | Material                 | -  | -  | -                 | -                 | -  | -  |
|   | Finish                   | -  | -  | -                 | -                 | -  | -  |
| Inner ring                                      | Material                 | -  | -  | Steel             | Steel             | -  | -  |
|   | Finish                   | -  | -  | Painted           | Painted           | -  | -  |
| Outer/middle ring fixing bolt                   | Material                 | Aluminum                                   | Aluminum                                   | Aluminum          | Aluminum          | Aluminum                                   | Aluminum                                   |
|   | Finish                   | Anodized                                   | Anodized                                   | Anodized          | Anodized          | Anodized                                   | Anodized                                   |
| Inner ring fixing screw                         | Material                 | -  | -  | Aluminum          | Stainless steel   | -  | -  |
|   | Finish                   | -  | -  | Anodized          | -                 | -  | -  |
| Stainless chain guard fixing screw              |                          | -  | -  | -                 | -                 | -  | -  |
| Crank fixing screw included                     |                          | ✓  | ✓  | ✓                 | ✓                 | ✓  | ✓  |
| Average weight (g) (170 mm, w/o bottom bracket) |                          | 620 (28T)                                  | 628 (28T)                                  | 663               | 674               | 623 (30T)                                  | 631 (30T)                                  |
|   |                          | 634 (30T)                                  | 643 (30T)                                  |                   |                   |  |  |
|   |                          | 632 (32T)                                  | 641 (32T)                                  |                   |                   |  |  |
|   |                          | 646 (34T)                                  | 654 (34T)                                  |                   |                   |  |  |
|   |                          | 664 (36T)                                  | 672 (36T)                                  |                   |                   | 635 (34T)                                  | 643 (34T)                                  |
| Note  |                          |  |  |                   |                   |  |  |

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# Crankset

| Series  |                          | SLX  | DEORE                                      | DEORE                                      | DEORE                                      | SHIMANO         | SHIMANO         |
|---|--------------------------|--|--|--|--|-----------------|-----------------|
| Model no.                                       |                          | FC-M7130-1                                 | FC-M6100-1                                 | FC-M6120-1                                 | FC-M6130-1                                 | FC-MT610-2      | FC-MT610-B2     |
| Color   | 1                        | Series color                               | Series color                               | Series color                               | Series color                               | Black           | Black           |
|   | 2                        | -  | -  | -  | -  | -               | -               |
| Rear speeds                                     |                          | 12   | 12   | 12   | 12   | 12              | 12              |
| Compatible chain                                |                          | HG 12-speed                                | HG 12-speed                                | HG 12-speed                                | HG 12-speed                                | HG 12-speed     | HG 12-speed     |
| Chain line (mm)                                 |                          | 56.5                                       | 52   | 55   | 56.5                                       | 48.8            | 51.8            |
| O.L.D.  | Thru (mm)                | 157  | 142, 148                                   | 148  | 157  | 142             | 148             |
|   | QR/Nut (mm)              | -  | 135, 141                                   | 141  | -  | 135             | 141             |
| P.C.D. (mm)                                     |                          | Direct                                     | Direct                                     | Direct                                     | Direct                                     | Direct          | Direct          |
| Spider/gear arms                                |                          | 4  | 4  | 4  | 4  | 4               | 4               |
| Chaining combination                            |                          | 30T, 32T, 34T                              | 30T, 32T                                   | 30T, 32T                                   | 30T, 32T                                   | 36-26T          | 36-26T          |
| Q-factor (mm)                                   |                          | 181  | 172  | 178  | 181  | 172.9           | 178.9           |
| Crank arm length (mm)                           | 160                      | -  | -  | -  | -  | -               | -               |
|   | 165                      | ✓  | ✓  | ✓  | ✓  | -               | -               |
|   | 167.5                    | -  | -  | -  | -  | -               | -               |
|   | 170                      | ✓  | ✓  | ✓  | ✓  | ✓               | ✓               |
|   | 172.5                    | -  | -  | -  | -  | -               | -               |
|   | 175                      | ✓  | ✓  | ✓  | ✓  | ✓               | ✓               |
|   | 177.5                    | -  | -  | -  | -  | -               | -               |
|   | 180                      | -  | -  | -  | -  | -               | -               |
| Optional chain guard                            | With bash guard          | -  | -  | -  | -  | -               | -               |
|   | With chain guard         | -  | -  | -  | -  | -               | -               |
|   | Without chain/bash guard | ✓  | ✓  | ✓  | ✓  | ✓               | ✓               |
| HOLLOWTECH II                                   |                          | ✓  | -  | -  | -  | -               | -               |
| 2-PIECE CRANKSET                                |                          | -  | ✓  | ✓  | ✓  | ✓               | ✓               |
| HOLLOWTECH crank arm                            |                          | -  | -  | -  | -  | -               | -               |
| OCTALINK  |                          | -  | -  | -  | -  | -               | -               |
| HOLLOWGLIDE                                     |                          | -  | -  | -  | -  | -               | -               |
| Compatible bottom bracket type                  | Outboard                 | ✓  | ✓  | ✓  | ✓  | ✓               | ✓               |
|   | OCTALINK                 | -  | -  | -  | -  | -               | -               |
|   | Square                   | -  | -  | -  | -  | -               | -               |
| Recommended bottom bracket                      | Threaded (normal)        | BB-MT801                                   | BB-MT501                                   | BB-MT501                                   | BB-MT501                                   | BB-MT501        | BB-MT501        |
|   | Threaded (E-type)        | -  | -  | -  | -  | -               | -               |
|   | Threaded (chain case)    | -  | -  | -  | -  | -               | -               |
|   | Press-Fit                | BB-MT800-PA                                | BB-MT500-PA                                | BB-MT500-PA                                | BB-MT500-PA                                | BB-MT500-PA     | BB-MT500-PA     |
| Axle length of BB-UN/ES (mm)                    |                          | -  | -  | -  | -  | -               | -               |
| Threaded bottom bracket shell width (mm)        | 68                       | ✓  | ✓  | ✓  | ✓  | ✓               | ✓               |
|   | 73                       | ✓  | ✓  | ✓  | ✓  | ✓               | ✓               |
|   | 83                       | -  | -  | -  | -  | -               | -               |
| Chain case compatible                           |                          | -  | -  | -  | -  | -               | -               |
| Crank arm                                       | Material                 | Aluminum                                   | Aluminum                                   | Aluminum                                   | Aluminum                                   | Aluminum        | Aluminum        |
|   | Finish                   | Anodized                                   | Anodized                                   | Anodized                                   | Anodized                                   | Painted         | Painted         |
| Crank axle                                      | Material                 | Steel                                      | Steel                                      | Steel                                      | Steel                                      | Steel           | Steel           |
|   | Finish                   | Plated                                     | Plated                                     | Plated                                     | Plated                                     | Plated          | Plated          |
| Spider arm                                      | Material                 | -  | -  | -  | -  | Aluminum        | Aluminum        |
|   | Finish                   | -  | -  | -  | -  | Painted         | Painted         |
| Spider arm cover                                | Material                 | -  | -  | -  | -  | -               | -               |
|   | Finish                   | -  | -  | -  | -  | -               | -               |
| Outer ring                                      | Material                 | Steel (teeth), GFRP (body), Aluminum (arm) | Steel (teeth), GFRP (body), Aluminum (arm) | Steel (teeth), GFRP (body), Aluminum (arm) | Steel (teeth), GFRP (body), Aluminum (arm) | Aluminum        | Aluminum        |
|   | Finish                   | Plated (teeth), Painted (body)             | Painted (teeth), Painted (arm)             | Painted (teeth), Painted (arm)             | Painted (teeth), Painted (arm)             | Painted         | Painted         |
| Middle ring                                     | Material                 | -  | -  | -  | -  | -               | -               |
|   | Finish                   | -  | -  | -  | -  | -               | -               |
| Inner ring                                      | Material                 | -  | -  | -  | -  | Steel           | Steel           |
|   | Finish                   | -  | -  | -  | -  | Painted         | Painted         |
| Outer/middle ring fixing bolt                   | Material                 | Aluminum                                   | Aluminum                                   | Aluminum                                   | Aluminum                                   | Aluminum        | Aluminum        |
|   | Finish                   | Anodized                                   | Anodized                                   | Anodized                                   | Anodized                                   | Anodized        | Anodized        |
| Inner ring fixing screw                         | Material                 | -  | -  | -  | -  | Stainless steel | Stainless steel |
|   | Finish                   | -  | -  | -  | -  | Painted         | Painted         |
| Stainless chain guard fixing screw              |                          | -  | -  | -  | -  | -               | -               |
| Crank fixing screw included                     |                          | ✓  | ✓  | ✓  | ✓  | ✓               | ✓               |
| Average weight (g) (170 mm, w/o bottom bracket) |                          | 639 (30T)<br>636 (32T)<br>651 (34T)        | -  | -  | -  | -               | -               |
| Note  |                          |  |  |  |  |                 |                 |

# Crankset

MTB

| Series  |                          | SHIMANO                                    | SHIMANO         | SHIMANO         | XTR  | XTR                          | DEORE XT   |
|---|--------------------------|--|-----------------|-----------------|--|------------------------------|--|
| Model no.                                       |                          | FC-MT510-1                                 | FC-MT511-1      | FC-MT512-1      | FC-M9020-B1  | FC-M9020-B2                  | FC-M8000-B1  |
| Color   | 1                        | Black                                      | Black           | Black           | Series color   | Series color                 | Series color   |
|   | 2                        | -  | -               | -               | -  | -                            | -  |
| Rear speeds                                     |                          | 12   | 12              | 12              | 11   | 11                           | 11   |
| Compatible chain                                |                          | HG 12-speed                                | HG 12-speed     | HG 12-speed     | LINKGLIDE, HG 11-speed   | LINKGLIDE, HG 11-speed       | LINKGLIDE, HG 11-speed   |
| Chain line (mm)                                 |                          | 52   | 52              | 55              | 53.4   | 51.8                         | 53.4   |
| O.L.D.  | Thru (mm)                | 142, 148                                   | 142, 148        | 148             | 148  | 148                          | 148  |
|   | QR/Nut (mm)              | 135, 141                                   | 135, 141        | 141             | 141  | 141                          | 141  |
| P.C.D. (mm)                                     |                          | 96   | 96              | 96              | 96   | 96/64                        | 96   |
| Spider/gear arms                                |                          | 4  | 4               | 4               | 4  | 4                            | 4  |
| Chaining combination                            |                          | 30T, 32T, 34T                              | 30T, 32T        | 30T, 32T        | 30T, 32T   | 34-24T, 36-26T               | 30T, 32T (SM-CRM81)  |
| Q-factor (mm)                                   |                          | 177  | 178.5           | 178.5           | 174  | 174                          | 176  |
| Crank arm length (mm)                           | 160                      | -  | -               | -               | -  | -                            | -  |
|   | 165                      | -  | ✓               | ✓               | -  | -                            | -  |
|   | 167.5                    | -  | -               | -               | -  | -                            | -  |
|   | 170                      | ✓  | ✓               | ✓               | ✓  | ✓                            | ✓  |
|   | 172.5                    | -  | -               | -               | -  | -                            | -  |
|   | 175                      | ✓  | ✓               | ✓               | ✓  | ✓                            | ✓  |
|   | 177.5                    | -  | -               | -               | -  | -                            | -  |
|   | 180                      | -  | -               | -               | -  | -                            | - (30T), ✓ (32T)   |
| Optional chain guard                            | With bash guard          | -  | -               | -               | -  | -                            | -  |
|   | With chain guard         | -  | -               | -               | -  | -                            | -  |
|   | Without chain/bash guard | ✓  | ✓               | ✓               | ✓  | ✓                            | ✓  |
| HOLLOWTECH II                                   |                          | -  | -               | -               | ✓  | ✓                            | ✓  |
| 2-PIECE CRANKSET                                |                          | ✓  | ✓               | ✓               | -  | -                            | -  |
| HOLLOWTECH crank arm                            |                          | -  | -               | -               | -  | -                            | -  |
| OCTALINK  |                          | -  | -               | -               | -  | -                            | -  |
| HOLLOWGLIDE                                     |                          | -  | -               | -               | -  | ✓                            | -  |
| Compatible bottom bracket type                  | Outboard                 | ✓  | ✓               | ✓               | ✓  | ✓                            | ✓  |
|   | OCTALINK                 | -  | -               | -               | -  | -                            | -  |
|   | Square                   | -  | -               | -               | -  | -                            | -  |
| Recommended bottom bracket                      | Threaded (normal)        | BB-MT501                                   | BB-MT501        | BB-MT501        | SM-BB93  | SM-BB93                      | BB-MT801   |
|   | Threaded (E-type)        | -  | -               | -               | -  | -                            | -  |
|   | Threaded (chain case)    | -  | -               | -               | -  | -                            | -  |
|   | Press-Fit                | BB-MT500-PA                                | BB-MT500-PA     | BB-MT500-PA     | SM-BB94-41A  | SM-BB94-41A                  | BB-MT800-PA  |
| Axle length of BB-UN/ES (mm)                    |                          | -  | -               | -               | -  | -                            | -  |
| Threaded bottom bracket shell width (mm)        | 68                       | ✓  | ✓               | ✓               | ✓  | ✓                            | ✓  |
|   | 73                       | ✓  | ✓               | ✓               | ✓  | ✓                            | ✓  |
|   | 83                       | -  | -               | -               | -  | -                            | -  |
| Chain case compatible                           |                          | -  | -               | -               | -  | -                            | -  |
| Crank arm                                       | Material                 | Aluminum                                   | Aluminum        | Aluminum        | Aluminum   | Aluminum                     | Aluminum   |
|   | Finish                   | Painted                                    | Painted         | Painted         | Anodized   | Anodized                     | Anodized   |
| Crank axle                                      | Material                 | Steel                                      | Steel           | Steel           | Steel  | Steel                        | Steel  |
|   | Finish                   | Plated                                     | Plated          | Plated          | Plated   | Plated                       | Plated   |
| Spider arm                                      | Material                 | Aluminum                                   | -               | -               | -  | Aluminum                     | Aluminum   |
|   | Finish                   | Painted                                    | -               | -               | -  | Anodized                     | Painted  |
| Spider arm cover                                | Material                 | -  | -               | -               | -  | -                            | -  |
|   | Finish                   | -  | -               | -               | -  | -                            | -  |
| Outer ring                                      | Material                 | Steel (30T, 32T), Steel+GF composite (34T) | Steel           | Steel           | Aluminum   | Ti + Aluminum                | Steel +CF composite  |
|   | Finish                   | Painted (30T, 32T), Plated (34T, teeth)    | Painted         | Painted         | Anodized   | -                            | Plated (teeth), Painted (body)   |
| Middle ring                                     | Material                 | -  | -               | -               | -  | -                            | -  |
|   | Finish                   | -  | -               | -               | -  | -                            | -  |
| Inner ring                                      | Material                 | -  | -               | -               | -  | Aluminum                     | -  |
|   | Finish                   | -  | -               | -               | -  | Plated                       | -  |
| Outer/middle ring fixing bolt                   | Material                 | Stainless steel                            | Stainless steel | Stainless steel | Aluminum   | Aluminum                     | Aluminum   |
|   | Finish                   | Painted                                    | Painted         | Painted         | -  | Anodized                     | Anodized   |
| Inner ring fixing screw                         | Material                 | -  | -               | -               | -  | Aluminum                     | -  |
|   | Finish                   | -  | -               | -               | -  | Anodized                     | -  |
| Stainless chain guard fixing screw              |                          | -  | -               | -               | -  | -                            | -  |
| Crank fixing screw included                     |                          | ✓  | ✓               | ✓               | ✓  | ✓                            | ✓  |
| Average weight (g) (170 mm, w/o bottom bracket) |                          | -  | -               | -               | 581 (30T)<br>589 (32T)   | 633 (34-24T)<br>652 (36-26T) | 669 (30T)<br>682 (32T)   |
| Note  |                          |  |                 |                 | - Chain line 3 mm outboard.<br>- It requires special dimension of frame which cassette position and front derailleur mount position are 3 mm outboard.<br>- Only E type and D type front derailleur are compatible with the special frame. |                              | - Chain line 3 mm outboard.<br>- It requires special dimension of frame which cassette position and front derailleur mount position are 3 mm outboard.<br>- Only E type and D type front derailleur are compatible with the special frame. |

SW

RD

FD

SMAD

SC

SL

SLMT

SMSL

BL

BL

RD

FD

BR

BR

BR

FC

SMCD

SMCR

BB

CS

HB

FH

WH

CI-DECK

SC

# Crankset

| Series  |                          | DEORE XT  | DEORE                      | DEORE                  | DEORE                  | SHIMANO                      | SHIMANO                |
|---|--------------------------|---|----------------------------|------------------------|------------------------|------------------------------|------------------------|
| Model no.                                       |                          | FC-M8000-B2   | FC-M5100-1                 | FC-M5100-2             | FC-M5100-B2            | FC-MT700-B2                  | FC-MT600-2             |
| Color   | 1                        | Series color  | Series color               | Series color           | Series color           | Black                        | Black                  |
|   | 2                        | -   | -                          | -                      | -                      | -                            | -                      |
| Rear speeds                                     |                          | 11  | 11/10                      | 11                     | 11                     | 11                           | 11                     |
| Compatible chain                                |                          | LINKGLIDE, HG 11-speed  | HG 11-speed, HG-X 10-speed | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed       | LINKGLIDE, HG 11-speed |
| Chain line (mm)                                 |                          | 51.8  | 52                         | 48.8                   | 51.8                   | 51.8                         | 48.8                   |
| O.L.D.  | Thru (mm)                | 148   | 142, 148                   | 142                    | 148                    | 148                          | 142                    |
|   | QR/Nut (mm)              | 141   | 135, 141                   | 135                    | 141                    | 141                          | 135                    |
| P.C.D. (mm)                                     |                          | 96/64   | 96                         | 96/64                  | 96/64                  | 96/64                        | 96/64                  |
| Spider/gear arms                                |                          | 4   | 4                          | 4                      | 4                      | 4                            | 4                      |
| Chaining combination                            |                          | 34-24T, 36-26T  | 30T, 32T                   | 36-26T                 | 36-26T                 | 34-24T, 36-26T               | 36-26T                 |
| Q-factor (mm)                                   |                          | 176   | 178.5                      | 178.5                  | 178.5                  | 175                          | 177                    |
| Crank arm length (mm)                           | 160                      | -   | -                          | -                      | -                      | -                            | -                      |
|   | 165                      | -   | -                          | -                      | -                      | -                            | -                      |
|   | 167.5                    | -   | -                          | -                      | -                      | -                            | -                      |
|   | 170                      | ✓   | ✓                          | ✓                      | ✓                      | ✓                            | ✓                      |
|   | 172.5                    | -   | -                          | -                      | -                      | -                            | -                      |
|   | 175                      | ✓   | ✓                          | ✓                      | ✓                      | ✓                            | ✓                      |
|   | 177.5                    | -   | -                          | -                      | -                      | -                            | -                      |
|   | 180                      | - (34-24T), ✓ (36-26T)  | -                          | -                      | -                      | -                            | -                      |
| Optional chain guard                            | With bash guard          | -   | -                          | -                      | -                      | -                            | -                      |
|   | With chain guard         | -   | -                          | -                      | -                      | -                            | -                      |
|   | Without chain/bash guard | ✓   | ✓                          | ✓                      | ✓                      | ✓                            | ✓                      |
| HOLLOWTECH II                                   |                          | ✓   | -                          | -                      | -                      | ✓                            | -                      |
| 2-PIECE CRANKSET                                |                          | -   | ✓                          | ✓                      | ✓                      | -                            | ✓                      |
| HOLLOWTECH crank arm                            |                          | -   | -                          | -                      | -                      | -                            | -                      |
| OCTALINK  |                          | -   | -                          | -                      | -                      | -                            | -                      |
| HOLLOWGLIDE                                     |                          | -   | -                          | -                      | -                      | -                            | -                      |
| Compatible bottom bracket type                  | Outboard                 | ✓   | ✓                          | ✓                      | ✓                      | ✓                            | ✓                      |
|   | OCTALINK                 | -   | -                          | -                      | -                      | -                            | -                      |
|   | Square                   | -   | -                          | -                      | -                      | -                            | -                      |
| Recommended bottom bracket                      | Threaded (normal)        | BB-MT801  | BB-MT501                   | BB-MT501               | BB-MT501               | BB-MT801                     | BB-MT801               |
|   | Threaded (E-type)        | -   | -                          | -                      | -                      | -                            | -                      |
|   | Threaded (chain case)    | -   | -                          | -                      | -                      | -                            | -                      |
|   | Press-Fit                | BB-MT800-PA   | BB-MT500-PA                | BB-MT500-PA            | BB-MT500-PA            | BB-MT800-PA                  | BB-MT800-PA            |
| Axle length of BB-UN/ES (mm)                    |                          | -   | -                          | -                      | -                      | -                            | -                      |
| Threaded bottom bracket shell width (mm)        | 68                       | ✓   | ✓                          | ✓                      | ✓                      | ✓                            | ✓                      |
|   | 73                       | ✓   | ✓                          | ✓                      | ✓                      | ✓                            | ✓                      |
|   | 83                       | -   | -                          | -                      | -                      | -                            | -                      |
| Chain case compatible                           |                          | -   | -                          | -                      | -                      | -                            | -                      |
| Crank arm                                       | Material                 | Aluminum  | Aluminum                   | Aluminum               | Aluminum               | Aluminum                     | Aluminum               |
|   | Finish                   | Anodized  | Painted                    | Painted                | Painted                | Anodized                     | Anodized               |
| Crank axle                                      | Material                 | Steel   | Steel                      | Steel                  | Steel                  | Steel                        | Steel                  |
|   | Finish                   | Plated  | Plated                     | Plated                 | Plated                 | Plated                       | Plated                 |
| Spider arm                                      | Material                 | Aluminum  | -                          | -                      | -                      | Aluminum                     | Aluminum               |
|   | Finish                   | Painted   | -                          | -                      | -                      | Painted                      | Painted                |
| Spider arm cover                                | Material                 | -   | -                          | -                      | -                      | -                            | -                      |
|   | Finish                   | -   | -                          | -                      | -                      | -                            | -                      |
| Outer ring                                      | Material                 | Aluminum +CF composite  | Steel                      | Steel                  | Steel                  | Aluminum +GF composite       | Aluminum +GF composite |
|   | Finish                   | Plated (teeth), Painted (body)  | Painted                    | Painted                | Painted                | Plated (teeth)               | Anodized               |
| Middle ring                                     | Material                 | -   | -                          | -                      | -                      | -                            | -                      |
|   | Finish                   | -   | -                          | -                      | -                      | -                            | -                      |
| Inner ring                                      | Material                 | Aluminum  | -                          | Steel                  | Steel                  | Aluminum                     | Steel                  |
|   | Finish                   | Plated  | -                          | Painted                | Painted                | Plated                       | Painted                |
| Outer/middle ring fixing bolt                   | Material                 | Aluminum  | Stainless steel            | Stainless steel        | Stainless steel        | Stainless steel              | Stainless steel        |
|   | Finish                   | Anodized  | Painted                    | Painted                | Painted                | -                            | -                      |
| Inner ring fixing screw                         | Material                 | Stainless steel   | -                          | Stainless steel        | Stainless steel        | Stainless steel              | Stainless steel        |
|   | Finish                   | -   | -                          | -                      | -                      | -                            | -                      |
| Stainless chain guard fixing screw              |                          | -   | -                          | -                      | -                      | -                            | -                      |
| Crank fixing screw included                     |                          | ✓   | ✓                          | ✓                      | ✓                      | ✓                            | ✓                      |
| Average weight (g) (170 mm, w/o bottom bracket) |                          | 688 (34-24T)<br>711 (36-26T)  | -                          | -                      | -                      | 701 (34-24T)<br>728 (36-26T) | -                      |
| Note  |                          | - Chain line 3 mm outboard,<br>- It requires special dimension of frame which cassette position and front derailleur mount position are 3 mm outboard.,<br>- Only E type and D type front derailleur are compatible with the special frame. |                            |                        |                        |                              |                        |

# Crankset

MTB

| Series  |                       | SAINT                               | SAINT                                | DEORE XT                                     | ZEE                                    | ZEE                                    | DEORE                  |
|---|-----------------------|-------------------------------------|--------------------------------------|--|--|--|------------------------|
| Model no.                                       |                       | FC-M820                             | FC-M825                              | FC-M785                                      | FC-M640                                | FC-M645                                | FC-M6000-2             |
| Color   | 1                     | Series color                        | Series color                         | Black  | Series color                           | Series color                           | Series black           |
|   | 2                     | -                                   | -                                    | Silver                                       | -                                      | -                                      | -                      |
| Rear speeds                                     |                       | 10                                  | 10                                   | 10   | 10                                     | 10                                     | 10                     |
| Compatible chain                                |                       | HG-X 10-speed                       | HG-X 10-speed                        | HG-X 10-speed                                | HG-X 10-speed                          | HG-X 10-speed                          | HG-X 10-speed          |
| Chain line (mm)                                 |                       | 50.4                                | 57.9                                 | 48.8   | 50.4                                   | 57.9                                   | 48.8                   |
| O.L.D.  | Thru (mm)             | 142                                 | 150, 157                             | 142  | 142                                    | 150, 157                               | 142                    |
|   | QR/Nut (mm)           | 135                                 | -                                    | 135  | 135                                    | -                                      | 135                    |
| P.C.D. (mm)                                     |                       | 104                                 | 104                                  | 104/64                                       | 104                                    | 104                                    | 96/64                  |
| Spider/gear arms                                |                       | 4                                   | 4                                    | 4  | 4                                      | 4                                      | 4                      |
| Chaining combination                            |                       | 34T, 36T, 38T (SM-CR82)             | 34T, 36T, 38T (SM-CR82)              | 38-24T, 38-26T, 40-28T                       | 34T, 36T, 38T (FC-M640/M645 chainring) | 34T, 36T, 38T (FC-M640/M645 chainring) | 34-24T, 36-26T, 38-28T |
| Q-factor (mm)                                   |                       | 178                                 | 193                                  | 175  | 174.7                                  | 189.7                                  | 176                    |
| Crank arm length (mm)                           | 160                   | -                                   | -                                    | -  | -                                      | -                                      | -                      |
|   | 165                   | ✓                                   | ✓                                    | ✓  | ✓                                      | ✓                                      | -                      |
|   | 167.5                 | -                                   | -                                    | -  | -                                      | -                                      | -                      |
|   | 170                   | ✓                                   | ✓                                    | ✓  | ✓                                      | ✓                                      | ✓                      |
|   | 172.5                 | -                                   | -                                    | -  | -                                      | -                                      | -                      |
|   | 175                   | ✓                                   | ✓                                    | ✓  | ✓                                      | ✓                                      | ✓                      |
|   | 177.5                 | -                                   | -                                    | -  | -                                      | -                                      | -                      |
| Optional chain guard                            | 180                   | -                                   | -                                    | ✓  | -                                      | -                                      | -                      |
|   | With bash guard       | -                                   | -                                    | -  | -                                      | -                                      | -                      |
|   | With chain guard      | -                                   | -                                    | -  | -                                      | -                                      | -                      |
| Without chain/bash guard                        |                       | ✓                                   | ✓                                    | ✓  | ✓                                      | ✓                                      | ✓                      |
| HOLLOWTECH II                                   |                       | ✓                                   | ✓                                    | ✓  | -                                      | -                                      | ✓                      |
| 2-PIECE CRANKSET                                |                       | -                                   | -                                    | -  | ✓                                      | ✓                                      | -                      |
| HOLLOWTECH crank arm                            |                       | -                                   | -                                    | -  | -                                      | -                                      | -                      |
| OCTALINK  |                       | -                                   | -                                    | -  | -                                      | -                                      | -                      |
| HOLLOWGLIDE                                     |                       | -                                   | -                                    | -  | -                                      | -                                      | -                      |
| Compatible bottom bracket type                  | Outboard              | ✓                                   | ✓                                    | ✓  | ✓                                      | ✓                                      | ✓                      |
|   | OCTALINK              | -                                   | -                                    | -  | -                                      | -                                      | -                      |
|   | Square                | -                                   | -                                    | -  | -                                      | -                                      | -                      |
| Recommended bottom bracket                      | Threaded (normal)     | SM-BB80                             | SM-BB80                              | -  | BB-MT501                               | BB-MT501                               | BB-MT501               |
|   | Threaded (E-type)     | -                                   | -                                    | -  | SM-BB52                                | SM-BB52                                | -                      |
|   | Threaded (chain case) | -                                   | -                                    | -  | -                                      | -                                      | -                      |
|   | Press-Fit             | SM-BB71-41A                         | SM-BB71-41C                          | SM-BB71-41A                                  | SM-BB71-41A                            | SM-BB71-41C                            | BB-MT500-PA            |
| Axle length of BB-UN/ES (mm)                    |                       | -                                   | -                                    | -  | -                                      | -                                      | -                      |
| Threaded bottom bracket shell width (mm)        | 68                    | ✓                                   | -                                    | ✓  | ✓                                      | -                                      | ✓                      |
|   | 73                    | ✓                                   | -                                    | ✓  | ✓                                      | -                                      | ✓                      |
|   | 83                    | -                                   | ✓                                    | -  | -                                      | ✓                                      | -                      |
| Chain case compatible                           |                       | -                                   | -                                    | -  | -                                      | -                                      | -                      |
| Crank arm                                       | Material              | Aluminum                            | Aluminum                             | Aluminum                                     | Aluminum                               | Aluminum                               | Aluminum               |
|   | Finish                | Anodized                            | Anodized                             | Anodized                                     | Painted                                | Painted                                | Anodized               |
| Crank axle                                      | Material              | Steel                               | Steel                                | Steel  | Steel                                  | Steel                                  | Steel                  |
|   | Finish                | Plated                              | Plated                               | Plated                                       | Plated                                 | Plated                                 | Plated                 |
| Spider arm                                      | Material              | Aluminum                            | Aluminum                             | Aluminum                                     | -                                      | -                                      | Aluminum               |
|   | Finish                | Painted                             | Painted                              | Painted                                      | -                                      | -                                      | Painted                |
| Spider arm cover                                | Material              | -                                   | -                                    | -  | -                                      | -                                      | -                      |
|   | Finish                | -                                   | -                                    | -  | -                                      | -                                      | -                      |
| Outer ring                                      | Material              | -                                   | -                                    | Aluminum                                     | -                                      | -                                      | Aluminum +GF composite |
|   | Finish                | -                                   | -                                    | Anodized                                     | -                                      | -                                      | Anodized               |
| Middle ring                                     | Material              | Aluminum                            | Aluminum                             | -  | Aluminum                               | Aluminum                               | -                      |
|   | Finish                | Anodized                            | Anodized                             | -  | Anodized                               | Anodized                               | -                      |
| Inner ring                                      | Material              | -                                   | -                                    | Aluminum                                     | -                                      | -                                      | Steel                  |
|   | Finish                | -                                   | -                                    | Plated                                       | -                                      | -                                      | Painted                |
| Outer/middle ring fixing bolt                   | Material              | Aluminum                            | Aluminum                             | Aluminum                                     | Stainless steel                        | Stainless steel                        | Stainless steel        |
|   | Finish                | Anodized                            | Anodized                             | Anodized                                     | -                                      | -                                      | Painted                |
| Inner ring fixing screw                         | Material              | -                                   | -                                    | Stainless steel                              | -                                      | -                                      | Stainless steel        |
|   | Finish                | -                                   | -                                    | -  | -                                      | -                                      | -                      |
| Stainless chain guard fixing screw              |                       | -                                   | -                                    | -  | -                                      | -                                      | -                      |
| Crank fixing screw included                     |                       | ✓                                   | ✓                                    | ✓  | ✓                                      | ✓                                      | ✓                      |
| Average weight (g) (170 mm, w/o bottom bracket) |                       | 814 (34T)<br>824 (36T)<br>834 (38T) | 825 (34T)<br>836 (36T)<br>845 (38T)  | 706 (38-24T)<br>708 (38-26T)<br>718 (40-28T) | 797 (34T)<br>807 (36T)<br>818 (38T)    | 827 (34T)<br>837 (36T)<br>848 (38T)    | -                      |
| Note  |                       |                                     | For 83 mm bottom bracket shell width |  |  | For 83 mm bottom bracket shell width   |                        |

SW

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# Crankset

| Series  |                          | DEORE           | DEORE           | DEORE           | DEORE           | SHIMANO                | SHIMANO                                    |
|---|--------------------------|-----------------|-----------------|-----------------|-----------------|------------------------|--|
| Model no.                                       |                          | FC-M4100-2      | FC-M4100-B2     | FC-M617         | FC-M617-B2      | FC-MT500-2             | FC-MT500-3                                 |
| Color   | 1                        | Series color    | Series color    | Black           | Black           | Black                  | Black                                      |
|   | 2                        | -               | -               | Silver          | Silver          | -                      | -  |
| Rear speeds                                     |                          | 10              | 10              | 10              | 10              | 10                     | 10   |
| Compatible chain                                |                          | HG-X 10-speed   | HG-X 10-speed   | HG-X 10-speed   | HG-X 10-speed   | HG-X 10-speed          | HG-X 10-speed                              |
| Chain line (mm)                                 |                          | 48.8            | 51.8            | 48.8            | 51.8            | 48.8                   | 50   |
| O.L.D.  | Thru (mm)                | 142             | 148             | 142             | 148             | 142                    | 142  |
|   | QR/Nut (mm)              | 135             | 141             | 135             | 141             | 135                    | 135  |
| P.C.D. (mm)                                     |                          | 96/64           | 96/64           | 104/64          | 104/64          | 96/64                  | 96/64                                      |
| Spider/gear arms                                |                          | 4               | 4               | 4               | 4               | 4                      | 4  |
| Chaining combination                            |                          | 36-26T          | 36-26T          | 36-22T, 38-24T  | 36-22T          | 36-26T                 | 40-30-22T                                  |
| Q-factor (mm)                                   |                          | 178.5           | 178.5           | 176             | 176             | 177                    | 177  |
| Crank arm length (mm)                           | 160                      | -               | -               | -               | -               | -                      | -  |
|   | 165                      | -               | -               | -               | -               | -                      | -  |
|   | 167.5                    | -               | -               | -               | -               | -                      | -  |
|   | 170                      | ✓               | ✓               | ✓               | ✓               | ✓                      | ✓  |
|   | 172.5                    | -               | -               | -               | -               | -                      | -  |
|   | 175                      | ✓               | ✓               | ✓               | ✓               | ✓                      | ✓  |
|   | 177.5                    | -               | -               | -               | -               | -                      | -  |
|   | 180                      | -               | -               | -               | -               | -                      | -  |
| Optional chain guard                            | With bash guard          | -               | -               | -               | -               | -                      | -  |
|   | With chain guard         | -               | -               | -               | -               | -                      | ✓  |
|   | Without chain/bash guard | ✓               | ✓               | ✓               | ✓               | ✓                      | ✓  |
| HOLLOWTECH II                                   |                          | -               | -               | -               | -               | -                      | -  |
| 2-PIECE CRANKSET                                |                          | ✓               | ✓               | ✓               | ✓               | ✓                      | ✓  |
| HOLLOWTECH crank arm                            |                          | -               | -               | -               | -               | -                      | -  |
| OCTALINK  |                          | -               | -               | -               | -               | -                      | -  |
| HOLLOWGLIDE                                     |                          | -               | -               | -               | -               | -                      | -  |
| Compatible bottom bracket type                  | Outboard                 | ✓               | ✓               | ✓               | ✓               | ✓                      | ✓  |
|   | OCTALINK                 | -               | -               | -               | -               | -                      | -  |
|   | Square                   | -               | -               | -               | -               | -                      | -  |
| Recommended bottom bracket                      | Threaded (normal)        | BB-MT501        | BB-MT501        | BB-MT501        | BB-MT501        | BB-MT501               | BB-MT501                                   |
|   | Threaded (E-type)        | -               | -               | SM-BB52         | SM-BB52         | -                      | SM-BB52                                    |
|   | Threaded (chain case)    | -               | -               | -               | -               | -                      | -  |
|   | Press-Fit                | BB-MT500-PA     | BB-MT500-PA     | BB-MT500-PA     | BB-MT500-PA     | BB-MT500-PA            | BB-MT500-PA                                |
| Axle length of BB-UN/ES (mm)                    |                          | -               | -               | -               | -               | -                      | -  |
| Threaded bottom bracket shell width (mm)        | 68                       | ✓               | ✓               | ✓               | ✓               | ✓                      | ✓  |
|   | 73                       | ✓               | ✓               | ✓               | ✓               | ✓                      | ✓  |
|   | 83                       | -               | -               | -               | -               | -                      | -  |
| Chain case compatible                           |                          | -               | -               | -               | -               | -                      | -  |
| Crank arm                                       | Material                 | Aluminum        | Aluminum        | Aluminum        | Aluminum        | Aluminum               | Aluminum                                   |
|   | Finish                   | Painted         | Painted         | Painted         | Painted         | Painted                | Painted                                    |
| Crank axle                                      | Material                 | Steel           | Steel           | Steel           | Steel           | Steel                  | Steel                                      |
|   | Finish                   | Plated          | Plated          | Plated          | Plated          | Plated                 | Plated                                     |
| Spider arm                                      | Material                 | -               | -               | Aluminum        | Aluminum        | Aluminum               | Aluminum                                   |
|   | Finish                   | -               | -               | Painted         | Painted         | Painted                | Painted                                    |
| Spider arm cover                                | Material                 | -               | -               | -               | -               | -                      | -  |
|   | Finish                   | -               | -               | -               | -               | -                      | -  |
| Outer ring                                      | Material                 | Steel           | Steel           | Aluminum        | Aluminum        | Aluminum +GF composite | Aluminum                                   |
|   | Finish                   | Painted         | Painted         | Anodized        | Anodized        | Anodized               | Anodized                                   |
| Middle ring                                     | Material                 | -               | -               | -               | -               | -                      | Steel                                      |
|   | Finish                   | -               | -               | -               | -               | -                      | Plated                                     |
| Inner ring                                      | Material                 | Steel           | Steel           | Steel           | Steel           | Steel                  | Steel                                      |
|   | Finish                   | Painted         | Painted         | Painted         | Painted         | Painted                | Painted                                    |
| Outer/middle ring fixing bolt                   | Material                 | Stainless steel | Stainless steel | Stainless steel | Stainless steel | Stainless steel        | Stainless steel *                          |
|   | Finish                   | Painted         | Painted         | -               | -               | -                      | -  |
| Inner ring fixing screw                         | Material                 | Stainless steel | Stainless steel | Stainless steel | Stainless steel | Stainless steel        | Stainless steel                            |
|   | Finish                   | -               | -               | -               | -               | -                      | -  |
| Stainless chain guard fixing screw              |                          | -               | -               | -               | -               | -                      | -  |
| Crank fixing screw included                     |                          | ✓               | ✓               | ✓               | ✓               | ✓                      | ✓  |
| Average weight (g) (170 mm, w/o bottom bracket) |                          | -               | -               | -               | -               | -                      | -  |
| Note  |                          |                 |                 |                 |                 |                        | * It is fixed on the threaded middle ring. |

# Crankset

MTB

| Series  |                          | SHIMANO   | SHIMANO              | SHIMANO                | SHIMANO                  | SHIMANO      | SHIMANO      |
|---|--------------------------|---|----------------------|------------------------|--------------------------|--------------|--------------|
| Model no.                                       |                          | FC-M627-B   | FC-MT210-3           | FC-MT210-2             | FC-MT210-B2              | FC-MT200     | FC-MT101-2   |
| Color   | 1                        | Black   | Black                | Black                  | Black                    | Black        | Black        |
|   | 2                        | -   | -                    | -                      | -                        | -            | -            |
| Rear speeds                                     |                          | 10  | 9                    | 9                      | 9                        | 9            | 9            |
| Compatible chain                                |                          | HG-X 10-speed   | HG 9-speed           | HG 9-speed             | HG 9-speed               | HG 9-speed   | HG 9-speed   |
| Chain line (mm)                                 |                          | 51.8  | 50                   | 48.8                   | 51.8                     | 50           | 48.8         |
| O.L.D.  | Thru (mm)                | 148   | 142                  | 142                    | 148                      | 142          | 142          |
|   | QR/Nut (mm)              | 141   | 135                  | 135                    | 141                      | 135          | 135          |
| P.C.D. (mm)                                     |                          | 104/64  | Riveted              | Riveted                | Riveted                  | Riveted      | Riveted      |
| Spider/gear arms                                |                          | 4   | 4                    | 4                      | 4                        | 4            | 4            |
| Chaining combination                            |                          | 36-22T  | 40-30-22T, 44-32-22T | 36-22T, 46-30T         | 36-22T                   | 40-30-22T    | 36-22T       |
| Q-factor (mm)                                   |                          | 176   | 176                  | 176                    | 176                      | 176          | 179.4        |
| Crank arm length (mm)                           | 160                      | -   | -                    | -                      | -                        | -            | -            |
|   | 165                      | -   | -                    | -                      | -                        | -            | -            |
|   | 167.5                    | -   | -                    | -                      | -                        | -            | -            |
|   | 170                      | ✓   | ✓                    | ✓                      | ✓                        | ✓            | ✓            |
|   | 172.5                    | -   | -                    | -                      | -                        | -            | -            |
|   | 175                      | ✓   | ✓                    | ✓                      | ✓                        | ✓            | ✓            |
|   | 177.5                    | -   | -                    | -                      | -                        | -            | -            |
|   | 180                      | -   | -                    | -                      | -                        | -            | -            |
| Optional chain guard                            | With bash guard          | -   | -                    | -                      | -                        | -            | -            |
|   | With chain guard         | -   | ✓                    | - (36-22T), ✓ (46-30T) | -                        | ✓            | -            |
|   | Without chain/bash guard | ✓   | ✓                    | ✓                      | ✓                        | ✓            | ✓            |
| HOLLOWTECH II                                   |                          | -   | -                    | -                      | -                        | -            | -            |
| 2-PIECE CRANKSET                                |                          | ✓   | ✓                    | ✓                      | ✓                        | ✓            | -            |
| HOLLOWTECH crank arm                            |                          | -   | -                    | -                      | -                        | -            | -            |
| OCTALINK  |                          | -   | -                    | -                      | -                        | -            | -            |
| HOLLOWGLIDE                                     |                          | -   | -                    | -                      | -                        | -            | -            |
| Compatible bottom bracket type                  | Outboard                 | ✓   | ✓                    | ✓                      | ✓                        | ✓            | -            |
|   | OCTALINK                 | -   | -                    | -                      | -                        | -            | -            |
|   | Square                   | -   | -                    | -                      | -                        | -            | ✓            |
| Recommended bottom bracket                      | Threaded (normal)        | BB-MT501  | BB-MT501             | BB-MT501               | BB-MT501                 | BB-MT501     | BB-UN101     |
|   | Threaded (E-type)        | SM-BB52   | -                    | -                      | -                        | -            | -            |
|   | Threaded (chain case)    | -   | -                    | -                      | -                        | -            | -            |
|   | Press-Fit                | BB-MT500-PA   | BB-MT500-PA          | BB-MT500-PA            | BB-MT500-PA              | BB-MT500-PA  | -            |
| Axle length of BB-UN/ES (mm)                    |                          | -   | -                    | -                      | -                        | -            | LL123        |
| Threaded bottom bracket shell width (mm)        | 68                       | ✓   | ✓                    | ✓                      | ✓                        | ✓            | ✓            |
|   | 73                       | ✓   | ✓                    | ✓                      | ✓                        | ✓            | ✓            |
|   | 83                       | -   | -                    | -                      | -                        | -            | -            |
| Chain case compatible                           |                          | -   | -                    | -                      | -                        | -            | -            |
| Crank arm                                       | Material                 | Aluminum  | Aluminum             | Aluminum               | Aluminum                 | Aluminum     | Aluminum     |
|   | Finish                   | Painted   | Anodized             | Anodized               | Anodized                 | Painted      | Painted      |
| Crank axle                                      | Material                 | Steel   | Steel                | Steel                  | Steel                    | Steel        | -            |
|   | Finish                   | Plated  | Plated               | Plated                 | Plated                   | Plated       | -            |
| Spider arm                                      | Material                 | Aluminum  | -                    | -                      | -                        | -            | -            |
|   | Finish                   | Painted   | -                    | -                      | -                        | -            | -            |
| Spider arm cover                                | Material                 | -   | Resin                | Resin                  | Resin                    | -            | Resin        |
|   | Finish                   | -   | Resin                | Resin                  | Resin                    | -            | Resin        |
| Outer ring                                      | Material                 | Aluminum  | Steel                | Steel                  | Steel                    | Steel        | Steel        |
|   | Finish                   | Anodized  | Painted              | Painted                | Painted                  | Painted      | Painted      |
| Middle ring                                     | Material                 | -   | Steel                | -                      | -                        | Steel        | -            |
|   | Finish                   | -   | Painted              | -                      | -                        | Painted      | -            |
| Inner ring                                      | Material                 | Steel   | Steel                | Steel                  | Steel                    | Steel        | Steel        |
|   | Finish                   | Painted   | Painted              | Painted                | Painted                  | Painted      | Painted      |
| Outer/middle ring fixing bolt                   | Material                 | Stainless steel   | -                    | -                      | -                        | -            | -            |
|   | Finish                   | -   | -                    | -                      | -                        | -            | -            |
| Inner ring fixing screw                         | Material                 | Stainless steel   | -                    | -                      | -                        | -            | -            |
|   | Finish                   | -   | -                    | -                      | -                        | -            | -            |
| Stainless chain guard fixing screw              |                          | -   | ✓                    | -                      | -                        | -            | -            |
| Crank fixing screw included                     |                          | ✓   | ✓                    | ✓                      | ✓                        | ✓            | ✓            |
| Average weight (g) (170 mm, w/o bottom bracket) |                          | -   | -                    | -                      | -                        | -            | -            |
| Note  |                          | - Chain line 3 mm outboard<br>- It requires special dimension of frame which cassette position and front derailleur mount position are 3 mm outboard<br>- Only E type and D type front derailleur are compatible with the special frame | SHIMANO logo         | -                      | Chain line 3 mm outboard | SHIMANO logo | SHIMANO logo |

SW

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# Crankset

| Series  |                          | SHIMANO                                     | SHIMANO              | SHIMANO              | SHIMANO        | SHIMANO                                      | DXR   |
|---|--------------------------|---|----------------------|----------------------|----------------|--|---|
| Model no.                                       |                          | FC-MT101-B2                                 | FC-MT101             | FC-M371              | FC-M315-2      | FC-M315-B2                                   | FC-MX71   |
| Color   | 1                        | Black                                       | Black                | Black                | Black          | Black  | Series color                                      |
|   | 2                        | -   | -                    | -                    | -              | -  | -   |
| Rear speeds                                     |                          | 9   | 9                    | 9                    | 8/7            | 8/7  | 1   |
| Compatible chain                                |                          | HG 9-speed                                  | HG 9-speed           | HG 9-speed           | HG 8/7/6-speed | HG 8/7/6-speed                               | Single speed                                      |
| Chain line (mm)                                 |                          | 51.8  | 50                   | 50                   | 48.8           | 51.8   | 44  |
| O.L.D.  | Thru (mm)                | 148   | 142                  | 142                  | 142            | 148  | 142   |
|   | QR/Nut (mm)              | 141   | 135                  | 135                  | 135            | 141  | 135   |
| P.C.D. (mm)                                     |                          | Riveted                                     | Riveted              | Riveted              | Riveted        | Riveted                                      | 104/64  |
| Spider/gear arms                                |                          | 4   | 4                    | 4                    | 4              | 4  | 4   |
| Chainring combination                           |                          | 36-22T                                      | 40-30-22T, 44-32-22T | 44-32-22T, 48-36-26T | 36-22T         | 36-22T                                       | 34T, 38T, 41T, 42T, 43T, 44T, 46T                 |
| Q-factor (mm)                                   |                          | 179.4                                       | 179.2                | 180.5                | 179.4          | 179.4  | 173   |
| Crank arm length (mm)                           | 160                      | -   | -                    | -                    | -              | -  | -   |
|   | 165                      | -   | -                    | -                    | -              | -  | ✓   |
|   | 167.5                    | -   | -                    | -                    | -              | -  | -   |
|   | 170                      | ✓   | ✓                    | ✓                    | ✓              | ✓  | ✓   |
|   | 172.5                    | -   | -                    | -                    | -              | -  | -   |
|   | 175                      | ✓   | ✓                    | ✓                    | ✓              | ✓  | ✓   |
|   | 177.5                    | -   | -                    | -                    | -              | -  | -   |
|   | 180                      | -   | -                    | -                    | -              | -  | ✓   |
| Optional chain guard                            | With bash guard          | -   | -                    | -                    | -              | -  | -   |
|   | With chain guard         | -   | ✓                    | ✓                    | -              | -  | -   |
|   | Without chain/bash guard | ✓   | ✓                    | ✓                    | ✓              | ✓  | ✓   |
| HOLLOWTECH II                                   |                          | -   | -                    | -                    | -              | -  | ✓   |
| 2-PIECE CRANKSET                                |                          | -   | -                    | -                    | -              | -  | -   |
| HOLLOWTECH crank arm                            |                          | -   | -                    | -                    | -              | -  | ✓   |
| OCTALINK  |                          | -   | -                    | -                    | -              | -  | -   |
| HOLLOWGLIDE                                     |                          | -   | -                    | -                    | -              | -  | -   |
| Compatible bottom bracket type                  | Outboard                 | -   | -                    | -                    | -              | -  | ✓   |
|   | OCTALINK                 | -   | -                    | -                    | -              | -  | -   |
|   | Square                   | ✓   | ✓                    | ✓                    | ✓              | ✓  | -   |
| Recommended bottom bracket                      | Threaded (normal)        | BB-UN101                                    | BB-UN101             | BB-UN300             | BB-UN101       | BB-UN101                                     | -   |
|   | Threaded (E-type)        | -   | -                    | -                    | -              | -  | -   |
|   | Threaded (chain case)    | -   | -                    | BB-UN300-K           | -              | -  | -   |
|   | Press-Fit                | -   | -                    | -                    | -              | -  | -   |
| Axle length of BB-UN/ES (mm)                    |                          | LL123                                       | LL123                | LL123                | LL123          | LL123  | -   |
| Threaded bottom bracket shell width (mm)        | 68                       | ✓   | ✓                    | ✓                    | ✓              | ✓  | ✓   |
|   | 73                       | ✓   | ✓                    | ✓                    | ✓              | ✓  | ✓   |
|   | 83                       | -   | -                    | -                    | -              | -  | -   |
| Chain case compatible                           |                          | -   | -                    | ✓                    | -              | -  | -   |
| Crank arm                                       | Material                 | Aluminum                                    | Aluminum             | Aluminum             | Aluminum       | Aluminum                                     | Aluminum  |
|   | Finish                   | Painted                                     | Painted              | Painted              | Painted        | Painted                                      | Anodized  |
| Crank axle                                      | Material                 | -   | -                    | -                    | -              | -  | Steel   |
|   | Finish                   | -   | -                    | -                    | -              | -  | Plated  |
| Spider arm                                      | Material                 | -   | -                    | -                    | -              | -  | Aluminum  |
|   | Finish                   | -   | -                    | -                    | -              | -  | Anodized  |
| Spider arm cover                                | Material                 | Resin                                       | Resin                | Resin                | Resin          | Resin  | -   |
|   | Finish                   | Resin                                       | Resin                | Resin                | Resin          | Resin  | -   |
| Outer ring                                      | Material                 | Steel                                       | Steel                | Steel                | Steel          | Steel  | Aluminum  |
|   | Finish                   | Painted                                     | Painted              | Painted              | Painted        | Painted                                      | Anodized  |
| Middle ring                                     | Material                 | -   | Steel                | Steel                | -              | -  | -   |
|   | Finish                   | -   | Painted              | Painted              | -              | -  | -   |
| Inner ring                                      | Material                 | Steel                                       | Steel                | Steel                | Steel          | Steel  | -   |
|   | Finish                   | Painted                                     | Painted              | Painted              | Painted        | Painted                                      | -   |
| Outer/middle ring fixing bolt                   | Material                 | -   | -                    | -                    | -              | -  | Aluminum  |
|   | Finish                   | -   | -                    | -                    | -              | -  | Anodized  |
| Inner ring fixing screw                         | Material                 | -   | -                    | -                    | -              | -  | -   |
|   | Finish                   | -   | -                    | -                    | -              | -  | -   |
| Stainless chain guard fixing screw              |                          | -   | -                    | -                    | -              | -  | -   |
| Crank fixing screw included                     |                          | ✓   | ✓ (Option)           | ✓                    | ✓              | ✓  | ✓   |
| Average weight (g) (170 mm, w/o bottom bracket) |                          | -   | -                    | -                    | -              | -  | 751 (w/o chainring)                               |
| Note  |                          | SHIMANO logo<br>Chain line 3 mm<br>outboard | SHIMANO logo         | SHIMANO logo         | SHIMANO logo   | SHIMANO logo,<br>Chain line 3 mm<br>outboard | BMX racing<br>68 mm bottom<br>bracket shell width |

# Chain Device

| Series             |                             | SHIMANO                 | SHIMANO                 | SHIMANO                 | SAINT                    |
|--------------------|-----------------------------|-------------------------|-------------------------|-------------------------|--------------------------|
| Model no.          |                             | SM-CD800-D              | SM-CD800-E              | SM-CD800-I              | SM-CD50                  |
| Color              |                             | Black                   | Black                   | Black                   | Series color             |
| Spec               |                             | Top guide               | Top guide               | Top guide               | Chain guide w/ one guard |
| Chain guide        | Compatible chain            | HG 12-speed             | HG 12-speed             | HG 12-speed             | 10/9-speed               |
|                    | Chain line (mm)             | 52                      | 52                      | 52/55/56.5              | 50.4/57.9                |
|                    | Top gear teeth              | 30T, 32T, 34T, 36T, 38T | 30T, 32T, 34T, 36T, 38T | 30T, 32T, 34T, 36T, 38T | 34T, 36T, 38T            |
|                    | Assumed rear sprocket teeth | 10-45T, 10-51T          | 10-45T, 10-51T          | 10-45T, 10-51T          | 11-23T, 36T              |
|                    | Mount                       | D-type                  | E-type                  | ISCG05                  | ISCG03, ISCG05           |
|                    | Rear suspension stroke      | -                       | -                       | -                       | 0 - 250 mm               |
|                    | Chainstay angle (deg.)      | 63-75                   | 63-75                   | 63-75                   | -                        |
|                    | Back plate                  | Resin                   | Resin                   | Aluminum                | Aluminum                 |
|                    | Chainguide                  | Resin                   | Resin                   | Resin                   | Aluminum                 |
| Bash guard         | Compatible FC               | -                       | -                       | -                       | FC-M820, FC-M825         |
| Average weight (g) |                             | 28                      | 25                      | 33                      | -                        |
| Note               |                             |                         |                         |                         |                          |

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# Chainring

| Series                    |                 | XTR          | XTR          | DEORE XT     | DEORE XT   | SLX  | DEORE XT                          |
|---------------------------|-----------------|--------------|--------------|--------------|--|--|-----------------------------------|
| Model no.                 |                 | SM-CRM96     | SM-CRM95     | SM-CRM86     | SM-CRM85   | SM-CRM75   | SM-CRM81                          |
| Color                     | 1               | Series color | Series color | Series color | Series color                                     | Series color                                     | Series color                      |
|                           | 2               | -            | -            | -            | -  | -  | -                                 |
|                           | 3               | -            | -            | -            | -  | -  | -                                 |
| Gear speed                |                 | 1            | 1            | 1            | 1  | 1  | 1                                 |
| Rear speed                | 12-speed        | ✓            | ✓            | ✓            | ✓  | ✓  | -                                 |
|                           | 11-speed        | -            | -            | -            | -  | -  | ✓                                 |
|                           | 10-speed        | -            | -            | -            | -  | -  | -                                 |
|                           | 9-speed         | -            | -            | -            | -  | -  | -                                 |
|                           | Single          | -            | -            | -            | -  | -  | -                                 |
| DYNAMIC CHAIN ENGAGEMENT+ |                 | ✓            | ✓            | ✓            | ✓  | ✓  | ✓                                 |
| Chainring teeth           | 46T             | -            | -            | -            | -  | -  | -                                 |
|                           | 44T             | -            | -            | -            | -  | -  | -                                 |
|                           | 43T             | -            | -            | -            | -  | -  | -                                 |
|                           | 42T             | -            | -            | -            | -  | -  | -                                 |
|                           | 41T             | -            | -            | -            | -  | -  | -                                 |
|                           | 40T             | -            | -            | -            | -  | -  | -                                 |
|                           | 38T             | ✓            | ✓            | -            | -  | -  | -                                 |
|                           | 36T             | ✓            | ✓            | ✓            | ✓  | -  | -                                 |
|                           | 34T             | ✓            | ✓            | ✓            | ✓  | ✓  | ✓                                 |
|                           | 32T             | ✓            | ✓            | ✓            | ✓  | ✓  | ✓                                 |
|                           | 30T             | ✓            | ✓            | ✓            | ✓  | ✓  | ✓                                 |
|                           | 28T             | ✓            | -            | ✓            | ✓  | -  | -                                 |
| Chain guard type          | Double          | -            | -            | -            | -  | -  | -                                 |
|                           | Single          | -            | -            | -            | -  | -  | -                                 |
|                           | w/o Chain guard | ✓            | ✓            | ✓            | ✓  | ✓  | ✓                                 |
| P.C.D. (mm)               |                 | -            | -            | -            | -  | -  | 96                                |
| Chainring                 | Material        | Aluminum     | Aluminum     | Aluminum     | Steel (teeth)/<br>CFRP (body)/<br>Aluminum (arm) | Steel (teeth)/<br>GFRP (body)/<br>Aluminum (arm) | Steel (teeth)/<br>CFRP (body)     |
|                           | Finish          | Anodized     | Plated       | Anodized     | Painted (teeth)/<br>Anodized (arm)               | Painted (teeth)/<br>Painted (arm)                | Plated (teeth)/<br>Painted (body) |
| Note                      |                 |              |              |              |  |  |                                   |

# Chainring

| Series                    |                 | SLX                           | SHIMANO                               | SHIMANO   |
|---------------------------|-----------------|-------------------------------|---------------------------------------|-----------|
| Model no.                 |                 | SM-CRM70                      | SM-CR82                               | SM-CR80-A |
| Color                     | 1               | Series color                  | Black                                 | Black     |
|                           | 2               | -                             | -                                     | -         |
|                           | 3               | -                             | -                                     | -         |
| Gear speed                |                 | 1                             | 1                                     | 1         |
| Rear speed                | 12-speed        | -                             | -                                     | -         |
|                           | 11-speed        | ✓                             | -                                     | -         |
|                           | 10-speed        | -                             | ✓                                     | -         |
|                           | 9-speed         | -                             | -                                     | ✓         |
|                           | Single          | -                             | -                                     | ✓         |
| DYNAMIC CHAIN ENGAGEMENT+ |                 | ✓                             | -                                     | -         |
| Chainring teeth           | 46T             | -                             | -                                     | ✓         |
|                           | 44T             | -                             | -                                     | ✓         |
|                           | 43T             | -                             | -                                     | ✓         |
|                           | 42T             | -                             | -                                     | ✓         |
|                           | 41T             | -                             | -                                     | ✓         |
|                           | 40T             | -                             | -                                     | -         |
|                           | 38T             | -                             | ✓                                     | ✓         |
|                           | 36T             | -                             | ✓                                     | -         |
|                           | 34T             | ✓                             | ✓                                     | ✓         |
|                           | 32T             | ✓                             | -                                     | -         |
|                           | 30T             | ✓                             | -                                     | -         |
|                           | 28T             | -                             | -                                     | -         |
| Chain guard type          | Double          | -                             | -                                     | -         |
|                           | Single          | -                             | -                                     | -         |
|                           | w/o Chain guard | ✓                             | ✓*                                    | ✓         |
| P.C.D. (mm)               |                 | 96                            | 104                                   | 104       |
| Chainring                 | Material        | Steel (teeth)/<br>GFRP (body) | Aluminum                              | Aluminum  |
|                           | Finish          | Plated (teeth)                | Anodized                              | Anodized  |
| Note                      |                 |                               | * SM-CD50 bash<br>guard is compatible |           |

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## Bottom Bracket (HOLLOWTECH II)

| Series                                    |                              | SHIMANO  | SHIMANO     | SHIMANO                     | SHIMANO     | SHIMANO     | SHIMANO  |
|---|------------------------------|----------|-------------|-----------------------------|-------------|-------------|----------|
| Model no.                                 |                              | SM-BB93  | SM-BB94-41A | SM-BB80                     | SM-BB71-41A | SM-BB71-41C | BB-MT801 |
| HOLLOWTECH II bottom bracket              | Threaded bottom bracket type | ✓        | -           | ✓                           | -           | -           | ✓        |
|   | Press-Fit type               | -        | ✓           | -                           | ✓           | ✓           | -        |
| Threaded bottom bracket shell width (mm)  | 68                           | ✓        | -           | ✓                           | -           | -           | ✓        |
|   | 73                           | ✓        | -           | ✓                           | -           | -           | ✓        |
|   | 83                           | -        | -           | ✓                           | -           | -           | -        |
| Press-Fit bottom bracket shell width (mm) | 84.5                         | -        | -           | -                           | -           | -           | -        |
|   | 89.5                         | -        | ✓           | -                           | ✓           | -           | -        |
|   | 92                           | -        | ✓           | -                           | ✓           | -           | -        |
|   | 104.5                        | -        | -           | -                           | -           | ✓           | -        |
|   | 107                          | -        | -           | -                           | -           | ✓           | -        |
| Small ball bearing                        |                              | ✓        | ✓           | -                           | -           | -           | -        |
| Adapter                                   | Material                     | Aluminum | Resin       | Aluminum                    | Resin       | Resin       | Aluminum |
|   | Finish                       | Anodized | -           | Anodized                    | -           | -           | Anodized |
| Spacer                                    | Material                     | Aluminum | Resin       | Resin                       | Resin       | Resin       | Aluminum |
|   | Finish                       | Anodized | -           | -                           | -           | -           | -        |
| Average weight (g)                        |                              | 73       | 58          | 95 (68/73 mm)<br>96 (83 mm) | 71          | 73          | 84       |
| Note                                      |                              |          |             | Gold color for SAINT        |             |             |          |

| Series                                    |                              | SHIMANO  | SHIMANO     | SHIMANO     | SHIMANO  | SHIMANO  | SHIMANO     |
|---|------------------------------|----------|-------------|-------------|----------|----------|-------------|
| Model no.                                 |                              | BB-MT800 | BB-MT800-PA | BB-MT800-PC | BB-MT501 | BB-MT500 | BB-MT500-PA |
| HOLLOWTECH II bottom bracket              | Threaded bottom bracket type | ✓        | -           | -           | ✓        | ✓        | -           |
|   | Press-Fit type               | -        | ✓           | ✓           | -        | -        | ✓           |
| Threaded bottom bracket shell width (mm)  | 68                           | ✓        | -           | -           | ✓        | ✓        | -           |
|   | 73                           | ✓        | -           | -           | ✓        | ✓        | -           |
|   | 83                           | -        | -           | -           | -        | -        | -           |
| Press-Fit bottom bracket shell width (mm) | 84.5                         | -        | -           | -           | -        | -        | -           |
|   | 89.5                         | -        | ✓           | -           | -        | -        | ✓           |
|   | 92                           | -        | ✓           | -           | -        | -        | ✓           |
|   | 104.5                        | -        | -           | ✓           | -        | -        | -           |
|   | 107                          | -        | -           | ✓           | -        | -        | -           |
| Small ball bearing                        |                              | -        | -           | -           | -        | -        | -           |
| Adapter                                   | Material                     | Aluminum | Resin       | Resin       | Aluminum | Aluminum | Resin       |
|   | Finish                       | Anodized | -           | -           | Anodized | Anodized | -           |
| Spacer                                    | Material                     | Aluminum | Resin       | Resin       | Resin    | Resin    | Resin       |
|   | Finish                       | -        | -           | -           | -        | -        | -           |
| Average weight (g)                        |                              | 83       | 69          | 71          | -        | -        | -           |
| Note                                      |                              |          |             |             |          |          |             |

# Bottom Bracket (HOLLOWTECH II)

| Series                                    |                              | SHIMANO  |
|---|------------------------------|----------|
| Model no.                                 |                              | SM-BB52  |
| HOLLOWTECH II bottom bracket              | Threaded bottom bracket type | ✓        |
|   | Press-Fit type               | -        |
| Threaded bottom bracket shell width (mm)  | 68                           | ✓        |
|   | 73                           | ✓        |
|   | 83                           | -        |
| Press-Fit bottom bracket shell width (mm) | 84.5                         | -        |
|   | 89.5                         | -        |
|   | 92                           | -        |
|   | 104.5                        | -        |
|   | 107                          | -        |
| Small ball bearing                        |                              | -        |
| Adapter                                   | Material                     | Aluminum |
|   | Finish                       | Painted  |
| Spacer                                    | Material                     | Resin    |
|   | Finish                       | -        |
| Average weight (g)                        |                              | -        |
| Note                                      |                              |          |

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# Cassette

| Series                         | XTR  | XTR                                  | DEORE XT   |
|--------------------------------|--|--------------------------------------|--|
| Model no.                      | CS-M9200-12  | CS-M9101-12                          | CS-M8200-12  |
| Type                           | HYPERGLIDE+  | HYPERGLIDE+                          | HYPERGLIDE+  |
| Rear speeds                    | 12   | 12                                   | 12   |
| Compatible chain               | HG 12-speed  | HG 12-speed                          | HG 12-speed  |
| Combination name (Group name)  | 9-45T, 10-51T  | 10-45T, 10-51T                       | 9-45T, 10-51T  |
| Combination *<br>Titanium gear | 1  | 9-11-13-15-17-19-21-24-28-33-39-45T  | 9-11-13-15-17-19-21-24-28-33-39-45T                                |
|                                | 2  | 10-12-14-16-18-21-24-28-33-39-45-51T | 10-12-14-16-18-21-24-28-33-39-45-51T                               |
|                                | 3  | -                                    | -  |
|                                | 4  | -                                    | -  |
|                                | 5  | -                                    | -  |
|                                | 6  | -                                    | -  |
|                                | 7  | -                                    | -  |
| Spline type                    | MICRO SPLINE   | ✓                                    | ✓  |
|                                | HG spline L2 (ROAD 12-speed dedicated)                             | -                                    | -  |
|                                | HG spline L (ROAD 12/11-speed)                                     | -                                    | -  |
|                                | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210)   | -                                    | -  |
|                                | HG spline S (7-speed)  | -                                    | -  |
| Carbon spider arm              | QTY (pcs)  | -                                    | -  |
|                                | Finish   | -                                    | -  |
| Aluminum spider arm            | QTY (pcs)  | 1                                    | 1  |
|                                | Finish   | Anodized                             | Painted  |
| Steel spider arm               | QTY (pcs)  | -                                    | -  |
|                                | Finish   | -                                    | -  |
| Titanium gear                  | QTY (pcs)  | 5 (9-45T), 4 (10-51T)                | 5  |
|                                | Finish   | Shot                                 | -  |
| Aluminum gear                  | QTY (pcs)  | 2 (9-45T), 3 (10-51T)                | 3  |
|                                | Finish   | Anodized                             | Painted  |
| Steel gear                     | QTY (pcs)  | 5                                    | 4  |
|                                | Finish   | Plated                               | Plated   |
| Lock ring                      | Material   | Aluminum                             | Aluminum   |
|                                | Finish   | Anodized                             | Anodized   |
| Average weight (g)             | 327 (9-45T)<br>369 (10-51T)  | 357 (10-45T)<br>367 (10-51T)         | 426 (9-45T)<br>463 (10-51T)  |
| Note                           | TL-LR021, Lock ring tool for 9-45T is compatible with 12mm E-THRU. |                                      | TL-LR021, Lock ring tool for 9-45T is compatible with 12mm E-THRU. |

| Series                         | DEORE XT   | SLX                                  | DEORE                                |
|--------------------------------|--|--------------------------------------|--------------------------------------|
| Model no.                      | CS-M8100-12  | CS-M7100-12                          | CS-M6100-12                          |
| Type                           | HYPERGLIDE+  | HYPERGLIDE+                          | HYPERGLIDE+                          |
| Rear speeds                    | 12   | 12                                   | 12                                   |
| Compatible chain               | HG 12-speed  | HG 12-speed                          | HG 12-speed                          |
| Combination name (Group name)  | 10-45T, 10-51T   | 10-45T, 10-51T                       | 10-51T                               |
| Combination *<br>Titanium gear | 1  | 10-12-14-16-18-21-24-28-32-36-40-45T | 10-12-14-16-18-21-24-28-33-39-45-51T |
|                                | 2  | 10-12-14-16-18-21-24-28-33-39-45-51T | -                                    |
|                                | 3  | -                                    | -                                    |
|                                | 4  | -                                    | -                                    |
|                                | 5  | -                                    | -                                    |
|                                | 6  | -                                    | -                                    |
|                                | 7  | -                                    | -                                    |
| Spline type                    | MICRO SPLINE   | ✓                                    | ✓                                    |
|                                | HG spline L2 (ROAD 12-speed dedicated)                           | -                                    | -                                    |
|                                | HG spline L (ROAD 12/11-speed)                                   | -                                    | -                                    |
|                                | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | -                                    | -                                    |
|                                | HG spline S (7-speed)  | -                                    | -                                    |
| Carbon spider arm              | QTY (pcs)  | -                                    | -                                    |
|                                | Finish   | -                                    | -                                    |
| Aluminum spider arm            | QTY (pcs)  | 1                                    | 1                                    |
|                                | Finish   | Painted                              | Painted                              |
| Steel spider arm               | QTY (pcs)  | -                                    | -                                    |
|                                | Finish   | -                                    | -                                    |
| Titanium gear                  | QTY (pcs)  | -                                    | -                                    |
|                                | Finish   | -                                    | -                                    |
| Aluminum gear                  | QTY (pcs)  | 2                                    | 1                                    |
|                                | Finish   | Anodized                             | Anodized                             |
| Steel gear                     | QTY (pcs)  | 10                                   | 12                                   |
|                                | Finish   | Plated                               | Plated                               |
| Lock ring                      | Material   | Aluminum                             | Steel                                |
|                                | Finish   | Anodized                             | Plated                               |
| Average weight (g)             | 461 (10-45T)<br>470 (10-51T)                                     | 513 (10-45T)<br>534 (10-51T)         | -                                    |
| Note                           |  |                                      |                                      |

# Cassette

MTB

| Series                         | DEORE XT   | DEORE                                     | DEORE XT                                     |
|--------------------------------|--|---|--|
| Model no.                      | CS-M8000   | CS-M5100-11                               | CS-M771-10                                   |
| Type                           | HG   | HG  | HG   |
| Rear speeds                    | 11   | 11  | 10   |
| Compatible chain               | LINKGLIDE, HG 11-speed   | LINKGLIDE, HG 11-speed                    | HG-X 10-speed                                |
| Combination name (Group name)  | 11-40T (bs), 11-42T (bt), 11-46T (bu)                            | 11-42T, 11-51T                            | 11-32T (bL), 11-34T (bJ), 11-36T (bK)        |
| Combination *<br>Titanium gear | 1  | 11-13-15-17-19-21-24-27-31-35-40**T (bs)  | 11-12-14-16-18-20-22-25-28-32T (bL)          |
|                                | 2  | 11-13-15-17-19-21-24-28-32-37-42**T (bt)  | 11-13-15-17-19-21-23-26-30-34T (bJ)          |
|                                | 3  | 11-13-15-17-19-21-24-28-32-37**46**T (bu) | 11-13-15-17-19-21-24-28-32-36T (bK)          |
|                                | 4  | -   | -  |
|                                | 5  | -   | -  |
|                                | 6  | -   | -  |
|                                | 7  | -   | -  |
| Spline type                    | MICRO SPLINE   | -   | -  |
|                                | HG spline L2 (ROAD 12-speed dedicated)                           | -   | -  |
|                                | HG spline L (ROAD 12/11-speed)                                   | -   | -  |
|                                | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | ✓   | ✓  |
|                                | HG spline S (7-speed)  | -   | -  |
| Carbon spider arm              | QTY (pcs)  | -   | -  |
|                                | Finish   | -   | -  |
| Aluminum spider arm            | QTY (pcs)  | 2   | 2  |
|                                | Finish   | Anodized                                  | Anodized                                     |
| Steel spider arm               | QTY (pcs)  | -   | -  |
|                                | Finish   | -   | -  |
| Titanium gear                  | QTY (pcs)  | -   | -  |
|                                | Finish   | -   | -  |
| Aluminum gear                  | QTY (pcs)  | 2   | -  |
|                                | Finish   | -   | -  |
| Steel gear                     | QTY (pcs)  | 9   | 10   |
|                                | Finish   | Shot-Ni                                   | Shot-Cr                                      |
| Lock ring                      | Material   | Aluminum                                  | Aluminum                                     |
|                                | Finish   | Anodized                                  | Anodized                                     |
| Average weight (g)             | 411 (11-40T), 434 (11-42T), 437 (11-46T)                         | -   | 294 (11-32T)<br>323 (11-34T)<br>343 (11-36T) |
| Note                           | ** Aluminum gear   |   |  |

| Series                         | DEORE  | SHIMANO                           | SHIMANO                                   |
|--------------------------------|--|-----------------------------------|---|
| Model no.                      | CS-M4100-10  | CS-HG50-10                        | CS-HG201-9                                |
| Type                           | HG   | HG                                | HG  |
| Rear speeds                    | 10   | 10                                | 9   |
| Compatible chain               | HG-X 10-speed  | HG-X 10-speed                     | HG 9-speed                                |
| Combination name (Group name)  | 11-42T, 11-46T   | 11-36T (bK)                       | 11-32T (bo), 11-34T (bn), 11-36T (bw)     |
| Combination *<br>Titanium gear | 1  | 11-13-15-17-19-21-24-28-32-37-42T | 11-13-15-17-19-21-24-28-32T (bo)          |
|                                | 2  | 11-13-15-18-21-24-28-32-37-46T    | 11-13-15-17-20-23-26-30-34T (bn)          |
|                                | 3  | -                                 | 11-13-15-17-20-23-26-30-36T (bw)          |
|                                | 4  | -                                 | -   |
|                                | 5  | -                                 | -   |
|                                | 6  | -                                 | -   |
|                                | 7  | -                                 | -   |
| Spline type                    | MICRO SPLINE   | -                                 | -   |
|                                | HG spline L2 (ROAD 12-speed dedicated)                           | -                                 | -   |
|                                | HG spline L (ROAD 12/11-speed)                                   | -                                 | -   |
|                                | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | ✓                                 | ✓   |
|                                | HG spline S (7-speed)  | -                                 | -   |
| Carbon spider arm              | QTY (pcs)  | -                                 | -   |
|                                | Finish   | -                                 | -   |
| Aluminum spider arm            | QTY (pcs)  | -                                 | -   |
|                                | Finish   | -                                 | -   |
| Steel spider arm               | QTY (pcs)  | 1                                 | -   |
|                                | Finish   | Plated                            | Nickel plated                             |
| Titanium gear                  | QTY (pcs)  | -                                 | -   |
|                                | Finish   | -                                 | -   |
| Aluminum gear                  | QTY (pcs)  | -                                 | -   |
|                                | Finish   | -                                 | -   |
| Steel gear                     | QTY (pcs)  | 10                                | 9   |
|                                | Finish   | Plated                            | Nickel plated                             |
| Lock ring                      | Material   | Steel                             | Ni-Ni plated (Top gear: Phosphate coated) |
|                                | Finish   | Plated                            | Steel                                     |
| Average weight (g)             | -  | -                                 | Phosphate coated                          |
| Note                           | -  | -                                 | -   |



# Cassette

| Series                         |  | SHIMANO                               | DXR                         |
|--------------------------------|--|---------------------------------------|-----------------------------|
| Model no.                      |  | CS-HG200-9                            | CS-MX66                     |
| Type                           |  | HG                                    | Single sprocket for FH-MX70 |
| Rear speeds                    |  | 9                                     | Single                      |
| Compatible chain               |  | HG 9-speed                            | 1/2 x 3/32                  |
| Combination name (Group name)  |  | 11-32T (bo), 11-34T (bn), 11-36T (bw) | -                           |
| Combination *<br>Titanium gear | 1  | 11-13-15-17-19-21-24-28-32T (bo)      | -                           |
|                                | 2  | 11-13-15-17-20-23-26-30-34T (bn)      | -                           |
|                                | 3  | 11-13-15-17-20-23-26-30-36T (bw)      | -                           |
|                                | 4  | -                                     | -                           |
|                                | 5  | -                                     | -                           |
|                                | 6  | -                                     | -                           |
|                                | 7  | -                                     | -                           |
| Spline type                    | MICRO SPLINE   | -                                     | -                           |
|                                | HG spline L2 (ROAD 12-speed dedicated)                           | -                                     | -                           |
|                                | HG spline L (ROAD 12/11-speed)                                   | -                                     | -                           |
|                                | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | ✓                                     | -                           |
|                                | HG spline S (7-speed)  | -                                     | -                           |
| Carbon spider arm              | QTY (pcs)  | -                                     | -                           |
|                                | Finish   | -                                     | -                           |
| Aluminum spider arm            | QTY (pcs)  | -                                     | -                           |
|                                | Finish   | -                                     | -                           |
| Steel spider arm               | QTY (pcs)  | -                                     | -                           |
|                                | Finish   | -                                     | -                           |
| Titanium gear                  | QTY (pcs)  | -                                     | -                           |
|                                | Finish   | -                                     | -                           |
| Aluminum gear                  | QTY (pcs)  | -                                     | -                           |
|                                | Finish   | -                                     | -                           |
| Steel gear                     | QTY (pcs)  | 9                                     | 1                           |
|                                | Finish   | Phosphate coated                      | Shot-Cr/Shot-Ni             |
| Lock ring                      | Material   | Steel                                 | Steel                       |
|                                | Finish   | Phosphate coated                      | Chrome plated               |
| Average weight (g)             |  | -                                     | -                           |
| Note                           |  |                                       | For BMX racing              |

# Front Hub (Disc Brake)

| Series  |                 | XTR                    | XTR                    | XTR                    | XTR  | SAINT                             | DEORE XT               |
|---|-----------------|------------------------|------------------------|------------------------|--|-----------------------------------|------------------------|
| Model no.                                     |                 | HB-M9210-B             | HB-M9110               | HB-M9110-B             | HB-M9110-BS  | HB-M820                           | HB-M8210-B             |
| Color   | 1 Hub shell     | Series color           | Series color           | Series color           | Series color   | Series color                      | Series color           |
|   | 1 Quick release | -                      | -                      | -                      | -  | -                                 | -                      |
|   | 2 Hub shell     | -                      | -                      | -                      | -  | -                                 | -                      |
|   | 2 Quick release | -                      | -                      | -                      | -  | -                                 | -                      |
| Brake type                                    |                 | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake   | CENTER LOCK disc brake            | CENTER LOCK disc brake |
| O.L.D. (mm)                                   |                 | 110                    | 100                    | 110                    | 110  | 110                               | 110                    |
| Spoke hole                                    | 28H             | ✓                      | ✓                      | ✓                      | ✓  | -                                 | ✓                      |
|   | 32H             | ✓                      | ✓                      | ✓                      | -  | ✓                                 | ✓                      |
|   | 36H             | -                      | -                      | -                      | -  | ✓                                 | -                      |
| External serration disc brake rotor lock ring | With            | -                      | -                      | -                      | -  | ✓                                 | -                      |
|   | Without         | ✓                      | ✓                      | ✓                      | ✓  | -                                 | ✓                      |
| CENTER LOCK mount cover option                |                 | -                      | -                      | -                      | -  | -                                 | -                      |
| Axle fixing method                            |                 | 15 mm E-THRU           | 15 mm E-THRU           | 15 mm E-THRU           | 15 mm E-THRU   | 20 mm Thru                        | 15 mm E-THRU           |
| Quick release skewer length (mm)              | 129             | -                      | -                      | -                      | -  | -                                 | -                      |
|   | 133             | -                      | -                      | -                      | -  | -                                 | -                      |
| Thru axle (length x inner diameter ; mm)      | 100 x 15        | -                      | ✓                      | -                      | -  | -                                 | -                      |
|   | 110 x 15        | ✓                      | -                      | ✓                      | ✓  | -                                 | ✓                      |
|   | 110 x 20        | -                      | -                      | -                      | -  | ✓                                 | -                      |
| Flange distance (mm)                          |                 | 70.2                   | 60.2                   | 70.2                   | 62.76  | 61.6                              | 70.2                   |
| Offset (mm)                                   |                 | 5.4                    | 5.4                    | 5.4                    | 3.63   | 5.6                               | 5.4                    |
| P.C.D. left / right (mm)                      |                 | 44                     | 44/44                  | 44/44                  | 45   | 52                                | 44                     |
| Flange diameter left / right (mm)             |                 | 52.8                   | 52.8                   | 52.8                   | 51   | 59.6                              | 52.8                   |
| Seal  |                 | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact  | Labyrinth+Contact                 | Labyrinth+Contact      |
| Internal grease sleeve                        |                 | -                      | -                      | -                      | -  | -                                 | -                      |
| Bearing                                       | Stainless ball  | -                      | ✓                      | ✓                      | ✓  | ✓                                 | -                      |
|   | Cup             | -                      | Grinded                | Grinded                | Grinded  | CBN                               | -                      |
|   | Cone            | -                      | CBN                    | CBN                    | CBN  | CBN                               | -                      |
|   | Cartridge       | SUS radial             | -                      | -                      | -  | -                                 | SUJ2 radial            |
| Hub shell                                     | Material        | Aluminum               | Aluminum               | Aluminum               | Aluminum   | Aluminum                          | Aluminum               |
|   | Finish          | Anodized               | Anodized               | Anodized               | Anodized   | Anodized                          | Anodized               |
| Axle  | Material        | Aluminum               | Aluminum               | Aluminum               | Aluminum   | Aluminum                          | Aluminum               |
|   | Finish          | Anodized               | Anodized               | Anodized               | Anodized   | Anodized                          | Anodized               |
| Quick release lever                           | Material        | -                      | -                      | -                      | -  | -                                 | -                      |
|   | Finish          | -                      | -                      | -                      | -  | -                                 | -                      |
| Quick release housing                         | Material        | -                      | -                      | -                      | -  | -                                 | -                      |
|   | Finish          | -                      | -                      | -                      | -  | -                                 | -                      |
| Quick release nut                             | Material        | -                      | -                      | -                      | -  | -                                 | -                      |
|   | Finish          | -                      | -                      | -                      | -  | -                                 | -                      |
| Disc brake rotor lock ring                    | Material        | -                      | Aluminum               | Aluminum               | Aluminum   | Aluminum                          | -                      |
|   | Finish          | -                      | Anodized               | Anodized               | Anodized   | Anodized                          | -                      |
| Average weight (g)                            |                 | 121                    | 132                    | 137                    | 146  | 202                               | 130                    |
| Note  |                 |                        | -                      | -                      | For straight spoke<br>ERD: 550 - 610 mm<br>Rim offset: 0 - 3 mm<br>Intersections: 3 cross only including spoke heads in hub shell.<br>Some spoke calculators may call this 2 cross.<br><br>Contact the nearest SHIMANO sales office for more information | Axle is supplied with front fork. |                        |

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# Front Hub (Disc Brake)

| Series  |                 | DEORE XT               | DEORE XT               | DEORE XT   | DEORE XT               | DEORE XT                          | DEORE XT               |
|---|-----------------|------------------------|------------------------|--|------------------------|-----------------------------------|------------------------|
| Model no.                                     |                 | HB-M8110               | HB-M8110-B             | HB-M8110-B5  | HB-M8000               | HB-M8010                          | HB-M8010-B             |
| Color   | 1 Hub shell     | Series color           | Series color           | Series color   | Series color           | Series color                      | Series color           |
|   | 1 Quick release | -                      | -                      | -  | Series color           | -                                 | -                      |
|   | 2 Hub shell     | -                      | -                      | -  | -                      | -                                 | -                      |
|   | 2 Quick release | -                      | -                      | -  | -                      | -                                 | -                      |
| Brake type                                    |                 | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake   | CENTER LOCK disc brake | CENTER LOCK disc brake            | CENTER LOCK disc brake |
| O.L.D. (mm)                                   |                 | 100                    | 110                    | 110  | 100                    | 100                               | 110                    |
| Spoke hole                                    | 28H             | ✓                      | ✓                      | ✓  | -                      | -                                 | -                      |
|   | 32H             | ✓                      | ✓                      | -  | ✓                      | ✓                                 | ✓                      |
|   | 36H             | ✓                      | ✓                      | -  | -                      | ✓                                 | -                      |
| External serration disc brake rotor lock ring | With            | -                      | -                      | -  | -                      | -                                 | -                      |
|   | Without         | ✓                      | ✓                      | ✓  | ✓                      | ✓                                 | ✓                      |
| CENTER LOCK mount cover option                |                 | -                      | -                      | -  | -                      | -                                 | -                      |
| Axle fixing method                            |                 | 15 mm E-THRU           | 15 mm E-THRU           | 15 mm E-THRU   | Quick release          | 15 mm E-THRU                      | 15 mm E-THRU           |
| Quick release skewer length (mm)              | 129             | -                      | -                      | -  | -                      | -                                 | -                      |
|   | 133             | -                      | -                      | -  | ✓                      | -                                 | -                      |
| Thru axle (length x inner diameter ; mm)      | 100 x 15        | ✓                      | -                      | -  | -                      | ✓                                 | -                      |
|   | 110 x 15        | -                      | ✓                      | ✓  | -                      | -                                 | ✓                      |
|   | 110 x 20        | -                      | -                      | -  | -                      | -                                 | -                      |
| Flange distance (mm)                          |                 | 60.2                   | 70.2                   | 62.8   | 60.2                   | 60.2                              | 70.2                   |
| Offset (mm)                                   |                 | 5.7                    | 5.7                    | 3.7  | 6                      | 5.4                               | 5.4                    |
| P.C.D. left / right (mm)                      |                 | 44/44                  | 44/44                  | 45/45  | 44/41                  | 44/44                             | 44/44                  |
| Flange diameter left / right (mm)             |                 | 52.8                   | 52.8                   | 51   | 52.8/51.4              | 52.8                              | 52.8                   |
| Seal  |                 | -                      | -                      | -  | Labyrinth+Contact      | Labyrinth+Contact                 | Labyrinth+Contact      |
| Internal grease sleeve                        |                 | ✓                      | ✓                      | ✓  | ✓                      | ✓                                 | ✓                      |
| Bearing                                       | Stainless ball  | ✓                      | ✓                      | ✓  | -                      | -                                 | -                      |
|   | Cup             | Polish                 | Polish                 | Polish   | -                      | -                                 | -                      |
|   | Cone            | CBN                    | CBN                    | CBN  | CBN                    | CBN                               | CBN                    |
|   | Cartridge       | -                      | -                      | -  | -                      | -                                 | -                      |
| Hub shell                                     | Material        | Aluminum               | Aluminum               | Aluminum   | Aluminum               | Aluminum                          | Aluminum               |
|   | Finish          | Anodized               | Anodized               | Anodized   | Anodized               | Anodized                          | Anodized               |
| Axle  | Material        | Aluminum               | Aluminum               | Aluminum   | Aluminum               | Aluminum                          | Aluminum               |
|   | Finish          | Anodized               | Anodized               | Anodized   | Anodized               | Anodized                          | Anodized               |
| Quick release lever                           | Material        | -                      | -                      | -  | Aluminum               | -                                 | -                      |
|   | Finish          | -                      | -                      | -  | Anodized               | -                                 | -                      |
| Quick release housing                         | Material        | -                      | -                      | -  | Aluminum               | -                                 | -                      |
|   | Finish          | -                      | -                      | -  | Anodized               | -                                 | -                      |
| Quick release nut                             | Material        | -                      | -                      | -  | Steel+Resin            | -                                 | -                      |
|   | Finish          | -                      | -                      | -  | -                      | -                                 | -                      |
| Disc brake rotor lock ring                    | Material        | -                      | -                      | -  | -                      | Aluminum                          | Aluminum               |
|   | Finish          | -                      | -                      | -  | -                      | Anodized                          | Anodized               |
| Average weight (g)                            |                 | 142                    | 147                    | 158  | 167                    | 148                               | 158                    |
| Note  |                 |                        |                        | For straight spoke<br>ERD: 550 - 610 mm<br>Rim offset: 0 - 3 mm<br>Intersections: 3 cross only including spoke heads in hub shell.<br>Some spoke calculators may call this 2 cross.<br><br>Contact the nearest SHIMANO sales office for more information | -                      | Axle is supplied with front fork. | -                      |

# Front Hub (Disc Brake)

| Series  |                 | SLX                    | SLX                    | DEORE                  | DEORE                  | DEORE                  | SHIMANO                |
|---|-----------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Model no.                                     |                 | HB-M7110               | HB-M7110-B             | HB-M6000               | HB-M6010               | HB-M5100               | HB-MT410               |
| Color   | 1 Hub shell     | Series color           | Series color           | Series black           | Series black           | Series black           | Black                  |
|   | 1 Quick release | -                      | -                      | Series black           | -                      | Series black           | -                      |
|   | 2 Hub shell     | -                      | -                      | -                      | -                      | -                      | -                      |
|   | 2 Quick release | -                      | -                      | -                      | -                      | -                      | -                      |
| Brake type                                    |                 | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake |
| O.L.D. (mm)                                   |                 | 100                    | 110                    | 100                    | 100                    | 100                    | 100                    |
| Spoke hole                                    | 28H             | ✓                      | ✓                      | -                      | -                      | -                      | ✓                      |
|   | 32H             | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
|   | 36H             | -                      | -                      | ✓                      | ✓                      | ✓                      | ✓                      |
| External serration disc brake rotor lock ring | With            | -                      | -                      | -                      | -                      | -                      | -                      |
|   | Without         | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
| CENTER LOCK mount cover option                |                 | -                      | -                      | -                      | -                      | -                      | -                      |
| Axle fixing method                            |                 | 15 mm E-THRU           | 15 mm E-THRU           | Quick release          | 15 mm E-THRU           | Quick release          | 15 mm E-THRU           |
| Quick release skewer length (mm)              | 129             | -                      | -                      | -                      | -                      | -                      | -                      |
|   | 133             | -                      | -                      | ✓                      | -                      | ✓                      | -                      |
| Thru axle (length x inner diameter ; mm)      | 100 x 15        | ✓                      | -                      | -                      | ✓                      | -                      | ✓                      |
|   | 110 x 15        | -                      | ✓                      | -                      | -                      | -                      | -                      |
|   | 110 x 20        | -                      | -                      | -                      | -                      | -                      | -                      |
| Flange distance (mm)                          |                 | 60.2                   | 70.2                   | 60.2                   | 60.2                   | 60.2                   | 60.2                   |
| Offset (mm)                                   |                 | 5.7                    | 5.7                    | 5.6                    | 5.3                    | 5.6                    | 5.3                    |
| P.C.D. left / right (mm)                      |                 | 44/44                  | 44/44                  | 44                     | 44                     | 44                     | 44/44                  |
| Flange diameter left / right (mm)             |                 | 52.8                   | 52.8                   | 52.8                   | 52.8                   | 52.8                   | 52.8                   |
| Seal  |                 | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      |
| Internal grease sleeve                        |                 | ✓                      | ✓                      | -                      | ✓                      | -                      | -                      |
| Bearing                                       | Stainless ball  | ✓                      | ✓                      | -                      | -                      | -                      | -                      |
|   | Cup             | Polish                 | Polish                 | -                      | -                      | -                      | -                      |
|   | Cone            | CBN                    | CBN                    | CBN                    | CBN                    | CBN                    | -                      |
|   | Cartridge       | -                      | -                      | -                      | -                      | -                      | ✓                      |
| Hub shell                                     | Material        | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               |
|   | Finish          | Anodized               | Anodized               | Anodized               | Anodized               | Anodized               | Painted                |
| Axle  | Material        | Aluminum               | Aluminum               | Steel                  | Aluminum               | Steel                  | -                      |
|   | Finish          | Anodized               | Anodized               | -                      | Anodized               | -                      | -                      |
| Quick release lever                           | Material        | -                      | -                      | Aluminum               | -                      | Aluminum               | -                      |
|   | Finish          | -                      | -                      | Anodized               | -                      | Anodized               | -                      |
| Quick release housing                         | Material        | -                      | -                      | Aluminum               | -                      | Aluminum               | -                      |
|   | Finish          | -                      | -                      | Anodized               | -                      | Anodized               | -                      |
| Quick release nut                             | Material        | -                      | -                      | Steel+Resin            | -                      | Steel+Resin            | -                      |
|   | Finish          | -                      | -                      | -                      | -                      | -                      | -                      |
| Disc brake rotor lock ring                    | Material        | -                      | -                      | -                      | Steel                  | -                      | -                      |
|   | Finish          | -                      | -                      | -                      | -                      | -                      | -                      |
| Average weight (g)                            |                 | 142                    | 147                    | -                      | -                      | -                      | -                      |
| Note  |                 |                        |                        |                        | -                      |                        |                        |

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## Front Hub (Disc Brake)

| Series  |                 | SHIMANO                | SHIMANO           | SHIMANO           | SHIMANO                | SHIMANO                | SHIMANO                |
|---|-----------------|------------------------|-------------------|-------------------|------------------------|------------------------|------------------------|
| Model no.                                     |                 | HB-MT410-B             | HB-M525A          | HB-M475           | HB-M4050               | HB-M3050               | HB-MT400               |
| Color   | 1 Hub shell     | Black                  | Black             | Black             | Black                  | Black                  | Black                  |
|   | 1 Quick release | -                      | Black             | Black             | Black                  | Black                  | -                      |
|   | 2 Hub shell     | -                      | Silver            | Silver            | Silver                 | -                      | -                      |
|   | 2 Quick release | -                      | Silver            | Silver            | Silver                 | -                      | -                      |
| Brake type                                    |                 | CENTER LOCK disc brake | 6-bolt disc brake | 6-bolt disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake |
| O.L.D. (mm)                                   |                 | 110                    | 100               | 100               | 100                    | 100                    | 100                    |
| Spoke hole                                    | 28H             | ✓                      | -                 | -                 | -                      | -                      | -                      |
|   | 32H             | ✓                      | ✓                 | ✓                 | ✓                      | ✓                      | ✓                      |
|   | 36H             | ✓                      | ✓                 | ✓                 | ✓                      | ✓                      | ✓                      |
| External serration disc brake rotor lock ring | With            | -                      | -                 | -                 | -                      | -                      | -                      |
|   | Without         | ✓                      | -                 | -                 | ✓                      | ✓                      | ✓                      |
| CENTER LOCK mount cover option                |                 | -                      | -                 | -                 | -                      | -                      | -                      |
| Axle fixing method                            |                 | 15 mm E-THRU           | Quick release     | Quick release     | Quick release          | Quick release          | 15 mm E-THRU           |
| Quick release skewer length (mm)              | 129             | -                      | -                 | -                 | -                      | -                      | -                      |
|   | 133             | -                      | ✓                 | ✓                 | ✓                      | ✓                      | -                      |
| Thru axle (length x inner diameter ; mm)      | 100 x 15        | -                      | -                 | -                 | -                      | -                      | ✓                      |
|   | 110 x 15        | ✓                      | -                 | -                 | -                      | -                      | -                      |
|   | 110 x 20        | -                      | -                 | -                 | -                      | -                      | -                      |
| Flange distance (mm)                          |                 | 70.2                   | 59.2              | 59.2              | 60.2                   | 60.2                   | 60.2                   |
| Offset (mm)                                   |                 | 5.3                    | 5.7               | 5.5               | 5.6                    | 5.5                    | 5.3                    |
| P.C.D. left / right (mm)                      |                 | 44/44                  | 61/61             | 61/61             | 44/44                  | 44/44                  | 44/44                  |
| Flange diameter left / right (mm)             |                 | 52.8                   | 70.6              | 70.6              | 52.8                   | 52.8                   | 52.8                   |
| Seal  |                 | Labyrinth+Contact      | Labyrinth+Contact | Contact           | Labyrinth+Contact      | Contact                | Labyrinth+Contact      |
| Internal grease sleeve                        |                 | -                      | -                 | -                 | -                      | -                      | ✓                      |
| Bearing                                       | Stainless ball  | -                      | -                 | -                 | -                      | -                      | -                      |
|   | Cup             | -                      | -                 | -                 | -                      | -                      | -                      |
|   | Cone            | -                      | CBN               | -                 | -                      | -                      | -                      |
|   | Cartridge       | ✓                      | -                 | -                 | -                      | -                      | -                      |
| Hub shell                                     | Material        | Aluminum               | Aluminum          | Aluminum          | Aluminum               | Aluminum               | Aluminum               |
|   | Finish          | Painted                | Anodized          | Anodized          | Anodized               | Anodized               | Painted                |
| Axle  | Material        | -                      | Steel             | Steel             | Steel                  | Steel                  | Aluminum               |
|   | Finish          | -                      | -                 | -                 | -                      | -                      | -                      |
| Quick release lever                           | Material        | -                      | Aluminum          | Steel, Aluminum   | Aluminum               | Steel                  | -                      |
|   | Finish          | -                      | Anodized          | Plated, Painted   | Painted                | Plated                 | -                      |
| Quick release housing                         | Material        | -                      | Aluminum          | Steel, Aluminum   | Steel                  | Steel                  | -                      |
|   | Finish          | -                      | Anodized          | Painted, Anodized | Plated                 | Plated                 | -                      |
| Quick release nut                             | Material        | -                      | Steel+Resin       | Steel+Resin       | Steel+Resin            | Steel+Resin            | -                      |
|   | Finish          | -                      | -                 | -                 | -                      | -                      | -                      |
| Disc brake rotor lock ring                    | Material        | -                      | -                 | -                 | -                      | -                      | Steel                  |
|   | Finish          | -                      | -                 | -                 | -                      | -                      | -                      |
| Average weight (g)                            |                 | -                      | -                 | -                 | -                      | -                      | -                      |
| Note  |                 | -                      | -                 | -                 | -                      | -                      | -                      |

# Front Hub (Disc Brake)

| Series  |                 | SHIMANO                | SHIMANO                    |
|---|-----------------|------------------------|----------------------------|
| Model no.                                     |                 | HB-MT400-B             | HB-MT200                   |
| Color   | 1 Hub shell     | Black                  | Black                      |
|   | 1 Quick release | -                      | Black                      |
|   | 2 Hub shell     | -                      | -                          |
|   | 2 Quick release | -                      | -                          |
| Brake type                                    |                 | CENTER LOCK disc brake | CENTER LOCK disc brake     |
| O.L.D. (mm)                                   |                 | 110                    | 100                        |
| Spoke hole                                    | 28H             | ✓                      | ✓                          |
|   | 32H             | ✓                      | ✓                          |
|   | 36H             | ✓                      | ✓                          |
| External serration disc brake rotor lock ring | With            | -                      | -                          |
|   | Without         | ✓                      | ✓                          |
| CENTER LOCK mount cover option                |                 | -                      | -                          |
| Axle fixing method                            |                 | 15 mm E-THRU           | Quick release              |
| Quick release skewer length (mm)              | 129             | -                      | -                          |
|   | 133             | -                      | ✓                          |
| Thru axle (length x inner diameter ; mm)      | 100 x 15        | -                      | -                          |
|   | 110 x 15        | ✓                      | -                          |
|   | 110 x 20        | -                      | -                          |
| Flange distance (mm)                          |                 | 70.2                   | 60.2                       |
| Offset (mm)                                   |                 | 5.3                    | 5.3                        |
| P.C.D. left / right (mm)                      |                 | 44/44                  | 44/44                      |
| Flange diameter left / right (mm)             |                 | 52.8                   | 52.8 (32H/36H), 53.8 (28H) |
| Seal  |                 | Labyrinth+Contact      | Contact                    |
| Internal grease sleeve                        |                 | -                      | -                          |
| Bearing                                       | Stainless ball  | -                      | -                          |
|   | Cup             | -                      | -                          |
|   | Cone            | -                      | -                          |
|   | Cartridge       | -                      | -                          |
| Hub shell                                     | Material        | Aluminum               | Aluminum                   |
|   | Finish          | Painted                | Painted                    |
| Axle  | Material        | Aluminum               | Steel                      |
|   | Finish          | -                      | -                          |
| Quick release lever                           | Material        | -                      | Steel                      |
|   | Finish          | -                      | Plated                     |
| Quick release housing                         | Material        | -                      | Steel                      |
|   | Finish          | -                      | Plated                     |
| Quick release nut                             | Material        | -                      | Steel+Resin                |
|   | Finish          | -                      | -                          |
| Disc brake rotor lock ring                    | Material        | Steel                  | -                          |
|   | Finish          | -                      | -                          |
| Average weight (g)                            |                 | -                      | -                          |
| Note  |                 | -                      | -                          |

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# FREEHUB (Disc Brake)

| Series   |  | XTR                    | XTR                    | XTR                    | XTR   | SAINT                           | SAINT                           |
|--|--|------------------------|------------------------|------------------------|---|---------------------------------|---------------------------------|
| Model no.  |  | FH-M9210-B             | FH-M9111               | FH-M9111-B             | FH-M9111-B5   | FH-M820                         | FH-M825                         |
| Color  | 1 Hub shell  | Series color           | Series color           | Series color           | Series color  | Series color                    | Series color                    |
|  | 1 Quick release  | -                      | -                      | -                      | -   | -                               | -                               |
|  | 2 Hub shell  | -                      | -                      | -                      | -   | -                               | -                               |
|  | 2 Quick release  | -                      | -                      | -                      | -   | -                               | -                               |
| Brake type   |  | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake  | CENTER LOCK disc brake          | CENTER LOCK disc brake          |
| Rear speeds  |  | 12                     | 12                     | 12                     | 12  | 11/10/9/8/7                     | 11/10/9/8/7                     |
| O.L.D. (mm)  |  | 148                    | 142                    | 148                    | 148   | 135                             | 150                             |
| Spoke hole   | 28H  | ✓                      | ✓                      | ✓                      | ✓   | -                               | -                               |
|  | 32H  | ✓                      | ✓                      | ✓                      | -   | ✓                               | ✓                               |
|  | 36H  | -                      | -                      | -                      | -   | ✓                               | ✓                               |
| 10 tooth cog compatible                                    |  | ✓                      | ✓                      | ✓                      | ✓   | -                               | -                               |
| External serration disc brake rotor lock ring              | With   | -                      | -                      | -                      | -   | ✓                               | ✓                               |
|  | Without  | ✓                      | ✓                      | ✓                      | ✓   | -                               | -                               |
| Internal serration disc brake rotor lock ring              | With   | -                      | -                      | -                      | -   | -                               | -                               |
|  | Without  | ✓                      | ✓                      | ✓                      | ✓   | ✓                               | ✓                               |
| CENTER LOCK mount cover option                             |  | -                      | -                      | -                      | -   | -                               | -                               |
| Axle fixing method   |  | 12 mm E-THRU           | 12 mm E-THRU           | 12 mm E-THRU           | 12 mm E-THRU  | Thru                            | Thru                            |
| Quick release skewer length (mm)                           | 166  | -                      | -                      | -                      | -   | -                               | -                               |
|  | 168  | -                      | -                      | -                      | -   | -                               | -                               |
|  | 170  | -                      | -                      | -                      | -   | -                               | -                               |
|  | 172  | -                      | -                      | -                      | -   | -                               | -                               |
|  | 173  | -                      | -                      | -                      | -   | -                               | -                               |
|  | 174  | -                      | -                      | -                      | -   | -                               | -                               |
|  | 176  | -                      | -                      | -                      | -   | -                               | -                               |
|  | 178  | -                      | -                      | -                      | -   | -                               | -                               |
| Thru axle (length x inner diameter, mm)                    | 135 x 10   | -                      | -                      | -                      | -   | ✓                               | -                               |
|  | 135 x 12   | -                      | -                      | -                      | -   | ✓                               | -                               |
|  | 142 x 12   | -                      | ✓                      | -                      | -   | -                               | -                               |
|  | 148 x 12   | ✓                      | -                      | ✓                      | ✓   | -                               | -                               |
|  | 150 x 12   | -                      | -                      | -                      | -   | -                               | ✓                               |
|  | 157 x 12   | -                      | -                      | -                      | -   | -                               | -                               |
| Flange distance (mm)                                       |  | 63                     | 55.89                  | 63.06                  | 56.0  | 57.4                            | 72.4                            |
| Offset (mm)  |  | 7                      | 7.05                   | 7.02                   | 6.8   | 6.4                             | 6.6                             |
| P.C.D. left / right (mm)                                   |  | 47.25/61               | 50/61                  | 47.25/61               | 45/61   | 44/45                           | 44/45                           |
| Flange diameter left / right (mm)                          |  | 68.8/69.8              | 59/70                  | 56.25/70               | 51/68.4   | 52.8/53.8                       | 52.8/53.8                       |
| Spline type  | MICRO SPLINE   | ✓                      | ✓                      | ✓                      | ✓   | -                               | -                               |
|  | HG spline L2 (ROAD 12-speed dedicated)                           | -                      | -                      | -                      | -   | -                               | -                               |
|  | HG spline L (ROAD 12/11-speed)                                   | -                      | -                      | -                      | -   | -                               | -                               |
|  | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | -                      | -                      | -                      | -   | ✓                               | ✓                               |
|  | HG spline S (7-speed)  | -                      | -                      | -                      | -   | -                               | -                               |
| Engagement type  |  | Direct engagement      | Direct engagement      | Direct engagement      | Direct engagement   | Pawl ratchet                    | Pawl ratchet                    |
| Quick engagement   |  | ✓ (max 3.5 deg.)       | ✓ (max 7.0 deg.)       | ✓ (max 7.0 deg.)       | ✓ (max 7.0 deg.)  | ✓ (more than 36 times/360 deg.) | ✓ (more than 36 times/360 deg.) |
| Seal   | Hub  | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact   | Labyrinth+Contact               | Labyrinth+Contact               |
|  | FREEHUB body   | Labyrinth+Contact      | Contact                | Contact                | Contact   | Contact                         | Contact                         |
| Internal grease sleeve                                     |  | -                      | -                      | -                      | -   | ✓                               | ✓                               |
| Bearing  | Stainless ball   | -                      | ✓                      | ✓                      | ✓   | -                               | -                               |
|  | Cup  | -                      | Grinded                | Grinded                | Grinded   | Grinded                         | Grinded                         |
|  | Cone   | -                      | CBN                    | CBN                    | CBN   | CBN                             | CBN                             |
|  | Cartridge  | SUS radial             | -                      | -                      | -   | -                               | -                               |
| FREEHUB body   | Material   | Aluminum               | Aluminum               | Aluminum               | Aluminum  | Steel                           | Steel                           |
|  | Finish   | Anodized               | Anodized               | Anodized               | Anodized  | -                               | -                               |
| Hub shell  | Material   | Aluminum               | Aluminum               | Aluminum               | Aluminum  | Aluminum                        | Aluminum                        |
|  | Finish   | Anodized               | Anodized               | Anodized               | Anodized  | Anodized                        | Anodized                        |
| Axle   | Material   | Aluminum               | Aluminum               | Aluminum               | Aluminum  | Steel                           | Steel                           |
|  | Finish   | Anodized               | Anodized               | Anodized               | Anodized  | -                               | -                               |
| Quick release lever  | Material   | -                      | -                      | -                      | -   | -                               | -                               |
|  | Finish   | -                      | -                      | -                      | -   | -                               | -                               |
| Quick release housing                                      | Material   | -                      | -                      | -                      | -   | -                               | -                               |
|  | Finish   | -                      | -                      | -                      | -   | -                               | -                               |
| Quick release nut  | Material   | -                      | -                      | -                      | -   | -                               | -                               |
|  | Finish   | -                      | -                      | -                      | -   | -                               | -                               |
| Disc brake rotor lock ring                                 | Material   | -                      | Aluminum               | Aluminum               | Aluminum  | Aluminum                        | Aluminum                        |
|  | Finish   | -                      | Anodized               | Anodized               | Anodized  | Anodized                        | Anodized                        |
| Average weight (g) (w/o axle, quick release nor lock ring) |  | 231                    | 237                    | 238                    | 241   | 347 (ø10)<br>333 (ø12)          | 348                             |
| Note   |  |                        |                        |                        | * For straight spoke, Lacing pattern limited to 3-cross, non-offset rim<br><br>For details, refer to Products Technical Information |                                 |                                 |

# FREEHUB (Disc Brake)

| Series   |  | DEORE XT               | DEORE XT               | DEORE XT               | DEORE XT   | DEORE XT               | DEORE XT                        |
|--|--|------------------------|------------------------|------------------------|--|------------------------|---------------------------------|
| Model no.  |  | FH-M8210-B             | FH-M8110               | FH-M8110-B             | FH-M8110-BS  | FH-M8130-B             | FH-M8000                        |
| Color  | 1 Hub shell  | Series color           | Series color           | Series color           | Series color   | Series color           | Series color                    |
|  | 1 Quick release  | -                      | -                      | -                      | -  | -                      | Series color                    |
|  | 2 Hub shell  | -                      | -                      | -                      | -  | -                      | -                               |
|  | 2 Quick release  | -                      | -                      | -                      | -  | -                      | -                               |
| Brake type   |  | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake   | CENTER LOCK disc brake | CENTER LOCK disc brake          |
| Rear speeds  |  | 12                     | 12                     | 12                     | 12   | 12                     | 11/10/9/8/7                     |
| O.L.D. (mm)  |  | 148                    | 142                    | 148                    | 148  | 157                    | 135                             |
| Spoke hole   | 28H  | ✓                      | ✓                      | ✓                      | ✓  | ✓                      | -                               |
|  | 32H  | ✓                      | ✓                      | ✓                      | -  | ✓                      | ✓                               |
|  | 36H  | -                      | ✓                      | ✓                      | -  | -                      | -                               |
|  | 10 tooth cog compatible  | ✓                      | ✓                      | ✓                      | ✓  | ✓                      | -                               |
| External serration disc brake rotor lock ring              | With   | -                      | -                      | -                      | -  | -                      | -                               |
|  | Without  | ✓                      | ✓                      | ✓                      | ✓  | ✓                      | ✓                               |
| Internal serration disc brake rotor lock ring              | With   | -                      | -                      | -                      | -  | -                      | -                               |
|  | Without  | ✓                      | ✓                      | ✓                      | ✓  | ✓                      | ✓                               |
| CENTER LOCK mount cover option                             |  | -                      | -                      | -                      | -  | -                      | -                               |
| Axle fixing method   |  | 12 mm E-THRU           | 12 mm E-THRU           | 12 mm E-THRU           | 12 mm E-THRU   | 12 mm E-THRU           | Quick release                   |
| Quick release skewer length (mm)                           | 166  | -                      | -                      | -                      | -  | -                      | -                               |
|  | 168  | -                      | -                      | -                      | -  | -                      | ✓                               |
|  | 170  | -                      | -                      | -                      | -  | -                      | -                               |
|  | 172  | -                      | -                      | -                      | -  | -                      | -                               |
|  | 173  | -                      | -                      | -                      | -  | -                      | ✓                               |
|  | 174  | -                      | -                      | -                      | -  | -                      | -                               |
|  | 176  | -                      | -                      | -                      | -  | -                      | -                               |
|  | 178  | -                      | -                      | -                      | -  | -                      | -                               |
| Thru axle (length x inner diameter ; mm)                   | 135 x 10   | -                      | -                      | -                      | -  | -                      | -                               |
|  | 135 x 12   | -                      | -                      | -                      | -  | -                      | -                               |
|  | 142 x 12   | -                      | ✓                      | -                      | -  | -                      | -                               |
|  | 148 x 12   | ✓                      | -                      | ✓                      | ✓  | -                      | -                               |
|  | 150 x 12   | -                      | -                      | -                      | -  | -                      | -                               |
|  | 157 x 12   | -                      | -                      | -                      | -  | ✓                      | -                               |
| Flange distance (mm)                                       |  | 62.2                   | 55.17                  | 62.16                  | 55.95  | 72.69                  | 57.4                            |
| Offset (mm)  |  | 6.6                    | 6.72                   | 6.6                    | 6.78   | 6.43                   | 6.9                             |
| P.C.D. left / right (mm)                                   |  | 60/61                  | 61/61                  | 60/61                  | 45/61  | 58/61                  | 44/45                           |
| Flange diameter left / right (mm)                          |  | 68.8/69.8              | 69.8/69.8              | 68.8/69.8              | 51/68.4  | 66.8/69.8              | 52.8/53.8                       |
| Spline type  | MICRO SPLINE   | ✓                      | ✓                      | ✓                      | ✓  | ✓                      | -                               |
|  | HG spline L2 (ROAD 12-speed dedicated)                           | -                      | -                      | -                      | -  | -                      | -                               |
|  | HG spline L (ROAD 12/11-speed)                                   | -                      | -                      | -                      | -  | -                      | -                               |
|  | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | -                      | -                      | -                      | -  | -                      | ✓                               |
|  | HG spline S (7-speed)  | -                      | -                      | -                      | -  | -                      | -                               |
| Engagement type  |  | Direct engagement      | Direct engagement      | Direct engagement      | Direct engagement  | Direct engagement      | Pawl ratchet                    |
| Quick engagement   |  | ✓ (max 3.5 deg.)       | ✓ (max 7.0 deg.)       | ✓ (max 7.0 deg.)       | ✓ (max 7.0 deg.)   | ✓ (max 7.0 deg.)       | ✓ (more than 36 times/360 deg.) |
| Seal   | Hub  | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact  | Labyrinth+Contact      | Labyrinth+Contact               |
|  | FREEHUB body   | Labyrinth+Contact      | Contact                | Contact                | Contact  | Contact                | Contact                         |
| Internal grease sleeve                                     |  | -                      | -                      | -                      | -  | -                      | ✓                               |
| Bearing  | Stainless ball   | -                      | -                      | -                      | -  | -                      | -                               |
|  | Cup  | -                      | Polish                 | Polish                 | Polish   | Polish                 | -                               |
|  | Cone   | -                      | CBN+Polish             | CBN+Polish             | CBN+Polish   | CBN+Polish             | CBN                             |
|  | Cartridge  | SUJ2 radial            | -                      | -                      | -  | -                      | -                               |
| FREEHUB body   | Material   | Aluminum               | Aluminum               | Aluminum               | Aluminum   | Aluminum               | Steel                           |
|  | Finish   | Anodized               | Anodized               | Anodized               | Anodized   | Anodized               | -                               |
| Hub shell  | Material   | Aluminum               | Aluminum               | Aluminum               | Aluminum   | Aluminum               | Aluminum                        |
|  | Finish   | Anodized               | Anodized               | Anodized               | Anodized   | Anodized               | Anodized                        |
| Axle   | Material   | Aluminum               | Aluminum               | Aluminum               | Aluminum   | Aluminum               | Aluminum                        |
|  | Finish   | Anodized               | Anodized               | Anodized               | Anodized   | Anodized               | Anodized                        |
| Quick release lever  | Material   | -                      | -                      | -                      | -  | -                      | Aluminum                        |
|  | Finish   | -                      | -                      | -                      | -  | -                      | Anodized                        |
| Quick release housing                                      | Material   | -                      | -                      | -                      | -  | -                      | Aluminum                        |
|  | Finish   | -                      | -                      | -                      | -  | -                      | Anodized                        |
| Quick release nut  | Material   | -                      | -                      | -                      | -  | -                      | Steel+Resin                     |
|  | Finish   | -                      | -                      | -                      | -  | -                      | -                               |
| Disc brake rotor lock ring                                 | Material   | -                      | -                      | -                      | -  | -                      | -                               |
|  | Finish   | -                      | -                      | -                      | -  | -                      | -                               |
| Average weight (g) (w/o axle, quick release not lock ring) |  | 251                    | 305                    | 307                    | 306  | 310                    | 331                             |
| Note   |  |                        |                        |                        | For straight spoke<br>ERD: 550-610 mm<br>Rim offset: 0-3 mm<br>Intersections: 3 cross only, including spoke heads in hub shell.<br>Some spoke calculators may call this 2 cross.<br><br>Contact the nearest SHIMANO sales office for more information. |                        |                                 |

SW

RD

FD

SMAD

SC

SL

SLMT

SMSL

BL

BL

RD

FD

BR

BR

BR

FC

SMCD

SMCR

BB

CS

HB

FH

WH

CI-DECK

SC



# FREEHUB (Disc Brake)

| Series   |  | DEORE XT                        | DEORE XT                        | SLX                    | SLX                    | SLX                    | DEORE                  |
|--|--|---------------------------------|---------------------------------|------------------------|------------------------|------------------------|------------------------|
| Model no.  |  | FH-M8010                        | FH-M8010-B                      | FH-M7110               | FH-M7110-B             | FH-M7130-B             | FH-M6000               |
| Color  | 1 Hub shell  | Series color                    | Series color                    | Series color           | Series color           | Series color           | Series black           |
|  | 1 Quick release  | -                               | -                               | -                      | -                      | -                      | Series black           |
|  | 2 Hub shell  | -                               | -                               | -                      | -                      | -                      | -                      |
|  | 2 Quick release  | -                               | -                               | -                      | -                      | -                      | -                      |
| Brake type   |  | CENTER LOCK disc brake          | CENTER LOCK disc brake          | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake |
| Rear speeds  |  | 11/10/9/8/7                     | 11/10/9/8/7                     | 12                     | 12                     | 12                     | 11/10/9/8/7            |
| O.L.D. (mm)  |  | 142                             | 148                             | 142                    | 148                    | 157                    | 135                    |
| Spoke hole   | 28H  | -                               | -                               | ✓                      | ✓                      | ✓                      | -                      |
|  | 32H  | ✓                               | ✓                               | ✓                      | ✓                      | ✓                      | ✓                      |
|  | 36H  | ✓                               | -                               | ✓                      | ✓                      | -                      | ✓                      |
| 10 tooth cog compatible                                    |  | -                               | -                               | ✓                      | ✓                      | ✓                      | -                      |
| External serration disc brake rotor lock ring              | With   | -                               | -                               | -                      | -                      | -                      | -                      |
|  | Without  | ✓                               | ✓                               | ✓                      | ✓                      | ✓                      | ✓                      |
| Internal serration disc brake rotor lock ring              | With   | -                               | -                               | -                      | -                      | -                      | -                      |
|  | Without  | ✓                               | ✓                               | ✓                      | ✓                      | ✓                      | ✓                      |
| CENTER LOCK mount cover option                             |  | -                               | -                               | -                      | -                      | -                      | -                      |
| Axle fixing method   |  | 12 mm E-THRU                    | 12 mm E-THRU                    | 12 mm E-THRU           | 12 mm E-THRU           | 12 mm E-THRU           | Quick release          |
| Quick release skewer length (mm)                           | 166  | -                               | -                               | -                      | -                      | -                      | -                      |
|  | 168  | -                               | -                               | -                      | -                      | -                      | ✓                      |
|  | 170  | -                               | -                               | -                      | -                      | -                      | -                      |
|  | 172  | -                               | -                               | -                      | -                      | -                      | -                      |
|  | 173  | -                               | -                               | -                      | -                      | -                      | ✓                      |
|  | 174  | -                               | -                               | -                      | -                      | -                      | -                      |
|  | 176  | -                               | -                               | -                      | -                      | -                      | -                      |
|  | 178  | -                               | -                               | -                      | -                      | -                      | -                      |
| Thru axle (length x inner diameter ; mm)                   | 135 x 10   | -                               | -                               | -                      | -                      | -                      | -                      |
|  | 135 x 12   | -                               | -                               | -                      | -                      | -                      | -                      |
|  | 142 x 12   | ✓                               | -                               | ✓                      | -                      | -                      | -                      |
|  | 148 x 12   | -                               | ✓                               | -                      | ✓                      | -                      | -                      |
|  | 150 x 12   | -                               | -                               | -                      | -                      | -                      | -                      |
|  | 157 x 12   | -                               | -                               | -                      | -                      | ✓                      | -                      |
| Flange distance (mm)                                       |  | 57.4                            | 63.4                            | 55.17                  | 62.16                  | 72.69                  | 57.4                   |
| Offset (mm)  |  | 6.4                             | 6.4                             | 6.72                   | 6.6                    | 6.43                   | 6.6                    |
| P.C.D. left / right (mm)                                   |  | 44/45                           | 44/45                           | 61/61                  | 60/61                  | 58/61                  | 45                     |
| Flange diameter left / right (mm)                          |  | 52.8/53.8                       | 52.8/53.8                       | 69.8/69.8              | 68.8/69.8              | 66.8/69.8              | 53.8                   |
| Spline type  | MICRO SPLINE   | -                               | -                               | ✓                      | ✓                      | ✓                      | -                      |
|  | HG spline L2 (ROAD 12-speed dedicated)                           | -                               | -                               | -                      | -                      | -                      | -                      |
|  | HG spline L (ROAD 12/11-speed)                                   | -                               | -                               | -                      | -                      | -                      | -                      |
|  | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | ✓                               | ✓                               | -                      | -                      | -                      | ✓                      |
|  | HG spline S (7-speed)  | -                               | -                               | -                      | -                      | -                      | -                      |
| Engagement type  |  | Pawl ratchet                    | Pawl ratchet                    | Direct engagement      | Direct engagement      | Direct engagement      | Pawl ratchet           |
| Quick engagement   |  | ✓ (more than 36 times/360 deg.) | ✓ (more than 36 times/360 deg.) | ✓ (max 7.0 deg.)       | ✓ (max 7.0 deg.)       | ✓ (max 7.0 deg.)       | -                      |
| Seal   | Hub  | Labyrinth+Contact               | Labyrinth+Contact               | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      |
|  | FREEHUB body   | Contact                         | Contact                         | Contact                | Contact                | Contact                | Contact                |
| Internal grease sleeve                                     |  | ✓                               | ✓                               | -                      | -                      | -                      | ✓                      |
| Bearing  | Stainless ball   | -                               | -                               | -                      | -                      | -                      | -                      |
|  | Cup  | -                               | -                               | Polish                 | Polish                 | Polish                 | -                      |
|  | Cone   | CBN                             | CBN                             | CBN+Polish             | CBN+Polish             | CBN+Polish             | CBN                    |
|  | Cartridge  | -                               | -                               | -                      | -                      | -                      | -                      |
| FREEHUB body   | Material   | Steel                           | Steel                           | Aluminum               | Aluminum               | Aluminum               | Steel                  |
|  | Finish   | -                               | -                               | Anodized               | Anodized               | Anodized               | -                      |
| Hub shell  | Material   | Aluminum                        | Aluminum                        | Aluminum               | Aluminum               | Aluminum               | Aluminum               |
|  | Finish   | Anodized                        | Anodized                        | Anodized               | Anodized               | Anodized               | Anodized               |
| Axle   | Material   | Aluminum                        | Aluminum                        | Steel                  | Steel                  | Steel                  | Steel                  |
|  | Finish   | Anodized                        | Anodized                        | -                      | -                      | -                      | -                      |
| Quick release lever  | Material   | -                               | -                               | -                      | -                      | -                      | Aluminum               |
|  | Finish   | -                               | -                               | -                      | -                      | -                      | Painted                |
| Quick release housing                                      | Material   | -                               | -                               | -                      | -                      | -                      | Aluminum               |
|  | Finish   | -                               | -                               | -                      | -                      | -                      | Painted                |
| Quick release nut  | Material   | -                               | -                               | -                      | -                      | -                      | Steel+Resin            |
|  | Finish   | -                               | -                               | -                      | -                      | -                      | -                      |
| Disc brake rotor lock ring                                 | Material   | -                               | -                               | -                      | -                      | -                      | -                      |
|  | Finish   | -                               | -                               | -                      | -                      | -                      | -                      |
| Average weight (g) (w/o axle, quick release not lock ring) |  | 359                             | 367                             | 350                    | 354                    | 359                    | -                      |
| Note   |  |                                 |                                 |                        |                        |                        |                        |

# FREEHUB (Disc Brake)

| Series   |  | DEORE                           | DEORE                  | SHIMANO                | SHIMANO                | SHIMANO                | SHIMANO                |
|--|--|---------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Model no.  |  | FH-M6010                        | FH-M5100               | FH-MT410               | FH-MT410-B             | FH-MT401               | FH-MT401-B             |
| Color  | 1 Hub shell  | Series black                    | Series black           | Black                  | Black                  | Black                  | Black                  |
|  | 1 Quick release  | -                               | Series black           | -                      | -                      | Black                  | Black                  |
|  | 2 Hub shell  | -                               | -                      | -                      | -                      | -                      | -                      |
|  | 2 Quick release  | -                               | -                      | -                      | -                      | -                      | -                      |
| Brake type   |  | CENTER LOCK disc brake          | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake |
| Rear speeds  |  | 11/10/9/8/7                     | 11/10/9/8/7            | 12                     | 12                     | 12                     | 12                     |
| O.L.D. (mm)  |  | 142                             | 135                    | 142                    | 148                    | 135                    | 141                    |
| Spoke hole   | 28H  | -                               | -                      | ✓                      | ✓                      | ✓                      | ✓                      |
|  | 32H  | ✓                               | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
|  | 36H  | -                               | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
| 10 tooth cog compatible                                    |  | -                               | -                      | ✓                      | ✓                      | ✓                      | ✓                      |
| External serration disc brake rotor lock ring              | With   | -                               | -                      | -                      | -                      | -                      | -                      |
|  | Without  | ✓                               | ✓                      | -                      | -                      | -                      | -                      |
| Internal serration disc brake rotor lock ring              | With   | -                               | -                      | -                      | -                      | -                      | -                      |
|  | Without  | ✓                               | ✓                      | -                      | -                      | -                      | -                      |
| CENTER LOCK mount cover option                             |  | -                               | -                      | -                      | -                      | -                      | -                      |
| Axle fixing method   |  | 12 mm E-THRU                    | Quick release          | 12 mm E-THRU           | 12 mm E-THRU           | Quick release          | Quick release          |
| Quick release skewer length (mm)                           | 166  | -                               | -                      | -                      | -                      | -                      | -                      |
|  | 168  | -                               | ✓                      | -                      | -                      | ✓                      | -                      |
|  | 170  | -                               | -                      | -                      | -                      | -                      | -                      |
|  | 172  | -                               | -                      | -                      | -                      | -                      | -                      |
|  | 173  | -                               | ✓                      | -                      | -                      | ✓                      | -                      |
|  | 174  | -                               | -                      | -                      | -                      | -                      | ✓                      |
|  | 176  | -                               | -                      | -                      | -                      | -                      | -                      |
| Thru axle (length x inner diameter ; mm)                   | 178  | -                               | -                      | -                      | -                      | -                      | ✓                      |
|  | 135 x 10   | -                               | -                      | -                      | -                      | -                      | -                      |
|  | 135 x 12   | -                               | -                      | -                      | -                      | -                      | -                      |
|  | 142 x 12   | ✓                               | -                      | ✓                      | -                      | -                      | -                      |
|  | 148 x 12   | -                               | -                      | -                      | ✓                      | -                      | -                      |
| Flange distance (mm)                                       |  | 57.4                            | 55.45                  | 55.17                  | 61.6                   | 55.17                  | 61.6                   |
| Offset (mm)  |  | 6.4                             | 7.6                    | 6.72                   | 6.6                    | 6.72                   | 6.6                    |
| P.C.D. left / right (mm)                                   |  | 44/45                           | 45                     | 61/61                  | 60/61                  | 61/61                  | 60/61                  |
| Flange diameter left / right (mm)                          |  | 52.8/53.8                       | 53.8                   | 69.8/69.8              | 68.8/69.8              | 69.8/69.8              | 68.8/69.8              |
| Spline type  | MICRO SPLINE   | -                               | -                      | ✓                      | ✓                      | ✓                      | ✓                      |
|  | HG spline L2 (ROAD 12-speed dedicated)                           | -                               | -                      | -                      | -                      | -                      | -                      |
|  | HG spline L (ROAD 12/11-speed)                                   | -                               | -                      | -                      | -                      | -                      | -                      |
|  | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | ✓                               | ✓                      | -                      | -                      | -                      | -                      |
|  | HG spline S (7-speed)  | -                               | -                      | -                      | -                      | -                      | -                      |
| Engagement type  |  | Pawl ratchet                    | Pawl ratchet           | Pawl ratchet           | Pawl ratchet           | Pawl ratchet           | Pawl ratchet           |
| Quick engagement   |  | ✓ (more than 36 times/360 deg.) | -                      | ✓ (36 times/360 deg.)  | ✓ (36 times/360 deg.)  | ✓ (36 times/360 deg.)  | ✓ (36 times/360 deg.)  |
| Seal   | Hub  | Labyrinth+Contact               | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      |
|  | FREEHUB body   | Contact                         | Contact                | Contact                | Contact                | Contact                | Contact                |
| Internal grease sleeve                                     |  | ✓                               | ✓                      | -                      | -                      | -                      | -                      |
| Bearing  | Stainless ball   | -                               | -                      | -                      | -                      | -                      | -                      |
|  | Cup  | -                               | -                      | -                      | -                      | -                      | -                      |
|  | Cone   | CBN                             | CBN                    | -                      | -                      | -                      | -                      |
|  | Cartridge  | -                               | -                      | ✓                      | ✓                      | ✓                      | ✓                      |
| FREEHUB body   | Material   | Steel                           | Steel                  | Steel                  | Steel                  | Steel                  | Steel                  |
|  | Finish   | -                               | -                      | -                      | -                      | -                      | -                      |
| Hub shell  | Material   | Aluminum                        | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               |
|  | Finish   | Anodized                        | Anodized               | Painted                | Painted                | Painted                | Painted                |
| Axle   | Material   | Steel                           | Steel                  | Steel                  | Steel                  | Steel                  | Steel                  |
|  | Finish   | -                               | -                      | -                      | -                      | -                      | -                      |
| Quick release lever  | Material   | -                               | Aluminum               | -                      | -                      | Aluminum               | Aluminum               |
|  | Finish   | -                               | Painted                | -                      | -                      | Painted                | Painted                |
| Quick release housing                                      | Material   | -                               | Aluminum               | -                      | -                      | Steel                  | Steel                  |
|  | Finish   | -                               | Painted                | -                      | -                      | Painted                | Painted                |
| Quick release nut  | Material   | -                               | Steel+Resin            | -                      | -                      | Steel+Resin            | Steel+Resin            |
|  | Finish   | -                               | -                      | -                      | -                      | -                      | -                      |
| Disc brake rotor lock ring                                 | Material   | -                               | -                      | -                      | -                      | -                      | -                      |
|  | Finish   | -                               | -                      | -                      | -                      | -                      | -                      |
| Average weight (g) (w/o axle, quick release not lock ring) |  | -                               | -                      | -                      | -                      | -                      | -                      |
| Note   |  |                                 |                        |                        |                        |                        |                        |

SW

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# FREEHUB (Disc Brake)

| Series   |  | SHIMANO           | SHIMANO           | SHIMANO                | SHIMANO                | SHIMANO                         | SHIMANO                         |
|--|--|-------------------|-------------------|------------------------|------------------------|---------------------------------|---------------------------------|
| Model no.  |  | FH-M525A          | FH-M475           | FH-M4050               | FH-M3050               | FH-MT400                        | FH-MT400-B                      |
| Color  | 1 Hub shell  | Black             | Black             | Black                  | Black                  | Black                           | Black                           |
|  | 1 Quick release  | Black             | Black             | Black                  | Black                  | -                               | -                               |
|  | 2 Hub shell  | Silver            | Silver            | Silver                 | -                      | -                               | -                               |
|  | 2 Quick release  | Black             | Black             | Black                  | -                      | -                               | -                               |
| Brake type   |  | 6-bolt disc brake | 6-bolt disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake          | CENTER LOCK disc brake          |
| Rear speeds  |  | 11/10/9/8/7       | 11/10/9/8/7       | 11/10/9/8/7            | 11/10/9/8/7            | 11/10/9/8/7                     | 11/10/9/8/7                     |
| O.L.D. (mm)  |  | 135               | 135               | 135                    | 135                    | 142                             | 148                             |
| Spoke hole   | 28H  | -                 | -                 | -                      | -                      | -                               | ✓                               |
|  | 32H  | ✓                 | ✓                 | ✓                      | ✓                      | ✓                               | ✓                               |
|  | 36H  | ✓                 | ✓                 | ✓                      | ✓                      | ✓                               | ✓                               |
| 10 tooth cog compatible                                    |  | -                 | -                 | -                      | -                      | -                               | -                               |
| External serration disc brake rotor lock ring              | With   | -                 | -                 | -                      | -                      | -                               | -                               |
|  | Without  | -                 | ✓                 | ✓                      | ✓                      | ✓                               | ✓                               |
| Internal serration disc brake rotor lock ring              | With   | -                 | -                 | -                      | -                      | -                               | -                               |
|  | Without  | -                 | ✓                 | ✓                      | ✓                      | ✓                               | ✓                               |
| CENTER LOCK mount cover option                             |  | -                 | -                 | -                      | -                      | -                               | -                               |
| Axle fixing method   |  | Quick release     | Quick release     | Quick release          | Quick release          | 12 mm E-THRU                    | 12 mm E-THRU                    |
| Quick release skewer length (mm)                           | 166  | -                 | ✓                 | -                      | ✓                      | -                               | -                               |
|  | 168  | ✓                 | -                 | ✓                      | -                      | -                               | -                               |
|  | 170  | -                 | ✓                 | -                      | ✓                      | -                               | -                               |
|  | 172  | -                 | -                 | -                      | -                      | -                               | -                               |
|  | 173  | ✓                 | ✓                 | ✓                      | -                      | -                               | -                               |
|  | 174  | -                 | -                 | -                      | -                      | -                               | -                               |
|  | 176  | -                 | -                 | -                      | -                      | -                               | -                               |
| Thru axle (length x inner diameter ; mm)                   | 178  | -                 | -                 | -                      | -                      | -                               | -                               |
|  | 135 x 10   | -                 | -                 | -                      | -                      | -                               | -                               |
|  | 135 x 12   | -                 | -                 | -                      | -                      | -                               | -                               |
|  | 142 x 12   | -                 | -                 | -                      | -                      | ✓                               | -                               |
|  | 148 x 12   | -                 | -                 | -                      | -                      | -                               | ✓                               |
| Flange distance (mm)                                       |  | 57.1              | 57.1              | 57.4                   | 57.4                   | 57.4                            | 63.4                            |
| Offset (mm)  |  | 6.8               | 6.8               | 6.6                    | 6.6                    | 6.65                            | 6.65                            |
| P.C.D. left / right (mm)                                   |  | 61/61             | 61/61             | 45/45                  | 45/45                  | 44/45                           | 44/45                           |
| Flange diameter left / right (mm)                          |  | 70.6              | 70.6              | 53.8                   | 53.8                   | 52.8/53.8                       | 52.8/53.8                       |
| Spline type  | MICRO SPLINE   | -                 | -                 | -                      | -                      | -                               | -                               |
|  | HG spline L2 (ROAD 12-speed dedicated)                           | -                 | -                 | -                      | -                      | -                               | -                               |
|  | HG spline L (ROAD 12/11-speed)                                   | -                 | -                 | -                      | -                      | -                               | -                               |
|  | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | ✓                 | ✓                 | ✓                      | ✓                      | ✓                               | ✓                               |
|  | HG spline S (7-speed)  | -                 | -                 | -                      | -                      | -                               | -                               |
| Engagement type  |  | Pawl ratchet      | Pawl ratchet      | Pawl ratchet           | Pawl ratchet           | Pawl ratchet                    | Pawl ratchet                    |
| Quick engagement   |  | -                 | -                 | -                      | -                      | ✓ (more than 36 times/360 deg.) | ✓ (more than 36 times/360 deg.) |
| Seal   | Hub  | Labyrinth+Contact | Labyrinth+Contact | Labyrinth+Contact      | Contact                | Labyrinth+Contact               | Labyrinth+Contact               |
|  | FREEHUB body   | Contact           | -                 | Contact                | -                      | Contact                         | Contact                         |
| Internal grease sleeve                                     |  | -                 | -                 | ✓                      | -                      | ✓                               | ✓                               |
| Bearing  | Stainless ball   | -                 | -                 | -                      | -                      | -                               | -                               |
|  | Cup  | -                 | -                 | -                      | -                      | -                               | -                               |
|  | Cone   | CBN               | -                 | CBN                    | -                      | CBN                             | CBN                             |
|  | Cartridge  | -                 | -                 | -                      | -                      | -                               | -                               |
| FREEHUB body   | Material   | Steel             | Steel             | Steel                  | Steel                  | Steel                           | Steel                           |
|  | Finish   | -                 | -                 | -                      | -                      | -                               | -                               |
| Hub shell  | Material   | Aluminum          | Aluminum          | Aluminum               | Aluminum               | Aluminum                        | Aluminum                        |
|  | Finish   | Anodized          | Anodized          | Anodized               | Anodized               | Painted                         | Painted                         |
| Axle   | Material   | Steel             | Steel             | Steel                  | Steel                  | Steel                           | Steel                           |
|  | Finish   | -                 | -                 | -                      | -                      | -                               | -                               |
| Quick release lever  | Material   | Aluminum          | Steel, Aluminum   | Aluminum               | Steel                  | -                               | -                               |
|  | Finish   | Anodized          | Plated, Painted   | Painted                | Plated                 | -                               | -                               |
| Quick release housing                                      | Material   | Aluminum          | Steel, Aluminum   | Steel                  | Steel                  | -                               | -                               |
|  | Finish   | Anodized          | Painted, Anodized | Plated                 | Plated                 | -                               | -                               |
| Quick release nut  | Material   | Steel+Resin       | Steel+Resin       | Steel+Resin            | Steel+Resin            | -                               | -                               |
|  | Finish   | -                 | -                 | -                      | -                      | -                               | -                               |
| Disc brake rotor lock ring                                 | Material   | -                 | -                 | -                      | -                      | -                               | -                               |
|  | Finish   | -                 | -                 | -                      | -                      | -                               | -                               |
| Average weight (g) (w/o axle, quick release nor lock ring) |  | -                 | -                 | -                      | -                      | -                               | -                               |
| Note   |  | -                 | -                 | -                      | -                      | -                               | -                               |

# FREEHUB (Disc Brake)

| Series   |  | SHIMANO                |
|--|--|------------------------|
| Model no.  |  | FH-MT200-B             |
| Color  | 1 Hub shell  | Black                  |
|  | 1 Quick release  | -                      |
|  | 2 Hub shell  | -                      |
|  | 2 Quick release  | -                      |
| Brake type   |  | CENTER LOCK disc brake |
| Rear speeds  |  | 11/10/9/8/7            |
| O.L.D. (mm)  |  | 141                    |
| Spoke hole   | 28H  | ✓                      |
|  | 32H  | ✓                      |
|  | 36H  | ✓                      |
| 10 tooth cog compatible                                    |  | -                      |
| External serration disc brake rotor lock ring              | With   | -                      |
|  | Without  | ✓                      |
| Internal serration disc brake rotor lock ring              | With   | -                      |
|  | Without  | ✓                      |
| CENTER LOCK mount cover option                             |  | -                      |
| Axle fixing method   |  | Quick release          |
| Quick release skewer length (mm)                           | 166  | -                      |
|  | 168  | -                      |
|  | 170  | -                      |
|  | 172  | ✓                      |
|  | 173  | -                      |
|  | 174  | -                      |
|  | 176  | ✓                      |
|  | 178  | -                      |
| Thru axle (length x inner diameter ; mm)                   | 135 x 10   | -                      |
|  | 135 x 12   | -                      |
|  | 142 x 12   | -                      |
|  | 148 x 12   | -                      |
|  | 150 x 12   | -                      |
|  | 157 x 12   | -                      |
| Flange distance (mm)                                       |  | 63.4                   |
| Offset (mm)  |  | 6.65                   |
| P.C.D. left / right (mm)                                   |  | 45/45                  |
| Flange diameter left / right (mm)                          |  | 53.8                   |
| Spline type  | MICRO SPLINE   | -                      |
|  | HG spline L2 (ROAD 12-speed dedicated)                           | -                      |
|  | HG spline L (ROAD 12/11-speed)                                   | -                      |
|  | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | ✓                      |
|  | HG spline S (7-speed)  | -                      |
| Engagement type  |  | Pawl ratchet           |
| Quick engagement   |  | -                      |
| Seal   | Hub  | Contact                |
|  | FREEHUB body   | -                      |
| Internal grease sleeve                                     |  | -                      |
| Bearing  | Stainless ball   | -                      |
|  | Cup  | -                      |
|  | Cone   | -                      |
|  | Cartridge  | -                      |
| FREEHUB body   | Material   | Steel                  |
|  | Finish   | -                      |
| Hub shell  | Material   | Aluminum               |
|  | Finish   | Painted                |
| Axle   | Material   | Steel                  |
|  | Finish   | -                      |
| Quick release lever  | Material   | Steel                  |
|  | Finish   | Plated                 |
| Quick release housing                                      | Material   | Steel                  |
|  | Finish   | Painted                |
| Quick release nut  | Material   | Steel+Resin            |
|  | Finish   | -                      |
| Disc brake rotor lock ring                                 | Material   | -                      |
|  | Finish   | -                      |
| Average weight (g) (w/o axle, quick release nor lock ring) |  | -                      |
| Note   |  | -                      |

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CI-DECK

SC

# Wheel (Disc Brake)

| Series                                  |  | XTR                    | XTR                    | XTR                    | XTR                    | DEORE XT               | DEORE XT               |
|---|--|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Model no.                               |  | WH-M9200-TL-F15-B-29   | WH-M9200-TL-R12-B-29   | WH-M9220-TL-F15-B-29   | WH-M9220-TL-R12-B-29   | WH-M8200-TL-F15-B-29   | WH-M8200-TL-F15-B-275  |
| Model name                              |  | WH-M9200-TL-F15-B-29   | WH-M9200-TL-R12-B-29   | WH-M9220-TL-F15-B-29   | WH-M9220-TL-R12-B-29   | WH-M8200-TL-F15-B-29   | WH-M8200-TL-F15-B-275  |
| Specification                           |  | Series color           | Series color           | Series color           | Series color           | Series color           | Series color           |
| Color                                   | 1 Hub shell  | -                      | -                      | -                      | -                      | -                      | -                      |
|   | 1 Quick release  | -                      | -                      | -                      | -                      | -                      | -                      |
|   | 2 Hub shell  | -                      | -                      | -                      | -                      | -                      | -                      |
|   | 2 Quick release  | -                      | -                      | -                      | -                      | -                      | -                      |
| Front/Rear                              |  | Front                  | Rear                   | Front                  | Rear                   | Front                  | Front                  |
| Brake type                              |  | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake |
| Rear speeds                             |  | -                      | 12                     | -                      | 12                     | -                      | -                      |
| O.L.D. (mm)                             |  | 110                    | 148                    | 110                    | 148                    | 110                    | 110                    |
| Wheel size                              |  | 622 x 29.6TC (29 inch) | 622 x 29.6TC (29 inch) | 622 x 30TSS (29 inch)  | 622 x 30TSS (29 inch)  | 622 x 30TC (29 inch)   | 584 x 30TC (27.5 inch) |
| Tire                                    | Type   | Tubeless ready         | Tubeless ready         | Tubeless ready         | Tubeless ready         | Tubeless ready         | Tubeless ready         |
|   | Recommended size   | 29 x 2.20 - 2.60       | 29 x 2.20 - 2.60       | 29 x 2.30 - 2.60       | 29 x 2.30 - 2.60       | 29 x 2.30 - 2.60       | 27.5 x 2.3 - 2.60      |
| Rim                                     | Height (mm)  | 19.2                   | 19.2                   | 19.7                   | 19.7                   | 19.8                   | 19.8                   |
|   | Internal width (mm)  | 29.6                   | 29.6                   | 30                     | 30                     | 30                     | 30                     |
|   | External width (mm)  | 35                     | 35                     | 38                     | 38                     | 34.7                   | 34.7                   |
|   | Rim joint  | -                      | -                      | -                      | -                      | Welded                 | Welded                 |
|   | Brazed reinforcement   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | OFFSET RIM   | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
|   | Requires rim tape  | ✓ (30-622)             | ✓ (30-622)             | ✓ (30-622)             | ✓ (30-622)             | X (30-622)             | ✓ (30-584)             |
| Spokes                                  | Number   | 24                     | 24                     | 28                     | 28                     | 28                     | 28                     |
|   | Straight pull  | ✓                      | ✓                      | -                      | -                      | -                      | -                      |
|   | J-bend   | -                      | -                      | ✓                      | ✓                      | ✓                      | ✓                      |
|   | Diameter (mm)  | 2.2-2.0-1.7-2.0        | 2.2-2.0-1.7-2.0        | 2.0-1.6                | 2.0-1.6                | 2.0-1.8                | 2.0-1.8                |
| Axle fixing method                      |  | 15 mm E-THRU           | 12 mm E-THRU           | 15 mm E-THRU           | 12 mm E-THRU           | 15 mm E-THRU           | 15 mm E-THRU           |
| Quick release skewer length (mm)        | 133  | -                      | -                      | -                      | -                      | -                      | -                      |
|   | 168  | -                      | -                      | -                      | -                      | -                      | -                      |
|   | 173  | -                      | -                      | -                      | -                      | -                      | -                      |
|   | 178  | -                      | -                      | -                      | -                      | -                      | -                      |
| Thru axle (length x inner diameter, mm) | 100 x 15   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | 110 x 15   | ✓                      | -                      | ✓                      | -                      | ✓                      | ✓                      |
|   | 142 x 12   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | 148 x 12   | -                      | ✓                      | -                      | ✓                      | -                      | -                      |
| Spline type                             | MICRO SPLINE   | -                      | ✓                      | -                      | ✓                      | -                      | -                      |
|   | HG spline L2 (ROAD 12-speed dedicated)   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | HG spline L (ROAD 12/11-speed)   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210)                       | -                      | -                      | -                      | -                      | -                      | -                      |
|   | HG spline S (7-speed)  | -                      | -                      | -                      | -                      | -                      | -                      |
| Engagement type                         |  | -                      | Direct engagement      | -                      | Direct engagement      | -                      | -                      |
| Quick engagement                        |  | -                      | ✓ (max 3.5 deg.)       | -                      | ✓ (max 3.5 deg.)       | -                      | -                      |
| Bearing                                 | Stainless ball   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | Cup  | -                      | -                      | -                      | -                      | -                      | -                      |
|   | Cone   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | Cartridge  | SUS radial             | SUS radial             | SUS radial             | SUS radial             | SUJ2 radial            | SUJ2 radial            |
| Seal                                    | Hub  | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      |
|   | FREEHUB body   | -                      | Labyrinth+Contact      | -                      | Labyrinth+Contact      | -                      | -                      |
| Internal grease sleeve                  |  | -                      | -                      | -                      | -                      | -                      | -                      |
| Rim                                     | Material   | Carbon                 | Carbon                 | Carbon                 | Carbon                 | Aluminum               | Aluminum               |
|   | Finish   | Painted                | Painted                | Painted                | Painted                | Painted                | Painted                |
| Spoke                                   | Material   | Titanium               | Titanium               | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        |
|   | Finish   | Black                  | Black                  | Black                  | Black                  | Black                  | Black                  |
| Nipple                                  | Material   | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               |
|   | Finish   | Black                  | Black                  | Black                  | Black                  | Black                  | Black                  |
| FREEHUB body                            | Material   | -                      | Aluminum               | -                      | Aluminum               | -                      | -                      |
|   | Finish   | -                      | Anodized               | -                      | Anodized               | -                      | -                      |
| Hub shell                               | Material   | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               |
|   | Finish   | Anodized               | Anodized               | Anodized               | Anodized               | Anodized               | Anodized               |
| Axle                                    | Material   | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               |
|   | Finish   | Anodized               | Anodized               | Anodized               | Anodized               | Anodized               | Anodized               |
| Quick release lever                     | Material   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | Color  | -                      | -                      | -                      | -                      | -                      | -                      |
| Quick release housing                   | Material   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
| Quick release nut                       | Material   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
| Disc brake rotor lock ring              | Material   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
| Reflector                               | JIS/CPSC   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   |
|   | AS   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   |
|   | DIN  | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   |
|   | Average weight (g) (w/o quick release, rim tape, tubeless tape, valve stem, lock ring) | 517                    | 640                    | 840                    | 951                    | 931                    | 877                    |
| Note                                    |  |                        |                        |                        |                        |                        |                        |

# Wheel (Disc Brake)

| Series                                  |  | DEORE XT               | DEORE XT               | DEORE XT               | DEORE XT               | DEORE XT               | DEORE XT               |
|---|--|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Model no.                               |  | WH-M8200-TL-R12-B-29   | WH-M8200-TL-R12-B-275  | WH-M8100-TL-F15-B-29   | WH-M8100-TL-F15-B-275  | WH-M8100-TL-R12-B-29   | WH-M8100-TL-R12-B-275  |
| Model name                              |  | WH-M8200-TL-R12-B-29   | WH-M8200-TL-R12-B-275  | WH-M8100-TL-F15-B-29   | WH-M8100-TL-F15-B-275  | WH-M8100-TL-R12-B-29   | WH-M8100-TL-R12-B-275  |
| Specification                           |  | WH-M8200-TL-R12-B-29   | WH-M8200-TL-R12-B-275  | WH-M8100-TL-F15-B-29   | WH-M8100-TL-F15-B-275  | WH-M8100-TL-R12-B-29   | WH-M8100-TL-R12-B-275  |
| Color                                   | 1 Hub shell  | Series color           | Series color           | Black                  | Black                  | Black                  | Black                  |
|   | 1 Quick release  | -                      | -                      | -                      | -                      | -                      | -                      |
|   | 2 Hub shell  | -                      | -                      | -                      | -                      | -                      | -                      |
|   | 2 Quick release  | -                      | -                      | -                      | -                      | -                      | -                      |
| Front/Rear                              |  | Rear                   | Rear                   | Front                  | Front                  | Rear                   | Rear                   |
| Brake type                              |  | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake |
| Rear speeds                             |  | 12                     | 12                     | -                      | -                      | 12                     | 12                     |
| O.L.D. (mm)                             |  | 148                    | 148                    | 110                    | 110                    | 148                    | 148                    |
| Wheel size                              |  | 622 x 30TC (29 inch)   | 584 x 30TC (27.5 inch) | 622 x 24C (29 inch)    | 584 x 24C (27.5 inch)  | 622 x 24C (29 inch)    | 584 x 24C (27.5 inch)  |
| Tire                                    | Type   | Tubeless ready         | Tubeless ready         | Tubeless               | Tubeless               | Tubeless               | Tubeless               |
|   | Recommended size   | 29 x 2.3 - 2.60        | 27.5 x 2.3 - 2.60      | 29 x 2.00 - 2.35       | 27.5 x 2.00 - 2.35     | 29 x 2.00 - 2.35       | 27.5 x 2.00 - 2.35     |
| Rim                                     | Height (mm)  | 19.8                   | 19.8                   | 18.8                   | 18.8                   | 18.8                   | 18.8                   |
|   | Internal width (mm)  | 30                     | 30                     | 23.8                   | 23.8                   | 23.8                   | 23.8                   |
|   | External width (mm)  | 34.7                   | 34.7                   | 27.9                   | 27.9                   | 27.9                   | 27.9                   |
|   | Rim joint  | Welded                 | Welded                 | Welded                 | Welded                 | Welded                 | Welded                 |
|   | Brazed reinforcement   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | OFFSET RIM   | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
|   | Requires rim tape  | X (30-622)             | ✓ (30-584)             | ✓ (24-622)             | ✓ (24-584)             | ✓ (24-622)             | ✓ (24-584)             |
| Spokes                                  | Number   | 28                     | 28                     | 28                     | 28                     | 28                     | 28                     |
|   | Straight pull  | -                      | -                      | ✓                      | ✓                      | ✓                      | ✓                      |
|   | J-bend   | ✓                      | ✓                      | -                      | -                      | -                      | -                      |
|   | Diameter (mm)  | 2.0-1.8                | 2.0-1.8                | 2-1.5                  | 2-1.5                  | 2-1.5                  | 2-1.5                  |
| Axle fixing method                      |  | 12 mm E-THRU           | 12 mm E-THRU           | 15 mm E-THRU           | 15 mm E-THRU           | 12 mm E-THRU           | 12 mm E-THRU           |
| Quick release skewer length (mm)        | 133  | -                      | -                      | -                      | -                      | -                      | -                      |
|   | 168  | -                      | -                      | -                      | -                      | -                      | -                      |
|   | 173  | -                      | -                      | -                      | -                      | -                      | -                      |
|   | 178  | -                      | -                      | -                      | -                      | -                      | -                      |
| Thru axle (length x inner diameter, mm) | 100 x 15   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | 110 x 15   | -                      | -                      | ✓                      | ✓                      | -                      | -                      |
|   | 142 x 12   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | 148 x 12   | ✓                      | ✓                      | -                      | -                      | ✓                      | ✓                      |
| Spline type                             | MICRO SPLINE   | ✓                      | ✓                      | -                      | -                      | ✓                      | ✓                      |
|   | HG spline L2 (ROAD 12-speed dedicated)   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | HG spline L (ROAD 12/11-speed)   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210)                       | -                      | -                      | -                      | -                      | -                      | -                      |
|   | HG spline S (7-speed)  | -                      | -                      | -                      | -                      | -                      | -                      |
| Engagement type                         |  | Direct engagement      | Direct engagement      | -                      | -                      | Direct engagement      | Direct engagement      |
| Quick engagement                        |  | ✓ (max 3.5 deg.)       | ✓ (max 3.5 deg.)       | -                      | -                      | ✓ (max 7.0 deg.)       | ✓ (max 7.0 deg.)       |
| Bearing                                 | Stainless ball   | -                      | -                      | ✓                      | ✓                      | -                      | -                      |
|   | Cup  | -                      | -                      | -                      | -                      | -                      | -                      |
|   | Cone   | -                      | -                      | CBN                    | CBN                    | CBN+Polish             | CBN+Polish             |
|   | Cartridge  | SUJ2 radial            | SUJ2 radial            | -                      | -                      | -                      | -                      |
| Seal                                    | Hub  | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      |
|   | FREEHUB body   | Labyrinth+Contact      | Labyrinth+Contact      | -                      | -                      | Contact                | Contact                |
| Internal grease sleeve                  |  | -                      | -                      | ✓                      | ✓                      | -                      | -                      |
| Rim                                     | Material   | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               |
|   | Finish   | Painted                | Painted                | Anodized               | Anodized               | Anodized               | Anodized               |
| Spoke                                   | Material   | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        |
|   | Finish   | Black                  | Black                  | Black                  | Black                  | Black                  | Black                  |
| Nipple                                  | Material   | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               |
|   | Finish   | Black                  | Black                  | Black                  | Black                  | Black                  | Black                  |
| FREEHUB body                            | Material   | Aluminum               | Aluminum               | -                      | -                      | Aluminum               | Aluminum               |
|   | Finish   | Anodized               | Anodized               | -                      | -                      | -                      | -                      |
| Hub shell                               | Material   | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               |
|   | Finish   | Anodized               | Anodized               | Anodized               | Anodized               | Anodized               | Anodized               |
| Axle                                    | Material   | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               |
|   | Finish   | Anodized               | Anodized               | Anodized               | Anodized               | Anodized               | Anodized               |
| Quick release lever                     | Material   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | Color  | -                      | -                      | -                      | -                      | -                      | -                      |
| Quick release housing                   | Material   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
| Quick release nut                       | Material   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
| Disc brake rotor lock ring              | Material   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
| Reflector                               | JIS/CPSC   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   |
|   | AS   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   |
|   | DIN  | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   |
|   | Average weight (g) (w/o quick release, rim tape, tubeless tape, valve stem, lock ring) | 1052                   | 997                    | 846                    | 808                    | 994                    | 956                    |
| Note                                    |  |                        |                        |                        |                        |                        |                        |

SW

RD

FD

SMAD

SC

SL

SLMT

SMSL

BL

BL

RD

FD

BR

BR

BR

FC

SMCD

SMCR

BB

CS

HB

FH

WH

CI-DECK

SC

# Wheel (Disc Brake)

| Series   |  | DEORE XT               | DEORE XT               | DEORE XT               | DEORE XT               | SHIMANO                | SHIMANO                |
|--|--|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Model no.  |  | WH-M8120-TL-F15-B-29   | WH-M8120-TL-F15-B-275  | WH-M8120-TL-R12-B-29   | WH-M8120-TL-R12-B-275  | WH-MT620-TL-F15-B-29   | WH-MT620-TL-F15-B-275  |
| Model name   |  | WH-M8120-TL-F15-B-29   | WH-M8120-TL-F15-B-275  | WH-M8120-TL-R12-B-29   | WH-M8120-TL-R12-B-275  | WH-MT620-TL-F15-B-29   | WH-MT620-TL-F15-B-275  |
| Specification  |  | Series color           | Series color           | Series color           | Series color           | Black                  | Black                  |
| Color  | 1 Hub shell  | -                      | -                      | -                      | -                      | -                      | -                      |
|  | 2 Hub shell  | -                      | -                      | -                      | -                      | -                      | -                      |
|  | 2 Quick release  | -                      | -                      | -                      | -                      | -                      | -                      |
|  | 2 Quick release  | -                      | -                      | -                      | -                      | -                      | -                      |
| Front/Rear   |  | Front                  | Front                  | Rear                   | Rear                   | Front                  | Front                  |
| Brake type   |  | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake |
| Rear speeds  |  | 110                    | 110                    | 12                     | 12                     | 110                    | 110                    |
| O.L.D. (mm)  |  | 622 x 30C (29 inch)    | 584 x 30C (27.5 inch)  | 622 x 30C (29 inch)    | 584 x 30C (27.5 inch)  | 622 x 30C (29 inch)    | 584 x 30C (27.5 inch)  |
| Wheel size   |  | Tubeless               | Tubeless               | Tubeless               | Tubeless               | Tubeless               | Tubeless               |
| Tire   | Type   | 29 x 2.25 - 2.60       | 27.5 x 2.25 - 2.60     | 29 x 2.25 - 2.60       | 27.5 x 2.25 - 2.60     | 29 x 2.25 - 2.60       | 27.5 x 2.25 - 2.60     |
|  | Recommended size   | 19.8                   | 19.8                   | 19.8                   | 19.8                   | 19.8                   | 19.8                   |
| Rim  | Height (mm)  | 30                     | 30                     | 30                     | 30                     | 30                     | 30                     |
|  | Internal width (mm)  | 34.7                   | 34.7                   | 34.7                   | 34.7                   | 34.7                   | 34.7                   |
|  | External width (mm)  | Welded                 | Welded                 | Welded                 | Welded                 | Welded                 | Welded                 |
|  | Rim joint  | -                      | -                      | -                      | -                      | -                      | -                      |
|  | Brazed reinforcement   | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
|  | OFFSET RIM   | ✓ (30-584)             | ✓ (30-584)             | ✓ (30-622)             | ✓ (30-584)             | ✓ (30-584)             | ✓ (30-584)             |
| Spokes   | Requires rim tape  | 28                     | 28                     | 28                     | 28                     | 24                     | 24                     |
|  | Number   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | Straight pull  | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
|  | J-bend   | 2.0-1.8                | 2.0-1.8                | 2.0-1.8                | 2.0-1.8                | -                      | -                      |
| Axle fixing method   |  | 15 mm E-THRU           | 15 mm E-THRU           | 12 mm E-THRU           | 12 mm E-THRU           | 15 mm E-THRU           | 15 mm E-THRU           |
| Quick release skewer length (mm)   | 133  | -                      | -                      | -                      | -                      | -                      | -                      |
|  | 168  | -                      | -                      | -                      | -                      | -                      | -                      |
|  | 173  | -                      | -                      | -                      | -                      | -                      | -                      |
|  | 178  | -                      | -                      | -                      | -                      | -                      | -                      |
| Thru axle (length x inner diameter ; mm)   | 100 x 15   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | 110 x 15   | ✓                      | ✓                      | -                      | -                      | ✓                      | ✓                      |
|  | 142 x 12   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | 148 x 12   | -                      | -                      | ✓                      | ✓                      | -                      | -                      |
| Spline type  | MICRO SPLINE   | -                      | -                      | ✓                      | ✓                      | -                      | -                      |
|  | HG spline L2 (ROAD 12-speed dedicated)                           | -                      | -                      | -                      | -                      | -                      | -                      |
|  | HG spline L (ROAD 12/11-speed)                                   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | -                      | -                      | -                      | -                      | -                      | -                      |
|  | HG spline S (7-speed)  | -                      | -                      | -                      | -                      | -                      | -                      |
| Engagement type  |  | -                      | -                      | Direct engagement      | Direct engagement      | -                      | -                      |
| Quick engagement   |  | -                      | -                      | ✓ (max 7.0 deg.)       | ✓ (max 7.0 deg.)       | -                      | -                      |
| Bearing  | Stainless ball   | ✓                      | ✓                      | -                      | -                      | -                      | -                      |
|  | Cup  | -                      | -                      | -                      | -                      | -                      | -                      |
|  | Cone   | CBN                    | CBN                    | CBN+Polish             | CBN+Polish             | CBN                    | CBN                    |
|  | Cartridge  | -                      | -                      | -                      | -                      | -                      | -                      |
| Seal   | Hub  | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      |
|  | FREEHUB body   | -                      | -                      | Contact                | Contact                | -                      | -                      |
| Internal grease sleeve   |  | ✓                      | ✓                      | -                      | -                      | -                      | -                      |
| Rim  | Material   | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               |
|  | Finish   | Painted                | Painted                | Painted                | Painted                | Painted                | Painted                |
| Spoke  | Material   | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        |
|  | Finish   | Black                  | Black                  | Black                  | Black                  | Black                  | Black                  |
| Nipple   | Material   | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Brass                  | Brass                  |
|  | Finish   | Black                  | Black                  | Black                  | Black                  | Black                  | Black                  |
| FREEHUB body   | Material   | -                      | -                      | Aluminum               | Aluminum               | -                      | -                      |
|  | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
| Hub shell  | Material   | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               |
|  | Finish   | Anodized               | Anodized               | Anodized               | Anodized               | Painted                | Painted                |
| Axle   | Material   | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Steel                  | Steel                  |
|  | Finish   | Anodized               | Anodized               | Anodized               | Anodized               | -                      | -                      |
| Quick release lever  | Material   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | Color  | -                      | -                      | -                      | -                      | -                      | -                      |
| Quick release housing  | Material   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
| Quick release nut  | Material   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
| Disc brake rotor lock ring   | Material   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
| Reflector  | JIS/CPSC   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   |
|  | AS   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   |
|  | DIN  | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   | CATEYE RR317-WUA SW    | CATEYE RR317-WUA SW    |
| Average weight (g) (w/o quick release, rim tape, tubeless tape, valve stem, lock ring) |  | 941                    | 875                    | 1061                   | 1016                   | 990                    | 940                    |
| Note   |  |                        |                        |                        |                        |                        |                        |

# Wheel (Disc Brake)

| Series   |  | SHIMANO                | SHIMANO                | SHIMANO                | SHIMANO                | SHIMANO                | SHIMANO                |
|--|--|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Model no.  |  | WH-MT620-TL-R12-B-29   | WH-MT620-TL-R12-B-275  | WH-MT601-TL-F15-29     | WH-MT601-TL-R12-29     | WH-MT601-TL-F15-275    | WH-MT601-TL-R12-275    |
| Model name   |  | WH-MT620-TL-R12-B-29   | WH-MT620-TL-R12-B-275  | WH-MT601-TL-F15-29     | WH-MT601-TL-R12-29     | WH-MT601-TL-F15-275    | WH-MT601-TL-R12-275    |
| Specification  |  | WH-MT620-TL-R12-B-29   | WH-MT620-TL-R12-B-275  | WH-MT601-TL-F15-29     | WH-MT601-TL-R12-29     | WH-MT601-TL-F15-275    | WH-MT601-TL-R12-275    |
| Color  | 1 Hub shell  | Black                  | Black                  | Black                  | Black                  | Black                  | Black                  |
|  | 1 Quick release  | -                      | -                      | -                      | -                      | -                      | -                      |
|  | 2 Hub shell  | -                      | -                      | -                      | -                      | -                      | -                      |
|  | 2 Quick release  | -                      | -                      | -                      | -                      | -                      | -                      |
| Front/Rear   |  | Rear                   | Rear                   | Front                  | Rear                   | Front                  | Rear                   |
| Brake type   |  | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake |
| Rear speeds  |  | 12                     | 12                     | -                      | 12                     | -                      | 12                     |
| O.L.D. (mm)  |  | 148                    | 148                    | 100                    | 142                    | 100                    | 142                    |
| Wheel size   |  | 622 x 30C (29 inch)    | 584 x 30C (27.5 inch)  | 622 x 25C (29 inch)    | 622 x 25C (29 inch)    | 584 x 25C (27.5 inch)  | 584 x 25C (27.5 inch)  |
| Tire   | Type   | Tubeless               | Tubeless               | Tubeless               | Tubeless               | Tubeless               | Tubeless               |
|  | Recommended size   | 29 x 2.25 - 2.60       | 27.5 x 2.25 - 2.60     | 29 x 2.00 - 2.40       | 29 x 2.00 - 2.40       | 27.5 x 2.00 - 2.40     | 27.5 x 2.00 - 2.40     |
| Rim  | Height (mm)  | 19.8                   | 19.8                   | 20.8                   | 20.8                   | 20.8                   | 20.8                   |
|  | Internal width (mm)  | 30                     | 30                     | 25                     | 25                     | 25                     | 25                     |
|  | External width (mm)  | 34.7                   | 34.7                   | 29.7                   | 29.7                   | 29.7                   | 29.7                   |
|  | Rim joint  | Welded                 | Welded                 | Sleeve                 | Sleeve                 | Sleeve                 | Sleeve                 |
|  | Brazed reinforcement   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | OFFSET RIM   | ✓                      | ✓                      | -                      | -                      | -                      | -                      |
|  | Requires rim tape  | ✓ (30-584)             | ✓ (30-584)             | ✓ (25-622)             | ✓ (25-622)             | ✓ (25-584)             | ✓ (25-584)             |
| Spokes   | Number   | 24                     | 24                     | 24                     | 24                     | 24                     | 24                     |
|  | Straight pull  | -                      | -                      | -                      | -                      | -                      | -                      |
|  | J-bend   | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
|  | Diameter (mm)  | -                      | -                      | 2.3                    | 2.3                    | 2.3                    | 2.3                    |
| Axle fixing method   |  | 12 mm E-THRU           | 12 mm E-THRU           | 15 mm E-THRU           | 12 mm E-THRU           | 15 mm E-THRU           | 12 mm E-THRU           |
| Quick release skewer length (mm)   | 133  | -                      | -                      | -                      | -                      | -                      | -                      |
|  | 168  | -                      | -                      | -                      | -                      | -                      | -                      |
|  | 173  | -                      | -                      | -                      | -                      | -                      | -                      |
|  | 178  | -                      | -                      | -                      | -                      | -                      | -                      |
| Thru axle (length x inner diameter ; mm)   | 100 x 15   | -                      | -                      | ✓                      | -                      | ✓                      | -                      |
|  | 110 x 15   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | 142 x 12   | -                      | -                      | -                      | ✓                      | -                      | ✓                      |
|  | 148 x 12   | ✓                      | ✓                      | -                      | -                      | -                      | -                      |
| Spline type  | MICRO SPLINE   | ✓                      | ✓                      | -                      | ✓                      | -                      | ✓                      |
|  | HG spline L2 (ROAD 12-speed dedicated)                           | -                      | -                      | -                      | -                      | -                      | -                      |
|  | HG spline L (ROAD 12/11-speed)                                   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | -                      | -                      | -                      | -                      | -                      | -                      |
|  | HG spline S (7-speed)  | -                      | -                      | -                      | -                      | -                      | -                      |
| Engagement type  |  | Pawl ratchet           | Pawl ratchet           | -                      | Pawl ratchet           | -                      | Pawl ratchet           |
| Quick engagement   |  | -                      | -                      | -                      | ✓ (36 times/360 deg.)  | -                      | ✓ (36 times/360 deg.)  |
| Bearing  | Stainless ball   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | Cup  | -                      | -                      | -                      | -                      | -                      | -                      |
|  | Cone   | CBN                    | CBN                    | -                      | -                      | -                      | -                      |
|  | Cartridge  | -                      | -                      | ✓                      | ✓                      | ✓                      | ✓                      |
| Seal   | Hub  | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      |
|  | FREEHUB body   | Contact                | Contact                | -                      | Contact                | -                      | Contact                |
| Internal grease sleeve   |  | -                      | -                      | -                      | -                      | -                      | -                      |
| Rim  | Material   | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               |
|  | Finish   | Painted                | Painted                | Painted                | Painted                | Painted                | Painted                |
| Spoke  | Material   | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        |
|  | Finish   | Black                  | Black                  | Black                  | Black                  | Black                  | Black                  |
| Nipple   | Material   | Brass                  | Brass                  | Brass                  | Brass                  | Brass                  | Brass                  |
|  | Finish   | Black                  | Black                  | Plated                 | Plated                 | Plated                 | Plated                 |
| FREEHUB body   | Material   | Steel                  | Steel                  | -                      | Steel                  | -                      | Steel                  |
|  | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
| Hub shell  | Material   | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               |
|  | Finish   | Painted                | Painted                | Painted                | Painted                | Painted                | Painted                |
| Axle   | Material   | Steel                  | Steel                  | Aluminum               | Steel                  | Aluminum               | Steel                  |
|  | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
| Quick release lever  | Material   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | Color  | -                      | -                      | -                      | -                      | -                      | -                      |
| Quick release housing  | Material   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
| Quick release nut  | Material   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
| Disc brake rotor lock ring   | Material   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
| Reflector  | JIS/CPSC   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   |
|  | AS   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   |
|  | DIN  | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   |
|  |  | -                      | -                      | -                      | -                      | -                      | -                      |
| Average weight (g) (w/o quick release, rim tape, tubeless tape, valve stem, lock ring) |  | 1255                   | 1206                   | 931                    | 1238                   | 884                    | 1189                   |
| Note   |  |                        |                        |                        |                        |                        |                        |

SW

RD

FD

SMAD

SC

SL

SLMT

SMSL

BL

BL

RD

FD

BR

BR

BR

FC

SMCD

SMCR

BB

CS

HB

FH

WH

CI-DECK

SC



# Wheel (Disc Brake)

| Series   |  | SHIMANO                | SHIMANO                | SHIMANO                | SHIMANO                | SHIMANO                | SHIMANO                |
|--|--|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Model no.  |  | WH-MT601-TL-F15-B-29   | WH-MT601-TL-R12-B-29   | WH-MT601-TL-F15-B-275  | WH-MT601-TL-R12-B-275  | WH-MT501-CL-R12-B-29   | WH-MT501-CL-R12-B-275  |
| Model name   |  | WH-MT601-TL-F15-B-29   | WH-MT601-TL-R12-B-29   | WH-MT601-TL-F15-B-275  | WH-MT601-TL-R12-B-275  | WH-MT501-CL-R12-B-29   | WH-MT501-CL-R12-B-275  |
| Specification  |  | F15-B-29               | R12-B-29               | F15-B-275              | R12-B-275              | R12-B-29               | R12-B-275              |
| Color  | 1 Hub shell  | Black                  | Black                  | Black                  | Black                  | Black                  | Black                  |
|  | 1 Quick release  | -                      | -                      | -                      | -                      | -                      | -                      |
|  | 2 Hub shell  | -                      | -                      | -                      | -                      | -                      | -                      |
|  | 2 Quick release  | -                      | -                      | -                      | -                      | -                      | -                      |
| Front/Rear   |  | Front                  | Rear                   | Front                  | Rear                   | Rear                   | Rear                   |
| Brake type   |  | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake |
| Rear speeds  |  | -                      | 12                     | -                      | 12                     | 12                     | 12                     |
| O.L.D. (mm)  |  | 110                    | 148                    | 110                    | 148                    | 148                    | 148                    |
| Wheel size   |  | 622 x 25C (29 inch)    | 622 x 25C (29 inch)    | 584 x 25C (27.5 inch)  | 584 x 25C (27.5 inch)  | 622 x 24C (29 inch)    | 584 x 24C (27.5 inch)  |
| Tire   | Type   | Tubeless               | Tubeless               | Tubeless               | Tubeless               | Clincher               | Clincher               |
|  | Recommended size   | 29 x 2.00 - 2.40       | 29 x 2.00 - 2.40       | 27.5 x 2.00 - 2.40     | 27.5 x 2.00 - 2.40     | 29 x 2.00 - 2.40       | 27.5 x 2.00 - 2.40     |
| Rim  | Height (mm)  | 20.8                   | 20.8                   | 20.8                   | 20.8                   | 21                     | 21                     |
|  | Internal width (mm)  | 25                     | 25                     | 25                     | 25                     | 24                     | 24                     |
|  | External width (mm)  | 29.7                   | 29.7                   | 29.7                   | 29.7                   | 29.6                   | 29.6                   |
|  | Rim joint  | Sleeve                 | Sleeve                 | Sleeve                 | Sleeve                 | Sleeve                 | Sleeve                 |
|  | Brazed reinforcement   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | OFFSET RIM   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | Requires rim tape  | ✓ (25-622)             | ✓ (25-622)             | ✓ (25-584)             | ✓ (25-584)             | ✓ (24-622)             | ✓ (24-584)             |
| Spokes   | Number   | 24                     | 24                     | 24                     | 24                     | 24                     | 24                     |
|  | Straight pull  | -                      | -                      | -                      | -                      | -                      | -                      |
|  | J-bend   | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
|  | Diameter (mm)  | 2.3                    | 2.3                    | 2.3                    | 2.3                    | 2.3                    | 2.3                    |
| Axle fixing method   |  | 15 mm E-THRU           | 12 mm E-THRU           | 15 mm E-THRU           | 12 mm E-THRU           | 12 mm E-THRU           | 12 mm E-THRU           |
| Quick release skewer length (mm)   | 133  | -                      | -                      | -                      | -                      | -                      | -                      |
|  | 168  | -                      | -                      | -                      | -                      | -                      | -                      |
|  | 173  | -                      | -                      | -                      | -                      | -                      | -                      |
|  | 178  | -                      | -                      | -                      | -                      | -                      | -                      |
| Thru axle (length x inner diameter ; mm)   | 100 x 15   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | 110 x 15   | ✓                      | -                      | ✓                      | -                      | -                      | -                      |
|  | 142 x 12   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | 148 x 12   | -                      | ✓                      | -                      | ✓                      | ✓                      | ✓                      |
| Spline type  | MICRO SPLINE   | -                      | ✓                      | -                      | ✓                      | ✓                      | ✓                      |
|  | HG spline L2 (ROAD 12-speed dedicated)                           | -                      | -                      | -                      | -                      | -                      | -                      |
|  | HG spline L (ROAD 12/11-speed)                                   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | -                      | -                      | -                      | -                      | -                      | -                      |
|  | HG spline S (7-speed)  | -                      | -                      | -                      | -                      | -                      | -                      |
| Engagement type  |  | -                      | Pawl ratchet           | -                      | Pawl ratchet           | Pawl ratchet           | Pawl ratchet           |
| Quick engagement   |  | -                      | ✓ (36 times/360 deg.)  | -                      | ✓ (36 times/360 deg.)  | -                      | -                      |
| Bearing  | Stainless ball   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | Cup  | -                      | -                      | -                      | -                      | -                      | -                      |
|  | Cone   | -                      | -                      | -                      | -                      | CBN                    | CBN                    |
|  | Cartridge  | ✓                      | ✓                      | ✓                      | ✓                      | -                      | -                      |
| Seal   | Hub  | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      |
|  | FREEHUB body   | -                      | Contact                | -                      | Contact                | Contact                | Contact                |
| Internal grease sleeve   |  | -                      | -                      | -                      | -                      | -                      | -                      |
| Rim  | Material   | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               |
|  | Finish   | Painted                | Painted                | Painted                | Painted                | Anodized               | Anodized               |
| Spoke  | Material   | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        |
|  | Finish   | Black                  | Black                  | Black                  | Black                  | Black                  | Black                  |
| Nipple   | Material   | Brass                  | Brass                  | Brass                  | Brass                  | Brass                  | Brass                  |
|  | Finish   | Plated                 | Plated                 | Plated                 | Plated                 | Black                  | Black                  |
| FREEHUB body   | Material   | -                      | Steel                  | -                      | Steel                  | Steel                  | Steel                  |
|  | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
| Hub shell  | Material   | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               |
|  | Finish   | Painted                | Painted                | Painted                | Painted                | Painted                | Painted                |
| Axle   | Material   | Aluminum               | Steel                  | Aluminum               | Steel                  | Steel                  | Steel                  |
|  | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
| Quick release lever  | Material   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | Color  | -                      | -                      | -                      | -                      | -                      | -                      |
| Quick release housing  | Material   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
| Quick release nut  | Material   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
| Disc brake rotor lock ring   | Material   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
| Reflector  | JIS/CPSC   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   |
|  | AS   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   |
|  | DIN  | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   | CATEYE RR317-WUA SW    | CATEYE RR317-WUA SW    |
| Average weight (g) (w/o quick release, rim tape, tubeless tape, valve stem, lock ring) |  | 935                    | 1248                   | 888                    | 1199                   | 1260                   | 1208                   |
| Note   |  |                        |                        |                        |                        |                        |                        |

# Wheel (Disc Brake)

| Series   | SHIMANO  | SHIMANO                | SHIMANO  | SHIMANO                | SHIMANO  | SHIMANO                |
|--|--|------------------------|--|------------------------|--|------------------------|
| Model no.  | WH-MT500-CL-F-275  | WH-MT500-CL-R-275      | WH-MT500-CL-F15-275                                    | WH-MT500-CL-R12-275    | WH-MT500-CL-F15-B-275                                  | WH-MT500-CL-R12-B-275  |
| Model name   | WH-MT500-CL  | WH-MT500-CL            | WH-MT500-CL  | WH-MT500-CL            | WH-MT500-CL  | WH-MT500-CL            |
| Specification  | F-275  | R-275                  | F15-275  | R12-275                | F15-B-275  | R12-B-275              |
| Color  | 1 Hub shell  | Black                  | Black  | Black                  | Black  | Black                  |
|  | 1 Quick release  | Black                  | -  | -                      | -  | -                      |
|  | 2 Hub shell  | -                      | -  | -                      | -  | -                      |
|  | 2 Quick release  | -                      | -  | -                      | -  | -                      |
| Front/Rear   | Front  | Rear                   | Front  | Rear                   | Front  | Rear                   |
| Brake type   | CENTER LOCK disc brake                                   | CENTER LOCK disc brake | CENTER LOCK disc brake                                 | CENTER LOCK disc brake | CENTER LOCK disc brake                                 | CENTER LOCK disc brake |
| Rear speeds  | -  | 11/10/9/8/7            | -  | 11/10/9/8/7            | -  | 11/10/9/8/7            |
| O.L.D. (mm)  | 100  | 135                    | 100  | 142                    | 110  | 148                    |
| Wheel size   | 584 x 24C (27.5 inch)                                    | 584 x 24C (27.5 inch)  | 584 x 24C (27.5 inch)                                  | 584 x 24C (27.5 inch)  | 584 x 24C (27.5 inch)                                  | 584 x 24C (27.5 inch)  |
| Tire   | Type   | Clincher               | Clincher   | Clincher               | Clincher   | Clincher               |
|  | Recommended size   | 27.5 x 2.00 - 2.40     | 27.5 x 2.00 - 2.40                                     | 27.5 x 2.00 - 2.40     | 27.5 x 2.00 - 2.40                                     | 27.5 x 2.00 - 2.40     |
| Rim  | Height (mm)  | 21                     | 21   | 21                     | 21   | 21                     |
|  | Internal width (mm)                                      | 24                     | 24   | 24                     | 24   | 24                     |
|  | External width (mm)                                      | 29.6                   | 29.6   | 29.6                   | 29.6   | 29.6                   |
|  | Rim joint  | Sleeve                 | Sleeve   | Sleeve                 | Sleeve   | Sleeve                 |
|  | Brazed reinforcement                                     | -                      | -  | -                      | -  | -                      |
|  | OFFSET RIM   | -                      | -  | -                      | -  | -                      |
|  | Requires rim tape  | ✓ (24-584)             | ✓ (24-584)   | ✓ (24-584)             | ✓ (24-584)   | ✓ (24-584)             |
| Spokes   | Number   | 24                     | 24   | 24                     | 24   | 24                     |
|  | Straight pull  | -                      | -  | -                      | -  | -                      |
|  | J-bend   | ✓                      | ✓  | ✓                      | ✓  | ✓                      |
|  | Diameter (mm)  | 2.3                    | 2.3  | 2.3                    | 2.3  | 2.3                    |
| Axle fixing method   |  | Quick release          | Quick release  | 15 mm E-THRU           | 12 mm E-THRU   | 15 mm E-THRU           |
| Quick release skewer length (mm)   | 133  | ✓                      | -  | -                      | -  | -                      |
|  | 168  | -                      | ✓  | -                      | -  | -                      |
|  | 173  | -                      | ✓  | -                      | -  | -                      |
|  | 178  | -                      | -  | -                      | -  | -                      |
| Thru axle (length x inner diameter ; mm)   | 100 x 15   | -                      | -  | ✓                      | -  | -                      |
|  | 110 x 15   | -                      | -  | -                      | ✓  | -                      |
|  | 142 x 12   | -                      | -  | -                      | ✓  | -                      |
|  | 148 x 12   | -                      | -  | -                      | -  | ✓                      |
| Spline type  | MICRO SPLINE   | -                      | -  | -                      | -  | -                      |
|  | HG spline L2 (ROAD 12-speed dedicated)                   | -                      | -  | -                      | -  | -                      |
|  | HG spline L (ROAD 12/11-speed)                           | -                      | -  | -                      | -  | -                      |
|  | HG spline M (10/9/8-speed, MTB 11-speed, CS-HG400/HG210) | -                      | ✓  | -                      | ✓  | ✓                      |
|  | HG spline S (7-speed)                                    | -                      | -  | -                      | -  | -                      |
| Engagement type  |  | -                      | Pawl ratchet   | -                      | Pawl ratchet   | -                      |
| Quick engagement   |  | -                      | -  | -                      | -  | -                      |
| Bearing  | Stainless ball   | -                      | -  | -                      | -  | -                      |
|  | Cup  | -                      | -  | -                      | -  | -                      |
|  | Cone   | CBN                    | CBN  | CBN                    | CBN  | CBN                    |
|  | Cartridge  | -                      | -  | -                      | -  | -                      |
| Seal   | Hub  | Labyrinth+Contact      | Labyrinth+Contact                                      | Labyrinth+Contact      | Labyrinth+Contact                                      | Labyrinth+Contact      |
|  | FREEHUB body   | -                      | -  | Contact                | Contact  | Contact                |
| Internal grease sleeve   |  | ✓                      | ✓  | ✓                      | ✓  | ✓                      |
| Rim  | Material   | Aluminum               | Aluminum   | Aluminum               | Aluminum   | Aluminum               |
|  | Finish   | Anodized               | Anodized   | Anodized               | Anodized   | Anodized               |
| Spoke  | Material   | Stainless steel        | Stainless steel  | Stainless steel        | Stainless steel  | Stainless steel        |
|  | Finish   | Black                  | Black  | Black                  | Black  | Black                  |
| Nipple   | Material   | Brass                  | Brass  | Brass                  | Brass  | Brass                  |
|  | Finish   | Black                  | Black  | Black                  | Black  | Black                  |
| FREEHUB body   | Material   | -                      | -  | Steel                  | -  | Steel                  |
|  | Finish   | -                      | -  | -                      | -  | -                      |
| Hub shell  | Material   | Aluminum               | Aluminum   | Aluminum               | Aluminum   | Aluminum               |
|  | Finish   | Painted                | Painted  | Painted                | Painted  | Painted                |
| Axle   | Material   | Steel                  | Steel  | Aluminum               | Aluminum   | Steel                  |
|  | Finish   | -                      | -  | Anodized               | Anodized   | -                      |
| Quick release lever  | Material   | Aluminum               | Aluminum   | -                      | -  | -                      |
|  | Finish   | Painted                | Painted  | -                      | -  | -                      |
|  | Color  | Black                  | Black  | -                      | -  | -                      |
| Quick release housing  | Material   | Steel                  | Steel  | -                      | -  | -                      |
|  | Finish   | Painted                | Painted  | -                      | -  | -                      |
| Quick release nut  | Material   | Steel+Resin            | Steel+Resin  | -                      | -  | -                      |
|  | Finish   | -                      | -  | -                      | -  | -                      |
| Disc brake rotor lock ring   | Material   | -                      | -  | Steel                  | Steel  | -                      |
|  | Finish   | -                      | -  | Painted                | Painted  | -                      |
| Reflector  | JIS/CPSC   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW                                   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW                                   | CATEYE RR-550-WUW SW   |
|  | AS   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW                                   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW                                   | CATEYE RR-550-WUA SW   |
|  | DIN  | CATEYE RR317-WUA SW    | CATEYE RR317-WUA SW                                    | CATEYE RR317-WUA SW    | CATEYE RR317-WUA SW                                    | CATEYE RR317-WUA SW    |
| Average weight (g) (w/o quick release, rim tape, tubeless tape, valve stem, lock ring) |  | 962                    | 1147   | 936                    | 1133   | 946                    |
| Note   |  | -                      | *** Spoke protector is available only for 9 & 10-speed | -                      | *** Spoke protector is available only for 9 & 10-speed | -                      |

SW

RD

FD

SMAD

SC

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SLMT

SMSL

BL

BL

RD

FD

BR

BR

BR

FC

SMCD

SMCR

BB

CS

HB

FH

WH

CI-DECK

SC

# Wheel (Disc Brake)

| Series   |  | SHIMANO                | SHIMANO                | SHIMANO                | SHIMANO                | SHIMANO                | SHIMANO                |
|--|--|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Model no.  |  | WH-MT500-CL-F-29       | WH-MT500-CL-R-29       | WH-MT500-CL-F15-29     | WH-MT500-CL-R12-29     | WH-MT500-CL-F15-B-29   | WH-MT500-CL-R12-B-29   |
| Model name   |  | WH-MT500-CL            | WH-MT500-CL            | WH-MT500-CL            | WH-MT500-CL            | WH-MT500-CL            | WH-MT500-CL            |
| Specification  |  | F-29                   | R-29                   | F15-29                 | R12-29                 | F15-B-29               | R12-B-29               |
| Color  | 1 Hub shell  | Black                  | Black                  | Black                  | Black                  | Black                  | Black                  |
|  | 1 Quick release  | Black                  | Black                  | -                      | -                      | -                      | -                      |
|  | 2 Hub shell  | -                      | -                      | -                      | -                      | -                      | -                      |
|  | 2 Quick release  | -                      | -                      | -                      | -                      | -                      | -                      |
| Front/Rear   |  | Front                  | Rear                   | Front                  | Rear                   | Front                  | Rear                   |
| Brake type   |  | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake |
| Rear speeds  |  | -                      | 11/10/9/8/7            | -                      | 11/10/9/8/7            | -                      | 11/10/9/8/7            |
| O.L.D. (mm)  |  | 100                    | 135                    | 100                    | 142                    | 110                    | 148                    |
| Wheel size   |  | 622 x 24C (29 inch)    | 622 x 24C (29 inch)    | 622 x 24C (29 inch)    | 622 x 24C (29 inch)    | 622 x 24C (29 inch)    | 622 x 24C (29 inch)    |
| Tire   | Type   | Clincher               | Clincher               | Clincher               | Clincher               | Clincher               | Clincher               |
|  | Recommended size   | 29 x 2.00 - 2.35       | 29 x 2.00 - 2.35       | 29 x 2.00 - 2.35       | 29 x 2.00 - 2.35       | 29 x 2.00 - 2.35       | 29 x 2.00 - 2.35       |
| Rim  | Height (mm)  | 21                     | 21                     | 21                     | 21                     | 21                     | 21                     |
|  | Internal width (mm)  | 24                     | 24                     | 24                     | 24                     | 24                     | 24                     |
|  | External width (mm)  | 29.6                   | 29.6                   | 29.6                   | 29.6                   | 29.6                   | 29.6                   |
|  | Rim joint  | Sleeve                 | Sleeve                 | Sleeve                 | Sleeve                 | Sleeve                 | Sleeve                 |
|  | Brazed reinforcement   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | OFFSET RIM   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | Requires rim tape  | ✓ (24-622)             | ✓ (24-622)             | ✓ (24-622)             | ✓ (24-622)             | ✓ (24-622)             | ✓ (24-622)             |
| Spokes   | Number   | 24                     | 24                     | 24                     | 24                     | 24                     | 24                     |
|  | Straight pull  | -                      | -                      | -                      | -                      | -                      | -                      |
|  | J-bend   | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
|  | Diameter (mm)  | 2.3                    | 2.3                    | 2.3                    | 2.3                    | 2.3                    | 2.3                    |
| Axle fixing method   |  | Quick release          | Quick release          | 15 mm E-THRU           | 12 mm E-THRU           | 15 mm E-THRU           | 12 mm E-THRU           |
| Quick release skewer length (mm)   | 133  | ✓                      | -                      | -                      | -                      | -                      | -                      |
|  | 168  | -                      | ✓                      | -                      | -                      | -                      | -                      |
|  | 173  | -                      | ✓                      | -                      | -                      | -                      | -                      |
|  | 178  | -                      | -                      | -                      | -                      | -                      | -                      |
| Thru axle (length x inner diameter ; mm)   | 100 x 15   | -                      | -                      | ✓                      | -                      | -                      | -                      |
|  | 110 x 15   | -                      | -                      | -                      | -                      | ✓                      | -                      |
|  | 142 x 12   | -                      | -                      | -                      | ✓                      | -                      | -                      |
|  | 148 x 12   | -                      | -                      | -                      | -                      | -                      | ✓                      |
| Spline type  | MICRO SPLINE   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | HG spline L2 (ROAD 12-speed dedicated)                         | -                      | -                      | -                      | -                      | -                      | -                      |
|  | HG spline L (ROAD 12/11-speed)                                 | -                      | -                      | -                      | -                      | -                      | -                      |
|  | HG spline M (10/9/8-speed, MTB 11-speed, speed CS-HG400/HG210) | -                      | ✓                      | -                      | ✓                      | -                      | ✓                      |
|  | HG spline S (7-speed)  | -                      | -                      | -                      | -                      | -                      | -                      |
| Engagement type  |  | -                      | Pawl ratchet           | -                      | Pawl ratchet           | -                      | Pawl ratchet           |
| Quick engagement   |  | -                      | -                      | -                      | -                      | -                      | -                      |
| Bearing  | Stainless ball   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | Cup  | -                      | -                      | -                      | -                      | -                      | -                      |
|  | Cone   | CBN                    | CBN                    | CBN                    | CBN                    | CBN                    | CBN                    |
|  | Cartridge  | -                      | -                      | -                      | -                      | -                      | -                      |
| Seal   | Hub  | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      |
|  | FREEHUB body   | -                      | -                      | -                      | Contact                | -                      | Contact                |
| Internal grease sleeve   |  | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
| Rim  | Material   | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               |
|  | Finish   | Anodized               | Anodized               | Anodized               | Anodized               | Anodized               | Anodized               |
| Spoke  | Material   | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        |
|  | Finish   | Black                  | Black                  | Black                  | Black                  | Black                  | Black                  |
| Nipple   | Material   | Brass                  | Brass                  | Brass                  | Brass                  | Brass                  | Brass                  |
|  | Finish   | Black                  | Black                  | Black                  | Black                  | Black                  | Black                  |
| FREEHUB body   | Material   | -                      | -                      | -                      | Steel                  | -                      | Steel                  |
|  | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
| Hub shell  | Material   | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               |
|  | Finish   | Painted                | Painted                | Painted                | Painted                | Painted                | Painted                |
| Axle   | Material   | Steel                  | Steel                  | Aluminum               | Steel                  | Aluminum               | Steel                  |
|  | Finish   | -                      | -                      | Anodized               | -                      | Anodized               | -                      |
| Quick release lever  | Material   | Aluminum               | Aluminum               | -                      | -                      | -                      | -                      |
|  | Finish   | Painted                | Painted                | -                      | -                      | -                      | -                      |
|  | Color  | Black                  | Black                  | -                      | -                      | -                      | -                      |
| Quick release housing  | Material   | Steel                  | Steel                  | -                      | -                      | -                      | -                      |
|  | Finish   | Painted                | Painted                | -                      | -                      | -                      | -                      |
| Quick release nut  | Material   | Steel+Resin            | Steel+Resin            | -                      | -                      | -                      | -                      |
|  | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
| Disc brake rotor lock ring   | Material   | -                      | -                      | Steel                  | -                      | Steel                  | -                      |
|  | Finish   | -                      | -                      | Painted                | -                      | Painted                | -                      |
| Reflector  | JIS/CPSC   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   |
|  | AS   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   |
|  | DIN  | CATEYE RR317-WUA SV    | CATEYE RR317-WUA SW    | CATEYE RR317-WUA SW    | CATEYE RR317-WUA SW    | CATEYE RR317-WUA SW    | CATEYE RR317-WUA SW    |
| Average weight (g) (w/o quick release, rim tape, tubeless tape, valve stem, lock ring) |  | 1013                   | 1200                   | 988                    | 1186                   | 998                    | 1199                   |
| Note   |  | -                      | -                      | -                      | -                      | -                      | -                      |

# Wheel (Disc Brake)

| Series   |  | SHIMANO                     |
|--|--|-----------------------------|
| Model no.  |  | WH-MT15-A-F15-275           |
| Model name   |  | WH-MT15-A                   |
| Specification  |  | F15-275                     |
| Color  | 1 Hub shell  | Black                       |
|  | 1 Quick release  | Black                       |
|  | 2 Hub shell  | White                       |
|  | 2 Quick release  | Black                       |
| Front/Rear   |  | Front                       |
| Brake type   |  | CENTER LOCK disc brake      |
| Rear speeds  |  | -                           |
| O.L.D. (mm)  |  | 100                         |
| Wheel size   |  | 584 x 19C (27.5 inch)       |
| Tire   | Type   | Clincher                    |
|  | Recommended size   | 27.5 x 1.90 - 2.25          |
| Rim  | Height (mm)  | 21                          |
|  | Internal width (mm)  | 19                          |
|  | External width (mm)  | 24.6                        |
|  | Rim joint  | Sleeve                      |
|  | Brazed reinforcement   | -                           |
|  | OFFSET RIM   | -                           |
|  | Requires rim tape  | ✓ (20-584)                  |
| Spokes   | Number   | 28                          |
|  | Straight pull  | -                           |
|  | J-bend   | ✓                           |
|  | Diameter (mm)  | 2.0                         |
| Axle fixing method   |  | 15 mm E-THRU                |
| Quick release skewer length (mm)   | 133  | -                           |
|  | 168  | -                           |
|  | 173  | -                           |
|  | 178  | -                           |
| Thru axle (length x inner diameter ; mm)   | 100 x 15   | ✓                           |
|  | 110 x 15   | -                           |
|  | 142 x 12   | -                           |
|  | 148 x 12   | -                           |
| Spline type  | MICRO SPLINE   | -                           |
|  | HG spline L2 (ROAD 12-speed dedicated)                           | -                           |
|  | HG spline L (ROAD 12/11-speed)                                   | -                           |
|  | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | -                           |
|  | HG spline S (7-speed)  | -                           |
| Engagement type  |  | -                           |
| Quick engagement   |  | -                           |
| Bearing  | Stainless ball   | -                           |
|  | Cup  | -                           |
|  | Cone   | CBN                         |
|  | Cartridge  | -                           |
| Seal   | Hub  | Labyrinth+Contact           |
|  | FREEHUB body   | -                           |
| Internal grease sleeve   |  | ✓                           |
| Rim  | Material   | Aluminum                    |
|  | Finish   | Anodized (black rim)        |
| Spoke  | Material   | Stainless steel             |
|  | Finish   | Black                       |
| Nipple   | Material   | Brass                       |
|  | Finish   | Silver                      |
| FREEHUB body   | Material   | -                           |
|  | Finish   | -                           |
| Hub shell  | Material   | Aluminum                    |
|  | Finish   | Painted                     |
| Axle   | Material   | Aluminum                    |
|  | Finish   | Anodized                    |
| Quick release lever  | Material   | -                           |
|  | Finish   | -                           |
|  | Color  | -                           |
| Quick release housing  | Material   | -                           |
|  | Finish   | -                           |
| Quick release nut  | Material   | -                           |
|  | Finish   | -                           |
| Disc brake rotor lock ring   | Material   | Steel                       |
|  | Finish   | Painted                     |
| Reflector  | JIS/CPSC   | CATEYE RR-550-WUW SW        |
|  | AS   | CATEYE RR-550-WUA SW        |
|  | DIN  | CATEYE RR317-WUA SW         |
| Average weight (g) (w/o quick release, rim tape, tubeless tape, valve stem, lock ring) |  | 995 (Black)<br>1000 (White) |
| Note   |  |                             |

SW

RD

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SMAD

SC

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SLMT

SMSL

BL

BL

RD

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SMCD

SMCR

BB

CS

HB

FH

WH

CI-DECK

SC

# CI-DECK

| Series                                  |           | CI-DECK                                     | CI-DECK                                     | CI-DECK                            | CI-DECK                           | CI-DECK                                  | CI-DECK                   |
|---|-----------|---|---|------------------------------------|-----------------------------------|--|---------------------------|
| Model no.                               |           | ID-CI300-7R                                 | ID-CI300-6R                                 | ID-CI300-LC                        | ID-CI400                          | SM-CI300                                 | SM-CI301                  |
| Compatible shifter                      |           | SL-RS34, SL-RS35, SL-RS36, SL-RS45, SL-RS47 | SL-RS34, SL-RS35, SL-RS36, SL-RS45, SL-RS47 | -                                  | -                                 | -  | -                         |
| Front speeds                            |           | -   | -   | -                                  | -                                 | -  | -                         |
| Rear speeds                             |           | 7   | 6   | -                                  | -                                 | -  | -                         |
| Shifter compatible rear derailleur type |           | Top normal                                  | Top normal                                  | -                                  | -                                 | -  | -                         |
| CI-DECK cable                           |           | Stainless steel                             | Stainless steel                             | -                                  | -                                 | -  | -                         |
| CI-DECK cable type                      |           | TX50  | TX50  | -                                  | -                                 | -  | -                         |
| OPTICAL GEAR DISPLAY                    | Front     | -   | -   | -                                  | -                                 | -  | -                         |
|   | Rear      | 7-speed                                     | 6-speed                                     | -                                  | -                                 | -  | -                         |
| Clamp band diameter (mm)                | 22.2      | -   | -   | -                                  | -                                 | -  | -                         |
|   | 25        | -   | -   | -                                  | -                                 | -  | -                         |
|   | 22.2/25.0 | -   | -   | -                                  | -                                 | ✓  | -                         |
| CI-DECK upper cover                     | Material  | Resin                                       | Resin                                       | Resin                              | -                                 | -  | -                         |
|   | Color     | Painted                                     | Painted                                     | Painted                            | -                                 | -  | -                         |
| CI-DECK body                            | Material  | Resin                                       | Resin                                       | Resin                              | -                                 | -  | -                         |
|   | Color     | -   | -   | -                                  | -                                 | -  | -                         |
| Clamp band                              | Material  | -   | -   | -                                  | -                                 | Resin                                    | -                         |
|   | Color     | -   | -   | -                                  | -                                 | -  | -                         |
| Note                                    |           | Use with SM-CI300                           | Use with SM-CI300                           | Accessory cover, use with SM-CI300 | Analog compass, use with SM-CI300 | Bracket for ID-CI300, ID-CI400, SC-CI300 | Cowling use with SM-CI300 |

# Cycle Computer (CI-DECK)

|                                  |                             |                   |
|----------------------------------|-----------------------------|-------------------|
| Series                           |                             | CI-DECK           |
| Model no.                        |                             | SC-CI300          |
| Compatible system                |                             | Mechanical        |
| Attachment position              |                             | Handlebar         |
| Battery type                     |                             | CR2032            |
| Charging for cycle computer      |                             | -                 |
| Front speeds                     |                             | -                 |
| Rear speeds                      |                             | -                 |
| Number of programable wheel size |                             | 1                 |
| Wheel size range (inch)          |                             | 16-26             |
| Remote switch                    |                             | -                 |
| Communications                   |                             | Wired             |
| Memory capacity                  |                             | -                 |
| PC software available            |                             | -                 |
| Detachable                       |                             | ✓                 |
| Display spec                     | Size (mm ; active area)     | 20 x 20           |
|                                  | Font type                   | Segment           |
|                                  | Panel type                  | LCD               |
|                                  | Back light                  | -                 |
|                                  | Touch panel                 | -                 |
| Display function                 | Gear indicator              | -                 |
|                                  | Speed                       | ✓                 |
|                                  | Cadence                     | -                 |
|                                  | Trip distance               | -                 |
|                                  | Odometer                    | ✓                 |
|                                  | Heart rate                  | -                 |
|                                  | Power                       | -                 |
|                                  | Time/Clock                  | ✓                 |
|                                  | Altitude/Slope              | -                 |
|                                  | Temperature                 | -                 |
|                                  | Lap time                    | -                 |
|                                  | Auto display start          | ✓                 |
| Setting function                 | Display customizing         | -                 |
|                                  | Unit setting                | -                 |
|                                  | Language choice             | -                 |
|                                  | Beep on/off                 | -                 |
|                                  | Changing data sampling rate | -                 |
| Note                             |                             | Use with SM-CI300 |

SW

RD

FD

SMAD

SC

SL

SLMT

SMSL

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BL

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BR

FC

SMCD

SMCR

BB

CS

HB

FH

WH

CI-DECK

SC



# TREKKING

<Mechanical  
spec.>

|   | Page      |    |
|---|-----------|----|
| <b>Shifter</b>                            | <b>86</b> | SL |
| <b>Brake Lever</b> (Hydraulic Disc Brake) | <b>87</b> | BL |
| <b>Brake Lever</b>                        | <b>88</b> | BL |
| <b>Rear Derailleur</b>                    | <b>89</b> | RD |
| <b>Front Derailleur</b>                   | <b>90</b> | FD |
| <b>Brake</b> (V-BRAKE)                    | <b>92</b> | BR |
| <b>Crankset</b>                           | <b>93</b> | FC |
| <b>Front Hub</b> (Rim/Disc Brake)         | <b>95</b> | HB |
| <b>FREEHUB</b> (Rim/Disc Brake)           | <b>96</b> | FH |



# Shifter

| Series                                      |                  |                      | DEORE XT        | DEORE XT        | DEORE           | DEORE           |
|---|------------------|----------------------|-----------------|-----------------|-----------------|-----------------|
| Model no.                                   |                  |                      | SL-T8000-R      | SL-T8000-L      | SL-T6000-R      | SL-T6000-L      |
| Color                                       | 1                |                      | Series color    | Series color    | Series black    | Series black    |
|   | 2                |                      | -               | -               | -               | -               |
| Shifter type                                |                  |                      | RAPIDFIRE PLUS  | RAPIDFIRE PLUS  | RAPIDFIRE PLUS  | RAPIDFIRE PLUS  |
| Front speeds                                |                  |                      | -               | 3               | -               | 2/3             |
| Rear speeds                                 |                  |                      | 10              | -               | 10              | -               |
| Compatible rear derailleur type             |                  |                      | MTB 10-speed    | -               | MTB 10-speed    | -               |
| Mount type                                  | Clamp band       |                      | ✓               | ✓               | ✓               | ✓               |
|   | I-SPEC B         |                      | -               | -               | -               | -               |
|   | I-SPEC II        |                      | -               | -               | -               | -               |
|   | I-SPEC EV        |                      | -               | -               | -               | -               |
| Shift lever position adjust                 |                  |                      | -               | -               | -               | -               |
| Shift lever rotation adjust (non I-SPEC EV) |                  |                      | -               | -               | -               | -               |
| Shift lever cable adjust                    |                  |                      | ✓               | ✓               | ✓               | ✓               |
| Front 2/3 mode converter                    |                  |                      | -               | -               | -               | -               |
| Max. multiple shifts (main lever/rear)      |                  |                      | 4               | -               | 3               | -               |
| Release function                            | MULTI RELEASE    |                      | ✓               | -               | -               | -               |
|   | INSTANT RELEASE  |                      | ✓               | ✓               | -               | -               |
|   | 2-WAY RELEASE    |                      | ✓               | ✓               | ✓               | ✓               |
|   | Adjustable lever |                      | -               | -               | -               | -               |
| OPTICAL GEAR DISPLAY                        | With             |                      | ✓               | ✓               | ✓               | ✓               |
|   | With (removable) |                      | -               | -               | -               | -               |
|   | Without          |                      | -               | -               | -               | -               |
| Multi-bearing construction                  |                  |                      | 2               | 2               | -               | -               |
| Shift lever bracket                         | Material         |                      | Aluminum        | Aluminum        | Aluminum        | Aluminum        |
|   | Finish           |                      | Painted         | Painted         | Painted         | Painted         |
| Clamp screw                                 | Material         |                      | Stainless steel | Stainless steel | Stainless steel | Stainless steel |
|   | Finish           |                      | -               | -               | -               | -               |
| Main lever body                             | Material         |                      | Aluminum        | Aluminum        | Steel+GFRP      | Steel+GFRP      |
|   | Finish           |                      | Painted         | Painted         | -               | -               |
| Release lever body                          | Material         |                      | Steel+GFRP      | Steel+GFRP      | Steel+GFRP      | Steel+GFRP      |
|   | Finish           |                      | -               | -               | -               | -               |
| Base cover                                  | Material         |                      | GFRP            | GFRP            | GFRP            | GFRP            |
|   | Finish           |                      | Painted         | Painted         | -               | -               |
| Shift lever cable                           | Inner cable      | Polymer-coated cable | -               | -               | -               | -               |
|   |                  | OPTISLICK            | ✓               | ✓               | ✓               | ✓               |
|   |                  | SIL-TEC              | -               | -               | -               | -               |
|   |                  | Stainless            | ✓               | ✓               | ✓               | ✓               |
|   |                  | Steel                | -               | -               | -               | -               |
| Recommended shift lever outer casing        |                  |                      | OT-SP41         | OT-SP41         | OT-SP41         | OT-SP41         |
| Average weight (g)                          |                  |                      | 126             | 120             | -               | -               |
| Note  |                  |                      |                 |                 |                 |                 |

## Brake Lever (Hydraulic Disc Brake)

| Series                    |            | DEORE XT             | DEORE XT             | DEORE                  |
|---------------------------|------------|----------------------|----------------------|------------------------|
| Model no.                 |            | BL-T8100             | BL-T8000             | BL-T6000               |
| Brake type                |            | Hydraulic disc brake | Hydraulic disc brake | Hydraulic disc brake   |
| Lever size (finger)       |            | 3                    | 3                    | 3                      |
| Color                     | 1          | Series color         | Series color         | Series black           |
|                           | 2          | -                    | -                    | Series silver          |
|                           | 3          | -                    | -                    | Black (SHIMANO logo) * |
| Brake hose (kit)          |            | SM-BH90-SBM          | SM-BH90-SBM          | SM-BH59-JK-SS          |
| Hose joint                |            | Straight             | Straight             | Straight               |
| Brake hose color (kit)    | 1          | Black                | Black                | Black                  |
|                           | 2          | -                    | -                    | -                      |
| J-Kit spec (for OEM)      |            | ✓                    | ✓                    | ✓                      |
| SERVO WAVE                |            | -                    | -                    | -                      |
| Reach adjust              | Toolless   | ✓                    | ✓                    | -                      |
|                           | Tool       | -                    | -                    | ✓                      |
| Free stroke adjust        |            | -                    | -                    | -                      |
| Compatible shifter mount  | Clamp band | ✓                    | ✓                    | ✓                      |
|                           | I-SPEC B   | -                    | -                    | -                      |
|                           | I-SPEC II  | ✓                    | ✓                    | ✓                      |
|                           | I-SPEC EV  | -                    | -                    | -                      |
| Clamp band                | Open clamp | ✓                    | ✓                    | ✓                      |
| Recommended brake caliper |            | BR-M8100<br>BR-M8120 | BR-M8000             | BR-M6000               |
| Oil                       |            | SHIMANO mineral      | SHIMANO mineral      | SHIMANO mineral        |
| Funnel bleeding           |            | ✓                    | ✓                    | ✓                      |
| Clamp screw               | Material   | Stainless steel      | Stainless steel      | Stainless steel        |
|                           | Finish     | Painted              | Painted              | -                      |
| Brake lever               | Material   | Aluminum             | Aluminum             | Aluminum               |
|                           | Finish     | Anodized             | Anodized             | Anodized               |
| Master cylinder           | Material   | Aluminum             | Aluminum             | Aluminum               |
|                           | Finish     | Painted              | Painted              | Painted                |
| Average weight (g)        |            | 108                  | 108                  | -                      |
| Note                      |            |                      |                      | * T6000 kit only       |

SL

BL

BL

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# Brake Lever

| Series                      |                              | DEORE                              | DEORE  | SHIMANO  | SHIMANO  |
|-----------------------------|------------------------------|------------------------------------|--|----------|--|
| Model no.                   |                              | BL-T610                            | BL-T611  | BL-T4000 | BL-T4010                                       |
| Color                       | 1                            | Black                              | Black  | Black    | Black  |
|                             | 2                            | -                                  | -  | Silver   | Silver   |
|                             | 3                            | -                                  | -  | -        | -  |
| Compatible brake type       | V-BRAKE                      | ✓                                  | ✓*   | ✓        | ✓*   |
|                             | Mechanical disc brake (MTB)  | ✓                                  | ✓*   | ✓        | ✓*   |
|                             | Mechanical disc brake (Road) | -                                  | -  | -        | -  |
|                             | Caliper (NEW SUPER SLR)      | -                                  | -  | -        | -  |
|                             | Caliper (SUPER SLR)          | -                                  | -  | -        | -  |
|                             | Cantilever brake             | -                                  | -  | -        | -  |
|                             | Roller brake                 | -                                  | -  | -        | -  |
| Recommended POWER MODULATOR | V-BRAKE                      | -                                  | SM-PM70  | -        | SM-PM40  |
|                             | Mechanical disc brake (MTB)  | -                                  | SM-PM50  | -        | SM-PM50  |
| Clamp band                  | Open clamp band              | ✓                                  | ✓  | -        | -  |
|                             | I-SPEC                       | ✓**                                | ✓**  | -        | -  |
|                             | Diameter (mm)                | 22.2                               | 22.2   | 22.2     | 22.2   |
| Internal bumper stop        |                              | ✓                                  | ✓  | ✓        | ✓  |
| Lever size (finger)         |                              | 2                                  | 3  | 2        | 3  |
| Brake cable type            |                              | T-type                             | T-type   | T-type   | T-type   |
| Power adjuster              |                              | -                                  | -  | -        | -  |
| SERVO WAVE                  |                              | -                                  | -  | -        | -  |
| Reach adjust                |                              | ✓                                  | ✓  | ✓        | ✓  |
| Cable adjust                |                              | ✓                                  | ✓  | ✓        | ✓  |
| Cable adjust type           |                              | Two hand                           | Two hand   | Two hand | Two hand                                       |
| Brake lever                 | Material                     | Aluminum                           | Aluminum   | Aluminum | Aluminum                                       |
|                             | Finish                       | Anodized                           | Anodized   | Anodized | Anodized                                       |
| Brake bracket               | Material                     | Aluminum                           | Aluminum   | Aluminum | Aluminum                                       |
|                             | Finish                       | Painted                            | Painted  | Painted  | Painted  |
| Stainless clamp screw       |                              | ✓                                  | ✓  | ✓        | ✓  |
| Average weight (g)          |                              | -                                  | -  | -        | -  |
| Note                        |                              | For cross bike<br>** I-SPEC B-type | For Trekking<br>* POWER MODULATOR must be used for front brake<br>** I-SPEC B-type |          | * POWER MODULATOR must be used for front brake |

# Rear Derailleur

| Series                       |                          |                                  | DEORE XT   | DEORE  | SHIMANO ALIVIO  | ACERA           |
|------------------------------|--------------------------|----------------------------------|--|--|-----------------|-----------------|
| Model no.                    |                          |                                  | RD-T8000-SGS   | RD-T6000-SGS   | RD-T4000        | RD-T3000        |
| Color                        | 1                        |                                  | Series color   | Series black   | Black           | Black           |
|                              | 2                        |                                  | -  | -  | Silver          | Silver          |
| Rear speeds                  |                          |                                  | 10   | 10   | 9               | 9               |
| Compatible chain             |                          |                                  | HG-X 10-speed  | HG-X 10-speed  | HG 9-speed      | HG 9-speed      |
| RD construction              | SHIMANO SHADOW RD        |                                  | ✓  | ✓  | -               | -               |
|                              | SHIMANO SHADOW RD+       |                                  | -  | -  | -               | -               |
|                              | Double servo             |                                  | -  | -  | ✓               | ✓               |
| Applicable derailleur hanger | SHIMANO MTB type         | Direct attachment (conventional) | ✓  | ✓  | ✓               | ✓               |
|                              |                          | Direct mount                     | ✓  | ✓  | -               | -               |
|                              | SHIMANO ROAD type        | Direct attachment (conventional) | -  | -  | -               | -               |
|                              |                          | Direct mount                     | -  | -  | -               | -               |
|                              | UDH standard             |                                  | -  | -  | -               | -               |
|                              | Riveted adapter          | ROAD type                        | -  | -  | -               | -               |
|                              |                          | BMX-track type                   | -  | -  | -               | -               |
|                              | Mode converter           |                                  |  | -  | -               | -               |
| Cable adjuster               |                          |                                  | -  | -  | ✓               | ✓               |
| Max. front difference        |                          |                                  | 22T  | 22T  | 22T             | 22T             |
| Total capacity               |                          |                                  | 47T  | 47T  | 45T             | 45T             |
| Low sprocket                 | Max.                     |                                  | 36T  | 36T  | 34T             | 34T             |
|                              | Min.                     |                                  | 32T  | 32T  | 28T             | 28T             |
| Top sprocket                 | Max.                     |                                  | 11T  | 11T  | 11T             | 11T             |
|                              | Min.                     |                                  | 11T  | 11T  | 11T             | 11T             |
| Fluoric coated link bushings |                          |                                  | 4  | 3  | 2               | 1               |
| Pulley                       | Guide pulley bearing     |                                  | Sealed Bearing   | -  | -               | -               |
|                              | Tension pulley bearing   |                                  | Sealed bearing   | -  | -               | -               |
|                              | Teeth                    |                                  | 11T  | 11T  | 11T             | 11T             |
|                              | Screws material          |                                  | Stainless steel  | Stainless steel  | Steel           | Steel           |
|                              | Sunken type pulley screw |                                  | ✓  | ✓  | ✓               | ✓               |
| Bracket                      | Material                 |                                  | Aluminum   | Steel  | -               | -               |
|                              | Finish                   |                                  | Painted  | Painted  | -               | -               |
| B-axle                       | Hollow axle              |                                  | ✓  | ✓  | -               | -               |
|                              | Material                 |                                  | Stainless steel  | Stainless steel  | Stainless steel | Stainless steel |
|                              | Finish                   |                                  | -  | -  | -               | -               |
| B-axle 2                     | Hollow axle              |                                  | ✓  | ✓  | -               | -               |
|                              | Material                 |                                  | Stainless steel  | Stainless steel  | -               | -               |
|                              | Finish                   |                                  | -  | -  | -               | -               |
| Bracket body                 | Material                 |                                  | Aluminum   | Aluminum   | Aluminum        | Aluminum        |
|                              | Finish                   |                                  | Painted  | Painted  | Painted         | Painted         |
| P-axle                       | Material                 |                                  | Steel  | Steel  | Steel           | Steel           |
|                              | Finish                   |                                  | -  | -  | Painted         | Painted         |
| Plate body                   | Material                 |                                  | Aluminum   | GFRP   | Resin           | Resin           |
|                              | Finish                   |                                  | Painted  | -  | Painted         | Painted         |
| Outer link                   | Material                 |                                  | Aluminum   | Aluminum   | Aluminum        | Steel           |
|                              | Finish                   |                                  | Painted  | Painted  | Painted         | Painted         |
| Inner link                   | Material                 |                                  | Aluminum   | Steel  | Steel           | Steel           |
|                              | Finish                   |                                  | Painted  | Painted  | Painted         | Painted         |
| Outer plate                  | Material                 |                                  | Aluminum   | Steel  | Steel           | Steel           |
|                              | Finish                   |                                  | Painted  | Painted  | Painted         | Painted         |
| Inner plate                  | Material                 |                                  | Aluminum   | Steel  | Steel           | Steel           |
|                              | Finish                   |                                  | Painted  | Painted  | Painted         | Painted         |
| Cable fixing screw           | Material                 |                                  | Stainless steel  | Steel  | Stainless steel | Stainless steel |
|                              | Finish                   |                                  | Plated   | Plated   | -               | -               |
| Stroke adjusting screw       | Material                 |                                  | Steel  | Steel  | Stainless steel | Steel           |
|                              | Finish                   |                                  | Plated   | Plated   | -               | Plated          |
| Average weight (g)           |                          |                                  | 253  | -  | -               | -               |
| Note                         |                          |                                  | * Possible to attach to direct mount in case bracket is removed. | * Possible to attach to direct mount in case bracket is removed. |                 |                 |

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# Front Derailleur

| Series   |                     |                              | DEORE XT                                       | DEORE XT                                       | DEORE XT                                       | DEORE                 | DEORE                 | DEORE                 |
|--|---------------------|------------------------------|--|--|--|-----------------------|-----------------------|-----------------------|
| Model no.  |                     |                              | FD-T8000-H-3                                   | FD-T8000-L-3                                   | FD-T8000-L-6                                   | FD-T6000-H3           | FD-T6000-L3           | FD-T6000-L6           |
| Color  | 1                   |                              | Series color                                   | Series color                                   | Series color                                   | Series black          | Series black          | Series black          |
|  | 2                   |                              | -  | -  | -  | -                     | Series silver         | Series silver         |
| Front speeds   |                     |                              | 3  | 3  | 3  | 3                     | 3                     | 3                     |
| Rear speeds  |                     |                              | 10   | 10   | 10   | 10                    | 10                    | 10                    |
| Compatible chain   |                     |                              | HG-X 10-speed                                  | HG-X 10-speed                                  | HG-X 10-speed                                  | HG-X 10-speed         | HG-X 10-speed         | HG-X 10-speed         |
| Action   | TOP SWING           |                              | -  | ✓  | ✓  | -                     | ✓                     | ✓                     |
|  | Down swing          |                              | ✓  | -  | -  | ✓                     | -                     | -                     |
|  | SIDE SWING          |                              | -  | -  | -  | -                     | -                     | -                     |
| Mount  | Clamp band (mm)     | 28.6                         | ✓ * (w/ S size adapter)                        | ✓ * (w/ S size adapter)                        | ✓ * (w/ S size adapter)                        | ✓ (w/ S size adapter) | ✓ (w/ S size adapter) | ✓ (w/ S size adapter) |
|  |                     | 31.8                         | ✓ (w/ M size adapter)                          | ✓ (w/ M size adapter)                          | ✓ (w/ M size adapter)                          | ✓ (w/ M size adapter) | ✓ (w/ M size adapter) | ✓ (w/ M size adapter) |
|  |                     | 34.9                         | ✓  | ✓  | ✓  | ✓                     | ✓                     | ✓                     |
|  | E-type              | With bottom bracket plate    | -  | -  | -  | -                     | -                     | -                     |
|  |                     | Without bottom bracket plate | -  | -  | -  | -                     | -                     | -                     |
|  | Direct mount        |                              | -  | -  | -  | -                     | -                     | -                     |
| Cable route type   | Dual-pull           |                              | ✓  | ✓  | ✓  | ✓                     | ✓                     | ✓                     |
|  | Top-pull exclusive  |                              | -  | -  | -  | -                     | -                     | -                     |
|  | Down-pull exclusive |                              | -  | -  | -  | -                     | -                     | -                     |
|  | Front-pull          |                              | -  | -  | -  | -                     | -                     | -                     |
| Chain line (mm)  |                     |                              | 50   | 50   | 50   | 50                    | 50                    | 50                    |
| Chainstay angle (deg.)                                       |                     |                              | 63-66  | 63-66  | 66-69  | 63-66                 | 63-66                 | 66-69                 |
| Top gear teeth   |                     |                              | 48T  | 48T  | 48T  | 44T, 48T              | 44T, 48T              | 44T, 48T              |
| Total capacity   |                     |                              | 22T  | 22T  | 22T  | 22T                   | 22T                   | 22T                   |
| Applicable top-mid tooth difference                          |                     |                              | 12T  | 12T  | 12T  | 12T                   | 12T                   | 12T                   |
| Multi access cable fixing screw                              |                     |                              | -  | -  | -  | -                     | ✓                     | ✓                     |
| Angled stroke adjust screw                                   |                     |                              | -  | -  | -  | -                     | -                     | -                     |
| Angled clamp band design                                     |                     |                              | ✓  | ✓  | ✓  | -                     | -                     | -                     |
| Link bushings  |                     |                              | 8  | 2  | 2  | 8                     | 2                     | 2                     |
| Front clamp band   | Material            |                              | Aluminum                                       | Aluminum                                       | Aluminum                                       | Aluminum              | Aluminum              | Aluminum              |
|  | Finish              |                              | Painted  | Painted  | Painted  | Painted               | Painted               | Painted               |
| Rear clamp band, base bracket                                | Material            |                              | Aluminum                                       | Aluminum                                       | Aluminum                                       | Aluminum              | Aluminum              | Aluminum              |
|  | Finish              |                              | Painted  | Painted  | Painted  | Painted               | Painted               | Painted               |
| Clamp screw  | Material            |                              | Stainless steel                                | Stainless steel                                | Stainless steel                                | Stainless steel       | Stainless steel       | Stainless steel       |
|  | Finish              |                              | -  | -  | -  | -                     | -                     | -                     |
| Bottom bracket plate   | Material            |                              | -  | -  | -  | -                     | -                     | -                     |
|  | Finish              |                              | -  | -  | -  | -                     | -                     | -                     |
| Outer link   | Material            |                              | Aluminum                                       | Steel  | Steel  | Aluminum              | Steel                 | Steel                 |
|  | Finish              |                              | Painted  | Painted  | Painted  | Painted               | Painted               | Painted               |
| Inner link   | Material            |                              | Aluminum                                       | Aluminum                                       | Aluminum                                       | Aluminum              | Aluminum              | Aluminum              |
|  | Finish              |                              | Painted  | Painted  | Painted  | Painted               | Painted               | Painted               |
| Chain guide  | Material            |                              | Steel  | Steel  | Steel  | Steel                 | Steel                 | Steel                 |
|  | Finish              |                              | Chrome plated                                  | Chrome plated                                  | Chrome plated                                  | Plated                | Plated                | Plated                |
| Cable fixing screw   | Material            |                              | Stainless steel                                | Stainless steel                                | Stainless steel                                | Stainless steel       | Stainless steel       | Stainless steel       |
|  | Finish              |                              | -  | -  | -  | -                     | -                     | -                     |
| Stroke adjusting screw                                       | Material            |                              | Stainless steel                                | Stainless steel                                | Stainless steel                                | Stainless steel       | Stainless steel       | Stainless steel       |
|  | Finish              |                              | -  | -  | -  | -                     | -                     | -                     |
| Average weight (g) (band type: L size, direct type w/ screw) |                     |                              | 169  | 155  | 155  | -                     | -                     | -                     |
| Note   |                     |                              | * S-size adapter is available only OTC package | * S-size adapter is available only OTC package | * S-size adapter is available only OTC package |                       |                       |                       |

# Front Derailleur

| Series   |                     |                              | ACERA  | ACERA                 | ACERA                 |
|--|---------------------|------------------------------|--|-----------------------|-----------------------|
| Model no.  |                     |                              | FD-T3000-2-TS3                                 | FD-T3000-TS3          | FD-T3000-TS6          |
| Color  | 1                   |                              | Series color                                   | Series color          | Series color          |
|  | 2                   |                              | -  | -                     | -                     |
| Front speeds   |                     |                              | 2  | 3                     | 3                     |
| Rear speeds  |                     |                              | 9  | 9                     | 9                     |
| Compatible chain   |                     |                              | HG 9-speed                                     | HG 9-speed            | HG 9-speed            |
| Action   | TOP SWING           |                              | ✓  | ✓                     | ✓                     |
|  | Down swing          |                              | -  | -                     | -                     |
|  | SIDE SWING          |                              | -  | -                     | -                     |
| Mount  | Clamp band (mm)     | 28.6                         | ✓ * (w/ S size adapter)                        | ✓ (w/ S size adapter) | ✓ (w/ S size adapter) |
|  |                     | 31.8                         | ✓ (w/ M size adapter)                          | ✓ (w/ M size adapter) | ✓ (w/ M size adapter) |
|  |                     | 34.9                         | ✓  | ✓                     | ✓                     |
|  | E-type              | With bottom bracket plate    | -  | -                     | -                     |
|  |                     | Without bottom bracket plate | -  | -                     | -                     |
|  | Direct mount        |                              | -  | -                     | -                     |
| Cable route type   | Dual-pull           |                              | ✓  | ✓                     | ✓                     |
|  | Top-pull exclusive  |                              | -  | -                     | -                     |
|  | Down-pull exclusive |                              | -  | -                     | -                     |
|  | Front-pull          |                              | -  | -                     | -                     |
| Chain line (mm)  |                     |                              | 48.8   | 50                    | 50                    |
| Chainstay angle (deg.)                                       |                     |                              | 63-68  | 63-66                 | 66-69                 |
| Top gear teeth   |                     |                              | 46T  | 44T, 48T              | 44T, 48T              |
| Total capacity   |                     |                              | 16T  | 22T                   | 22T                   |
| Applicable top-mid tooth difference                          |                     |                              | -  | 12T                   | 12T                   |
| Multi access cable fixing screw                              |                     |                              | -  | -                     | -                     |
| Angled stroke adjust screw                                   |                     |                              | -  | -                     | -                     |
| Angled clamp band design                                     |                     |                              | ✓  | ✓                     | ✓                     |
| Link bushings  |                     |                              | -  | -                     | -                     |
| Front clamp band   | Material            |                              | Steel  | Steel                 | Steel                 |
|  | Finish              |                              | Painted  | Painted               | Painted               |
| Rear clamp band, base bracket                                | Material            |                              | Steel  | Steel                 | Steel                 |
|  | Finish              |                              | Painted  | Painted               | Painted               |
| Clamp screw  | Material            |                              | Stainless steel                                | Stainless steel       | Stainless steel       |
|  | Finish              |                              | -  | -                     | -                     |
| Bottom bracket plate   | Material            |                              | -  | -                     | -                     |
|  | Finish              |                              | -  | -                     | -                     |
| Outer link   | Material            |                              | Steel  | Steel                 | Steel                 |
|  | Finish              |                              | Painted  | Painted               | Painted               |
| Inner link   | Material            |                              | Steel  | Steel                 | Steel                 |
|  | Finish              |                              | Painted  | Painted               | Painted               |
| Chain guide  | Material            |                              | Steel  | Steel                 | Steel                 |
|  | Finish              |                              | Chrome plated                                  | Chrome plated         | Chrome plated         |
| Cable fixing screw   | Material            |                              | Stainless steel                                | Stainless steel       | Stainless steel       |
|  | Finish              |                              | -  | -                     | -                     |
| Stroke adjusting screw                                       | Material            |                              | Stainless steel                                | Steel                 | Steel                 |
|  | Finish              |                              | -  | Zinc plated           | Zinc plated           |
| Average weight (g) (band type: L size, direct type w/ screw) |                     |                              | -  | -                     | -                     |
| Note   |                     |                              | * S-size adapter is available only OTC package |                       |                       |

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## Brake (V-BRAKE)

| Series                            |                   | DEORE     | SHIMANO     |
|-----------------------------------|-------------------|-----------|-------------|
| Model no.                         |                   | BR-T610   | BR-T4000    |
| Color                             | 1                 | Black     | Black       |
|                                   | 2                 | -         | Silver      |
|                                   | 3                 | -         | -           |
| Brake type                        |                   | V-BRAKE   | V-BRAKE     |
| Brake shoe                        | Standard 1        | S70C      | S65T        |
|                                   | Standard 2        | M70CT4    | -           |
|                                   | Option 1          | S70T      | M65T4       |
|                                   | Option 2          | -         | M65T3       |
| Cartridge shoe holder             |                   | ✓         | -           |
| Arch size (mm)                    |                   | 107       | 107         |
| Spacer type                       | X type            | ✓         | ✓           |
|                                   | Y type            | ✓         | ✓           |
| Compatible lead pipe angle (deg.) |                   | 45/90/135 | 45/90/135   |
| Sleeve & bushing axle             |                   | ✓         | ✓           |
| V-arm/caliper                     | Material          | Aluminum  | Aluminum    |
|                                   | Finish            | Anodized  | Painted     |
|                                   | Light weight link | -         | -           |
| Cover                             | Material          | Aluminum  | -           |
|                                   | Finish            | Painted   | -           |
| Fixing screw length (mm)          | 16                | ✓         | ✓           |
|                                   | 25                | ✓         | ✓           |
| Fixing screw                      | Material          | Steel     | Steel       |
|                                   | Finish            | Plated    | Zinc plated |
|                                   | Chamfered screw   | ✓         | -           |
| POWER MODULATOR                   |                   | SM-PM70   | SM-PM40     |
| Linear spring                     |                   | ✓         | ✓           |
| Stainless cable fixing screw      |                   | -         | -           |
| Average weight (g)                |                   | -         | -           |
| Note                              |                   |           |             |

# Crankset

TREKKING

| Series  |                          | DEORE XT        | DEORE           | SHIMANO  | SHIMANO   | SHIMANO ALIVIO       | SHIMANO              |
|---|--------------------------|-----------------|-----------------|--|---|----------------------|----------------------|
| Model no.                                       |                          | FC-T8000        | FC-T6010        | FC-T551  | FC-T521   | FC-T4060             | FC-T4010             |
| Color   | 1                        | Series color    | Series black    | Black  | Black   | Black                | Black                |
|   | 2                        | -               | -               | Silver   | Silver  | Silver               | -                    |
| Rear speeds                                     |                          | 10              | 10              | 10   | 10  | 9                    | 9                    |
| Compatible chain                                |                          | HG-X 10-speed   | HG-X 10-speed   | HG-X 10-speed  | HG-X 10-speed                                     | HG 9-speed           | HG 9-speed           |
| Chain line (mm)                                 |                          | 50              | 50              | 50   | 50  | 50                   | 50                   |
| P.C.D. (mm)                                     |                          | 104/64          | 104/64          | 104/64   | 104/64  | 104/64               | 104/64               |
| Spider/gear arms                                |                          | 4               | 4               | 4  | 4   | 4                    | 4                    |
| Chaining combination                            |                          | 48-36-26T       | 48-36-26T       | 44-32-24T, 48-36-26T                                 | 44-32-24T, 48-36-26T                              | 44-32-22T, 48-36-26T | 44-32-22T, 48-36-26T |
| Q-factor (mm)                                   |                          | 176             | 181.5           | 181.1  | 185.8   | 181.7                | 187.8                |
| Crank arm length (mm)                           | 165                      | -               | -               | -  | -   | ✓                    | ✓                    |
|   | 167.5                    | -               | -               | -  | -   | -                    | -                    |
|   | 170                      | ✓               | ✓               | ✓  | ✓   | ✓                    | ✓                    |
|   | 172.5                    | -               | -               | -  | -   | -                    | -                    |
|   | 175                      | ✓               | ✓               | ✓  | ✓   | ✓                    | ✓                    |
|   | 177.5                    | -               | -               | -  | -   | -                    | -                    |
|   | 180                      | -               | -               | -  | -   | -                    | -                    |
| Optional chain guard                            | With bash guard          | -               | -               | -  | -   | -                    | -                    |
|   | With chain guard         | ✓               | ✓               | ✓  | ✓   | ✓                    | ✓                    |
|   | Without chain/bash guard | -               | -               | ✓  | ✓   | ✓                    | ✓                    |
| HOLLOWTECH II                                   |                          | ✓               | ✓               | -  | -   | -                    | -                    |
| 2-PIECE CRANKSET                                |                          | -               | -               | ✓  | -   | ✓                    | -                    |
| HOLLOWTECH crank arm                            |                          | -               | -               | -  | ✓   | -                    | -                    |
| OCTALINK  |                          | -               | -               | -  | ✓   | -                    | ✓                    |
| HOLLOWGLIDE                                     |                          | -               | -               | -  | -   | -                    | -                    |
| Compatible bottom bracket type                  | Outboard                 | ✓               | ✓               | ✓  | -   | ✓                    | -                    |
|   | OCTALINK                 | -               | -               | -  | ✓   | -                    | ✓                    |
|   | Square                   | -               | -               | -  | -   | -                    | -                    |
| Recommended bottom bracket                      | Threaded (normal)        | BB-MT801        | BB-MT501        | BB-MT501   | BB-ES300  | BB-MT501             | BB-ES300             |
|   | Threaded (E-type)        | -               | -               | -  | -   | -                    | -                    |
|   | Threaded (chain case)    | -               | BB-MT501        | BB-MT501   | -   | BB-MT501             | -                    |
|   | Press-Fit                | BB-MT800-PA     | BB-MT500-PA     | -  | -   | -                    | -                    |
| Axle length of BB-UN/ES (mm)                    |                          | -               | -               | -  | 121-AK  | -                    | 126                  |
| Threaded bottom bracket shell width (mm)        | 68                       | ✓               | ✓               | ✓  | ✓   | ✓                    | ✓                    |
|   | 73                       | ✓               | ✓               | ✓  | ✓   | ✓                    | ✓                    |
|   | 83                       | -               | -               | -  | -   | -                    | -                    |
| Chain case compatible                           |                          | -               | ✓               | ✓  | ✓   | ✓                    | ✓                    |
| Crank arm                                       | Material                 | Aluminum        | Aluminum        | Aluminum   | Aluminum  | Aluminum             | Aluminum             |
|   | Finish                   | Anodized        | Anodized        | Painted  | Painted   | Painted              | Painted              |
| Crank axle                                      | Material                 | Steel           | Steel           | Steel  | -   | Steel                | -                    |
|   | Finish                   | Plated          | Plated          | Plated   | -   | Plated               | -                    |
| Spider arm                                      | Material                 | Aluminum        | Aluminum        | -  | Aluminum  | -                    | Aluminum             |
|   | Finish                   | Painted         | Painted         | -  | Painted   | -                    | Painted              |
| Spider arm cover                                | Material                 | -               | -               | -  | -   | -                    | -                    |
|   | Finish                   | -               | -               | -  | -   | -                    | -                    |
| Outer ring                                      | Material                 | Aluminum        | Aluminum        | Aluminum   | Aluminum  | Steel                | Steel                |
|   | Finish                   | Anodized        | Anodized        | Anodized   | Anodized  | Painted              | Painted              |
| Middle ring                                     | Material                 | Aluminum        | Steel           | Steel+GF composite (44-32-24T), Aluminum (48-36-26T) | Steel+GF composite (44-32-24T), Steel (48-36-26T) | Steel                | Steel                |
|   | Finish                   | Plated          | Painted         | Plated   | Painted   | Painted              | Painted              |
| Inner ring                                      | Material                 | Aluminum        | Steel           | Steel  | Steel   | Steel                | Steel                |
|   | Finish                   | Plated          | Painted         | Plated   | Painted   | Painted              | Painted              |
| Outer/middle ring fixing bolt                   | Material                 | Aluminum        | Stainless steel | Stainless steel                                      | Stainless steel                                   | Stainless steel      | Stainless steel      |
|   | Finish                   | Anodized        | -               | -  | -   | -                    | -                    |
| Inner ring fixing screw                         | Material                 | Stainless steel | Stainless steel | Stainless steel                                      | Stainless steel                                   | Stainless steel      | Stainless steel      |
|   | Finish                   | -               | -               | -  | -   | -                    | -                    |
| Stainless chain guard fixing screw              |                          | -               | ✓               | ✓  | ✓   | ✓                    | ✓                    |
| Crank fixing screw included                     |                          | ✓               | ✓               | ✓  | ✓   | ✓                    | ✓                    |
| Average weight (g) (175 mm, w/o bottom bracket) |                          | 868             | -               | -  | -   | -                    | -                    |
| Note  |                          |                 |                 |  |   |                      |                      |

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# Crankset

|   |                          |                              |
|---|--------------------------|------------------------------|
| Series  |                          | SHIMANO                      |
| Model no.                                       |                          | FC-T3010                     |
| Color   | 1                        | Black                        |
|   | 2                        | Silver                       |
| Rear speeds                                     |                          | 9                            |
| Compatible chain                                |                          | HG 9-speed                   |
| Chain line (mm)                                 |                          | 50                           |
| P.C.D. (mm)                                     |                          | 104/64                       |
| Spider/gear arms                                |                          | 4                            |
| Chainring combination                           |                          | 44-32-22T, 48-36-26T         |
| Q-factor (mm)                                   |                          | 187.3                        |
| Crank arm length (mm)                           | 165                      | ✓                            |
|   | 167.5                    | -                            |
|   | 170                      | ✓                            |
|   | 172.5                    | -                            |
|   | 175                      | ✓                            |
|   | 177.5                    | -                            |
|   | 180                      | -                            |
| Optional chain guard                            | With bash guard          | -                            |
|   | With chain guard         | ✓                            |
|   | Without chain/bash guard | ✓                            |
| HOLLOWTECH II                                   |                          | -                            |
| 2-PIECE CRANKSET                                |                          | -                            |
| HOLLOWTECH crank arm                            |                          | -                            |
| OCTALINK  |                          | -                            |
| HOLLOWGLIDE                                     |                          | -                            |
| Compatible bottom bracket type                  | Outboard                 | -                            |
|   | OCTALINK                 | -                            |
|   | Square                   | ✓                            |
| Recommended bottom bracket                      | Threaded (normal)        | BB-UN300                     |
|   | Threaded (E-type)        | -                            |
|   | Threaded (chain case)    | BB-UN300-K                   |
|   | Press-Fit                | -                            |
| Axle length of BB-UN/ES (mm)                    |                          | LL123                        |
| Threaded bottom bracket shell width (mm)        | 68                       | ✓                            |
|   | 73                       | ✓                            |
|   | 83                       | -                            |
| Chain case compatible                           |                          | ✓                            |
| Crank arm                                       | Material                 | Aluminum                     |
|   | Finish                   | Painted                      |
| Crank axle                                      | Material                 | -                            |
|   | Finish                   | -                            |
| Spider arm                                      | Material                 | -                            |
|   | Finish                   | -                            |
| Spider arm cover                                | Material                 | -                            |
|   | Finish                   | -                            |
| Outer ring                                      | Material                 | Steel                        |
|   | Finish                   | Painted                      |
| Middle ring                                     | Material                 | Steel                        |
|   | Finish                   | Painted                      |
| Inner ring                                      | Material                 | Steel                        |
|   | Finish                   | Painted                      |
| Outer/middle ring fixing bolt                   | Material                 | Stainless steel              |
|   | Finish                   | -                            |
| Inner ring fixing screw                         | Material                 | Stainless steel              |
|   | Finish                   | -                            |
| Stainless chain guard fixing screw              |                          | ✓ (44-32-22T), - (48-36-26T) |
| Crank fixing screw included                     |                          | ✓                            |
| Average weight (g) (175 mm, w/o bottom bracket) |                          | -                            |
| Note  |                          |                              |

# Front Hub (Rim/Disc Brake)

| Series  |                 | DEORE             | SHIMANO       |
|---|-----------------|-------------------|---------------|
| Model no.                                     |                 | HB-T610           | HB-T3000      |
| Color   | 1 Hub shell     | Black             | Black         |
|   | 1 Quick release | Black             | Black         |
|   | 2 Hub shell     | -                 | Silver        |
|   | 2 Quick release | -                 | Black         |
| Brake type                                    |                 | Rim brake         | Rim brake     |
| O.L.D. (mm)                                   |                 | 100               | 100           |
| Spoke hole                                    | 28H             | -                 | -             |
|   | 32H             | ✓                 | ✓             |
|   | 36H             | ✓                 | ✓             |
| External serration disc brake rotor lock ring | With            | -                 | -             |
|   | Without         | -                 | -             |
| CENTER LOCK mount cover option                |                 | -                 | -             |
| Axle fixing method                            |                 | Quick release     | Quick release |
| Quick release skewer length (mm)              | 129             | -                 | -             |
|   | 133             | ✓                 | ✓             |
| Thru axle (length x inner diameter ; mm)      | 100 x 15        | -                 | -             |
|   | 110 x 15        | -                 | -             |
|   | 110 x 20        | -                 | -             |
| Flange distance (mm)                          |                 | 71.6              | 71.6          |
| Offset (mm)                                   |                 | 0                 | 0             |
| P.C.D. left / right (mm)                      |                 | 38/38             | 38/38         |
| Flange diameter (mm)                          |                 | 48.4              | 48.4          |
| Seal  |                 | Labyrinth+Contact | Contact       |
| Internal grease sleeve                        |                 | -                 | -             |
| Bearing                                       | Stainless ball  | -                 | -             |
|   | Cup             | -                 | -             |
|   | Cone            | CBN               | -             |
| Hub shell                                     | Material        | Aluminum          | Aluminum      |
|   | Finish          | Anodized          | Anodized      |
| Axle  | Material        | Steel             | Steel         |
|   | Finish          | -                 | -             |
| Quick release lever                           | Material        | Aluminum          | Steel         |
|   | Finish          | Painted           | Plated        |
| Quick release housing                         | Material        | Aluminum          | Steel         |
|   | Finish          | Painted           | Plated        |
| Quick release nut                             | Material        | Steel+Resin       | Steel+Resin   |
|   | Finish          | -                 | -             |
| Average weight (g)                            |                 | -                 | -             |
| Note  |                 |                   |               |

SL

BL

BL

RD

FD

BR

FC

HB

FH

## FREEHUB (Rim/Disc Brake)

| Series   |  | DEORE             | SHIMANO       |
|--|--|-------------------|---------------|
| Model no.  |  | FH-T610           | FH-T3000      |
| Color  | 1 Hub shell  | Black             | Black         |
|  | 1 Quick release  | Black             | Black         |
|  | 2 Hub shell  | -                 | Silver        |
|  | 2 Quick release  | -                 | Black         |
| Brake type   |  | Rim brake         | Rim brake     |
| Rear speeds  |  | 11/10/9/8/7       | 11/10/9/8/7   |
| O.L.D. (mm)  |  | 135               | 135           |
| Spoke hole   | 28H  | -                 | -             |
|  | 32H  | ✓                 | ✓             |
|  | 36H  | ✓                 | ✓             |
| External serration disc brake rotor lock ring              | With   | -                 | -             |
|  | Without  | -                 | -             |
| Internal serration disc brake rotor lock ring              | With   | -                 | -             |
|  | Without  | -                 | -             |
| CENTER LOCK mount cover option                             |  | -                 | -             |
| Axle fixing method   |  | Quick release     | Quick release |
| Quick release skewer length (mm)                           | 166  | -                 | ✓             |
|  | 168  | ✓                 | -             |
|  | 170  | -                 | ✓             |
|  | 173  | ✓                 | -             |
| Thru axle (length x inner diameter ; mm)                   | 135 x 10   | -                 | -             |
|  | 135 x 12   | -                 | -             |
|  | 142 x 12   | -                 | -             |
|  | 148 x 12   | -                 | -             |
|  | 150 x 12   | -                 | -             |
|  |  |                   |               |
|  |  |                   |               |
|  |  |                   |               |
| Flange distance (mm)                                       |  | 59.2              | 59.2          |
| Offset (mm)  |  | 7.8               | 7.5           |
| P.C.D. left / right (mm)                                   |  | 44/45             | 45/45         |
| Flange diameter left / right (mm)                          |  | 53.8              | 53.8          |
| Spline type  | MICRO SPLINE   | -                 | -             |
|  | HG spline L2 (ROAD 12-speed dedicated)                           | -                 | -             |
|  | HG spline L (ROAD 12/11-speed)                                   | -                 | -             |
|  | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | ✓                 | ✓             |
|  | HG spline S (7-speed)  | -                 | -             |
| Seal   | Hub  | Labyrinth+Contact | Contact       |
|  | FREEHUB body   | Contact           | -             |
| Internal grease sleeve                                     |  | ✓                 | -             |
| Bearing  | Stainless ball   | -                 | -             |
|  | Cup  | -                 | -             |
|  | Cone   | CBN               | -             |
| FREEHUB body   | Material   | Steel             | Steel         |
|  | Finish   | -                 | -             |
| Hub shell  | Material   | Aluminum          | Aluminum      |
|  | Finish   | Anodized          | Anodized      |
| Axle   | Material   | Steel             | Steel         |
|  | Finish   | -                 | -             |
| Quick release lever  | Material   | Aluminum          | Steel         |
|  | Finish   | Painted           | Plated        |
| Quick release housing                                      | Material   | Aluminum          | Steel         |
|  | Finish   | Painted           | Plated        |
| Quick release nut  | Material   | Steel+Resin       | Steel+Resin   |
|  | Finish   | -                 | -             |
| Disc brake rotor lock ring                                 | Material   | -                 | -             |
|  | Finish   | -                 | -             |
| Average weight (g) (w/o axle, quick release nor lock ring) |  | -                 | -             |
| Note   |  |                   |               |

# GRAVEL

|                    |  | Page       |    |
|--------------------|--|------------|----|
| <Di2 spec.>        | <b>Shift/Brake Lever</b> (Hydraulic Disc Brake)                | <b>98</b>  | ST |
|                    | <b>Rear Derailleur</b>   | <b>99</b>  | RD |
|                    | <b>Front Derailleur</b>  | <b>100</b> | FD |
| <Mechanical spec.> | <b>Shift/Brake Lever</b> (Hydraulic Disc Brake)                | <b>101</b> | ST |
|                    | <b>Shifter</b>   | <b>104</b> | SL |
|                    | <b>Brake Lever</b> (Hydraulic Disc Brake)                      | <b>105</b> | BL |
|                    | <b>Brake Lever</b> (Sub Lever for Hydraulic Disc Brake)        | <b>107</b> | BL |
|                    | <b>Brake Lever</b> (Hydraulic Disc Brake, Flat Handlebar type) | <b>108</b> | BL |
|                    | <b>Rear Derailleur</b>   | <b>109</b> | RD |
|                    | <b>Front Derailleur</b>  | <b>111</b> | FD |
|                    | <b>Brake</b> (Hydraulic Disc Brake)                            | <b>112</b> | BR |
|                    | <b>Crankset</b>  | <b>114</b> | FC |
|                    | <b>Wheel</b> (Disc Brake)                                      | <b>116</b> | WH |

## Shift/Brake Lever (Hydraulic Disc Brake)

| Series                                      |                           |   | GRX                | GRX                | GRX                | GRX                | GRX                           |
|---|---------------------------|---|--------------------|--------------------|--------------------|--------------------|-------------------------------|
| Model no.                                   |                           |   | ST-RX825-R         | ST-RX825-L         | ST-RX815-R         | ST-RX815-L         | ST-RX715-R                    |
| Color                                       | 1                         |   | Series color       | Series color       | Series color       | Series color       | Series color                  |
|   | 2                         |   | -                  | -                  | -                  | -                  | -                             |
| Shifter type                                |                           |   | DUAL CONTROL LEVER | DUAL CONTROL LEVER | DUAL CONTROL LEVER | DUAL CONTROL LEVER | DUAL CONTROL LEVER            |
| Remote switch                               |                           |   | ✓                  | ✓                  | ✓                  | ✓                  | -                             |
| Brake lever                                 | Brake hose (kit)          |   | SM-BH90-JK-SSR     | SM-BH90-JK-SSR     | SM-BH90-JK-SSR     | SM-BH90-JK-SSR     | SM-BH90-J-SSR, SM-BH90-JK-SSR |
|   | Hose joint                |   | Straight           | Straight           | Straight           | Straight           | Straight                      |
|   | Brake hose color (kit)    | 1 | Black              | Black              | Black              | Black              | Black                         |
|   |                           | 2 | -                  | -                  | -                  | -                  | -                             |
|   | Recommended brake caliper |   | BR-RX820           | BR-RX820           | BR-RX810, BR-RX820 | BR-RX810, BR-RX820 | BR-RX410                      |
|   | Oil                       |   | SHIMANO Mineral    | SHIMANO Mineral    | SHIMANO Mineral    | SHIMANO Mineral    | SHIMANO Mineral               |
|   | Reach adjust              |   | ✓                  | ✓                  | ✓                  | ✓                  | ✓                             |
|   | Clamp band (mm)           |   | 23.8-24.2          | 23.8-24.2          | 23.8-24.2          | 23.8-24.2          | 23.8-24.2                     |
|   | Funnel bleeding           |   | ✓                  | ✓                  | ✓                  | ✓                  | ✓                             |
|   | Free stroke adjust        |   | ✓                  | ✓                  | ✓                  | ✓                  | ✓                             |
|   | SERVO WAVE                |   | ✓                  | ✓                  | ✓                  | ✓                  | -                             |
|   | Material                  |   | Aluminum           | Aluminum           | Aluminum           | Aluminum           | Aluminum                      |
|   | Finish                    |   | Painted            | Painted            | Painted            | Painted            | Anodized                      |
| Bracket                                     | Material                  |   | CFRP               | CFRP               | CFRP               | CFRP               | GFRP                          |
|   | Finish                    |   | -                  | -                  | -                  | -                  | -                             |
| Electric button                             | Material                  |   | GFRP               | GFRP               | -                  | -                  | GFRP                          |
|   | Finish                    |   | -                  | -                  | -                  | -                  | -                             |
| Di2 connectivity wired                      | Di2 shifting              |   | -                  | -                  | ✓                  | ✓                  | -                             |
| Di2 connectivity wireless                   | Di2 shifting              |   | ✓                  | ✓                  | -                  | -                  | ✓                             |
| Master unit                                 |                           |   | -                  | -                  | -                  | -                  | -                             |
| Firmware update by E-TUBE PROJECT           |                           |   | ✓                  | ✓                  | ✓                  | ✓                  | ✓                             |
| SD50 port (pcs)                             |                           |   | 0                  | 0                  | 2                  | 2                  | 0                             |
| SD300 port (pcs)                            |                           |   | 1                  | 1                  | 0                  | 0                  | 1                             |
| SD50 connector (pcs)                        |                           |   | 0                  | 0                  | 0                  | 0                  | 0                             |
| SD300 connector (pcs)                       |                           |   | 0                  | 0                  | 0                  | 0                  | 0                             |
| Port for SD50 remote sprinter shifter (pcs) |                           |   | 0                  | 0                  | 0                  | 0                  | 0                             |
| Port for SD300 satellite shifter (pcs)      |                           |   | 1                  | 1                  | 0                  | 0                  | 0                             |
| Battery                                     |                           |   | CR1632 x 2         | CR1632 x 2         | -                  | -                  | CR1632 x 2                    |
| Average weight (g)                          |                           |   | 415 ( /pair)       | 415 ( /pair)       | 373 ( /pair)       | 373 ( /pair)       | 210 ( /pcs)                   |
| Note  |                           |   |                    |                    |                    |                    |                               |

# Rear Derailleur

| Series  |                                     |   | GRX                         | GRX             | GRX             | GRX             | GRX             |   |
|---|-------------------------------------|---|-----------------------------|-----------------|-----------------|-----------------|-----------------|---|
| Model no.   |                                     |   | RD-RX825                    | RD-RX827-SGS    | RD-RX815        | RD-RX817        | RD-RX717-SGS    |   |
| Color   | 1                                   |   | Series color                | Series color    | Series color    | Series color    | Series color    |   |
|   | 2                                   |   | -                           | -               | -               | -               | -               |   |
| Rear speeds   |                                     |   | 12                          | 12              | 11              | 11              | 12              |   |
| RD construction   | SHIMANO SHADOW RD                   |   | -                           | -               | -               | -               | -               |   |
|   | SHIMANO SHADOW RD+                  |   | ✓                           | -               | ✓               | ✓               | -               |   |
|   | Double servo SHADOW ES              |   | -                           | -               | -               | -               | ✓               |   |
|   | SHIMANO MTB type                    |   | -                           | ✓               | -               | -               | ✓               |   |
| Applicable derailleur hanger  | SHIMANO ROAD type                   | Direct attachment (conventional)        | -                           | ✓               | -               | -               | ✓               |   |
|   |                                     | Direct mount                            | -                           | -               | -               | -               | -               |   |
|   | SHIMANO ROAD type                   | Direct attachment (conventional)        | ✓                           | -               | ✓               | ✓               | -               |   |
|   |                                     | Direct mount                            | ✓                           | -               | ✓               | ✓               | -               |   |
|   | UDH standard                        |   | ✓                           | ✓               | -               | -               | ✓               |   |
|   | Max. front difference               |   | 17T                         | 0T              | 17T             | -               | 0T              |   |
| Total capacity  |                                     |   | 40T                         | 41T             | 38T             | 31T             | 41T             |   |
| Low sprocket  | Max.                                |   | 36T                         | 51T             | 34T             | 42T             | 51T             |   |
|   | Min.                                |   | 34T                         | 51T             | 30T             | 40T             | 51T             |   |
| Top sprocket  | Max.                                |   | 11T                         | 10T             | 11T             | 11T             | 10T             |   |
|   | Min.                                |   | 11T                         | 10T             | 11T             | 11T             | 10T             |   |
| Fluoroc coated link bushings  |                                     |   | 4                           | 8               | 4               | 4               | 8               |   |
| Pulley  | Guide pulley bearing                |   | Sealed bearing              | Sealed bearing  | Sealed bearing  | Sealed bearing  | Sealed bearing  |   |
|   | Tension pulley bearing              |   | Sealed bearing              | Sealed bearing  | Sealed bearing  | Sealed bearing  | Sealed bearing  |   |
|   | Teeth                               |   | 11/13T                      | 13T             | 13T             | 11T             | 13T             |   |
|   | Screws material                     |   | Stainless steel             | Stainless steel | Stainless steel | Stainless steel | Stainless steel |   |
| Bracket   | Sunken type pulley screw            |   | ✓                           | ✓               | -               | -               | ✓               |   |
|   | Material                            |   | Aluminum                    | -               | Aluminum        | Aluminum        | -               |   |
| B-axle  | Finish                              |   | Painted                     | -               | Anodized        | Anodized        | -               |   |
|   | Hollow axle                         |   | ✓                           | Hollow axle     | ✓               | ✓               | Hollow axle     |   |
| B-axle 2  | Material                            |   | Stainless steel             | Stainless steel | Stainless steel | Stainless steel | Stainless steel |   |
|   | Finish                              |   | Coloring                    | Coloring        | -               | -               | Coloring        |   |
| Bracket body  | Material                            |   | ✓                           | -               | -               | -               | -               |   |
|   | Finish                              |   | Aluminum                    | -               | Anodized        | Anodized        | -               |   |
| P-axle  | Material                            |   | Aluminum                    | Aluminum        | Aluminum        | Aluminum        | Aluminum        |   |
|   | Finish                              |   | Painted                     | Painted         | Painted         | Painted         | Painted         |   |
| Plate body  | Material                            |   | Steel                       | Steel           | Steel           | Steel           | Steel           |   |
|   | Finish                              |   | Plated                      | Plated          | Plated          | Plated          | Plated          |   |
| Outer link  | Material                            |   | GFRP                        | GFRP            | GFRP            | Aluminum        | GFRP            |   |
|   | Finish                              |   | -                           | -               | Painted         | Painted         | -               |   |
| Inner link  | Material                            |   | Aluminum                    | Aluminum        | Aluminum        | Aluminum        | Aluminum        |   |
|   | Finish                              |   | Painted                     | Painted         | Anodized        | Painted         | Painted         |   |
| Outer plate   | Material                            |   | GFRP                        | Aluminum        | GFRP            | Steel           | Aluminum        |   |
|   | Finish                              |   | -                           | Painted         | -               | GFRP            | Painted         |   |
| Inner plate   | Material                            |   | Aluminum                    | Aluminum        | Aluminum        | -               | Steel           |   |
|   | Finish                              |   | Painted                     | Painted         | Painted         | Painted         | Painted         |   |
| Stroke adjusting screw  | Material                            |   | Aluminum                    | Aluminum        | Aluminum        | Aluminum        | Steel           |   |
|   | Finish                              |   | Painted                     | Painted         | Painted         | Painted         | Painted         |   |
| Di2 connectivity wired  | Material                            |   | Steel                       | Steel           | Steel           | Steel           | Steel           |   |
|   | Finish                              |   | Plated                      | Plated          | Plated          | Plated          | Plated          |   |
| Di2 connectivity wireless   | Di2 shifting                        |   | ✓                           | -               | ✓               | ✓               | -               |   |
|   | Di2 shifting                        |   | ✓                           | ✓               | -               | -               | ✓               |   |
|   | Bluetooth h@ LE                     | Cycling power                           | -                           | -               | -               | -               | -               |   |
|   |                                     | Bicycle power                           | -                           | -               | -               | -               | -               |   |
|   | ANT+ *                              | Adjust mode information                 | ✓                           | ✓               | -               | -               | ✓               |   |
|   |                                     | Di2 battery level                       | ✓                           | ✓               | -               | -               | ✓               |   |
|   | Bluetooth h@ LE custom (*1)         | Gear position                           | ✓                           | ✓               | -               | -               | ✓               |   |
|   |                                     | SHIMANO E-BIKE SYSTEM S data items (*3) | ✓                           | ✓               | -               | -               | ✓               |   |
|   | Compatible with E-TUBE RIDE bike    | Adjust mode information                 | ✓                           | ✓               | -               | -               | ✓               |   |
|   |                                     | Di2 battery level                       | ✓                           | ✓               | -               | -               | ✓               |   |
|   | Compatible with E-TUBE PROJECT bike | Gear position                           | ✓                           | ✓               | -               | -               | ✓               |   |
|   |                                     | SHIMANO E-BIKE SYSTEM S data items (*3) | ✓                           | ✓               | -               | -               | ✓               |   |
|   | Firmware update by E-TUBE PROJECT   |   |                             | ✓               | ✓               | ✓               | ✓               |   |
|   | SD50 port (pcs)                     |   |                             | 0               | 0               | 1               | 1               | 0 |
|   | SD300 port (pcs)                    |   |                             | 1               | 0               | 0               | 0               | 0 |
|   | SD50 connector (pcs)                |   |                             | 0               | 0               | 0               | 0               | 0 |
|   | SD300 connector (pcs)               |   |                             | 0               | 0               | 0               | 0               | 0 |
|   | LED for system status               |   |                             | ✓               | ✓               | -               | -               | ✓ |
|   | Power supply                        | Built-in battery                        |                             | -               | ✓               | -               | -               | ✓ |
| Wired   |                                     | ✓                                       | -                           | ✓               | ✓               | -               |                 |   |
| Charging port   |                                     |   | ✓                           | -               | -               | -               | -               |   |
| Charging cable  |                                     |   | EW-EC300                    | -               | -               | -               | -               |   |
| Average weight (g)  |                                     |   | 310                         | 449             | 287             | 318             | 494             |   |
| Note *1 Compatible with a Bluetooth LE cycle computer and smartphone/tablet but not freely open profile. *2 Compatible with ANT+ cycle computer but not freely open profile. *3 Will be shown only when connected to SHIMANO E-BIKE SYSTEMS |                                     |   | w/o Bracket spec. available |                 |                 |                 |                 |   |

# Front Derailleur

| Series   |             | GRX           | GRX                    |
|--|-------------|---------------|------------------------|
| Model no.  |             | FD-RX825      | FD-RX815-F             |
| Color  | 1           | Series color  | Series color           |
|  | 2           | -             | -                      |
| Front speeds   |             | 2             | 2                      |
| Rear speeds  |             | 12            | 11                     |
| Compatible chain   |             | HG 12-speed   | LINKGLIDE, HG 11-speed |
| Action   | TOP SWING   | -             | -                      |
|  | Down swing  | ✓             | ✓                      |
| Mount  | Clamp band1 | -             | -                      |
|  | Clamp band2 | -             | -                      |
|  | Clamp band3 | -             | -                      |
|  | Brazed-on   | ✓             | ✓                      |
| Chain line (mm)  |             | 47            | 47                     |
| Chainstay angle (deg.)                                       |             | 63-66         | 61-66                  |
| Top gear teeth   |             | 46-48T        | 46-48T                 |
| Total capacity   |             | 17T           | 17T                    |
| Link bushings  |             | 2             | 2                      |
| Front clamp band   | Material    | -             | -                      |
|  | Finish      | -             | -                      |
| Rear clamp band, base bracket                                | Material    | Aluminum      | Aluminum               |
|  | Finish      | Anodized      | Painted                |
| Outer link   | Material    | GFRP          | CFRP                   |
|  | Finish      | -             | Painted                |
| Inner link   | Material    | Steel         | Steel                  |
|  | Finish      | Plated        | Plated                 |
| Chain guide  | Material    | Steel         | Steel                  |
|  | Finish      | Chrome plated | Chrome plated          |
| Master unit  |             | -             | -                      |
| Firmware update by E-TUBE PROJECT                            |             | ✓             | ✓                      |
| SD50 port (pcs)  |             | 0             | 1                      |
| SD300 port (pcs)   |             | 1             | 0                      |
| SD50 connector (pcs)   |             | 0             | 0                      |
| SD300 connector (pcs)  |             | 0             | 0                      |
| Average weight (g) (band type: L size, direct type w/ screw) |             | 142           | 135                    |
| Note   |             |               |                        |

# Shift/Brake Lever (Hydraulic Disc Brake)

| Series              |  |                      | GRX                   | GRX                   | GRX                                | GRX                   | GRX                   | GRX                   |
|---------------------|--|----------------------|-----------------------|-----------------------|------------------------------------|-----------------------|-----------------------|-----------------------|
| Model no.           |  |                      | ST-RX820-R            | ST-RX820-L            | ST-RX820-LA                        | ST-RX810-R            | ST-RX810-R-LE         | ST-RX810-L            |
| Color               | 1                                      |                      | Series color          | Series color          | Series color                       | Series color          | Series color          | Series color          |
|                     | 2                                      |                      | -                     | -                     | -                                  | -                     | -                     | -                     |
| Bracket cover color | 1                                      |                      | Standard              | Standard              | Standard                           | Standard              | Standard              | Standard              |
|                     | 2                                      |                      | -                     | -                     | -                                  | -                     | -                     | -                     |
| Shifter type        |  |                      | DUAL CONTROL LEVER    | DUAL CONTROL LEVER    | Single lever for dropper seat post | DUAL CONTROL LEVER    | DUAL CONTROL LEVER    | DUAL CONTROL LEVER    |
| Shift lever         | Front speeds                           |                      | -                     | 2                     | 1                                  | -                     | -                     | 2                     |
|                     | Rear speeds                            |                      | 12                    | -                     | -                                  | 11                    | 11                    | -                     |
|                     | Max. multiple shifts (main lever/rear) |                      | 2                     | -                     | -                                  | 2                     | 2                     | -                     |
|                     | Multi-bearing construction             |                      | -                     | -                     | -                                  | -                     | -                     | -                     |
| Shift lever cable   | Outer casing                           | Lever side           | OT-SP41               | OT-SP41               | OT-SP41                            | OT-SP41               | OT-SP41               | OT-SP41               |
|                     |  | Rear derailleur side | OT-RS900              | -                     | -                                  | OT-RS900              | OT-RS900              | OT-RS900              |
|                     | Inner cable                            | Polymer-coated cable | ✓                     | ✓                     | -                                  | ✓                     | ✓                     | ✓                     |
|                     |  | OPTISLICK            | -                     | -                     | ✓                                  | -                     | -                     | -                     |
|                     |  | SIL-TEC              | -                     | -                     | -                                  | -                     | -                     | -                     |
|                     |  | Stainless            | -                     | -                     | -                                  | -                     | -                     | -                     |
|                     |  | Steel                | -                     | -                     | -                                  | -                     | -                     | -                     |
| Brake lever         | Brake hose (kit)                       |                      | SM-BH90-JK-SSR        | SM-BH90-JK-SSR        | SM-BH90-JK-SSR                     | SM-BH90-JK-SSR        | SM-BH90-JK-SSR        | SM-BH90-JK-SSR        |
|                     | Hose joint                             |                      | Straight              | Straight              | Straight                           | Straight              | Straight              | Straight              |
|                     | Brake hose color (kit)                 | 1                    | Black                 | Black                 | Black                              | Black                 | Black                 | Black                 |
|                     |  | 2                    | -                     | -                     | -                                  | -                     | -                     | -                     |
|                     | Recommended brake caliper              |                      | BR-RX820              | BR-RX820              | BR-RX820                           | BR-RX810, BR-RX820    | BR-RX820-LE           | BR-RX810, BR-RX820    |
|                     | Oil                                    |                      | SHIMANO Mineral       | SHIMANO Mineral       | SHIMANO Mineral                    | SHIMANO Mineral       | SHIMANO Mineral       | SHIMANO Mineral       |
|                     | Reach adjust                           |                      | ✓                     | ✓                     | ✓                                  | ✓                     | ✓                     | ✓                     |
|                     | Funnel bleeding                        |                      | ✓                     | ✓                     | ✓                                  | ✓                     | ✓                     | ✓                     |
|                     | Free stroke adjust                     |                      | ✓                     | ✓                     | ✓                                  | ✓                     | ✓                     | ✓                     |
|                     | SERVO WAVE                             |                      | ✓                     | ✓                     | ✓                                  | ✓                     | ✓                     | ✓                     |
|                     | Material                               |                      | Aluminum              | Aluminum              | Aluminum                           | Aluminum              | Aluminum              | Aluminum              |
|                     | Finish                                 |                      | Painted               | Painted               | Painted                            | Painted               | Painted               | Painted               |
| Clamp band          | Diameter (mm)                          |                      | 23.8-24.2             | 23.8-24.2             | 23.8-24.2                          | 23.8-24.2             | 23.8-24.2             | 23.8-24.2             |
| Bracket             | Material                               |                      | Engineering composite | Engineering composite | Engineering composite              | Engineering composite | Engineering composite | Engineering composite |
|                     | Finish                                 |                      | -                     | -                     | -                                  | -                     | -                     | -                     |
| Clamp band          | Material                               |                      | Steel                 | Steel                 | Steel                              | Steel                 | Steel                 | Steel                 |
| Average weight (g)  |  |                      | 289                   | 283                   | 263                                | 286                   | 286                   | 284                   |
| Note                |  |                      |                       |                       |                                    |                       |                       |                       |

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## Shift/Brake Lever (Hydraulic Disc Brake)

| Series              |  |                      | GRX                   | GRX                                   | GRX                   | GRX                   | GRX                             | GRX                             |
|---------------------|--|----------------------|-----------------------|---------------------------------------|-----------------------|-----------------------|---------------------------------|---------------------------------|
| Model no.           |  |                      | ST-RX810-L-LE         | ST-RX810-LA                           | ST-RX610-R            | ST-RX610-L            | ST-RX600-R                      | ST-RX600-L                      |
| Color               | 1                                      |                      | Series color          | Series color                          | Series color          | Series color          | Series color                    | Series color                    |
|                     | 2                                      |                      | -                     | -                                     | -                     | -                     | -                               | -                               |
| Bracket cover color | 1                                      |                      | Standard              | Standard                              | Standard              | Standard              | Standard                        | Standard                        |
|                     | 2                                      |                      | -                     | -                                     | -                     | -                     | -                               | -                               |
| Shifter type        |  |                      | DUAL CONTROL LEVER    | Single lever for adjustable seat post | DUAL CONTROL LEVER    | DUAL CONTROL LEVER    | DUAL CONTROL LEVER              | DUAL CONTROL LEVER              |
| Shift lever         | Front speeds                           |                      | 2                     | 1                                     | -                     | 2                     | -                               | 2                               |
|                     | Rear speeds                            |                      | -                     | -                                     | 12                    | -                     | 11                              | -                               |
|                     | Max. multiple shifts (main lever/rear) |                      | -                     | -                                     | 2                     | -                     | 2                               | -                               |
|                     | Multi-bearing construction             |                      | -                     | -                                     | -                     | -                     | -                               | -                               |
| Shift lever cable   | Outer casing                           | Lever side           | OT-SP41               | OT-SP41                               | OT-SP41               | OT-SP41               | OT-SP41                         | OT-SP41                         |
|                     |  | Rear derailleur side | OT-RS900              | -                                     | OT-RS900              | -                     | OT-RS900                        | OT-RS900                        |
|                     | Inner cable                            | Polymer-coated cable | ✓                     | -                                     | -                     | -                     | -                               | -                               |
|                     |  | OPTISLICK            | -                     | ✓                                     | ✓                     | ✓                     | ✓                               | ✓                               |
|                     |  | SIL-TEC              | -                     | -                                     | -                     | -                     | -                               | -                               |
|                     |  | Stainless            | -                     | -                                     | -                     | -                     | -                               | -                               |
|                     |  | Steel                | -                     | -                                     | -                     | -                     | -                               | -                               |
| Brake lever         | Brake hose (kit)                       |                      | SM-BH90-JK-SSR        | SM-BH90-JK-SSR                        | SM-BH90-JK-SSR        | SM-BH90-JK-SSR        | SM-BH90-JK-SSR<br>SM-BH90-J-SSR | SM-BH90-JK-SSR<br>SM-BH90-J-SSR |
|                     | Hose joint                             |                      | Straight              | Straight                              | Straight              | Straight              | Straight                        | Straight                        |
|                     | Brake hose color (kit)                 | 1                    | Black                 | Black                                 | Black                 | Black                 | Black                           | Black                           |
|                     |  | 2                    | -                     | -                                     | -                     | -                     | -                               | -                               |
|                     | Recommended brake caliper              |                      | BR-RX820-LE           | BR-RX810, BR-RX820                    | BR-RX400, BR-RX410    | BR-RX400, BR-RX410    | BR-RX810, BR-RX410              | BR-RX810, BR-RX410              |
|                     | Oil                                    |                      | SHIMANO Mineral       | SHIMANO Mineral                       | SHIMANO Mineral       | SHIMANO Mineral       | SHIMANO Mineral                 | SHIMANO Mineral                 |
|                     | Reach adjust                           |                      | ✓                     | ✓                                     | ✓                     | ✓                     | ✓                               | ✓                               |
|                     | Funnel bleeding                        |                      | ✓                     | ✓                                     | ✓                     | ✓                     | ✓                               | ✓                               |
|                     | Free stroke adjust                     |                      | ✓                     | ✓                                     | -                     | -                     | -                               | -                               |
|                     | SERVO WAVE                             |                      | ✓                     | ✓                                     | -                     | -                     | -                               | -                               |
|                     | Material                               |                      | Aluminum              | Aluminum                              | Aluminum              | Aluminum              | Aluminum                        | Aluminum                        |
| Finish              |  | Painted              | Painted               | Painted                               | Painted               | Painted               | Painted                         |                                 |
| Clamp band          | Diameter (mm)                          |                      | 23.8-24.2             | 23.8-24.2                             | 23.8-24.2             | 23.8-24.2             | 23.8-24.2                       | 23.8-24.2                       |
| Bracket             | Material                               |                      | Engineering composite | Engineering composite                 | Engineering composite | Engineering composite | Engineering composite           | Engineering composite           |
|                     | Finish                                 |                      | -                     | -                                     | -                     | -                     | -                               | -                               |
| Clamp band          | Material                               |                      | Steel                 | Steel                                 | Steel                 | Steel                 | Steel                           | Steel                           |
| Average weight (g)  |  |                      | 284                   | 263                                   | 610 ( /pair)          | 610 ( /pair)          | 307                             | 306                             |
| Note                |  |                      |                       |                                       |                       |                       |                                 |                                 |

# Shift/Brake Lever (Hydraulic Disc Brake)

| Series              |  |                      | GRX                             | GRX                             |
|---------------------|--|----------------------|---------------------------------|---------------------------------|
| Model no.           |  |                      | ST-RX400-R                      | ST-RX400-L                      |
| Color               | 1                                      |                      | Series color                    | Series color                    |
|                     | 2                                      |                      | -                               | -                               |
| Bracket cover color | 1                                      |                      | Standard                        | Standard                        |
|                     | 2                                      |                      | -                               | -                               |
| Shifter type        |  |                      | DUAL CONTROL LEVER              | DUAL CONTROL LEVER              |
| Shift lever         | Front speeds                           |                      | -                               | 2                               |
|                     | Rear speeds                            |                      | 10                              | -                               |
|                     | Max. multiple shifts (main lever/rear) |                      | 2                               | -                               |
|                     | Multi-bearing construction             |                      | -                               | -                               |
| Shift lever cable   | Outer casing                           | Lever side           | OT-SP41                         | OT-SP41                         |
|                     |  | Rear derailleur side | OT-RS900                        | OT-RS900                        |
|                     | Inner cable                            | Polymer-coated cable | -                               | -                               |
|                     |  | OPTISLICK            | ✓                               | ✓                               |
|                     |  | SIL-TEC              | -                               | -                               |
|                     |  | Stainless            | -                               | -                               |
|                     |  | Steel                | -                               | -                               |
| Brake lever         | Brake hose (kit)                       |                      | SM-BH90-JK-SSR<br>SM-BH90-J-SSR | SM-BH90-JK-SSR<br>SM-BH90-J-SSR |
|                     | Hose joint                             |                      | Straight                        | Straight                        |
|                     | Brake hose color (kit)                 | 1                    | Black                           | Black                           |
|                     |  | 2                    | -                               | -                               |
|                     | Recommended brake caliper              |                      | BR-RX400, BR-RX410              | BR-RX400, BR-RX410              |
|                     | Oil                                    |                      | SHIMANO Mineral                 | SHIMANO Mineral                 |
|                     | Reach adjust                           |                      | ✓                               | ✓                               |
|                     | Funnel bleeding                        |                      | ✓                               | ✓                               |
|                     | Free stroke adjust                     |                      | -                               | -                               |
|                     | SERVO WAVE                             |                      | -                               | -                               |
|                     | Material                               |                      | Aluminum                        | Aluminum                        |
| Finish              |  | Painted              | Painted                         |                                 |
| Clamp band          | Diameter (mm)                          |                      | 23.8-24.2                       | 23.8-24.2                       |
| Bracket             | Material                               |                      | Engineering composite           | Engineering composite           |
|                     | Finish                                 |                      | -                               | -                               |
| Clamp band          | Material                               |                      | Steel                           | Steel                           |
| Average weight (g)  |  |                      | 307                             | 306                             |
| Note                |  |                      |                                 |                                 |

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# Shifter

| Series                                 |                  | GRX                            |   |
|--|------------------|--------------------------------|---|
| Model no.                              |                  | SL-RS700-R-LE                  |   |
| Color                                  | 1                | Black                          |   |
|  | 2                | -                              |   |
| Shifter type                           |                  | RAPIDFIRE PLUS                 |   |
| Front speeds                           |                  | -                              |   |
| Rear speeds                            |                  | 11                             |   |
| Compatible rear derailleur type        |                  | ROAD 11-speed                  |   |
| Mount type                             | Clamp band       | ✓                              |   |
|  | I-SPEC B         | -                              |   |
|  | I-SPEC II        | -                              |   |
| Shift lever position adjust            |                  | -                              |   |
| Shift lever cable adjust               |                  | ✓                              |   |
| Max. multiple shifts (main lever/rear) |                  | 4                              |   |
| Release function                       | MULTI RELEASE    | *✓                             |   |
|  | INSTANT RELEASE  | ✓                              |   |
|  | 2-WAY RELEASE    | ✓                              |   |
| OPTICAL GEAR DISPLAY                   | With             | -                              |   |
|  | With (removable) | -                              |   |
|  | Without          | ✓                              |   |
| Multi-bearing construction             |                  | 2                              |   |
| Shift lever bracket                    | Material         | Aluminum                       |   |
|  | Finish           | Painted                        |   |
| Clamp screw                            | Material         | -                              |   |
|  | Finish           | -                              |   |
| Main lever body                        | Material         | CFRP                           |   |
|  | Finish           | Painted                        |   |
| Release lever body                     | Material         | Steel+GFRP                     |   |
|  | Finish           | -                              |   |
| Shift lever cable                      | Inner cable      | Polymer-coated cable           | - |
|  |                  | OPTISLICK                      | - |
|  |                  | SIL-TEC                        | ✓ |
|  |                  | Stainless                      | ✓ |
|  |                  | Steel                          | - |
| Recommended shift lever outer casing   |                  | OT-SP41                        |   |
| Average weight (g)                     |                  | 110                            |   |
| Note                                   |                  | * Pull: single<br>Push: double |   |

# Brake Lever (Hydraulic Disc Brake)

| Series                    |               | GRX                   | GRX                   | GRX                   | GRX                   | GRX                   | GRX                         |
|---------------------------|---------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------------|
| Model no.                 |               | BL-RS717-L            | BL-RX825-L            | BL-RX820-L            | BL-RX810-L            | BL-RX810-L-LE         | BL-RX610-L                  |
| Brake type                |               | Hydraulic disc brake  | Hydraulic disc brake  | Hydraulic disc brake  | Hydraulic disc brake  | Hydraulic disc brake  | Hydraulic disc brake        |
| Lever size (finger)       |               | -                     | -                     | -                     | -                     | -                     | -                           |
| Color                     | 1             | Series color          | Series color          | Series color          | Series color          | Series color          | Series color                |
|                           | 2             | -                     | -                     | -                     | -                     | -                     | -                           |
| Bracket cover color       | 1             | Standard              | Standard              | Standard              | Standard              | Standard              | Standard                    |
|                           | 2             | -                     | -                     | -                     | -                     | -                     | -                           |
| Brake hose (kit)          |               | SM-BH90-JK-SSR        | SM-BH90-JK-SSR        | SM-BH90-JK-SSR        | SM-BH90-JK-SSR        | SM-BH90-JK-SSR        | SM-BH90-JK-SSR              |
| Hose joint                |               | Straight              | Straight              | Straight              | Straight              | Straight              | Straight                    |
| Brake hose color (kit)    | 1             | Black                 | Black                 | Black                 | Black                 | Black                 | Black                       |
|                           | 2             | -                     | -                     | -                     | -                     | -                     | -                           |
| SERVO WAVE                |               | -                     | ✓                     | ✓                     | ✓                     | ✓                     | -                           |
| Reach adjust              | Toolless      | -                     | -                     | -                     | -                     | -                     | -                           |
|                           | Tool          | ✓                     | ✓                     | ✓                     | ✓                     | ✓                     | ✓                           |
| Free stroke adjust        |               | ✓                     | ✓                     | ✓                     | ✓                     | ✓                     | -                           |
| Clamp band                | I-SPEC        | -                     | -                     | -                     | -                     | -                     | -                           |
|                           | Open clamp    | -                     | -                     | -                     | -                     | -                     | -                           |
|                           | Diameter (mm) | 23.8-24.2             | 23.8-24.2             | 23.8-24.2             | 23.8-24.2             | 23.8-24.2             | 23.8-24.2                   |
| Recommended brake caliper |               | BR-RX410              | BR-RX820              | BR-RX820              | BR-RX810, BR-RX820    | BR-RX820-LE           | BR-RX400, BR-RX410          |
| Oil                       |               | SHIMANO Mineral       | SHIMANO Mineral       | SHIMANO Mineral       | SHIMANO Mineral       | SHIMANO Mineral       | SHIMANO Mineral             |
| Funnel bleeding           |               | ✓                     | ✓                     | ✓                     | ✓                     | ✓                     | ✓                           |
| Clamp band                | Material      | Steel                 | Steel                 | Steel                 | Steel                 | Steel                 | Steel                       |
| Bracket                   | Material      | Engineering composite | Engineering composite | Engineering composite | Engineering composite | Engineering composite | Engineering composite       |
|                           | Finish        | -                     | -                     | -                     | -                     | -                     | -                           |
| Brake lever               | Material      | Aluminum              | Aluminum              | Aluminum              | Aluminum              | Aluminum              | Aluminum                    |
|                           | Finish        | Painted               | Painted               | Painted               | Painted               | Painted               | Painted                     |
| Master cylinder           | Material      | -                     | -                     | -                     | -                     | -                     | -                           |
|                           | Finish        | -                     | -                     | -                     | -                     | -                     | -                           |
| Average weight (g)        |               | 188                   | 188                   | 222                   | 222                   | 222                   | 543 (ST-RX610-R+BL-RX610-L) |
| Note                      |               |                       |                       |                       |                       |                       |                             |

## Brake Lever (Hydraulic Disc Brake)

|                           |               |                                 |
|---------------------------|---------------|---------------------------------|
| Series                    |               | GRX                             |
| Model no.                 |               | BL-RX600-L                      |
| Brake type                |               | Hydraulic disc brake            |
| Lever size (finger)       |               | -                               |
| Color                     | 1             | Series color                    |
|                           | 2             | -                               |
| Bracket cover color       | 1             | Standard                        |
|                           | 2             | -                               |
| Brake hose (kit)          |               | SM-BH90-JK-SSR<br>SM-BH90-J-SSR |
| Hose joint                |               | Straight                        |
| Brake hose color (kit)    | 1             | Black                           |
|                           | 2             | -                               |
| SERVO WAVE                |               | -                               |
| Reach adjust              | Toolless      | -                               |
|                           | Tool          | ✓                               |
| Free stroke adjust        |               | -                               |
| Clamp band                | I-SPEC        | -                               |
|                           | Open clamp    | -                               |
|                           | Diameter (mm) | 23.8-24.2                       |
| Recommended brake caliper |               | BR-RX810, BR-RX410              |
| Oil                       |               | SHIMANO Mineral                 |
| Funnel bleeding           |               | ✓                               |
| Clamp band                | Material      | Steel                           |
| Bracket                   | Material      | Engineering composite           |
|                           | Finish        | -                               |
| Brake lever               | Material      | Aluminum                        |
|                           | Finish        | Painted                         |
| Master cylinder           | Material      | -                               |
|                           | Finish        | -                               |
| Average weight (g)        |               | 227                             |
| Note                      |               |                                 |

# Brake Lever (Sub Lever for Hydraulic Disc Brake)

| Series                    |            | GRX                  | GRX                  |
|---------------------------|------------|----------------------|----------------------|
| Model no.                 |            | BL-RX812-R           | BL-RX812-L           |
| Brake type                |            | Hydraulic disc brake | Hydraulic disc brake |
| Lever size (finger)       |            | 1                    | 1                    |
| Color                     | 1          | Neutral              | Neutral              |
|                           | 2          | -                    | -                    |
|                           | 3          | -                    | -                    |
| Brake hose (kit)          |            | -                    | -                    |
| Hose joint                |            | Straight             | Straight             |
| Brake hose color (kit)    | 1          | Black                | Black                |
|                           | 2          | -                    | -                    |
| SERVO WAVE                |            | -                    | -                    |
| Reach adjust              | Toolless   | -                    | -                    |
|                           | Tool       | ✓                    | ✓                    |
| Free stroke adjust        |            | -                    | -                    |
| Clamp band                | New band   | ✓                    | ✓                    |
|                           | I-SPEC B   | -                    | -                    |
|                           | I-SPEC II  | -                    | -                    |
|                           | Open clamp | -                    | -                    |
| Recommended brake caliper |            | BR-RX810             | BR-RX810             |
| Oil                       |            | SHIMANO mineral      | SHIMANO mineral      |
| Funnel bleeding           |            | ✓                    | ✓                    |
| Clamp screw               | Material   | Stainless steel      | Stainless steel      |
|                           | Finish     | -                    | -                    |
| Brake lever               | Material   | Aluminum             | Aluminum             |
|                           | Finish     | Anodized             | Anodized             |
| Master cylinder           | Material   | Aluminum             | Aluminum             |
|                           | Finish     | Painted              | Painted              |
| Average weight (g)        |            | 79                   | 79                   |
| Note                      |            | -                    | -                    |

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## Brake Lever (Hydraulic Disc Brake, Flat Handlebar type)

| Series                    |            | GRX                  | GRX                  |
|---------------------------|------------|----------------------|----------------------|
| Model no.                 |            | BL-T8100-R-LE        | BL-T8100-L-LE        |
| Brake type                |            | Hydraulic disc brake | Hydraulic disc brake |
| Lever size (finger)       |            | 3                    | 3                    |
| Color                     | 1          | Series color         | Series color         |
|                           | 2          | -                    | -                    |
|                           | 3          | -                    | -                    |
| Brake hose (kit)          |            | SM-BH90-JK-SSR       | SM-BH90-JK-SSR       |
| Hose joint                |            | Straight             | Straight             |
| Brake hose color (kit)    | 1          | Black                | Black                |
|                           | 2          | -                    | -                    |
| J-Kit spec (for OEM)      |            | -                    | -                    |
| SERVO WAVE                |            | -                    | -                    |
| Reach adjust              | Toolless   | ✓                    | ✓                    |
|                           | Tool       | -                    | -                    |
| Free stroke adjust        |            | -                    | -                    |
| Compatible shifter mount  | Clamp band | ✓                    | ✓                    |
|                           | I-SPEC B   | -                    | -                    |
|                           | I-SPEC II  | ✓                    | ✓                    |
|                           | I-SPEC EV  | -                    | -                    |
| Clamp band                | Open clamp | ✓                    | ✓                    |
| Recommended brake caliper |            | BR-RX820-LE          | BR-RX820-LE          |
| Oil                       |            | SHIMANO mineral      | SHIMANO mineral      |
| Funnel bleeding           |            | ✓                    | ✓                    |
| Clamp screw               | Material   | Stainless steel      | Stainless steel      |
|                           | Finish     | Painted              | Painted              |
| Brake lever               | Material   | Aluminum             | Aluminum             |
|                           | Finish     | Anodized             | Anodized             |
| Master cylinder           | Material   | Aluminum             | Aluminum             |
|                           | Finish     | Painted              | Painted              |
| Average weight (g)        |            | 108                  | 108                  |
| Note                      |            |                      |                      |

# Rear Derailleur

GRAVEL

| Series                       |                          |                                  | GRX             | GRX             | GRX             | GRX                    | GRX                    | GRX                    |
|------------------------------|--------------------------|----------------------------------|-----------------|-----------------|-----------------|------------------------|------------------------|------------------------|
| Model no.                    |                          |                                  | RD-RX820        | RD-RX822-GS     | RD-RX822-SGS    | RD-RX810               | RD-RX810-LE            | RD-RX812               |
| Color                        | 1                        |                                  | Series color    | Series color    | Series color    | Series color           | Series color           | Series color           |
|                              | 2                        |                                  | -               | -               | -               | -                      | -                      | -                      |
| Rear speeds                  |                          |                                  | 12              | 12              | 12              | 11                     | 11                     | 11                     |
| Compatible chain             |                          |                                  | HG 12-speed     | HG 12-speed     | HG 12-speed     | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed |
| RD construction              | SHIMANO SHADOW RD        |                                  | -               | -               | -               | -                      | -                      | -                      |
|                              | SHIMANO SHADOW RD+       |                                  | ✓               | ✓               | ✓               | ✓                      | ✓                      | ✓                      |
|                              | Double servo             |                                  | -               | -               | -               | -                      | -                      | -                      |
| Applicable derailleur hanger | SHIMANO MTB type         | Direct attachment (conventional) | -               | -               | -               | -                      | -                      | -                      |
|                              |                          | Direct mount                     | -               | -               | -               | -                      | -                      | -                      |
|                              | SHIMANO ROAD type        | Direct attachment (conventional) | ✓               | ✓               | ✓               | ✓                      | ✓                      | ✓                      |
|                              |                          | Direct mount                     | ✓               | -               | -               | ✓                      | ✓                      | ✓                      |
|                              | UDH standard             |                                  | ✓               | ✓               | ✓               | -                      | -                      | -                      |
|                              | Riveted adapter          | ROAD type                        | -               | -               | -               | -                      | -                      | -                      |
|                              |                          | BMX-track type                   | -               | -               | -               | -                      | -                      | -                      |
|                              | Cable adjuster           |                                  |                 | ✓               | ✓               | ✓                      | ✓                      | ✓                      |
| Max. front difference        |                          |                                  | 17T             | -               | -               | 17T                    | 17T                    | -                      |
| Total capacity               |                          |                                  | 42T             | 35T             | 41T             | 40T                    | 40T                    | 31T                    |
| Low sprocket                 | Max.                     |                                  | 36T             | 45T             | 51T             | 34T                    | 34T                    | 42T                    |
|                              | Min.                     |                                  | 34T             | 45T             | 51T             | 30T                    | 30T                    | 40T                    |
| Top sprocket                 | Max.                     |                                  | 11T             | 10T             | 10T             | 11T                    | 11T                    | 11T                    |
|                              | Min.                     |                                  | 11T             | 10T             | 10T             | 11T                    | 11T                    | 11T                    |
| Fluoric coated link bushings |                          |                                  | 4               | 6               | 6               | 4                      | 4                      | 4                      |
| Pulley                       | Guide pulley bearing     |                                  | ✓               | ✓               | ✓               | ✓                      | ✓                      | ✓                      |
|                              | Tension pulley bearing   |                                  | ✓               | ✓               | ✓               | ✓                      | ✓                      | ✓                      |
|                              | Teeth                    |                                  | 11/13T          | 13T             | 13T             | 13T                    | 13T                    | 11T                    |
|                              | Screws material          |                                  | SUS             | SUS             | SUS             | Stainless steel        | Stainless steel        | Stainless steel        |
|                              | Sunken type pulley screw |                                  | ✓               | ✓               | ✓               | ✓                      | ✓                      | ✓                      |
| Bracket                      | Material                 |                                  | Aluminum        | Aluminum        | Aluminum        | Aluminum               | Aluminum               | Aluminum               |
|                              | Finish                   |                                  | Painted         | Painted         | Painted         | Anodized               | Anodized               | Anodized               |
| B-axle                       | Hollow axle              |                                  | ✓               | ✓               | ✓               | ✓                      | ✓                      | ✓                      |
|                              | Material                 |                                  | Stainless steel | Stainless steel | Stainless steel | Stainless steel        | Stainless steel        | Stainless steel        |
| B-axle 2                     | Finish                   |                                  | Passivation     | Passivation     | Passivation     | -                      | -                      | -                      |
|                              | Hollow axle              |                                  | -               | -               | -               | -                      | -                      | -                      |
|                              | Material                 |                                  | Aluminum        | -               | -               | Aluminum               | Aluminum               | Aluminum               |
| Bracket body                 | Finish                   |                                  | Anodized        | -               | -               | Anodized               | Anodized               | Anodized               |
|                              | Material                 |                                  | Aluminum        | Aluminum        | Aluminum        | Aluminum               | Aluminum               | Aluminum               |
|                              | Finish                   |                                  | Painted         | Painted         | Painted         | Painted                | Painted                | Painted                |
| P-axle                       | Material                 |                                  | Steel           | Steel           | Steel           | Steel                  | Steel                  | Steel                  |
|                              | Finish                   |                                  | -               | -               | -               | -                      | -                      | -                      |
| Plate body                   | Material                 |                                  | GFRP            | GFRP            | GFRP            | GFRP                   | GFRP                   | GFRP                   |
|                              | Finish                   |                                  | -               | -               | -               | -                      | -                      | -                      |
| Outer link                   | Material                 |                                  | Aluminum        | Aluminum        | Aluminum        | Aluminum               | Aluminum               | Aluminum               |
|                              | Finish                   |                                  | Painted         | Painted         | Painted         | Painted                | Painted                | Painted                |
| Inner link                   | Material                 |                                  | GFRP            | Aluminum        | Aluminum        | GFRP                   | GFRP                   | Aluminum               |
|                              | Finish                   |                                  | -               | Painted         | Painted         | -                      | -                      | Painted                |
| Outer plate                  | Material                 |                                  | Aluminum        | Aluminum        | Aluminum        | Aluminum               | Aluminum               | Aluminum               |
|                              | Finish                   |                                  | Painted         | Painted         | Painted         | Painted                | Anodized               | Painted                |
| Inner plate                  | Material                 |                                  | Aluminum        | Aluminum        | Aluminum        | Aluminum               | Aluminum               | Aluminum               |
|                              | Finish                   |                                  | Painted         | Painted         | Painted         | Painted                | Anodized               | Painted                |
| Cable fixing screw           | Material                 |                                  | Stainless steel | Steel           | Steel           | Stainless steel        | Stainless steel        | Stainless steel        |
|                              | Finish                   |                                  | Passivation     | Passivation     | Passivation     | Passivation            | Passivation            | Passivation            |
| Stroke adjusting screw       | Material                 |                                  | Steel           | Steel           | Steel           | Steel                  | Steel                  | Steel                  |
|                              | Finish                   |                                  | Plated          | Plated          | Plated          | Plated                 | Plated                 | Plated                 |
| Average weight (g)           |                          |                                  | 270             | 290             | 288             | 255                    | 255                    | 267                    |
| Note                         |                          |                                  |                 |                 |                 | -                      |                        | -                      |

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# Rear Derailleur

| Series                       |                          |                                  | GRX                    | GRX             |
|------------------------------|--------------------------|----------------------------------|------------------------|-----------------|
| Model no.                    |                          |                                  | RD-RX812-LE            | RD-RX400        |
| Color                        | 1                        |                                  | Series color           | Series color    |
|                              | 2                        |                                  | -                      | -               |
| Rear speeds                  |                          |                                  | 11                     | 10              |
| Compatible chain             |                          |                                  | LINKGLIDE, HG 11-speed | HG-X 10-speed   |
| RD construction              | SHIMANO SHADOW RD        |                                  | -                      | -               |
|                              | SHIMANO SHADOW RD+       |                                  | ✓                      | ✓               |
|                              | Double servo             |                                  | -                      | -               |
| Applicable derailleur hanger | SHIMANO MTB type         | Direct attachment (conventional) | -                      | -               |
|                              |                          | Direct mount                     | -                      | -               |
|                              | SHIMANO ROAD type        | Direct attachment (conventional) | ✓                      | ✓               |
|                              |                          | Direct mount                     | ✓                      | ✓               |
|                              | UDH standard             |                                  | -                      | -               |
|                              | Riveted adapter          | ROAD type                        | -                      | -               |
|                              |                          | BMX-track type                   | -                      | -               |
| Cable adjuster               |                          |                                  | ✓                      | ✓               |
| Max. front difference        |                          |                                  | -                      | 16T             |
| Total capacity               |                          |                                  | 31T                    | 41T             |
| Low sprocket                 | Max.                     |                                  | 42T                    | 36T             |
|                              | Min.                     |                                  | 40T                    | 32T             |
| Top sprocket                 | Max.                     |                                  | 11T                    | 11T             |
|                              | Min.                     |                                  | 11T                    | 11T             |
| Fluoroc coated link bushings |                          |                                  | 4                      | 4               |
| Pulley                       | Guide pulley bearing     |                                  | ✓                      | -               |
|                              | Tension pulley bearing   |                                  | ✓                      | -               |
|                              | Teeth                    |                                  | 11T                    | 11T             |
|                              | Screws material          |                                  | Stainless steel        | Stainless steel |
|                              | Sunken type pulley screw |                                  | ✓                      | ✓               |
| Bracket                      | Material                 |                                  | Aluminum               | Steel           |
|                              | Finish                   |                                  | Anodized               | Painted         |
| B-axle                       | Hollow axle              |                                  | ✓                      | ✓               |
|                              | Material                 |                                  | Stainless steel        | Stainless steel |
|                              | Finish                   |                                  | -                      | -               |
| B-axle 2                     | Hollow axle              |                                  | -                      | -               |
|                              | Material                 |                                  | Aluminum               | Stainless steel |
|                              | Finish                   |                                  | Anodized               | -               |
| Bracket body                 | Material                 |                                  | Aluminum               | Aluminum        |
|                              | Finish                   |                                  | Painted                | Painted         |
| P-axle                       | Material                 |                                  | Steel                  | Steel           |
|                              | Finish                   |                                  | -                      | -               |
| Plate body                   | Material                 |                                  | GFRP                   | GFRP            |
|                              | Finish                   |                                  | -                      | -               |
| Outer link                   | Material                 |                                  | Aluminum               | Aluminum        |
|                              | Finish                   |                                  | Painted                | Painted         |
| Inner link                   | Material                 |                                  | Aluminum               | GFRP            |
|                              | Finish                   |                                  | Painted                | -               |
| Outer plate                  | Material                 |                                  | Aluminum               | Steel           |
|                              | Finish                   |                                  | Anodized               | Painted         |
| Inner plate                  | Material                 |                                  | Aluminum               | Steel           |
|                              | Finish                   |                                  | Anodized               | Painted         |
| Cable fixing screw           | Material                 |                                  | Stainless steel        | Steel           |
|                              | Finish                   |                                  | Passivation            | Plated          |
| Stroke adjusting screw       | Material                 |                                  | Steel                  | Steel           |
|                              | Finish                   |                                  | Plated                 | Plated          |
| Average weight (g)           |                          |                                  | 267                    | 303             |
| Note                         |                          |                                  |                        | -               |

# Front Derailleur

| Series   |                    | GRX           | GRX                    | GRX                    | GRX             |
|--|--------------------|---------------|------------------------|------------------------|-----------------|
| Model no.  |                    | FD-RX820      | FD-RX810-F             | FD-RX810-F-LE          | FD-RX400-F      |
| Color  | 1                  | Series color  | Series color           | Series color           | Series color    |
|  | 2                  | -             | -                      | -                      | -               |
| Front speeds   |                    | 2             | 2                      | 2                      | 2               |
| Rear speeds  |                    | 12            | 11                     | 11                     | 10              |
| Compatible chain   |                    | HG 12-speed   | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed | HG-X 10-speed   |
| Action   | TOP SWING          | -             | -                      | -                      | -               |
|  | Down swing         | ✓             | ✓                      | ✓                      | ✓               |
| Mount  | Clamp band (mm)    | 28.6          | -                      | -                      | -               |
|  |                    | 31.8          | -                      | -                      | -               |
|  |                    | 34.9          | -                      | -                      | -               |
|  | Brazed-on          | ✓             | ✓                      | ✓                      | ✓               |
| Cable adjust   |                    | ✓             | ✓                      | ✓                      | ✓               |
| Cable route type   | Top-pull exclusive | -             | -                      | -                      | -               |
| Chain line (mm)  |                    | 47            | 47                     | 47                     | 47              |
| Chainstay angle (deg.)                                       |                    | 63-66         | 63-66                  | 63-66                  | 63-66           |
| Top gear teeth   |                    | 46-48T        | 46-48T                 | 46-48T                 | 46T             |
| Total capacity   |                    | 17T           | 17T                    | 17T                    | 16T             |
| Applicable top-mid tooth difference                          |                    | -             | -                      | -                      | -               |
| Angled clamp band design                                     |                    | -             | -                      | -                      | -               |
| Multi-bearing construction                                   |                    | -             | -                      | -                      | -               |
| Link bushings  |                    | 7             | 7                      | 7                      | 7               |
| Front clamp band   | Material           | -             | -                      | -                      | -               |
|  | Finish             | -             | -                      | -                      | -               |
| Rear clamp band, base bracket                                | Material           | -             | -                      | -                      | -               |
|  | Finish             | -             | -                      | -                      | -               |
| Outer link   | Material           | GFRP          | GFRP                   | GFRP                   | GFRP            |
|  | Finish             | Painted       | Painted                | Painted                | Painted         |
| Inner link   | Material           | Steel         | Steel                  | Steel                  | Steel           |
|  | Finish             | Plated        | Plated                 | Plated                 | Plated          |
| Chain guide  | Material           | Steel         | Steel                  | Steel                  | Steel           |
|  | Finish             | Chrome plated | Chrome plated          | Chrome plated          | Chrome plated   |
| Cable fixing screw   | Material           | Steel         | Stainless steel        | Stainless steel        | Stainless steel |
|  | Finish             | Plated        | -                      | -                      | -               |
| Stroke adjusting screw                                       | Material           | Steel         | Steel                  | Steel                  | Steel           |
|  | Finish             | Plated        | Black                  | Black                  | Black           |
| Average weight (g) (band type: L size, direct type w/ screw) |                    | 96            | 96                     | 96                     | 96              |
| Note   |                    |               |                        |                        |                 |

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# Brake (Hydraulic Disc Brake)

| Series                                  |                    | GRX   | GRX   | GRX                              | GRX                              | GRX                              | GRX                              |
|---|--------------------|---|---|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| Model no.                               |                    | BR-RX820  | BR-RX820-LE                                 | BR-RX810-F                       | BR-RX810-R                       | BR-RX410-F                       | BR-RX410-R                       |
| Color                                   | 1                  | Series color                                      | Series color                                | Series color                     | Series color                     | Black                            | Black                            |
|   | 2                  | -   | -   | -                                | -                                | -                                | -                                |
|   | 3                  | -   | -   | -                                | -                                | -                                | -                                |
| Brake type                              |                    | Hydraulic disc brake                              | Hydraulic disc brake                        | Hydraulic disc brake             | Hydraulic disc brake             | Hydraulic disc brake             | Hydraulic disc brake             |
| Brake hose (kit)                        |                    | SM-BH90-JK-SSR                                    | SM-BH90-JK-SSR                              | SM-BH90-JK-SSR,<br>SM-BH90-J-SSR | SM-BH90-JK-SSR,<br>SM-BH90-J-SSR | SM-BH90-J-SSR<br>SM-BH90-JK-SSR  | SM-BH90-J-SSR<br>SM-BH90-JK-SSR  |
| Hose joint                              |                    | Straight  | Straight                                    | Straight                         | Straight                         | Straight                         | Straight                         |
| Brake hose color (kit)                  | 1                  | Black   | Black                                       | Black                            | Black                            | Black                            | Black                            |
|   | 2                  | -   | -   | -                                | -                                | -                                | -                                |
| J-Kit spec (for OEM)                    |                    | ✓   | -   | ✓                                | ✓                                | ✓                                | ✓                                |
| ICE TECHNOLOGIES pad compatible caliper |                    | ✓   | ✓   | ✓                                | ✓                                | ✓                                | ✓                                |
| Pad                                     | Standard 1         | K05S-RX Resin (w/o fin)                           | L05A-RF Resin (w/ fin)                      | K05S-RX Resin (w/o fin)          | K05S-RX Resin (w/o fin)          | K05S-RX Resin (w/o fin)          | K05S-RX Resin (w/o fin)          |
|   | Standard 2         | L05A-RF Resin (w/ fin)                            | K05S-RX Resin (w/o fin)                     | L05A-RF Resin (w/ fin)           | L05A-RF Resin (w/ fin)           | L05A-RF Resin (w/ fin)           | L05A-RF Resin (w/ fin)           |
|   | Option 1           | L04C-MF Metal (w/ fin)                            | L04C-MF Metal (w/ fin)                      | K04S-MX Metal (w/o fin)          | K04S-MX Metal (w/o fin)          | L04C-MF Metal (w/ fin)           | L04C-MF Metal (w/ fin)           |
|   | Option 2           | -   | -   | L04C-MF Metal (w/ fin)           | L04C-MF Metal (w/ fin)           | -                                | -                                |
| Fixing screw spec for rear mount        | 10 mm mount        | ✓   | -   | -                                | ✓                                | -                                | ✓                                |
|   | 15 mm mount        | ✓   | -   | -                                | ✓                                | -                                | ✓                                |
|   | 20 mm mount        | ✓   | -   | -                                | ✓                                | -                                | ✓                                |
|   | 25 mm mount        | ✓   | ✓   | -                                | ✓                                | -                                | ✓                                |
|   | 30 mm mount        | ✓   | -   | -                                | ✓                                | -                                | ✓                                |
|   | 35 mm mount        | ✓   | -   | -                                | ✓                                | -                                | ✓                                |
| Recommended brake lever                 |                    | ST-RX820<br>ST-RX820-LA<br>BL-RX820-L<br>ST-RX825 | ST-RX810-LE<br>BL-RX810-L-LE<br>BL-T8100-LE | ST-RX810<br>BL-RX810<br>ST-RX815 | ST-RX810<br>BL-RX810<br>ST-RX815 | ST-RX610<br>ST-RX715<br>BL-RS717 | ST-RX610<br>ST-RX715<br>BL-RS717 |
| Recommended disc brake rotor            |                    | RT-CL800  | SM-RT800, RT-MT800                          | SM-RT800, RT-MT800               | SM-RT800, RT-MT800               | RT-CL700<br>SM-RT64              | RT-CL700<br>SM-RT64              |
| Oil                                     |                    | SHIMANO mineral                                   | SHIMANO mineral                             | SHIMANO mineral                  | SHIMANO mineral                  | SHIMANO mineral                  | SHIMANO mineral                  |
| ONE WAY BLEEDING                        |                    | ✓   | ✓   | ✓                                | ✓                                | ✓                                | ✓                                |
| Mount type                              |                    | Flat mount  | Flat mount                                  | Flat mount                       | Flat mount                       | Flat mount                       | Flat mount                       |
| Piston                                  |                    | 2   | 2   | 2                                | 2                                | 2                                | 2                                |
| Piston material                         |                    | Resin   | Resin                                       | Ceramic                          | Ceramic                          | Resin                            | Resin                            |
| Caliper                                 | MONO-BODY          | -   | -   | -                                | -                                | -                                | -                                |
|   | Material           | Aluminum  | Aluminum                                    | Aluminum                         | Aluminum                         | Aluminum                         | Aluminum                         |
|   | Finish             | Painted   | Painted                                     | Painted                          | Painted                          | Painted                          | Painted                          |
| Caliper fixing screw                    | Material           | Steel   | Steel                                       | Steel                            | Steel                            | Steel                            | Steel                            |
|   | Tool size          | 4 mm  | 4 mm  | 4 mm                             | 4 mm                             | 4 mm                             | 4 mm                             |
|   | Anti loosen method | Screw fix pin+Snap ring                           | Screw fix pin+Snap ring                     | Screw fix pin+Snap ring          | Screw fix pin                    | Screw fix pin+Snap ring          | Screw fix pin                    |
| Pad mount                               |                    | Pad axle  | Pad axle                                    | Pad axle                         | Pad axle                         | Pad axle                         | Pad axle                         |
| Average weight (g)                      |                    | 139 (Front)<br>122 (Rear)                         | 139 (Front)<br>122 (Rear)                   | 141                              | 124                              | -                                | -                                |
| Note                                    |                    |   | Front spec with adaptor                     | Front spec with adaptor          | Front spec with adaptor          | Front spec with adaptor          | Front spec with adaptor          |

# Brake (Hydraulic Disc Brake)

| Series                                  |                    | GRX                              | GRX                              |
|---|--------------------|----------------------------------|----------------------------------|
| Model no.                               |                    | BR-RX400-F                       | BR-RX400-R                       |
| Color                                   | 1                  | Series color                     | Series color                     |
|   | 2                  | -                                | -                                |
|   | 3                  | -                                | -                                |
| Brake type                              |                    | Hydraulic disc brake             | Hydraulic disc brake             |
| Brake hose (kit)                        |                    | SM-BH90-JK-SSR,<br>SM-BH90-J-SSR | SM-BH90-JK-SSR,<br>SM-BH90-J-SSR |
| Hose joint                              |                    | Straight                         | Straight                         |
| Brake hose color (kit)                  | 1                  | Black                            | Black                            |
|   | 2                  | -                                | -                                |
| J-Kit spec (for OEM)                    |                    | ✓                                | ✓                                |
| ICE TECHNOLOGIES pad compatible caliper |                    | ✓                                | ✓                                |
| Pad                                     | Standard 1         | K05S-RX Resin (w/o fin)          | K05S-RX Resin (w/o fin)          |
|   | Standard 2         | L05A-RF Resin (w/ fin)           | L05A-RF Resin (w/ fin)           |
|   | Option 1           | K04S-MX Metal (w/o fin)          | K04S-MX Metal (w/o fin)          |
|   | Option 2           | L04C-MF Metal (w/ fin)           | L04C-MF Metal (w/ fin)           |
| Fixing screw spec for rear mount        | 10 mm mount        | -                                | ✓                                |
|   | 15 mm mount        | -                                | ✓                                |
|   | 20 mm mount        | -                                | ✓                                |
|   | 25 mm mount        | -                                | ✓                                |
|   | 30 mm mount        | -                                | ✓                                |
|   | 35 mm mount        | -                                | ✓                                |
| Recommended brake lever                 |                    | ST-RX400<br>ST-RX600<br>BL-RX600 | ST-RX400<br>ST-RX600<br>BL-RX600 |
| Recommended disc brake rotor            |                    | SM-RT70, SM-RT64                 | SM-RT70, SM-RT64                 |
| Oil                                     |                    | SHIMANO mineral                  | SHIMANO mineral                  |
| ONE WAY BLEEDING                        |                    | ✓                                | ✓                                |
| Mount type                              |                    | Flat mount                       | Flat mount                       |
| Piston                                  |                    | 2                                | 2                                |
| Piston material                         |                    | Resin                            | Resin                            |
| Caliper                                 | MONO-BODY          | -                                | -                                |
|   | Material           | Aluminum                         | Aluminum                         |
|   | Finish             | Painted                          | Painted                          |
| Caliper fixing screw                    | Material           | Steel                            | Steel                            |
|   | Tool size          | 4 mm                             | 4 mm                             |
|   | Anti loosen method | Screw fix pin+Snap ring          | Screw fix pin                    |
| Pad mount                               |                    | Pad axle                         | Pad axle                         |
| Average weight (g)                      |                    | -                                | -                                |
| Note                                    |                    | Front spec with adaptor          | Front spec with adaptor          |

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# Crankset

| Series  |                          | GRX          | GRX                             | GRX                    | GRX                             | GRX                    | GRX                    |
|---|--------------------------|--------------|---------------------------------|------------------------|---------------------------------|------------------------|------------------------|
| Model no.                                       |                          | FC-RX820-2   | FC-RX820-1                      | FC-RX810-2             | FC-RX810-1                      | FC-RX810-11-2-LE       | FC-RX810-11-1-LE       |
| Color   | 1                        | Series color | Series color                    | Series color           | Series color                    | Series color           | Series color           |
|   | 2                        | -            | -                               | -                      | -                               | -                      | -                      |
| Rear speeds                                     |                          | 12           | 12                              | 11                     | 11                              | 11                     | 11                     |
| Compatible chain                                |                          | HG 12-speed  | HG 12-speed                     | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed          | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed |
| Chain line (mm)                                 |                          | 47           | 49.7                            | 47                     | 49.7                            | 47                     | 49.7                   |
| P.C.D. (mm)                                     |                          | 110/80       | 110                             | 110/80                 | 110                             | 110/80                 | 110                    |
| Spider/gear arms                                |                          | 4            | 4                               | 4                      | 4                               | 4                      | 4                      |
| Chainring combination                           |                          | 48-31T       | 40T, 42T                        | 48-31T                 | 40T, 42T                        | 48-31T                 | 40T                    |
| Q-factor (mm)                                   |                          | 151          | 151                             | 151                    | 151                             | 151                    | 151                    |
| Crank arm length (mm)                           | 165                      | -            | -                               | -                      | -                               | -                      | -                      |
|   | 167.5                    | -            | -                               | -                      | -                               | -                      | -                      |
|   | 170                      | ✓            | ✓                               | ✓                      | ✓                               | ✓                      | ✓                      |
|   | 172.5                    | ✓            | ✓                               | ✓                      | ✓                               | ✓                      | ✓                      |
|   | 175                      | ✓            | ✓                               | ✓                      | ✓                               | ✓                      | ✓                      |
|   | 177.5                    | -            | -                               | -                      | -                               | -                      | -                      |
| Optional chain guard                            | With chain guard         | -            | -                               | -                      | -                               | -                      | -                      |
|   | Without chain/bash guard | ✓            | ✓                               | ✓                      | ✓                               | ✓                      | ✓                      |
| HOLLOWTECH II                                   |                          | ✓            | ✓                               | ✓                      | ✓                               | ✓                      | ✓                      |
| 2-PIECE CRANKSET                                |                          | -            | -                               | -                      | -                               | -                      | -                      |
| HOLLOWTECH crank arm                            |                          | ✓            | ✓                               | ✓                      | ✓                               | ✓                      | ✓                      |
| OCTALINK  |                          | -            | -                               | -                      | -                               | -                      | -                      |
| HOLLOWGLIDE                                     |                          | -            | -                               | -                      | -                               | -                      | -                      |
| Compatible bottom bracket type                  | Outboard                 | ✓            | ✓                               | ✓                      | ✓                               | ✓                      | ✓                      |
|   | OCTALINK                 | -            | -                               | -                      | -                               | -                      | -                      |
|   | Square                   | -            | -                               | -                      | -                               | -                      | -                      |
| Recommended bottom bracket                      | Threaded (normal)        | SM-BBR60     | SM-BBR60                        | SM-BBR60               | SM-BBR60                        | SM-BBR60               | SM-BBR60               |
|   | Press-Fit                | SM-BB72      | SM-BB72                         | SM-BB72                | SM-BB72                         | SM-BB72                | SM-BB72                |
| Axle length of BB-UN/ES (mm)                    |                          | -            | -                               | -                      | -                               | -                      | -                      |
| Threaded bottom bracket shell width (mm)        | 68                       | ✓            | ✓                               | ✓                      | ✓                               | ✓                      | ✓                      |
|   | 70                       | ✓            | ✓                               | ✓                      | ✓                               | ✓                      | ✓                      |
| Crank arm                                       | Material                 | Aluminum     | Aluminum                        | Aluminum               | Aluminum                        | Aluminum               | Aluminum               |
|   | Finish                   | Anodized     | Anodized                        | Anodized               | Anodized                        | Anodized               | Anodized               |
| Crank axle                                      | Material                 | Steel        | Steel                           | Steel                  | Steel                           | Steel                  | Steel                  |
|   | Finish                   | Plated       | Plated                          | Plated                 | Plated                          | Plated                 | Plated                 |
| Spider arm                                      | Material                 | -            | -                               | -                      | -                               | -                      | -                      |
|   | Finish                   | -            | -                               | -                      | -                               | -                      | -                      |
| Spider arm cover                                | Material                 | -            | -                               | -                      | -                               | -                      | -                      |
|   | Finish                   | -            | -                               | -                      | -                               | -                      | -                      |
| Outer ring                                      | Material                 | Aluminum     | Aluminum                        | Aluminum               | Aluminum                        | Aluminum               | Aluminum               |
|   | Finish                   | Anodized     | Anodized (teeth)/Painted (body) | Anodized               | Anodized (teeth)/Painted (body) | Anodized               | Anodized (teeth)       |
| Middle ring                                     | Material                 | -            | -                               | -                      | -                               | -                      | -                      |
|   | Finish                   | -            | -                               | -                      | -                               | -                      | -                      |
| Inner ring                                      | Material                 | Aluminum     | -                               | Aluminum               | -                               | Aluminum               | -                      |
|   | Finish                   | Anodized     | -                               | Anodized               | -                               | Anodized               | -                      |
| Outer/middle ring fixing bolt                   | Material                 | Aluminum     | Aluminum                        | Aluminum               | Aluminum                        | Aluminum               | Aluminum               |
|   | Finish                   | Anodized     | Anodized                        | Anodized               | Anodized                        | Anodized               | Anodized               |
| Inner ring fixing screw                         | Material                 | -            | -                               | -                      | -                               | -                      | -                      |
|   | Finish                   | -            | -                               | -                      | -                               | -                      | -                      |
| Crank fixing screw included                     |                          | ✓            | ✓                               | ✓                      | ✓                               | ✓                      | ✓                      |
| Average weight (g) (170 mm, w/o bottom bracket) |                          | 710          | 644 (40T)<br>656 (42T)          | 710                    | 644 (40T)<br>656 (42T)          | 710                    | 644                    |
| Note  |                          |              |                                 |                        |                                 |                        |                        |

# Crankset

| Series  |                          | GRX             | GRX                    | GRX                    | GRX             | GRX                             |
|---|--------------------------|-----------------|------------------------|------------------------|-----------------|---------------------------------|
| Model no.                                       |                          | FC-RX610-2      | FC-RX610-1             | FC-RX600-11            | FC-RX600-10     | FC-RX600-1                      |
| Color   | 1                        | Series color    | Series color           | Series color           | Series color    | Series color                    |
|   | 2                        | -               | -                      | -                      | -               | -                               |
| Rear speeds                                     |                          | 12              | 12                     | 11                     | 10              | 11                              |
| Compatible chain                                |                          | HG 12-speed     | HG 12-speed            | LINKGLIDE, HG 11-speed | HG 10-speed     | LINKGLIDE, HG 11-speed          |
| Chain line (mm)                                 |                          | 47              | 49.7                   | 47                     | 47              | 49.7                            |
| P.C.D. (mm)                                     |                          | 110/80          | 110                    | 110/80                 | 110/80          | 110                             |
| Spider/gear arms                                |                          | 4               | 4                      | 4                      | 4               | 4                               |
| Chainring combination                           |                          | 46-30T          | 38T, 40T               | 46-30T                 | 46-30T          | 40T                             |
| Q-factor (mm)                                   |                          | 151             | 151                    | 151                    | 151             | 151                             |
| Crank arm length (mm)                           | 165                      | ✓               | ✓                      | ✓                      | ✓               | ✓                               |
|   | 167.5                    | -               | -                      | -                      | -               | -                               |
|   | 170                      | ✓               | ✓                      | ✓                      | ✓               | ✓                               |
|   | 172.5                    | ✓               | ✓                      | ✓                      | ✓               | ✓                               |
|   | 175                      | ✓               | ✓                      | ✓                      | ✓               | ✓                               |
|   | 177.5                    | -               | -                      | -                      | -               | -                               |
| Optional chain guard                            | With chain guard         | -               | -                      | -                      | -               | -                               |
|   | Without chain/bash guard | ✓               | ✓                      | ✓                      | ✓               | ✓                               |
| HOLLOWTECH II                                   |                          | -               | -                      | -                      | -               | -                               |
| 2-PIECE CRANKSET                                |                          | ✓               | ✓                      | ✓                      | ✓               | ✓                               |
| HOLLOWTECH crank arm                            |                          | ✓               | ✓                      | -                      | -               | -                               |
| OCTALINK  |                          | -               | -                      | -                      | -               | -                               |
| HOLLOWGLIDE                                     |                          | -               | -                      | -                      | -               | -                               |
| Compatible bottom bracket type                  | Outboard                 | ✓               | ✓                      | ✓                      | ✓               | ✓                               |
|   | OCTALINK                 | -               | -                      | -                      | -               | -                               |
|   | Square                   | -               | -                      | -                      | -               | -                               |
| Recommended bottom bracket                      | Threaded (normal)        | BB-RS501        | BB-RS501               | BB-RS501               | BB-RS501        | BB-RS501                        |
|   | Press-Fit                | BB-RS500-PB     | BB-RS500-PB            | BB-RS500-PB            | BB-RS500-PB     | BB-RS500-PB                     |
| Axle length of BB-UN/ES (mm)                    |                          | -               | -                      | -                      | -               | -                               |
| Threaded bottom bracket shell width (mm)        | 68                       | ✓               | ✓                      | ✓                      | ✓               | ✓                               |
|   | 70                       | ✓               | ✓                      | ✓                      | ✓               | ✓                               |
| Crank arm                                       | Material                 | Aluminum        | Aluminum               | Aluminum               | Aluminum        | Aluminum                        |
|   | Finish                   | Anodized        | Anodized               | Anodized               | Anodized        | Anodized                        |
| Crank axle                                      | Material                 | Steel           | Steel                  | Steel                  | Steel           | Steel                           |
|   | Finish                   | Plated          | Plated                 | Plated                 | Plated          | Plated                          |
| Spider arm                                      | Material                 | -               | -                      | -                      | -               | -                               |
|   | Finish                   | -               | -                      | -                      | -               | -                               |
| Spider arm cover                                | Material                 | -               | -                      | -                      | -               | -                               |
|   | Finish                   | -               | -                      | -                      | -               | -                               |
| Outer ring                                      | Material                 | Aluminum        | Steel                  | Aluminum               | Aluminum        | Aluminum                        |
|   | Finish                   | Anodized        | Painted                | Anodized               | Anodized        | Anodized (teeth)/Painted (body) |
| Middle ring                                     | Material                 | -               | -                      | -                      | -               | -                               |
|   | Finish                   | -               | -                      | -                      | -               | -                               |
| Inner ring                                      | Material                 | Aluminum        | -                      | Aluminum               | Aluminum        | -                               |
|   | Finish                   | Anodized        | -                      | Anodized               | Anodized        | -                               |
| Outer/middle ring fixing bolt                   | Material                 | Stainless Steel | Stainless Steel        | Stainless Steel        | Stainless Steel | Stainless Steel                 |
|   | Finish                   | -               | -                      | -                      | -               | -                               |
| Inner ring fixing screw                         | Material                 | -               | -                      | -                      | -               | -                               |
|   | Finish                   | -               | -                      | -                      | -               | -                               |
| Crank fixing screw included                     |                          | ✓               | ✓                      | ✓                      | ✓               | ✓                               |
| Average weight (g) (170 mm, w/o bottom bracket) |                          | 811             | 791 (38T)<br>812 (40T) | 817                    | 821             | 754                             |
| Note  |                          |                 |                        |                        |                 |                                 |

ST

RD

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WH

# Wheel (Disc Brake)

| Series   |  | GRX                    | GRX                                    | SHIMANO                | SHIMANO                                  | GRX                    | GRX                    |
|--|--|------------------------|--|------------------------|--|------------------------|------------------------|
| Model no.  |  | WH-RX870-TL-F12-700C   | WH-RX870-TL-R12-700C                   | WH-RX880-TL-F12-700C   | WH-RX880-TL-R12-700C                     | WH-RX570-TL-F12-700C   | WH-RX570-TL-F12-650B   |
| Model name   |  | WH-RX870-TL-F12-700C   | WH-RX870-TL-R12-700C                   | WH-RX880-TL-F12-700C   | WH-RX880-TL-R12-700C                     | WH-RX570-TL-F12-700C   | WH-RX570-TL-F12-650B   |
| Specification  |  | Black                  | Black                                  | Black                  | Black                                    | Black                  | Black                  |
| Color  | 1 Hub shell  | -                      | -                                      | -                      | -  | -                      | -                      |
|  | 1 Quick release  | -                      | -                                      | -                      | -  | -                      | -                      |
|  | 2 Hub shell  | -                      | -                                      | -                      | -  | -                      | -                      |
|  | 2 Quick release  | -                      | -                                      | -                      | -  | -                      | -                      |
| Front/Rear   |  | Front                  | Rear                                   | Front                  | Rear                                     | Front                  | Front                  |
| Brake type   |  | CENTER LOCK disc brake | CENTER LOCK disc brake                 | CENTER LOCK disc brake | CENTER LOCK disc brake                   | CENTER LOCK disc brake | CENTER LOCK disc brake |
| Rear speeds  |  | -                      | 12/11                                  | -                      | 12                                       | -                      | -                      |
| O.L.D. (mm)  |  | 100                    | 142                                    | 100                    | 142                                      | 100                    | 100                    |
| Wheel size   |  | 622 x 25C (700C)       | 622 x 25C (700C)                       | 622 x 25C (700C)       | 622 x 25C (700C)                         | 622 x 21C (700C)       | 584 x 21C (650B)       |
| Tire   | Type   | Tubeless               | Tubeless                               | Tubeless               | Tubeless                                 | Tubeless               | Tubeless               |
|  | Recommended size   | 32-622 - 50-622        | 32-622 - 50-622                        | 32-622 - 50-622        | 32-622 - 50-622                          | 32-622 - 42-622        | 38-584 - 53-584        |
| Rim  | Height (mm)  | 32                     | 32                                     | 32                     | 32                                       | 22                     | 22                     |
|  | Internal width (mm)  | 25                     | 25                                     | 25                     | 25                                       | 21.6                   | 21.6                   |
|  | External width (mm)  | 30.7                   | 30.7                                   | 30.7                   | 30.7                                     | 26                     | 26                     |
|  | Rim joint  | -                      | -                                      | -                      | -  | Welded                 | Welded                 |
|  | Brazed reinforcement   | -                      | -                                      | -                      | -  | -                      | -                      |
|  | OFFSET RIM   | -                      | -                                      | -                      | -  | ✓                      | ✓                      |
|  | Requires rim tape  | ✓                      | ✓                                      | ✓                      | ✓  | ✓                      | ✓                      |
| Spokes   | Number   | 24                     | 24                                     | 24                     | 24                                       | 24                     | 24                     |
|  | Straight pull  | ✓                      | ✓                                      | ✓                      | ✓  | ✓                      | ✓                      |
|  | Bladed   | ✓                      | ✓                                      | ✓                      | ✓  | ✓                      | ✓                      |
|  | Butted   | ✓                      | ✓                                      | ✓                      | ✓  | -                      | -                      |
|  | Diameter (mm)  | 2.0-1.6-2.0            | 2.0-1.6-2.0                            | 2.0-1.6-2.0            | 2.0-1.6-2.0                              | 2                      | 2                      |
| Axle fixing method   |  | E-THRU                 | E-THRU                                 | E-THRU                 | E-THRU                                   | E-THRU                 | E-THRU                 |
| Quick release skewer length (mm)   | 133  | -                      | -                                      | -                      | -  | -                      | -                      |
|  | 163  | -                      | -                                      | -                      | -  | -                      | -                      |
|  | 168  | -                      | -                                      | -                      | -  | -                      | -                      |
| Thru axle (length x inner diameter ; mm)   | 100 x 12   | ✓                      | -                                      | ✓                      | -  | ✓                      | ✓                      |
|  | 142 x 12   | -                      | ✓                                      | -                      | ✓  | -                      | -                      |
| Spline type  | MICRO SPLINE   | -                      | -                                      | -                      | ✓  | -                      | -                      |
|  | HG spline L2 (ROAD 12-speed dedicated)                           | -                      | -                                      | -                      | ✓  | -                      | -                      |
|  | HG spline L (ROAD 12/11-speed)                                   | -                      | ✓                                      | -                      | -  | -                      | -                      |
|  | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | -                      | -                                      | -                      | -  | -                      | -                      |
|  | HG spline S (7-speed)  | -                      | -                                      | -                      | -  | -                      | -                      |
| Engagement type  |  | -                      | Pawl ratchet                           | -                      | Direct engagement                        | -                      | -                      |
| Bearing  | Stainless ball   | -                      | -                                      | -                      | -  | -                      | -                      |
|  | Cup  | Polish                 | Polish                                 | Polish                 | Polish                                   | Polish                 | Polish                 |
|  | Cone   | CBN+Polish             | CBN+Polish                             | CBN+Polish             | CBN+Polish                               | CBN                    | CBN                    |
|  | Cartridge  | -                      | -                                      | -                      | -  | -                      | -                      |
| Disc mount   | CENTER LOCK  | ✓                      | ✓                                      | ✓                      | ✓  | ✓                      | ✓                      |
|  | CENTER LOCK mount cover option                                   | -                      | -                                      | -                      | -  | -                      | -                      |
|  | 140 mm disc brake rotor compatible                               | ✓                      | ✓                                      | ✓                      | ✓  | ✓                      | ✓                      |
| OPTBAL (2:1)   |  | -                      | -                                      | -                      | -  | -                      | -                      |
| D2 rim   |  | -                      | -                                      | -                      | -  | -                      | -                      |
| Digital adjustment system  |  | -                      | -                                      | -                      | -  | -                      | -                      |
| Seal   | Hub  | Contact                | Contact                                | Contact                | Contact                                  | Contact                | Contact                |
|  | FREEHUB body   | -                      | Contact                                | -                      | Contact                                  | -                      | -                      |
| Internal grease sleeve   |  | -                      | -                                      | -                      | -  | ✓                      | ✓                      |
| Rim  | Material   | Carbon                 | Carbon                                 | Carbon                 | Carbon                                   | Aluminum               | Aluminum               |
|  | Finish   | Painted                | Painted                                | Painted                | Painted                                  | Anodized               | Anodized               |
| Spoke  | Material   | Stainless steel        | Stainless steel                        | Stainless steel        | Stainless steel                          | Stainless steel        | Stainless steel        |
|  | Finish   | Black                  | Black                                  | Black                  | Black                                    | Black                  | Black                  |
| Nipple   | Material   | Aluminum               | Aluminum                               | Aluminum               | Aluminum                                 | Aluminum               | Aluminum               |
|  | Finish   | Black                  | Black                                  | Black                  | Black                                    | Black                  | Black                  |
| FREEHUB body   | Material   | -                      | Steel                                  | -                      | Aluminum                                 | -                      | -                      |
|  | Finish   | -                      | -                                      | -                      | -  | -                      | -                      |
| Hub shell  | Material   | Aluminum               | Aluminum                               | Aluminum               | Aluminum                                 | Aluminum               | Aluminum               |
|  | Finish   | Anodized               | Anodized                               | Anodized               | Anodized                                 | Anodized               | Anodized               |
| Axle   | Material   | Aluminum               | Aluminum                               | Aluminum               | Aluminum                                 | Aluminum               | Aluminum               |
|  | Finish   | -                      | -                                      | -                      | -  | -                      | -                      |
| Quick release lever  | Material   | -                      | -                                      | -                      | -  | -                      | -                      |
|  | Finish   | -                      | -                                      | -                      | -  | -                      | -                      |
| Quick release housing  | Material   | -                      | -                                      | -                      | -  | -                      | -                      |
|  | Finish   | -                      | -                                      | -                      | -  | -                      | -                      |
| Quick release nut  | Material   | -                      | -                                      | -                      | -  | -                      | -                      |
|  | Finish   | -                      | -                                      | -                      | -  | -                      | -                      |
| Compatible spoke protector   |  | -                      | CP-WH30(11-34T)<br>CP-WH26(11-40T/42T) | -                      | CP-WRX8A(34T/36T)<br>CP-WRX8B(45T/51T)   | -                      | -                      |
| Reflector  | JIS/CPSC   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW                   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW                     | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   |
|  | AS   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW                   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW                     | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   |
|  | DIN  | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW                   | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW                     | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   |
| Average weight (g) (w/o quick release, rim tape, tubeless tape, valve stem, lock ring) |  | 639                    | 822                                    | 635                    | 762 (HG-spline L2)<br>759 (MICRO SPLINE) | 769                    | 737                    |
| Note   |  | -                      | -                                      | -                      | -  | -                      | -                      |

# Wheel (Disc Brake)

| Series   |  | GRX   | GRX   | SHIMANO                | SHIMANO  |
|--|--|---|---|------------------------|--|
| Model no.  |  | WH-RX570-TL-R12-700C  | WH-RX570-TL-R12-650B  | WH-RX180-TL-F12-700C   | WH-RX180-TL-R12-700C   |
| Model name   |  | WH-RX570-TL-R12-700C  | WH-RX570-TL-R12-650B  | WH-RX180-TL-F12-700C   | WH-RX180-TL-R12-700C   |
| Specification  |  |   |   |                        |  |
| Color  | 1 Hub shell  | Black   | Black   | Black                  | Black  |
|  | 1 Quick release  | -   | -   | -                      | -  |
|  | 2 Hub shell  | -   | -   | -                      | -  |
|  | 2 Quick release  | -   | -   | -                      | -  |
| Front/Rear   |  | Rear  | Rear  | Front                  | Rear   |
| Brake type   |  | CENTER LOCK disc brake  | CENTER LOCK disc brake  | CENTER LOCK disc brake | CENTER LOCK disc brake   |
| Rear speeds  |  | 11/10   | 11/10   | -                      | 12   |
| O.L.D. (mm)  |  | 142   | 142   | 100                    | 142  |
| Wheel size   |  | 622 x 21C (700C)  | 584 x 21C (650B)  | 622 x 25C (700C)       | 622 x 25C (700C)   |
| Tire   | Type   | Tubeless  | Tubeless  | Tubeless               | Tubeless   |
|  | Recommended size   | 32-622 - 42-622   | 38-584 - 53-584   | 32-622 - 50-622        | 32-622 - 50-622  |
| Rim  | Height (mm)  | 22  | 22  | 21                     | 21   |
|  | Internal width (mm)  | 21.6  | 21.6  | 25                     | 25   |
|  | External width (mm)  | 26  | 26  | 28.8                   | 28.8   |
|  | Rim joint  | Welded  | Welded  | -                      | -  |
|  | Brazed reinforcement   | -   | -   | -                      | -  |
|  | OFFSET RIM   | ✓   | ✓   | ✓                      | ✓  |
|  | Requires rim tape  | ✓   | ✓   | ✓                      | ✓  |
| Spokes   | Number   | 24  | 24  | 24                     | 24   |
|  | Straight pull  | ✓   | ✓   | -                      | -  |
|  | Bladed   | ✓   | ✓   | -                      | -  |
|  | Butted   | -   | -   | ✓                      | ✓  |
|  | Diameter (mm)  | 2   | 2   | 2.3-2.0-2.3            | 2.3-2.0-2.3  |
| Axle fixing method   |  | E-THRU  | E-THRU  | E-THRU                 | E-THRU   |
| Quick release skewer length (mm)   | 133  | -   | -   | -                      | -  |
|  | 163  | -   | -   | -                      | -  |
|  | 168  | -   | -   | -                      | -  |
| Thru axle (length x inner diameter ; mm)   | 100 x 12   | -   | -   | ✓                      | -  |
|  | 142 x 12   | ✓   | ✓   | -                      | ✓  |
| Spline type  | MICRO SPLINE   | -   | -   | -                      | ✓  |
|  | HG spline J2 (ROAD 12-speed dedicated)                           | -   | -   | -                      | -  |
|  | HG spline L (ROAD 12/11-speed)                                   | ✓   | ✓   | -                      | ✓  |
|  | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | -   | -   | -                      | -  |
|  | HG spline S (7-speed)  | -   | -   | -                      | -  |
| Engagement type  |  | Pawl ratchet  | Pawl ratchet  | -                      | Pawl ratchet   |
| Bearing  | Stainless ball   | -   | -   | -                      | -  |
|  | Cup  | Polish  | Polish  | -                      | -  |
|  | Cone   | CBN   | CBN   | -                      | -  |
|  | Cartridge  | -   | -   | ✓                      | ✓  |
| Disc mount   | CENTER LOCK  | ✓   | ✓   | ✓                      | ✓  |
|  | CENTER LOCK mount cover option                                   | -   | -   | -                      | -  |
|  | 140 mm disc brake rotor compatible                               | ✓   | ✓   | ✓                      | ✓  |
| OPTBAL (2:1)   |  | -   | -   | -                      | -  |
| D2 rim   |  | -   | -   | -                      | -  |
| Digital adjustment system  |  | -   | -   | -                      | -  |
| Seal   | Hub  | Contact   | Contact   | Contact                | Contact  |
|  | FREEHUB body   | Contact   | Contact   | -                      | Contact  |
| Internal grease sleeve   |  | ✓   | ✓   | -                      | -  |
| Rim  | Material   | Aluminum  | Aluminum  | Aluminum               | Aluminum   |
|  | Finish   | Anodized  | Anodized  | Anodized               | Anodized   |
| Spoke  | Material   | Stainless steel   | Stainless steel   | Stainless steel        | Stainless steel  |
|  | Finish   | Black   | Black   | Black                  | Black  |
| Nipple   | Material   | Aluminum  | Aluminum  | Brass                  | Brass  |
|  | Finish   | Black   | Black   | Black                  | Black  |
| FREEHUB body   | Material   | Steel   | Steel   | -                      | Steel  |
|  | Finish   | -   | -   | -                      | -  |
| Hub shell  | Material   | Aluminum  | Aluminum  | Aluminum               | Aluminum   |
|  | Finish   | Anodized  | Anodized  | Anodized               | Anodized   |
| Axle   | Material   | Aluminum  | Aluminum  | -                      | Steel  |
|  | Finish   | -   | -   | -                      | -  |
| Quick release lever  | Material   | -   | -   | -                      | -  |
|  | Finish   | -   | -   | -                      | -  |
| Quick release housing  | Material   | -   | -   | -                      | -  |
|  | Finish   | -   | -   | -                      | -  |
| Quick release nut  | Material   | -   | -   | -                      | -  |
|  | Finish   | -   | -   | -                      | -  |
| Compatible spoke protector   |  | CP-FH08 (23-28T 11-speed)<br>CP-WH41 (23-30T 10-speed)<br>CP-WH12 (32T 10/11-speed) | CP-FH08 (23-28T 11-speed)<br>CP-WH41 (23-30T 10-speed)<br>CP-WH12 (32T 10/11-speed) | -                      | CP-WR18A (36T for 12-speed)<br>CP-WR18B (45T, 51T for 12-speed)<br>CP-WH30 (34T for 11-speed)<br>CP-WH26 (40T, 42T for 11-speed) |
| Reflector  | JIS/CPSC   | CATEYE RR-550-WUW SW  | CATEYE RR-550-WUW SW  | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   |
|  | AS   | CATEYE RR-550-WUA SW  | CATEYE RR-550-WUA SW  | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   |
|  | DIN  | CATEYE RR-317-WUA SW  | CATEYE RR-317-WUA SW  | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   |
| Average weight (g) (w/o quick release, rim tape, tubeless tape, valve stem, lock ring) |  | 951   | 920   | 909                    | 1198 (HG spline L) 1205 (MICRO SPLINE)   |
| Note   |  |   |   |                        |  |





|   | Page |      |
|---|------|------|
| <Di2 spec.>   |      |      |
| Shift/Brake Lever (Hydraulic Disc Brake)                | 120  | ST   |
| Shift/Brake Lever                                       | 122  | ST   |
| Shift Switch  | 124  | SW   |
| Rear Derailleur   | 125  | RD   |
| Front Derailleur  | 127  | FD   |
| Front Derailleur (Adapter)                              | 127  | SMAD |
| <Mechanical spec.>                                      |      |      |
| Shift/Brake Lever (Hydraulic Disc Brake)                | 128  | ST   |
| Shift/Brake Lever                                       | 132  | ST   |
| Shifter   | 136  | SL   |
| Brake Lever (Hydraulic Disc Brake, Drop Handlebar Type) | 139  | BL   |
| Brake Lever (Hydraulic Disc Brake)                      | 140  | BL   |
| Brake Lever   | 141  | BL   |
| Brake (Hydraulic Disc Brake)                            | 143  | BR   |
| Brake (Mechanical Disc Brake)                           | 146  | BR   |
| Brake (Caliper Brake)                                   | 147  | BR   |
| Brake (V-BRAKE)   | 152  | BR   |
| Brake (Cantilever Brake)                                | 152  | BR   |
| Brake Cable   | 152  | BC   |
| Rear Derailleur   | 153  | RD   |
| Front Derailleur  | 157  | FD   |
| Crankset  | 162  | FC   |
| Crankset (Power Meter)                                  | 167  | FC   |
| Bottom Bracket (HOLLOWTECH II)                          | 168  | BB   |
| Bottom Bracket  | 169  | BB   |
| Cassette  | 170  | CS   |
| Front Hub (Rim/Disc Brake)                              | 173  | HB   |
| FREEHUB (Rim/Disc Brake)                                | 175  | FH   |
| Wheel (Disc Brake)                                      | 177  | WH   |
| Wheel (Rim Brake)                                       | 182  | WH   |
| Head Parts  | 187  | HP   |

# Shift/Brake Lever (Hydraulic Disc Brake)

| Series                                      |                           | DURA-ACE           | DURA-ACE           | ULTEGRA            | ULTEGRA            | SHIMANO 105        | SHIMANO 105                   |
|---|---------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------------------|
| Model no.                                   |                           | ST-R9270-R         | ST-R9270-L         | ST-R8170-R         | ST-R8170-L         | ST-R7170-R         | ST-R7170-L                    |
| Color                                       | 1                         | Series color       | Series color       | Series color       | Series color       | Series color       | Series color                  |
|   | 2                         | -                  | -                  | -                  | -                  | -                  | -                             |
| Shifter type                                |                           | DUAL CONTROL LEVER | DUAL CONTROL LEVER | DUAL CONTROL LEVER | DUAL CONTROL LEVER | DUAL CONTROL LEVER | DUAL CONTROL LEVER            |
| Remote switch                               |                           | ✓                  | ✓                  | ✓                  | ✓                  | -                  | -                             |
| Brake lever                                 | Brake hose (kit)          |                    | SM-BH90-JK-SSR     | SM-BH90-JK-SSR     | SM-BH90-JK-SSR     | SM-BH90-JK-SSR     | SM-BH90-J-SSR, SM-BH90-JK-SSR |
|   | Hose joint                |                    | Straight           | Straight           | Straight           | Straight           | Straight                      |
|   | Brake hose color (kit)    | 1                  | Black              | Black              | Black              | Black              | Black                         |
|   |                           | 2                  | -                  | -                  | -                  | -                  | -                             |
|   | Recommended brake caliper |                    | BR-R9270           | BR-R9270           | BR-R8170           | BR-R7170           | BR-R7170                      |
|   | Oil                       |                    | SHIMANO Mineral    | SHIMANO Mineral    | SHIMANO Mineral    | SHIMANO Mineral    | SHIMANO Mineral               |
|   | Reach adjust              |                    | ✓                  | ✓                  | ✓                  | ✓                  | ✓                             |
|   | Clamp band (mm)           |                    | 23.8-24.2          | 23.8-24.2          | 23.8-24.2          | 23.8-24.2          | 23.8-24.2                     |
|   | Funnel bleeding           |                    | ✓                  | ✓                  | ✓                  | ✓                  | ✓                             |
|   | Free stroke adjust        |                    | ✓                  | ✓                  | ✓                  | ✓                  | ✓                             |
|   | SERVO WAVE                |                    | ✓                  | ✓                  | ✓                  | -                  | -                             |
|   | Material                  |                    | Carbon             | Carbon             | Aluminum           | Aluminum           | Aluminum                      |
|   | Finish                    |                    | Painted            | Painted            | Painted            | Anodized           | Anodized                      |
| Bracket                                     | Material                  |                    | CFRP               | CFRP               | CFRP               | GFRP               | GFRP                          |
|   | Finish                    |                    | -                  | -                  | -                  | -                  | -                             |
| Electric button                             | Material                  |                    | CFRP               | CFRP               | CFRP               | GFRP               | GFRP                          |
|   | Finish                    |                    | Painted            | Painted            | Painted            | Painted            | -                             |
| Di2 connectivity wired                      | Di2 shifting              |                    | ✓                  | ✓                  | ✓                  | ✓                  | -                             |
| Di2 connectivity wireless                   | Di2 shifting              |                    | ✓                  | ✓                  | ✓                  | ✓                  | ✓                             |
| Master unit                                 |                           | -                  | -                  | -                  | -                  | -                  | -                             |
| Firmware update by E-TUBE PROJECT           |                           | ✓                  | ✓                  | ✓                  | ✓                  | ✓                  | ✓                             |
| SD50 port (pcs)                             |                           | 0                  | 0                  | 0                  | 0                  | 0                  | 0                             |
| SD300 port (pcs)                            |                           | 1                  | 1                  | 1                  | 1                  | 1                  | 1                             |
| SD50 connector (pcs)                        |                           | 0                  | 0                  | 0                  | 0                  | 0                  | 0                             |
| SD300 connector (pcs)                       |                           | 0                  | 0                  | 0                  | 0                  | 0                  | 0                             |
| Port for SD50 remote sprinter shifter (pcs) |                           | 0                  | 0                  | 0                  | 0                  | 0                  | 0                             |
| Port for SD300 satellite shifter (pcs)      |                           | 1                  | 1                  | 1                  | 1                  | 0                  | 0                             |
| Battery                                     |                           | CR1632             | CR1632             | CR1632             | CR1632             | CR1632 x 2         | CR1632 x 2                    |
| Average weight (g)                          |                           | 350 (/pair)        | 350 (/pair)        | 391 (/pair)        | 391 (/pair)        | 423 (/pair)        | 423 (/pair)                   |
| Note  |                           |                    |                    |                    |                    |                    |                               |

# Shift/Brake Lever (Hydraulic Disc Brake)

ROAD

| Series                                      |                           | DURA-ACE           | DURA-ACE           | DURA-ACE                        | DURA-ACE                        | ULTEGRA                | ULTEGRA            |
|---|---------------------------|--------------------|--------------------|---------------------------------|---------------------------------|------------------------|--------------------|
| Model no.                                   |                           | ST-R9170-R         | ST-R9170-L         | ST-R9180-R                      | ST-R9180-L                      | ST-R8070-R             | ST-R8070-L         |
| Color                                       | 1                         | Series color       | Series color       | Series color                    | Series color                    | Series color           | Series color       |
|   | 2                         | -                  | -                  | -                               | -                               | -                      | -                  |
| Shifter type                                |                           | DUAL CONTROL LEVER | DUAL CONTROL LEVER | TT/Triathlon DUAL CONTROL LEVER | TT/Triathlon DUAL CONTROL LEVER | DUAL CONTROL LEVER     | DUAL CONTROL LEVER |
| Remote switch                               |                           | ✓                  | ✓                  | -                               | -                               | ✓                      | ✓                  |
| Brake lever                                 | Brake hose (kit)          |                    | SM-BH90-JK-SSR     | SM-BH90-JK-SSR                  | SM-BH90-JK-SS                   | SM-BH90-JK-SS          | SM-BH90-JK-SSR     |
|   | Hose joint                |                    | Straight           | Straight                        | Straight                        | Straight               | Straight           |
|   | Brake hose color (kit)    | 1                  | Black              | Black                           | Black                           | Black                  | Black              |
|   |                           | 2                  | -                  | -                               | -                               | -                      | -                  |
|   | Recommended brake caliper |                    | BR-R9170           | BR-R9170                        | BR-R9170                        | BR-R9170               | BR-R8070           |
|   | Oil                       |                    | SHIMANO Mineral    | SHIMANO Mineral                 | SHIMANO Mineral                 | SHIMANO Mineral        | SHIMANO Mineral    |
|   | Reach adjust              |                    | ✓                  | ✓                               | ✓                               | ✓                      | ✓                  |
|   | Clamp band (mm)           |                    | 23.8-24.2          | 23.8-24.2                       | INNER DIA. 19.0 - 22.5          | INNER DIA. 19.0 - 22.5 | 23.8-24.2          |
|   | Funnel bleeding           |                    | ✓                  | ✓                               | ✓                               | ✓                      | ✓                  |
|   | Free stroke adjust        |                    | ✓                  | ✓                               | -                               | -                      | ✓                  |
|   | SERVO WAVE                |                    | -                  | -                               | -                               | -                      | -                  |
|   | Material                  |                    | Carbon             | Carbon                          | Carbon                          | Carbon                 | Aluminum           |
|   | Finish                    |                    | Painted            | Painted                         | Painted                         | Painted                | Painted            |
| Bracket                                     | Material                  |                    | CFRP               | CFRP                            | Aluminum                        | Aluminum               | CFRP               |
|   | Finish                    |                    | -                  | -                               | -                               | -                      | -                  |
| Electric button                             | Material                  |                    | -                  | -                               | CFRP                            | CFRP                   | -                  |
|   | Finish                    |                    | -                  | -                               | -                               | -                      | -                  |
| Di2 connectivity wired                      | Di2 shifting              |                    | ✓                  | ✓                               | ✓                               | ✓                      | ✓                  |
| Di2 connectivity wireless                   | Di2 shifting              |                    | -                  | -                               | -                               | -                      | -                  |
| Master unit                                 |                           | -                  | -                  | -                               | -                               | -                      | -                  |
| Firmware update by E-TUBE PROJECT           |                           | ✓                  | ✓                  | ✓                               | ✓                               | ✓                      | ✓                  |
| SD50 port (pcs)                             |                           | 2                  | 2                  | 1                               | 1                               | 2                      | 2                  |
| SD300 port (pcs)                            |                           | 0                  | 0                  | 0                               | 0                               | 0                      | 0                  |
| SD50 connector (pcs)                        |                           | 0                  | 0                  | 0                               | 0                               | 0                      | 0                  |
| SD300 connector (pcs)                       |                           | 0                  | 0                  | 0                               | 0                               | 0                      | 0                  |
| Port for SD50 remote sprinter shifter (pcs) |                           | 0                  | 0                  | 0                               | 0                               | 0                      | 0                  |
| Port for SD300 satellite shifter (pcs)      |                           | 0                  | 0                  | 0                               | 0                               | 0                      | 0                  |
| Battery                                     |                           | -                  | -                  | -                               | -                               | -                      | -                  |
| Average weight (g)                          |                           | 160                | 160                | 99                              | 99                              | 180                    | 180                |
| Note  |                           |                    |                    |                                 |                                 |                        |                    |

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# Shift/Brake Lever

| Series                                      |                 | DURA-ACE           | DURA-ACE           | ULTEGRA            | ULTEGRA            | DURA-ACE           | DURA-ACE           |
|---|-----------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Model no.                                   |                 | ST-R9250-R         | ST-R9250-L         | ST-R8150-R         | ST-R8150-L         | ST-R9150-R         | ST-R9150-L         |
| Shifter type                                |                 | DUAL CONTROL LEVER | DUAL CONTROL LEVER | DUAL CONTROL LEVER | DUAL CONTROL LEVER | DUAL CONTROL LEVER | DUAL CONTROL LEVER |
| Remote switch                               |                 | ✓                  | ✓                  | ✓                  | ✓                  | ✓                  | ✓                  |
| Brake lever                                 | Reach adjust    | ✓                  | ✓                  | ✓                  | ✓                  | ✓                  | ✓                  |
|   | Clamp band (mm) | 23.8-24.2          | 23.8-24.2          | 23.8-24.2          | 23.8-24.2          | 23.8-24.2          | 23.8-24.2          |
|   | SLR-EV          | ✓                  | ✓                  | ✓                  | ✓                  | ✓                  | ✓                  |
| Bracket                                     | Material        | CFRP               | CFRP               | GFRP               | GFRP               | CFRP               | CFRP               |
|   | Finish          | -                  | -                  | -                  | -                  | -                  | -                  |
| Electric button                             | Material        | CFRP               | CFRP               | GFRP               | GFRP               | CFRP               | CFRP               |
|   | Finish          | Painted            | Painted            | -                  | -                  | -                  | -                  |
| Brake lever                                 | Material        | CFRP               | CFRP               | Aluminum           | Aluminum           | CFRP               | CFRP               |
|   | Finish          | Painted            | Painted            | Painted            | Painted            | Painted            | Painted            |
| Master unit                                 |                 | -                  | -                  | -                  | -                  | -                  | -                  |
| Firmware update by E-TUBE PROJECT           |                 | ✓                  | ✓                  | ✓                  | ✓                  | ✓                  | ✓                  |
| Di2 connectivity wired                      | Di2 shifting    | ✓                  | ✓                  | ✓                  | ✓                  | ✓                  | ✓                  |
| Di2 connectivity wireless                   | Di2 shifting    | -                  | -                  | -                  | -                  | -                  | -                  |
| SD50 port (pcs)                             |                 | 0                  | 0                  | 0                  | 0                  | 2                  | 2                  |
| SD300 port (pcs)                            |                 | 2                  | 2                  | 2                  | 2                  | 0                  | 0                  |
| SD50 connector (pcs)                        |                 | 0                  | 0                  | 0                  | 0                  | 0                  | 0                  |
| SD300 connector (pcs)                       |                 | 0                  | 0                  | 0                  | 0                  | 0                  | 0                  |
| Port for SD50 remote sprinter shifter (pcs) |                 | 0                  | 0                  | 0                  | 0                  | 1                  | 1                  |
| Port for SD300 satellite shifter (pcs)      |                 | 1                  | 1                  | 1                  | 1                  | 0                  | 0                  |
| Battery                                     |                 | -                  | -                  | -                  | -                  | -                  | -                  |
| Average weight (g)                          |                 | 230 (/pair)        | 230 (/pair)        | 295 (/pair)        | 295 (/pair)        | 230 (/pair)        | 230 (/pair)        |
| Note  |                 |                    |                    |                    |                    | -                  | -                  |

| Series                                      |                 | DURA-ACE                        | DURA-ACE                        | ULTEGRA            | ULTEGRA            | ULTEGRA                         | ULTEGRA                         |
|---|-----------------|---------------------------------|---------------------------------|--------------------|--------------------|---------------------------------|---------------------------------|
| Model no.                                   |                 | ST-R9160-R                      | ST-R9160-L                      | ST-R8050-R         | ST-R8050-L         | ST-R8060-R                      | ST-R8060-L                      |
| Shifter type                                |                 | TT/Triathlon DUAL CONTROL LEVER | TT/Triathlon DUAL CONTROL LEVER | DUAL CONTROL LEVER | DUAL CONTROL LEVER | TT/Triathlon DUAL CONTROL LEVER | TT/Triathlon DUAL CONTROL LEVER |
| Remote switch                               |                 | -                               | -                               | ✓                  | ✓                  | -                               | -                               |
| Brake lever                                 | Reach adjust    | ✓                               | ✓                               | ✓                  | ✓                  | ✓                               | ✓                               |
|   | Clamp band (mm) | INNER DIA. 19.0 - 22.5          | INNER DIA. 19.0 - 22.5          | 23.8-24.2          | 23.8-24.2          | INNER DIA. 19.0 - 22.5          | INNER DIA. 19.0 - 22.5          |
|   | SLR-EV          | ✓                               | ✓                               | ✓                  | ✓                  | ✓                               | ✓                               |
| Bracket                                     | Material        | GFRP                            | GFRP                            | GFRP               | GFRP               | GFRP                            | GFRP                            |
|   | Finish          | -                               | -                               | -                  | -                  | -                               | -                               |
| Electric button                             | Material        | CFRP                            | CFRP                            | GFRP               | GFRP               | CFRP                            | CFRP                            |
|   | Finish          | -                               | -                               | -                  | -                  | -                               | -                               |
| Brake lever                                 | Material        | CFRP                            | CFRP                            | Aluminum           | Aluminum           | Aluminum                        | Aluminum                        |
|   | Finish          | Painted                         | Painted                         | Anodized           | Anodized           | Anodized                        | Anodized                        |
| Master unit                                 |                 | -                               | -                               | -                  | -                  | -                               | -                               |
| Firmware update by E-TUBE PROJECT           |                 | ✓                               | ✓                               | ✓                  | ✓                  | ✓                               | ✓                               |
| Di2 connectivity wired                      | Di2 shifting    | ✓                               | ✓                               | ✓                  | ✓                  | ✓                               | ✓                               |
| Di2 connectivity wireless                   | Di2 shifting    | -                               | -                               | -                  | -                  | -                               | -                               |
| SD50 port (pcs)                             |                 | 1                               | 1                               | 2                  | 2                  | 1                               | 1                               |
| SD300 port (pcs)                            |                 | 0                               | 0                               | 0                  | 0                  | 0                               | 0                               |
| SD50 connector (pcs)                        |                 | 0                               | 0                               | 0                  | 0                  | 0                               | 0                               |
| SD300 connector (pcs)                       |                 | 0                               | 0                               | 0                  | 0                  | 0                               | 0                               |
| Port for SD50 remote sprinter shifter (pcs) |                 | 0                               | 0                               | 1                  | 1                  | 0                               | 0                               |
| Port for SD300 satellite shifter (pcs)      |                 | 0                               | 0                               | 0                  | 0                  | 0                               | 0                               |
| Battery                                     |                 | -                               | -                               | -                  | -                  | -                               | -                               |
| Average weight (g)                          |                 | 127 (/pair)                     | 127 (/pair)                     | 295 (/pair)        | 295 (/pair)        | 138 (/pair)                     | 138 (/pair)                     |
| Note  |                 | -                               | -                               | -                  | -                  | -                               | -                               |

# Shift/Brake Lever

| Series                                      |                 | ULTEGRA            | ULTEGRA                         |
|---|-----------------|--------------------|---------------------------------|
| Model no.                                   |                 | ST-6870            | ST-6871                         |
| Shifter type                                |                 | DUAL CONTROL LEVER | TT/Triathlon DUAL CONTROL LEVER |
| Remote switch                               |                 | -                  | -                               |
| Brake lever                                 | Reach adjust    | ✓                  | ✓                               |
|   | Clamp band (mm) | 23.8-24.2          | INNER DIA. 19.0 - 22.5          |
|   | SLR-EV          | ✓                  | ✓                               |
| Bracket                                     | Material        | GFRP               | CFRP                            |
|   | Finish          | -                  | -                               |
| Electric button                             | Material        | GFRP               | GFRP                            |
|   | Finish          | -                  | -                               |
| Brake lever                                 | Material        | Aluminum           | Aluminum                        |
|   | Finish          | Painted            | Anodized                        |
| Master unit                                 |                 | -                  | -                               |
| Firmware update by E-TUBE PROJECT           |                 | ✓                  | ✓                               |
| Di2 connectivity wired                      | Di2 shifting    | ✓                  | ✓                               |
| Di2 connectivity wireless                   | Di2 shifting    | -                  | -                               |
| SD50 port (pcs)                             |                 | 2 /each, total 4   | 0                               |
| SD300 port (pcs)                            |                 | 0                  | 0                               |
| SD50 connector (pcs)                        |                 | 0                  | 1 /each, total 2                |
| SD300 connector (pcs)                       |                 | 0                  | 0                               |
| Port for SD50 remote sprinter shifter (pcs) |                 | 1 /each, total 2   | 0                               |
| Port for SD300 satellite shifter (pcs)      |                 | 0                  | 0                               |
| Battery                                     |                 | -                  | -                               |
| Average weight (g)                          |                 | 303.2 ( /pair)     | 148 ( /pair)                    |
| Note  |                 | -                  | -                               |

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# Shift Switch

| Series   | SHIMANO   | SHIMANO                                | SHIMANO                       | SHIMANO          | DURA-ACE                 | SHIMANO  |
|--|---|--|-------------------------------|------------------|--------------------------|--|
| Model no.  | SW-RS801-E  | SW-RS801-S                             | SW-RS801-T                    | SW-R9150         | SW-R9160                 | SW-R671  |
| Switch type                                      | Extra long cable, for Remote extension bar switch | Short cable for remote sprinter switch | Long cable for top bar switch | Option SW (pair) | Bar-end SW for TT (pair) | Remote Triathlon shifter Current 2 button design, pair |
| Position   | Extension bar                                     | On road Bar                            | Top handle                    | On road Bar      | DH Bar                   | DH Bar   |
| Compatible electric wire                         | -   | -                                      | -                             | EW-SD50          | EW-SD50                  | EW-SD50  |
| Master unit                                      | -   | -                                      | -                             | -                | -                        | -  |
| Firmware update by E-TUBE PROJECT                | -   | -                                      | -                             | ✓                | ✓                        | ✓  |
| SD50 port (pcs)                                  | 0   | 0                                      | 0                             | 0                | 2                        | 0  |
| SD300 port (pcs)                                 | 0   | 0                                      | 0                             | 0                | 0                        | 0  |
| SD50 connector (pcs)                             | 0   | 0                                      | 0                             | 2                | 0                        | 2  |
| SD300 connector (pcs)                            | 0   | 0                                      | 0                             | 0                | 0                        | 0  |
| Connector for SD50 remote sprinter shifter (pcs) | 0   | 0                                      | 0                             | 0                | 0                        | 0  |
| Connector for SD300 satellite shifter (pcs)      | 1/each, total 2                                   | 1/each, total 2                        | 1/each, total 2               | 0                | 0                        | 0  |
| Port for SD50 remote sprinter shifter (pcs)      | 0   | 0                                      | 0                             | 0                | 0                        | 0  |
| Port for SD300 satellite shifter (pcs)           | 0   | 0                                      | 0                             | 0                | 0                        | 0  |
| Wireless shifting                                | -   | -                                      | -                             | -                | -                        | -  |
| Average weight (g)                               | 16.5 (/pair)                                      | 6.4 (/pair)                            | 11.8 (/pair)                  | 12 (/pair)       | 40 (/pair)               | 100 (/pair)  |
| Note   | 2 pcs switch in a spec model                      | 2 pcs switch in a spec model           | 2 pcs switch in a spec model  |                  |                          |  |

| Series   | SHIMANO                        | SHIMANO                                     |
|--|--------------------------------|---|
| Model no.  | SW-R610                        | SW-R600                                     |
| Switch type                                      | Remote sprinter shifter (pair) | Remote satellite shifter (climbing shifter) |
| Position   | Anywhere                       | Anywhere                                    |
| Compatible electric wire                         | -                              | EW-SD50                                     |
| Master unit                                      | -                              | -   |
| Firmware update by E-TUBE PROJECT                | -                              | ✓   |
| SD50 port (pcs)                                  | 0                              | 0   |
| SD300 port (pcs)                                 | 0                              | 0   |
| SD50 connector (pcs)                             | 0                              | 1   |
| SD300 connector (pcs)                            | 0                              | 0   |
| Connector for SD50 remote sprinter shifter (pcs) | 2                              | 0   |
| Connector for SD300 satellite shifter (pcs)      | 0                              | 0   |
| Port for SD50 remote sprinter shifter (pcs)      | 0                              | 0   |
| Port for SD300 satellite shifter (pcs)           | 0                              | 0   |
| Wireless shifting                                | -                              | -   |
| Average weight (g)                               | 5.8 (/pair)                    | 19 (/pc)                                    |
| Note   |                                |   |

# Rear Derailleur

ROAD

| Series  |   | DURA-ACE                    | ULTEGRA                     | SHIMANO 105                 | DURA-ACE                    | ULTEGRA                       | ULTEGRA                       |
|---|---|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-------------------------------|-------------------------------|
| Model no.   |   | RD-R9250                    | RD-R8150                    | RD-R7150                    | RD-R9150                    | RD-R8050-SS                   | RD-R8050-GS                   |
| Color   | 1                                       | Series color                | Series color                | Series color                | Series color                | Series color                  | Series color                  |
|   | 2                                       |                             |                             |                             |                             |                               |                               |
| Rear speeds   |   | 12                          | 12                          | 12                          | 11                          | 11                            | 11                            |
| RD construction   | SHIMANO SHADOW RD                       | ✓                           | ✓                           | ✓                           | ✓                           | ✓                             | ✓                             |
|   | SHIMANO SHADOW RD+                      | -                           | -                           | -                           | -                           | -                             | -                             |
|   | Double servo SHADOW ES                  | -                           | -                           | -                           | -                           | -                             | -                             |
|   | SHIMANO MTB type                        | -                           | -                           | -                           | -                           | -                             | -                             |
| Applicable derailleur hanger  | Direct attachm ent (convent ional)      | -                           | -                           | -                           | -                           | -                             | -                             |
|   | Direct mount                            | -                           | -                           | -                           | -                           | -                             | -                             |
|   | SHIMANO ROAD type                       | ✓                           | ✓                           | ✓                           | ✓                           | ✓                             | ✓                             |
|   | Direct attachm ent (convent ional)      | ✓                           | ✓                           | ✓                           | ✓                           | ✓                             | ✓                             |
| UDH standard  |   | ✓                           | ✓                           | ✓                           | ✓                           | ✓                             | ✓                             |
| Max. front difference   |   | 16T                         | 16T                         | 16T                         | 16T                         | 16T                           | 16T                           |
| Total capacity  |   | 37T                         | 39T                         | 41T                         | 33T                         | 33T                           | 37T                           |
| Low sprocket  | Max.                                    | 34T                         | 34T                         | 36T                         | 30T                         | 30T                           | 34T                           |
|   | Min.                                    | 30T                         | 30T                         | 34T                         | 25T                         | 25T                           | 28T                           |
| Top sprocket  | Max.                                    | 11T                         | 11T                         | 11T                         | 14T                         | 14T                           | 12T                           |
|   | Min.                                    | 11T                         | 11T                         | 11T                         | 11T                         | 11T                           | 11T                           |
| Fluoricoated link bushings  |   | 4                           | 4                           | 4                           | 4                           | 4                             | 4                             |
| Pulley  | Guide pulley bearing                    | ✓                           | ✓                           | -                           | ✓                           | ✓                             | ✓                             |
|   | Tension pulley bearing                  | ✓                           | ✓                           | -                           | ✓                           | ✓                             | ✓                             |
|   | Teeth                                   | 11T                         | 11T                         | 11T                         | 11T                         | 11T                           | 11T                           |
|   | Screws material                         | Stainless steel             | Stainless steel             | Stainless steel             | Stainless steel             | Stainless steel               | Stainless steel               |
| Bracket   | Sunken type pulley screw                | ✓                           | ✓                           | ✓                           | ✓                           | ✓                             | ✓                             |
|   | Material                                | Aluminum                    | Aluminum                    | Steel                       | Aluminum                    | Aluminum                      | Aluminum                      |
| B-axle  | Finish                                  | Anodized                    | Painted                     | Plated                      | Anodized                    | Anodized                      | Anodized                      |
|   | Hollow axle                             | ✓                           | ✓                           | ✓                           | ✓                           | ✓                             | ✓                             |
| B-axle 2  | Material                                | Aluminum                    | Stainless steel             | Stainless steel             | Aluminum                    | Stainless steel               | Stainless steel               |
|   | Finish                                  | Anodized                    | Painted                     | Anodized                    | Anodized                    | Anodized                      | Anodized                      |
| Bracket body  | Material                                | Aluminum                    | Aluminum                    | Aluminum                    | Aluminum                    | Aluminum                      | Aluminum                      |
|   | Finish                                  | Painted                     | Painted                     | Painted                     | Painted                     | Painted                       | Painted                       |
| P-axle  | Material                                | Aluminum                    | Steel                       | Aluminum                    | Aluminum                    | Steel                         | Steel                         |
|   | Finish                                  | Plated                      | Passivation                 | Plated                      | Passivation                 | Passivation                   | Passivation                   |
| Plate body  | Material                                | CFRP                        | GFRP                        | GFRP                        | CFRP                        | GFRP                          | GFRP                          |
|   | Finish                                  | Painted                     | Painted                     | -                           | Painted                     | Painted                       | Painted                       |
| Outer link  | Material                                | Aluminum                    | Aluminum                    | Aluminum                    | Aluminum                    | Aluminum                      | Aluminum                      |
|   | Finish                                  | Anodized                    | Painted                     | Painted                     | Anodized                    | Painted                       | Painted                       |
| Inner link  | Material                                | CFRP                        | GFRP                        | Steel                       | CFRP                        | GFRP                          | GFRP                          |
|   | Finish                                  | -                           | -                           | Painted                     | Painted                     | -                             | -                             |
| Outer plate   | Material                                | Carbon                      | Aluminum                    | Aluminum                    | Carbon                      | Aluminum                      | Aluminum                      |
|   | Finish                                  | Painted                     | Painted                     | Painted                     | Painted                     | Painted                       | Painted                       |
| Inner plate   | Material                                | Carbon                      | Aluminum                    | Aluminum                    | Carbon                      | Aluminum                      | Aluminum                      |
|   | Finish                                  | Painted                     | Painted                     | Painted                     | Painted                     | Painted                       | Painted                       |
| Stroke adjusting screw  | Material                                | Aluminum                    | Steel                       | Steel                       | Aluminum                    | Steel                         | Steel                         |
|   | Finish                                  | Anodized                    | Plated                      | Plated                      | Anodized                    | Plated                        | Plated                        |
| Di2 connectivity wired  | Di2 shifting                            | ✓                           | ✓                           | ✓                           | ✓                           | ✓                             | ✓                             |
|   | Di2 shifting                            | ✓                           | ✓                           | ✓                           | -                           | -                             | -                             |
| Di2 connectivity wireless   | Bluetooth h@LE                          | -                           | -                           | -                           | -                           | -                             | -                             |
|   | Cycling power                           | -                           | -                           | -                           | -                           | -                             | -                             |
|   | ANT+                                    | -                           | -                           | -                           | -                           | -                             | -                             |
|   | Bicycle power                           | -                           | -                           | -                           | -                           | -                             | -                             |
|   | Adjust mode informat ion                | ✓                           | ✓                           | ✓                           | -                           | -                             | -                             |
|   | Di2 battery level                       | ✓                           | ✓                           | ✓                           | -                           | -                             | -                             |
|   | Gear position                           | ✓                           | ✓                           | ✓                           | -                           | -                             | -                             |
|   | Bluetooth h@LE custom (*1)              | ✓                           | ✓                           | ✓                           | -                           | -                             | -                             |
|   | SHIMANO E-BIKE SYSTEM S data items (*3) | ✓                           | ✓                           | ✓                           | -                           | -                             | -                             |
|   | Compatible with E-TUBE RIDE             | ✓                           | ✓                           | ✓                           | -                           | -                             | -                             |
|   | Compatible with E-TUBE PROJECT          | ✓                           | ✓                           | ✓                           | -                           | -                             | -                             |
|   | Adjust mode informat ion                | ✓                           | ✓                           | ✓                           | -                           | -                             | -                             |
|   | Di2 battery level                       | ✓                           | ✓                           | ✓                           | -                           | -                             | -                             |
|   | Gear position                           | ✓                           | ✓                           | ✓                           | -                           | -                             | -                             |
|   | SHIMANO E-BIKE SYSTEM S data items (*3) | ✓                           | ✓                           | ✓                           | -                           | -                             | -                             |
| Firmware update by E-TUBE PROJECT   |   | ✓                           | ✓                           | ✓                           | ✓                           | ✓                             | ✓                             |
| SD50 port (pcs)   |   | 0                           | 0                           | 0                           | 1                           | 1                             | 1                             |
| SD300 port (pcs)  |   | 1                           | 1                           | 1                           | 0                           | 0                             | 0                             |
| SD50 connector (pcs)  |   | 0                           | 0                           | 0                           | 0                           | 0                             | 0                             |
| SD300 connector (pcs)   |   | 0                           | 0                           | 0                           | 0                           | 0                             | 0                             |
| LED for system status   |   | ✓                           | ✓                           | ✓                           | -                           | -                             | -                             |
| Power supply  | Built-in battery                        | -                           | -                           | -                           | -                           | -                             | -                             |
|   | Wired                                   | ✓                           | ✓                           | ✓                           | ✓                           | ✓                             | ✓                             |
| Charging port   |   | ✓                           | ✓                           | ✓                           | ✓                           | ✓                             | ✓                             |
| Charging cable  |   | -                           | -                           | -                           | -                           | -                             | -                             |
| Average weight (g)  |   | EW-EC300 215                | EW-EC300 262                | EW-EC300 302                | 197                         | 240                           | 247                           |
| Note *1 Compatible with a Bluetooth LE cycle computer and smartphone/tablet but not freely open profile. *2 Compatible with ANT+ cycle computer but not freely open profile. *3 Will be shown only when connected to SHIMANO E-BIKE SYSTEMS bike. |   | w/o Bracket spec. available | w/o Bracket spec. available | w/o Bracket spec. available | w/o Bracket spec. available | * w/o Bracket spec. available | * w/o Bracket spec. available |

ST

ST

SW

RD

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# Rear Derailleur

| Series  |                                |   | ULTEGRA         | ULTEGRA         | ULTEGRA RX      |
|---|--------------------------------|---|-----------------|-----------------|-----------------|
| Model no.   |                                |   | RD-6870-SS      | RD-6870-GS      | RD-RX805-GS     |
| Color   | 1                              |   | Series color    | Series color    | Series color    |
|   | 2                              |   | -               | -               | -               |
| Rear speeds   |                                |   | 11              | 11              | 11              |
| RD construction   | SHIMANO SHADOW RD              |   | -               | -               | -               |
|   | SHIMANO SHADOW RD+             |   | -               | -               | ✓               |
|   | Double servo SHADOW ES         |   | ✓               | ✓               | -               |
|   |                                |   | -               | -               | -               |
| Applicable derailleur hanger  | SHIMANO MTB type               | Direct attachment (conventional)        | -               | -               | -               |
|   |                                | Direct mount                            | -               | -               | -               |
|   | SHIMANO ROAD type              | Direct attachment (conventional)        | ✓               | ✓               | ✓               |
|   |                                | Direct mount                            | -               | -               | ✓               |
|   | UDH standard                   |   | -               | -               | -               |
| Max. front difference   |                                |   | 16T             | 16T             | 16T             |
| Total capacity  |                                |   | 33T             | 37T             | 39T             |
| Low sprocket  | Max.                           |   | 28T             | 32T             | 34T             |
|   | Min.                           |   | 23T             | 28T             | 28T             |
| Top sprocket  | Max.                           |   | 14T             | 12T             | 11T             |
|   | Min.                           |   | 11T             | 11T             | 11T             |
| Fluoroc coated link bushings  |                                |   | 4               | 4               | 4               |
| Pulley  | Guide pulley bearing           |   | ✓               | ✓               | ✓               |
|   | Tension pulley bearing         |   | ✓               | ✓               | ✓               |
|   | Teeth                          |   | 11T             | 11T             | 11T             |
|   | Screws material                |   | Stainless steel | Stainless steel | Stainless steel |
|   | Sunken type pulley screw       |   | ✓               | ✓               | ✓               |
| Bracket   | Material                       |   | Aluminum        | Aluminum        | Aluminum        |
|   | Finish                         |   | ✓               | ✓               | Anodized        |
| B-axle  | Hollow axle                    |   | -               | -               | ✓               |
|   | Material                       |   | Stainless steel | Stainless steel | Stainless steel |
| B-axle 2  | Finish                         |   | Passivation     | Passivation     | ✓               |
|   | Material                       |   | -               | -               | Aluminum        |
| Bracket body  | Finish                         |   | -               | -               | Anodized        |
|   | Material                       |   | Aluminum        | Aluminum        | Aluminum        |
| P-axle  | Painted                        |   | Painted         | Painted         | Painted         |
|   | Material                       |   | Aluminum        | Aluminum        | Steel           |
| Plate body  | Plated                         |   | Plated          | Plated          | -               |
|   | Material                       |   | CFRP            | CFRP            | Aluminum        |
| Outer link  | Finish                         |   | Painted         | Painted         | Painted         |
|   | Material                       |   | Aluminum        | Aluminum        | Aluminum        |
| Inner link  | Finish                         |   | Painted         | Painted         | Painted         |
|   | Material                       |   | Steel           | Steel           | GFRP            |
| Outer plate   | Finish                         |   | -               | -               | -               |
|   | Material                       |   | Aluminum        | Aluminum        | Aluminum        |
| Inner plate   | Painted                        |   | Painted         | Painted         | Painted         |
|   | Material                       |   | Aluminum        | Aluminum        | Aluminum        |
| Stroke adjusting screw  | Finish                         |   | Painted         | Painted         | Painted         |
|   | Material                       |   | Stainless steel | Stainless steel | Steel           |
| Di2 connectivity wired  | Finish                         |   | Black coated    | Black coated    | Plated          |
|   | Di2 shifting                   |   | ✓               | ✓               | ✓               |
| Di2 connectivity wireless   | Di2 shifting                   |   | -               | -               | -               |
|   | Bluetooth® LE                  | Cycling power                           | -               | -               | -               |
|   |                                | Bicycle power                           | -               | -               | -               |
|   | ANT+                           | Adjust mode information                 | -               | -               | -               |
|   |                                | Di2 battery level                       | -               | -               | -               |
|   | Bluetooth® LE custom (*1)      | Gear position                           | -               | -               | -               |
|   |                                | SHIMANO E-BIKE SYSTEM S data items (*3) | -               | -               | -               |
|   | Compatible with E-TUBE RIDE    | -                                       | -               | -               |                 |
|   |                                | -                                       | -               | -               |                 |
|   | Compatible with E-TUBE PROJECT | -                                       | -               | -               |                 |
|   |                                | -                                       | -               | -               |                 |
|   | Adjust mode information        | -                                       | -               | -               |                 |
|   |                                | -                                       | -               | -               |                 |
|   | ANT private (*2)               | Di2 battery level                       | -               | -               | -               |
|   |                                | Gear position                           | -               | -               | -               |
| SHIMANO E-BIKE SYSTEM S data items (*3)   | -                              | -                                       | -               |                 |                 |
|   | -                              | -                                       | -               |                 |                 |
| Firmware update by E-TUBE PROJECT   |                                |   | ✓               | ✓               | ✓               |
| SD50 port (pcs)   |                                |   | 1               | 1               | 1               |
| SD300 port (pcs)  |                                |   | 0               | 0               | 0               |
| SD50 connector (pcs)  |                                |   | 0               | 0               | 0               |
| SD300 connector (pcs)   |                                |   | 0               | 0               | 0               |
| LED for system status   |                                |   | -               | -               | -               |
| Power supply  | Built-in battery               |   | -               | -               | -               |
|   | Wired                          |   | ✓               | ✓               | ✓               |
| Charging port   |                                |   | -               | -               | -               |
| Charging cable  |                                |   | -               | -               | -               |
| Average weight (g)  |                                |   | 257             | 268             | 280             |
| Note *1 Compatible with a Bluetooth LE cycle computer and smartphone/tablet but not freely open profile. *2 Compatible with ANT+ cycle computer but not freely open profile. *3 Will be shown only when connected to SHIMANO E-BIKE SYSTEMS bike. |                                |   |                 |                 |                 |
| * w/o Bracket spec available  |                                |   |                 |                 |                 |

# Front Derailleur

ROAD

| Series   |             | DURA-ACE     | ULTEGRA      | SHIMANO 105   | DURA-ACE               | ULTEGRA                | ULTEGRA                |
|--|-------------|--------------|--------------|---------------|------------------------|------------------------|------------------------|
| Model no.  |             | FD-R9250     | FD-R8150     | FD-R7150      | FD-R9150               | FD-R8050               | FD-6870-F              |
| Color  | 1           | Series color | Series color | Series color  | Series color           | Series color           | Series color           |
|  | 2           | -            | -            | -             | -                      | -                      | -                      |
| Front speeds   |             | 2            | 2            | 2             | 2                      | 2                      | 2                      |
| Rear speeds  |             | 12           | 12           | 12            | 11                     | 11                     | 11                     |
| Compatible chain   |             | HG 12-speed  | HG 12-speed  | HG 12-speed   | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed |
| Action   | TOP SWING   | -            | -            | -             | -                      | -                      | -                      |
|  | Down swing  | ✓            | ✓            | ✓             | ✓                      | ✓                      | ✓                      |
| Mount  | Clamp band1 | -            | -            | -             | -                      | -                      | -                      |
|  | Clamp band2 | -            | -            | -             | -                      | -                      | -                      |
|  | Clamp band3 | -            | -            | -             | -                      | -                      | -                      |
|  | Brazed-on   | ✓            | ✓            | ✓             | ✓                      | ✓                      | ✓                      |
| Chain line (mm)  |             | 44.5         | 44.5         | 44.5          | 43.5                   | 43.5                   | 43.5                   |
| Chainstay angle (deg.)                                       |             | 61-66        | 61-66        | 61-66         | 61-66                  | 61-66                  | 61-66                  |
| Top gear teeth   |             | 46-54T       | 46-52T       | 50-52T        | 50T-55T                | 46T-53T                | 46T-53T                |
| Total capacity   |             | 16T          | 16T          | 16T           | 16T                    | 16T, 17T *             | 16T                    |
| Link bushings  |             | 4            | 4            | 2             | 4                      | 2                      | 4                      |
| Front clamp band   | Material    | -            | -            | -             | -                      | -                      | -                      |
|  | Finish      | -            | -            | -             | -                      | -                      | -                      |
| Rear clamp band, base bracket                                | Material    | Aluminum     | Aluminum     | Aluminum      | Aluminum               | Aluminum               | Aluminum               |
|  | Finish      | Painted      | Painted      | Painted       | Anodized               | Painted                | Painted                |
| Outer link   | Material    | Aluminum     | Aluminum     | GFRP          | CFRP                   | CFRP                   | CFRP                   |
|  | Finish      | Anodized     | Painted      | -             | Painted                | Painted                | Painted                |
| Inner link   | Material    | Steel        | Steel        | Steel         | Titanium               | Steel                  | Steel                  |
|  | Finish      | Plated       | Painted      | Plated        | -                      | Plated                 | Plated                 |
| Chain guide  | Material    | Aluminum     | Steel        | Steel         | Aluminum               | Steel                  | Steel                  |
|  | Finish      | Plated       | Plated       | Chrome plated | Nickel plated          | Chrome plated          | Chrome plated          |
| Master unit  |             | -            | -            | -             | -                      | -                      | -                      |
| Firmware update by E-TUBE PROJECT                            |             | ✓            | ✓            | ✓             | ✓                      | ✓                      | ✓                      |
| SD50 port (pcs)  |             | 0            | 0            | 0             | 1                      | 1                      | 1                      |
| SD300 port (pcs)   |             | 1            | 1            | 1             | 0                      | 0                      | 0                      |
| SD50 connector (pcs)   |             | 0            | 0            | 0             | 0                      | 0                      | 0                      |
| SD300 connector (pcs)  |             | 0            | 0            | 0             | 0                      | 0                      | 0                      |
| Average weight (g) (band type: L size, direct type w/ screw) |             | 96           | 110          | 142           | 104                    | 132                    | 138.5                  |
| Note   |             |              |              |               |                        | * Use with E-BIKE      |                        |

## Front Derailleur (Adapter)

| Series                   |          | DURA-ACE  | DURA-ACE              |
|--------------------------|----------|-----------|-----------------------|
| Model no.                |          | SM-AD91-L | SM-AD91-MS            |
| Front clamp band         | Material | Aluminum  | Aluminum              |
|                          | Finish   | Painted   | Anodized              |
| Rear clamp band          | Material | Aluminum  | Aluminum              |
|                          | Finish   | Painted   | Anodized              |
| Clamp band diameter (mm) | 28.6     | -         | ✓*                    |
|                          | 31.8     | -         | ✓                     |
|                          | 34.9     | ✓         | -                     |
| Note                     |          |           | * w/ Multi Clamp Band |

# Shift/Brake Lever (Hydraulic Disc Brake)

| Series             |  |                      | DURA-ACE              | DURA-ACE              | ULTEGRA               | ULTEGRA               | ULTEGRA               | ULTEGRA               |
|--------------------|--|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Model no.          |  |                      | ST-R9120-R            | ST-R9120-L            | ST-R8020-R            | ST-R8020-L            | ST-R8025-R            | ST-R8025-L            |
| Color              | 1                                      |                      | Series color          | Series color          | Series color          | Series color          | Black                 | Black                 |
|                    | 2                                      |                      | -                     | -                     | -                     | -                     | -                     | -                     |
| Shifter type       |  |                      | DUAL CONTROL LEVER    | DUAL CONTROL LEVER    | DUAL CONTROL LEVER    | DUAL CONTROL LEVER    | DUAL CONTROL LEVER    | DUAL CONTROL LEVER    |
| Shift lever        | Front speeds                           |                      | -                     | 2                     | -                     | 2                     | -                     | 2                     |
|                    | Rear speeds                            |                      | 11                    | -                     | 11                    | -                     | 11                    | -                     |
|                    | Max. multiple shifts (main lever/rear) |                      | 2                     | -                     | 2                     | -                     | 2                     | -                     |
|                    | Multi-bearing construction             |                      | -                     | -                     | -                     | -                     | -                     | -                     |
| Shift lever cable  | Outer casing                           | Lever side           | OT-SP41               | OT-SP41               | OT-SP41               | OT-SP41               | OT-SP41               | OT-SP41               |
|                    |  | Rear derailleur side | OT-RS900              | OT-RS900              | OT-RS900              | OT-RS900              | OT-RS900              | OT-RS900              |
|                    | Inner cable                            | Polymer-coated cable | ✓                     | ✓                     | ✓                     | ✓                     | ✓                     | ✓                     |
|                    |  | OPTISLICK            | -                     | -                     | -                     | -                     | -                     | -                     |
|                    |  | SIL-TEC              | -                     | -                     | -                     | -                     | -                     | -                     |
|                    |  | Stainless            | -                     | -                     | -                     | -                     | -                     | -                     |
|                    |  | Steel                | -                     | -                     | -                     | -                     | -                     | -                     |
| Brake lever        | Brake hose (kit)                       |                      | SM-BH90-JK-SSR        | SM-BH90-JK-SSR        | SM-BH90-JK-SSR        | SM-BH90-JK-SSR        | SM-BH90-JK-SSR        | SM-BH90-JK-SSR        |
|                    | Hose joint                             |                      | Straight              | Straight              | Straight              | Straight              | Straight              | Straight              |
|                    | Brake hose color (kit)                 | 1                    | Black                 | Black                 | Black                 | Black                 | Black                 | Black                 |
|                    |  | 2                    | -                     | -                     | -                     | -                     | -                     | -                     |
|                    | Recommended brake caliper              |                      | BR-R9170              | BR-R9170              | BR-R8070              | BR-R8070              | BR-R8070              | BR-R8070              |
|                    | Oil                                    |                      | SHIMANO Mineral       | SHIMANO Mineral       | SHIMANO Mineral       | SHIMANO Mineral       | SHIMANO Mineral       | SHIMANO Mineral       |
|                    | Reach adjust                           |                      | ✓                     | ✓                     | ✓                     | ✓                     | ✓                     | ✓                     |
|                    | Clamp band (mm)                        |                      | 23.8-24.2             | 23.8-24.2             | 23.8-24.2             | 23.8-24.2             | 23.8-24.2             | 23.8-24.2             |
|                    | Funnel bleeding                        |                      | ✓                     | ✓                     | ✓                     | ✓                     | ✓                     | ✓                     |
|                    | Free stroke adjust                     |                      | ✓                     | ✓                     | ✓                     | ✓                     | ✓                     | ✓                     |
|                    | SERVO WAVE                             |                      | ✓                     | ✓                     | ✓                     | ✓                     | ✓                     | ✓                     |
|                    | Material                               |                      | CFRP                  | CFRP                  | Engineering composite | Engineering composite | Aluminum              | Aluminum              |
|                    | Finish                                 |                      | Painted               | Painted               | Painted               | Painted               | Painted               | Painted               |
| Bracket            | Material                               |                      | Engineering composite | Engineering composite | Engineering composite | Engineering composite | Engineering composite | Engineering composite |
|                    | Finish                                 |                      | -                     | -                     | -                     | -                     | -                     | -                     |
| Clamp band         | Material                               |                      | Titanium              | Titanium              | Steel                 | Steel                 | Steel                 | Steel                 |
| Average weight (g) |  |                      | 538 (/pair)           | 538 (/pair)           | 554 (/pair)           | 554 (/pair)           | 568 (/pair)           | 568 (/pair)           |
| Note               |  |                      |                       |                       |                       |                       | For small hand.       | For small hand.       |

# Shift/Brake Lever (Hydraulic Disc Brake)

ROAD

| Series             |  |                      | SHIMANO 105                   | SHIMANO 105                   | SHIMANO 105                   | SHIMANO 105                   | SHIMANO 105                   | SHIMANO 105                   |
|--------------------|--|----------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Model no.          |  |                      | ST-R7120-R                    | ST-R7120-L                    | ST-R7020-R                    | ST-R7020-L                    | ST-R7025-R                    | ST-R7025-L                    |
| Color              | 1                                      |                      | Series color                  | Series color                  | Silky black                   | Silky black                   | Silky black                   | Silky black                   |
|                    | 2                                      |                      | -                             | -                             | -                             | -                             | -                             | -                             |
| Shifter type       |  |                      | DUAL CONTROL LEVER            | DUAL CONTROL LEVER            | DUAL CONTROL LEVER            | DUAL CONTROL LEVER            | DUAL CONTROL LEVER            | DUAL CONTROL LEVER            |
| Shift lever        | Front speeds                           |                      | -                             | 2                             | -                             | 2                             | -                             | 2                             |
|                    | Rear speeds                            |                      | 12                            | -                             | 11                            | -                             | 11                            | -                             |
|                    | Max. multiple shifts (main lever/rear) |                      | 2                             | -                             | 2                             | -                             | 2                             | -                             |
|                    | Multi-bearing construction             |                      | -                             | -                             | -                             | -                             | -                             | -                             |
| Shift lever cable  | Outer casing                           | Lever side           | OT-SP41                       | OT-SP41                       | OT-SP41                       | OT-SP41                       | OT-SP41                       | OT-SP41                       |
|                    |  | Rear derailleur side | OT-RS900                      | OT-RS900                      | OT-RS900                      | OT-RS900                      | OT-RS900                      | OT-RS900                      |
|                    | Inner cable                            | Polymer-coated cable | -                             | -                             | -                             | -                             | -                             | -                             |
|                    |  | OPTISLICK            | ✓                             | ✓                             | ✓                             | ✓                             | ✓                             | ✓                             |
|                    |  | SIL-TEC              | -                             | -                             | -                             | -                             | -                             | -                             |
|                    |  | Stainless            | -                             | -                             | -                             | -                             | -                             | -                             |
|                    |  | Steel                | -                             | -                             | -                             | -                             | -                             | -                             |
| Brake lever        | Brake hose (kit)                       |                      | SM-BH90-JK-SSR, SM-BH90-J-SSR | SM-BH90-JK-SSR, SM-BH90-J-SSR | SM-BH90-JK-SSR, SM-BH90-J-SSR | SM-BH90-JK-SSR, SM-BH90-J-SSR | SM-BH90-JK-SSR, SM-BH90-J-SSR | SM-BH90-JK-SSR, SM-BH90-J-SSR |
|                    | Hose joint                             |                      | Straight                      | Straight                      | Straight                      | Straight                      | Straight                      | Straight                      |
|                    | Brake hose color (kit)                 | 1                    | Black                         | Black                         | Black                         | Black                         | Black                         | Black                         |
|                    |  | 2                    | -                             | -                             | -                             | -                             | -                             | -                             |
|                    | Recommended brake caliper              |                      | BR-R7170                      | BR-R7170                      | BR-R7070, BR-R7170            | BR-R7070, BR-R7170            | BR-R7070, BR-R7170            | BR-R7070, BR-R7170            |
|                    | Oil                                    |                      | SHIMANO Mineral               | SHIMANO Mineral               | SHIMANO Mineral               | SHIMANO Mineral               | SHIMANO Mineral               | SHIMANO Mineral               |
|                    | Reach adjust                           |                      | ✓                             | ✓                             | ✓                             | ✓                             | ✓                             | ✓                             |
|                    | Clamp band (mm)                        |                      | 23.8-24.2                     | 23.8-24.2                     | 23.8-24.2                     | 23.8-24.2                     | 23.8-24.2                     | 23.8-24.2                     |
|                    | Funnel bleeding                        |                      | ✓                             | ✓                             | ✓                             | ✓                             | ✓                             | ✓                             |
|                    | Free stroke adjust                     |                      | -                             | -                             | -                             | -                             | -                             | -                             |
|                    | SERVO WAVE                             |                      | -                             | -                             | -                             | -                             | -                             | -                             |
|                    | Material                               |                      | Aluminum                      | Aluminum                      | Aluminum                      | Aluminum                      | Aluminum                      | Aluminum                      |
| Finish             |  | Painted              | Painted                       | Painted                       | Painted                       | Painted                       | Painted                       |                               |
| Bracket            | Material                               |                      | Engineering composite         | Engineering composite         | Engineering composite         | Engineering composite         | Engineering composite         | Engineering composite         |
|                    | Finish                                 |                      | -                             | -                             | -                             | -                             | -                             | -                             |
| Clamp band         | Material                               |                      | Steel                         | Steel                         | Steel                         | Steel                         | Steel                         | Steel                         |
| Average weight (g) |  |                      | 612 (/ pair)                  | 612 (/ pair)                  | 610 (/ pair)                  | 610 (/ pair)                  | 619 (/ pair)                  | 619 (/ pair)                  |
| Note               |  |                      | -                             | -                             | -                             | -                             | For small hand.               | For small hand.               |

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## Shift/Brake Lever (Hydraulic Disc Brake)

| Series             |  |                      | TIAGRA                        | TIAGRA                        | TIAGRA                        | TIAGRA                        | SHIMANO                     | SHIMANO                     |
|--------------------|--|----------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-----------------------------|-----------------------------|
| Model no.          |  |                      | ST-4720-R                     | ST-4720-L                     | ST-4725-R                     | ST-4725-L                     | ST-RS685-R                  | ST-RS685-L                  |
| Color              | 1                                      |                      | Series color                  | Series color                  | Series color                  | Series color                  | Series color                | Series color                |
|                    | 2                                      |                      | -                             | -                             | -                             | -                             | -                           | -                           |
| Shifter type       |  |                      | DUAL CONTROL LEVER            | DUAL CONTROL LEVER            | DUAL CONTROL LEVER            | DUAL CONTROL LEVER            | DUAL CONTROL LEVER          | DUAL CONTROL LEVER          |
| Shift lever        | Front speeds                           |                      | -                             | 2                             | -                             | 2                             | -                           | 2                           |
|                    | Rear speeds                            |                      | 10                            | -                             | 10                            | -                             | 11                          | -                           |
|                    | Max. multiple shifts (main lever/rear) |                      | 2                             | -                             | 2                             | -                             | 2                           | -                           |
|                    | Multi-bearing construction             |                      | -                             | -                             | -                             | -                             | -                           | -                           |
| Shift lever cable  | Outer casing                           | Lever side           | OT-SP41                       | OT-SP41                       | OT-SP41                       | OT-SP41                       | OT-SP41                     | OT-SP41                     |
|                    |  | Rear derailleur side | OT-SP41                       | OT-SP41                       | OT-SP41                       | OT-SP41                       | OT-SP41                     | OT-SP41                     |
|                    | Inner cable                            | Polymer-coated cable | -                             | -                             | -                             | -                             | ✓                           | ✓                           |
|                    |  | OPTISLICK            | ✓                             | ✓                             | ✓                             | ✓                             | -                           | -                           |
|                    |  | SIL-TEC              | -                             | -                             | -                             | -                             | -                           | -                           |
|                    |  | Stainless            | -                             | -                             | -                             | -                             | -                           | -                           |
|                    |  | Steel                | -                             | -                             | -                             | -                             | -                           | -                           |
| Brake lever        | Brake hose (kit)                       |                      | SM-BH90-J-SSR, SM-BH90-JK-SSR | SM-BH90-J-SSR, SM-BH90-JK-SSR | SM-BH90-J-SSR, SM-BH90-JK-SSR | SM-BH90-J-SSR, SM-BH90-JK-SSR | SM-BH59-J-SS, SM-BH59-JK-SS | SM-BH59-J-SS, SM-BH59-JK-SS |
|                    | Hose joint                             |                      | Straight                      | Straight                      | Straight                      | Straight                      | Straight                    | Straight                    |
|                    | Brake hose color (kit)                 | 1                    | Black                         | Black                         | Black                         | Black                         | Black                       | Black                       |
|                    |  | 2                    | -                             | -                             | -                             | -                             | White                       | White                       |
|                    | Recommended brake caliper              |                      | BR-4770                       | BR-4770                       | BR-4770                       | BR-4770                       | BR-RS785                    | BR-RS785                    |
|                    | Oil                                    |                      | SHIMANO Mineral               | SHIMANO Mineral               | SHIMANO Mineral               | SHIMANO Mineral               | SHIMANO Mineral             | SHIMANO Mineral             |
|                    | Reach adjust                           |                      | ✓                             | ✓                             | ✓                             | ✓                             | ✓                           | ✓                           |
|                    | Clamp band (mm)                        |                      | 23.8-24.2                     | 23.8-24.2                     | 23.8-24.2                     | 23.8-24.2                     | 23.8-24.2                   | 23.8-24.2                   |
|                    | Funnel bleeding                        |                      | ✓                             | ✓                             | ✓                             | ✓                             | ✓                           | ✓                           |
|                    | Free stroke adjust                     |                      | -                             | -                             | -                             | -                             | ✓                           | ✓                           |
|                    | SERVO WAVE                             |                      | -                             | -                             | -                             | -                             | ✓                           | ✓                           |
|                    | Material                               |                      | Aluminum                      | Aluminum                      | Aluminum                      | Aluminum                      | Engineering composite       | Engineering composite       |
|                    | Finish                                 |                      | Painted                       | Painted                       | Painted                       | Painted                       | Painted                     | Painted                     |
| Bracket            | Material                               |                      | Engineering composite         | Engineering composite         | Engineering composite         | Engineering composite         | Aluminum                    | Aluminum                    |
|                    | Finish                                 |                      | -                             | -                             | -                             | -                             | Painted                     | Painted                     |
| Clamp band         | Material                               |                      | Steel                         | Steel                         | Steel                         | Steel                         | Steel                       | Steel                       |
| Average weight (g) |  |                      | -                             | -                             | -                             | -                             | 649 ( /pair)                | 649 ( /pair)                |
| Note               |  |                      |                               |                               | For small hand.               | For small hand.               |                             |                             |

# Shift/Brake Lever (Hydraulic Disc Brake)

ROAD

| Series             |  |                      | SHIMANO            | SHIMANO            |
|--------------------|--|----------------------|--------------------|--------------------|
| Model no.          |  |                      | ST-RS405-R         | ST-RS405-L         |
| Color              | 1                                      |                      | Dark gray          | Dark gray          |
|                    | 2                                      |                      | -                  | -                  |
| Shifter type       |  |                      | DUAL CONTROL LEVER | DUAL CONTROL LEVER |
| Shift lever        | Front speeds                           |                      | -                  | 2                  |
|                    | Rear speeds                            |                      | 10                 | 10                 |
|                    | Max. multiple shifts (main lever/rear) |                      | 2                  | -                  |
|                    | Multi-bearing construction             |                      | -                  | -                  |
| Shift lever cable  | Outer casing                           | Lever side           | OT-SP41            | OT-SP41            |
|                    |  | Rear derailleur side | OT-SP41            | OT-SP41            |
|                    | Inner cable                            | Polymer-coated cable | -                  | -                  |
|                    |  | OPTISLICK            | ✓                  | ✓                  |
|                    |  | SIL-TEC              | -                  | -                  |
|                    |  | Stainless            | -                  | -                  |
|                    |  | Steel                | -                  | -                  |
| Brake lever        | Brake hose (kit)                       |                      | SM-BH59-J-SS       | SM-BH59-J-SS       |
|                    | Hose joint                             |                      | Straight           | Straight           |
|                    | Brake hose color (kit)                 | 1                    | Black              | Black              |
|                    |  | 2                    | -                  | -                  |
|                    | Recommended brake caliper              |                      | BR-RS405           | BR-RS405           |
|                    | Oil                                    |                      | SHIMANO Mineral    | SHIMANO Mineral    |
|                    | Reach adjust                           |                      | ✓                  | ✓                  |
|                    | Clamp band (mm)                        |                      | 23.8-24.2          | 23.8-24.2          |
|                    | Funnel bleeding                        |                      | ✓                  | ✓                  |
|                    | Free stroke adjust                     |                      | -                  | -                  |
|                    | SERVO WAVE                             |                      | -                  | -                  |
|                    | Material                               |                      | Aluminum           | Aluminum           |
|                    | Finish                                 |                      | Painted            | Painted            |
| Bracket            | Material                               |                      | Aluminum           | Aluminum           |
|                    | Finish                                 |                      | Painted            | Painted            |
| Clamp band         | Material                               |                      | Steel              | Steel              |
| Average weight (g) |  |                      | -                  | -                  |
| Note               |  |                      |                    |                    |

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# Shift/Brake Lever

| Series             |                            |                      | DURA-ACE           | DURA-ACE           | DURA-ACE           | ULTEGRA            | ULTEGRA            | ULTEGRA            |
|--------------------|----------------------------|----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Model no.          |                            |                      | ST-R9100-R         | ST-R9100-L         | ST-9001            | ST-R8000-R         | ST-R8000-L         | ST-6800            |
| Color              | 1                          |                      | Series color       | Series color       | Series color       | Series color       | Series color       | Series color       |
|                    | 2                          |                      | -                  | -                  | -                  | -                  | -                  | -                  |
| Shifter type       |                            |                      | DUAL CONTROL LEVER | DUAL CONTROL LEVER | DUAL CONTROL LEVER | DUAL CONTROL LEVER | DUAL CONTROL LEVER | DUAL CONTROL LEVER |
| Shift lever        | Front speeds               |                      | -                  | 2                  | 2                  | -                  | 2                  | 2                  |
|                    | Rear speeds                |                      | 11                 | -                  | 11                 | 11                 | -                  | 11                 |
|                    | Multi-bearing construction |                      | R:4 L:4            | R:4 L:4            | R:4 L:4            | *                  | *                  | - *                |
| Shift lever cable  | Outer casing               | Lever side           | OT-SP41            | OT-SP41            | OT-SP41            | OT-SP41            | OT-SP41            | OT-SP41            |
|                    |                            | Rear derailleur side | OT-RS900           | OT-RS900           | OT-SP41 sealed     | OT-RS900           | OT-RS900           | OT-SP41 sealed     |
|                    | Inner cable                | Polymer-coated cable | ✓                  | ✓                  | ✓                  | ✓                  | ✓                  | ✓                  |
|                    |                            | OPTISLICK            | -                  | -                  | -                  | -                  | -                  | -                  |
|                    |                            | SIL-TEC              | -                  | -                  | -                  | -                  | -                  | -                  |
|                    |                            | Stainless            | ✓                  | ✓                  | ✓                  | ✓                  | ✓                  | ✓                  |
|                    |                            | Steel                | -                  | -                  | -                  | -                  | -                  | -                  |
| Brake lever        | Reach adjust               |                      | Screw              | Screw              | Screw              | Screw              | Screw              | Screw              |
|                    | Clamp band (mm)            |                      | 23.8-24.2          | 23.8-24.2          | 23.8-24.2          | 23.8-24.2          | 23.8-24.2          | 23.8-24.2          |
|                    | SLR-EV                     |                      | ✓                  | ✓                  | ✓                  | ✓                  | ✓                  | ✓                  |
|                    | NEW SUPER SLR              |                      | -                  | -                  | -                  | -                  | -                  | -                  |
|                    | SUPER SLR                  |                      | -                  | -                  | -                  | -                  | -                  | -                  |
|                    | Material                   |                      | Carbon             | Carbon             | Carbon             | CFRP               | CFRP               | CFRP               |
|                    | Finish                     |                      | Painted            | Painted            | Painted            | Painted            | Painted            | Painted            |
| Bracket            | Material                   |                      | CFRP               | CFRP               | CFRP               | CFRP               | CFRP               | CFRP               |
|                    | Finish                     |                      | CFRP               | CFRP               | CFRP               | CFRP               | CFRP               | CFRP               |
| Average weight (g) |                            |                      | 365 (/pair)        | 365 (/pair)        | 365 (/pair)        | 220                | 218                | 425 (/pair)        |
| Note               |                            |                      |                    |                    |                    | * Use bush         | * Use bush         | * Use bush         |

# Shift/Brake Lever

ROAD

| Series             |                            |                      | SHIMANO 105        | SHIMANO 105        | SHIMANO 105        | TIAGRA             | TIAGRA             | TIAGRA             |
|--------------------|----------------------------|----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Model no.          |                            |                      | ST-R7000-R         | ST-R7000-L         | ST-5800            | ST-4700-R          | ST-4700-L          | ST-4703-L          |
| Color              | 1                          |                      | Silky black        | Silky black        | Black              | Series color       | Series color       | Series color       |
|                    | 2                          |                      | Spark silver       | Spark silver       | Silver             | -                  | -                  | -                  |
| Shifter type       |                            |                      | DUAL CONTROL LEVER | DUAL CONTROL LEVER | DUAL CONTROL LEVER | DUAL CONTROL LEVER | DUAL CONTROL LEVER | DUAL CONTROL LEVER |
| Shift lever        | Front speeds               |                      | -                  | 2                  | 2                  | -                  | 2                  | 3                  |
|                    | Rear speeds                |                      | 11                 | -                  | 11                 | 10                 | -                  | -                  |
|                    | Multi-bearing construction |                      | 0                  | 0                  | 0                  | 0                  | 0                  | 0                  |
| Shift lever cable  | Outer casing               | Lever side           | OT-SP41            | OT-SP41            | OT-SP41            | OT-SP41            | OT-SP41            | OT-SP41            |
|                    |                            | Rear derailleur side | OT-R5900           | OT-R5900           | OT-SP41 sealed     | OT-SP41 sealed     | OT-SP41 sealed     | OT-SP41 sealed     |
|                    | Inner cable                | Polymer-coated cable | -                  | -                  | -                  | -                  | -                  | -                  |
|                    |                            | OPTISLICK            | ✓                  | ✓                  | ✓                  | ✓                  | ✓                  | ✓                  |
|                    |                            | SIL-TEC              | -                  | -                  | -                  | -                  | -                  | -                  |
|                    |                            | Stainless            | ✓                  | ✓                  | ✓                  | ✓                  | ✓                  | ✓                  |
|                    |                            | Steel                | -                  | -                  | -                  | -                  | -                  | -                  |
| Brake lever        | Reach adjust               |                      | Screw              | Screw              | Screw              | screw              | Screw              | Screw              |
|                    | Clamp band (mm)            |                      | 23.8-24.2          | 23.8-24.2          | 23.8-24.2          | 23.8-24.2          | 23.8-24.2          | 23.8-24.2          |
|                    | SLR-EV                     |                      | ✓                  | ✓                  | ✓                  | ✓                  | ✓                  | ✓                  |
|                    | NEW SUPER SLR              |                      | -                  | -                  | -                  | -                  | -                  | -                  |
|                    | SUPER SLR                  |                      | -                  | -                  | -                  | -                  | -                  | -                  |
|                    | Material                   |                      | Aluminum           | Aluminum           | Aluminum           | Aluminum           | Aluminum           | Aluminum           |
|                    | Finish                     |                      | Painted            | Painted            | Painted            | Painted            | Painted            | Painted            |
| Bracket            | Material                   |                      | GFRP               | GFRP               | GFRP               | GFRP               | GFRP               | GFRP               |
|                    | Finish                     |                      | GFRP               | GFRP               | GFRP               | GFRP               | GFRP               | GFRP               |
| Average weight (g) |                            |                      | 251                | 249                | 486 (/pair)        | -                  | -                  | -                  |
| Note               |                            |                      | -                  | -                  |                    |                    |                    |                    |

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# Shift/Brake Lever

| Series             |                            |                      | SORA               | SORA               | SORA               | SHIMANO CLARIS     | SHIMANO CLARIS     | SHIMANO CLARIS     |
|--------------------|----------------------------|----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Model no.          |                            |                      | ST-R3000-R         | ST-R3000-L         | ST-R3030-L         | ST-R2000-R         | ST-R2000-L         | ST-R2030-L         |
| Color              | 1                          |                      | Series color       | Series color       | Series color       | Series color       | Series color       | Series color       |
|                    | 2                          |                      | -                  | -                  | -                  | -                  | -                  | -                  |
| Shifter type       |                            |                      | DUAL CONTROL LEVER | DUAL CONTROL LEVER | DUAL CONTROL LEVER | DUAL CONTROL LEVER | DUAL CONTROL LEVER | DUAL CONTROL LEVER |
| Shift lever        | Front speeds               |                      | -                  | 2                  | 3                  | -                  | 2                  | 3                  |
|                    | Rear speeds                |                      | 9                  | -                  | -                  | 8                  | -                  | -                  |
|                    | Multi-bearing construction |                      | 0                  | 0                  | 0                  | -                  | -                  | -                  |
| Shift lever cable  | Outer casing               | Lever side           | OT-SP41            | OT-SP41            | OT-SP41            | OT-SP41            | OT-SP41            | OT-SP41            |
|                    |                            | Rear derailleur side | OT-SP41 sealed     | OT-SP41 sealed     | OT-SP41 sealed     | OT-SP41 sealed     | OT-SP41 sealed     | OT-SP41 sealed     |
|                    | Inner cable                | Polymer-coated cable | -                  | -                  | -                  | -                  | -                  | -                  |
|                    |                            | OPTISLICK            | ✓                  | ✓                  | ✓                  | ✓                  | ✓                  | ✓                  |
|                    |                            | SIL-TEC              | -                  | -                  | -                  | -                  | -                  | -                  |
|                    |                            | Stainless            | ✓                  | ✓                  | ✓                  | -                  | -                  | -                  |
|                    |                            | Steel                | -                  | -                  | -                  | ✓                  | ✓                  | ✓                  |
| Brake lever        | Reach adjust               |                      | Screw              | Screw              | Screw              | Screw              | Screw              | Screw              |
|                    | Clamp band (mm)            |                      | 23.8-24.2          | 23.8-24.2          | 23.8-24.2          | 23.8-24.2          | 23.8-24.2          | 23.8-24.2          |
|                    | SLR-EV                     |                      | -                  | -                  | -                  | -                  | -                  | -                  |
|                    | NEW SUPER SLR              |                      | ✓                  | ✓                  | ✓                  | ✓                  | ✓                  | ✓                  |
|                    | SUPER SLR                  |                      | -                  | -                  | -                  | -                  | -                  | -                  |
|                    | Material                   |                      | Aluminum           | Aluminum           | Aluminum           | Aluminum           | Aluminum           | Aluminum           |
|                    | Finish                     |                      | Painted            | Painted            | Painted            | Painted            | Painted            | Painted            |
| Bracket            | Material                   |                      | GFRP               | GFRP               | GFRP               | GFRP               | GFRP               | GFRP               |
|                    | Finish                     |                      | GFRP               | GFRP               | GFRP               | GFRP               | GFRP               | GFRP               |
| Average weight (g) |                            |                      | -                  | -                  | -                  | -                  | -                  | -                  |
| Note               |                            |                      |                    |                    |                    |                    |                    |                    |

# Shift/Brake Lever

ROAD

| Series             |                            |                      | SHIMANO CLARIS | SHIMANO CLARIS | SHIMANO CLARIS |
|--------------------|----------------------------|----------------------|----------------|----------------|----------------|
| Model no.          |                            |                      | ST-RS200-R     | ST-RS200-L     | ST-RS203-L     |
| Color              | 1                          |                      | Series color   | Series color   | Series color   |
|                    | 2                          |                      | -              | -              | -              |
| Shifter type       |                            |                      | RAPIDFIRE PLUS | RAPIDFIRE PLUS | RAPIDFIRE PLUS |
| Shift lever        | Front speeds               |                      | -              | 2              | 3              |
|                    | Rear speeds                |                      | 8              | -              | -              |
|                    | Multi-bearing construction |                      | -              | -              | -              |
| Shift lever cable  | Outer casing               | Lever side           | OT-SP41        | OT-SP41        | OT-SP41        |
|                    |                            | Rear derailleur side | OT-SP41 sealed | OT-SP41 sealed | OT-SP41 sealed |
|                    | Inner cable                | Polymer-coated cable | -              | -              | -              |
|                    |                            | OPTISLICK            | ✓              | ✓              | ✓              |
|                    |                            | SIL-TEC              | -              | -              | -              |
|                    |                            | Stainless            | -              | -              | -              |
|                    |                            | Steel                | ✓              | ✓              | ✓              |
| Brake lever        | Reach adjust               |                      | ✓              | ✓              | ✓              |
|                    | Clamp band (mm)            |                      | 22.2           | 22.2           | 22.2           |
|                    | SLR-EV                     |                      | -              | -              | -              |
|                    | NEW SUPER SLR              |                      | -              | -              | -              |
|                    | SUPER SLR                  |                      | ✓              | ✓              | ✓              |
|                    | Material                   |                      | Aluminum       | Aluminum       | Aluminum       |
|                    | Finish                     |                      | Painted        | Painted        | Painted        |
| Bracket            | Material                   |                      | Aluminum       | Aluminum       | Aluminum       |
|                    | Finish                     |                      | Painted        | Painted        | Painted        |
| Average weight (g) |                            |                      | -              | -              | -              |
| Note               |                            |                      |                |                |                |

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# Shifter

| Series                                 |                  |                      | DURA-ACE        | SHIMANO                        | SHIMANO                        | DURA-ACE          | TIAGRA         | TIAGRA         |
|--|------------------|----------------------|-----------------|--------------------------------|--------------------------------|-------------------|----------------|----------------|
| Model no.                              |                  |                      | SL-BSR1         | SL-RS700                       | SL-RS700-I                     | SL-7900           | SL-4700        | SL-4703        |
| Color                                  | 1                |                      | Series color    | Black                          | Black                          | Series color      | Series color   | Series color   |
|  | 2                |                      | -               | -                              | -                              | -                 | -              | -              |
| Shifter type                           |                  |                      | Bar end shifter | RAPIDFIRE PLUS                 | RAPIDFIRE PLUS                 | Down tube shifter | RAPIDFIRE PLUS | RAPIDFIRE PLUS |
| Front speeds                           |                  |                      | 2               | 2                              | 2                              | 2/3               | 2              | 3              |
| Rear speeds                            |                  |                      | 11              | 11                             | 11                             | 10                | 10             | -              |
| Compatible rear derailleur type        |                  |                      | ROAD 11-speed   | ROAD 11-speed                  | ROAD 11-speed                  | ROAD 10-speed     | RD-4700        | RD-4700        |
| Mount type                             | Clamp band       |                      | -               | ✓                              | -                              | -                 | ✓              | ✓              |
|  | I-SPEC B         |                      | -               | -                              | -                              | -                 | -              | -              |
|  | I-SPEC II        |                      | -               | -                              | ✓                              | -                 | -              | -              |
| Shift lever position adjust            |                  |                      | -               | -                              | -                              | -                 | -              | -              |
| Shift lever cable adjust               |                  |                      | -               | ✓                              | ✓                              | -                 | ✓              | ✓              |
| Max. multiple shifts (main lever/rear) |                  |                      | -               | 4                              | 4                              | -                 | 4              | -              |
| Release function                       | MULTI RELEASE    |                      | -               | *✓ (right)/- (left)            | *✓ (right)/- (left)            | -                 | -              | -              |
|  | INSTANT RELEASE  |                      | -               | ✓                              | ✓                              | -                 | ✓ (rear)       | -              |
|  | 2-WAY RELEASE    |                      | -               | ✓                              | ✓                              | -                 | ✓              | ✓              |
| OPTICAL GEAR<br>DISPLAY                | With             |                      | -               | -                              | -                              | -                 | ✓              | ✓              |
|  | With (removable) |                      | -               | -                              | -                              | -                 | -              | -              |
|  | Without          |                      | ✓               | ✓                              | ✓                              | ✓                 | -              | -              |
| Multi-bearing construction             |                  |                      | -               | R:2 L:2                        | R:2 L:2                        | -                 | R:2 L:2        | 2              |
| Shift lever cable                      | Inner cable      | Polymer-coated cable | -               | -                              | -                              | -                 | -              | -              |
|  |                  | OPTISLICK            | -               | -                              | -                              | -                 | -              | -              |
|  |                  | SIL-TEC              | ✓               | ✓                              | ✓                              | ✓                 | -              | -              |
|  |                  | Stainless            | ✓               | ✓                              | ✓                              | ✓                 | ✓              | ✓              |
|  |                  | Steel                | -               | -                              | -                              | -                 | -              | -              |
| Shift lever bracket                    | Material         |                      | -               | Aluminum                       | Aluminum                       | -                 | Aluminum       | Aluminum       |
|  | Finish           |                      | -               | Painted                        | Painted                        | -                 | Painted        | Painted        |
| Clamp screw                            | Material         |                      | -               |                                |                                | -                 |                |                |
|  | Finish           |                      | -               |                                |                                | -                 |                |                |
| Main lever body                        | Material         |                      | Aluminum        | CFRP                           | CFRP                           | Aluminum          | Aluminum       | Aluminum       |
|  | Finish           |                      | Clear coated    | Painted                        | Painted                        | Clear coated      | Painted        | Painted        |
| Release lever body                     | Material         |                      | -               | Steel+GFRP                     | Steel+GFRP                     | -                 | Steel+Resin    | Steel+Resin    |
|  | Finish           |                      | -               | -                              | -                              | -                 | -              | -              |
| Recommended shift lever outer casing   |                  |                      | OT-SP41         | OT-SP41                        | OT-SP41                        | OT-SP41           | OT-SP41        | OT-SP41        |
| Average weight (g)                     |                  |                      | 153 ( /pair)    | 210 ( /pair)                   | 210 ( /pair)                   | 63 ( /pair)       | -              | -              |
| Note                                   |                  |                      |                 | * Pull: single<br>Push: double | * Pull: single<br>Push: double |                   |                |                |

# Shifter

ROAD

| Series                                 |                  |                      | TIAGRA         | DURA-ACE          | SORA           | SORA           | SORA           | SHIMANO CLARIS |
|--|------------------|----------------------|----------------|-------------------|----------------|----------------|----------------|----------------|
| Model no.                              |                  |                      | SL-4603        | SL-7700           | SL-R3000-R     | SL-R3000-L     | SL-R3030-L     | SL-R2000-R     |
| Color                                  | 1                |                      | Series color   | Series color      | Series color   | Series color   | Series color   | Series color   |
|  | 2                |                      | -              | -                 | -              | -              | -              | -              |
| Shifter type                           |                  |                      | RAPIDFIRE PLUS | Down tube shifter | RAPIDFIRE PLUS | RAPIDFIRE PLUS | RAPIDFIRE PLUS | RAPIDFIRE PLUS |
| Front speeds                           |                  |                      | 3              | 2/3               | -              | 2              | 3              | -              |
| Rear speeds                            |                  |                      | -              | 9                 | 9              | -              | -              | 8              |
| Compatible rear derailleur type        |                  |                      | -              | ROAD 9-speed      | RD-R3000       | FD-R3000       | FD-R3030       | ROAD 8-speed   |
| Mount type                             | Clamp band       |                      | ✓              | -                 | ✓              | ✓              | ✓              | ✓              |
|  | I-SPEC B         |                      | -              | -                 | -              | -              | -              | -              |
|  | I-SPEC II        |                      | -              | -                 | -              | -              | -              | -              |
| Shift lever position adjust            |                  |                      | -              | -                 | -              | -              | -              | -              |
| Shift lever cable adjust               |                  |                      | ✓              | -                 | ✓              | ✓              | ✓              | ✓              |
| Max. multiple shifts (main lever/rear) |                  |                      | -              | -                 | 3              | -              | -              | 3              |
| Release function                       | MULTI RELEASE    |                      | -              | -                 | -              | -              | -              | -              |
|  | INSTANT RELEASE  |                      | -              | -                 | -              | -              | -              | -              |
|  | 2-WAY RELEASE    |                      | ✓              | -                 | ✓              | ✓              | ✓              | ✓              |
| OPTICAL GEAR DISPLAY                   | With             |                      | ✓              | -                 | ✓              | ✓              | ✓              | ✓              |
|  | With (removable) |                      | -              | -                 | -              | -              | -              | -              |
|  | Without          |                      | -              | ✓                 | -              | -              | -              | -              |
| Multi-bearing construction             |                  |                      | 2              | -                 | -              | -              | -              | -              |
| Shift lever cable                      | Inner cable      | Polymer-coated cable | -              | -                 | -              | -              | -              | -              |
|  |                  | OPTISLIC K           | -              | -                 | ✓              | ✓              | ✓              | ✓              |
|  |                  | SIL-TEC              | -              | -                 | -              | -              | -              | -              |
|  |                  | Stainless            | ✓              | ✓                 | ✓              | ✓              | ✓              | -              |
|  |                  | Steel                | -              | -                 | -              | -              | -              | ✓              |
| Shift lever bracket                    | Material         |                      | Aluminum       | -                 | Aluminum       | Aluminum       | Aluminum       | Aluminum       |
|  | Finish           |                      | Painted        | -                 | Painted        | Painted        | Painted        | Painted        |
| Clamp screw                            | Material         |                      |                | -                 |                |                |                |                |
|  | Finish           |                      |                | -                 |                |                |                |                |
| Main lever body                        | Material         |                      | Aluminum       | Aluminum          | Aluminum       | Aluminum       | Aluminum       | Steel+Resin    |
|  | Finish           |                      | Painted        | Clear coated      | Painted        | Painted        | Painted        | -              |
| Release lever body                     | Material         |                      | Steel+Resin    | -                 | Steel+Resin    | Steel+Resin    | Steel+Resin    | Steel+Resin    |
|  | Finish           |                      | -              | -                 | -              | -              | -              | -              |
| Recommended shift lever outer casing   |                  |                      | OT-SP41        | OT-SP41           | OT-SP41        | OT-SP41        | OT-SP41        | OT-SP41        |
| Average weight (g)                     |                  |                      | -              | -                 | -              | -              | -              | -              |
| Note                                   |                  |                      |                |                   |                |                |                |                |

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# Shifter

| Series                                 |                  |                      | SHIMANO CLARIS | SHIMANO CLARIS | SHIMANO           |
|--|------------------|----------------------|----------------|----------------|-------------------|
| Model no.                              |                  |                      | SL-R2000-L     | SL-R2030-L     | SL-R400           |
| Color                                  | 1                |                      | Series color   | Series color   | Series color      |
|  | 2                |                      | -              | -              | -                 |
| Shifter type                           |                  |                      | RAPIDFIRE PLUS | RAPIDFIRE PLUS | Down tube shifter |
| Front speeds                           |                  |                      | 2              | 3              | 2/3               |
| Rear speeds                            |                  |                      | -              | -              | 8                 |
| Compatible rear derailleur type        |                  |                      | -              | -              | ROAD 8-speed      |
| Mount type                             | Clamp band       |                      | ✓              | ✓              | -                 |
|  | I-SPEC B         |                      | -              | -              | -                 |
|  | I-SPEC II        |                      | -              | -              | -                 |
| Shift lever position adjust            |                  |                      | -              | -              | -                 |
| Shift lever cable adjust               |                  |                      | ✓              | ✓              | -                 |
| Max. multiple shifts (main lever/rear) |                  |                      | -              | -              | -                 |
| Release function                       | MULTI RELEASE    |                      | -              | -              | -                 |
|  | INSTANT RELEASE  |                      | -              | -              | -                 |
|  | 2-WAY RELEASE    |                      | ✓              | ✓              | -                 |
| OPTICAL GEAR DISPLAY                   | With             |                      | ✓              | ✓              | -                 |
|  | With (removable) |                      | -              | -              | -                 |
|  | Without          |                      | -              | -              | ✓                 |
| Multi-bearing construction             |                  |                      | -              | -              | -                 |
| Shift lever cable                      | Inner cable      | Polymer-coated cable | -              | -              | -                 |
|  |                  | OPTISLIC K           | ✓              | ✓              | -                 |
|  |                  | SIL-TEC              | -              | -              | -                 |
|  |                  | Stainless            | -              | -              | ✓                 |
|  |                  | Steel                | ✓              | ✓              | -                 |
| Shift lever bracket                    | Material         |                      | Aluminum       | Aluminum       | -                 |
|  | Finish           |                      | Painted        | Painted        | -                 |
| Clamp screw                            | Material         |                      |                |                | -                 |
|  | Finish           |                      |                |                | -                 |
| Main lever body                        | Material         |                      | Steel+Resin    | Steel+Resin    | Aluminum          |
|  | Finish           |                      | -              | -              | Painted           |
| Release lever body                     | Material         |                      | Steel+Resin    | Steel+Resin    | -                 |
|  | Finish           |                      | -              | -              | -                 |
| Recommended shift lever outer casing   |                  |                      | OT-SP41        | OT-SP41        | OT-SP41           |
| Average weight (g)                     |                  |                      | -              | -              | -                 |
| Note                                   |                  |                      |                |                |                   |

# Brake Lever (Hydraulic Disc Brake, Drop Handlebar Type)

ROAD

|                           |               |                              |
|---------------------------|---------------|------------------------------|
| Series                    |               | SHIMANO                      |
| Model no.                 |               | BL-RS717-LS                  |
| Brake type                |               | Hydraulic disc brake         |
| Lever size (finger)       |               | -                            |
| Color                     | 1             | Black                        |
|                           | 2             | -                            |
| Bracket cover color       | 1             | Standard                     |
|                           | 2             | -                            |
| Brake hose (kit)          |               | SM-BH90-JK-SSR               |
| Hose joint                |               | Straight                     |
| Brake hose color (kit)    | 1             | Black                        |
|                           | 2             | -                            |
| SERVO WAVE                |               | -                            |
| Reach adjust              | Toolless      | -                            |
|                           | Tool          | ✓                            |
| Free stroke adjust        |               | ✓                            |
| Clamp band                | I-SPEC        | -                            |
|                           | Open clamp    | -                            |
|                           | Diameter (mm) | 23.8-24.2                    |
| Recommended brake caliper |               | BR-R9270, BR-R8170, BR-R7170 |
| Oil                       |               | SHIMANO Mineral              |
| Funnel bleeding           |               | ✓                            |
| Clamp band                | Material      | Steel                        |
| Bracket                   | Material      | Engineering composite        |
|                           | Finish        | -                            |
| Brake lever               | Material      | Aluminum                     |
|                           | Finish        | Painted                      |
| Master cylinder           | Material      | -                            |
|                           | Finish        | -                            |
| Average weight (g)        |               | 188                          |
| Note                      |               |                              |

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## Brake Lever (Hydraulic Disc Brake)

|                           |               |                      |
|---------------------------|---------------|----------------------|
| Series                    |               | SHIMANO              |
| Model no.                 |               | BL-RS600             |
| Brake type                |               | Hydraulic disc brake |
| Lever size (finger)       |               | 3                    |
| Color                     | 1             | Black                |
|                           | 2             | -                    |
|                           | 3             | -                    |
| Brake hose (kit)          |               | SM-BH59-JK-SS        |
| Hose joint                |               | Straight             |
| Brake hose color (kit)    | 1             | Black                |
|                           | 2             | -                    |
| J-Kit spec (for OEM)      |               | ✓                    |
| SERVO WAVE                |               | -                    |
| Reach adjust              | Toolless      | -                    |
|                           | Tool          | ✓                    |
| Free stroke adjust        |               | -                    |
| Compatible shifter mount  | Clamp band    | ✓                    |
|                           | I-SPEC B      | -                    |
|                           | I-SPEC II     | ✓                    |
| Clamp band                | Open clamp    | ✓                    |
|                           | Diameter (mm) | 22.2                 |
| Recommended brake caliper |               | BR-RS405             |
| Oil                       |               | SHIMANO mineral      |
| Funnel bleeding           |               | ✓                    |
| Clamp screw               | Material      | Stainless steel      |
|                           | Finish        | -                    |
| Bracket                   | Material      | -                    |
|                           | Finish        | -                    |
| Brake lever               | Material      | Aluminum             |
|                           | Finish        | Anodized             |
| Master cylinder           | Material      | Aluminum             |
|                           | Finish        | Painted              |
| Average weight (g)        |               |                      |
| Note                      |               |                      |

# Brake Lever

ROAD

| Series                      |                              | DURA-ACE   | TIAGRA       | SORA         | SHIMANO CLARIS | SHIMANO     | SHIMANO  |
|-----------------------------|------------------------------|--|--------------|--------------|----------------|-------------|----------|
| Model no.                   |                              | BL-TT79  | BL-4700      | BL-R3000     | BL-R2000       | BL-R780     | BL-R550  |
| Color                       | 1                            | Black  | Series color | Series color | Series color   | Silver      | Silver   |
|                             | 2                            | -  | -            | -            | -              | Black       | Black    |
|                             | 3                            | -  | -            | -            | -              | -           | -        |
| Compatible brake type       | V-BRAKE                      | -  | ✓            | ✓            | ✓              | ✓           | -        |
|                             | Mechanical disc brake (Road) | ✓  | ✓            | ✓            | ✓              | ✓           | ✓        |
|                             | Caliper (NEW SUPER SLR)      | ✓  | ✓            | ✓            | ✓              | ✓           | -        |
|                             | Caliper (SUPER SLR)          | -  | -            | -            | -              | -           | ✓        |
|                             | Cantilever brake             | ✓  | ✓            | ✓            | ✓              | ✓           | ✓        |
|                             | Roller brake                 | -  | -            | -            | -              | -           | -        |
| Recommended POWER MODULATOR | V-BRAKE                      | -  | -            | -            | -              | -           | -        |
|                             | Mechanical disc brake (MTB)  | -  | -            | -            | -              | -           | -        |
| Clamp band                  | Open clamp band              | -  | -            | -            | -              | -           | -        |
|                             | I-SPEC                       | -  | -            | -            | -              | -           | -        |
|                             | Diameter (mm)                | *  | 22.2         | 22.2         | 22.2           | 22.2        | 22.2     |
| Internal bumper stop        |                              | -  | ✓            | ✓            | ✓              | ✓           | -        |
| Lever size (finger)         |                              | -  | 2.5          | 2.5          | 2.5            | 2.5         | 2.5      |
| Brake cable type            |                              | -  | T-type       | T-type       | T-type         | T-type      | T-type   |
| Power adjuster              |                              | -  | -            | -            | -              | -           | -        |
| SERVO WAVE                  |                              | -  | -            | -            | -              | -           | -        |
| Reach adjust                |                              | ✓  | ✓            | ✓            | ✓              | ✓           | ✓        |
| Cable adjust                |                              | -  | ✓            | ✓            | ✓              | ✓           | ✓        |
| Cable adjust type           |                              | -  | Two hand     | Two hand     | Two hand       | Two hand    | Two hand |
| Brake lever                 | Material                     | CFRP   | Aluminum     | Aluminum     | Aluminum       | Aluminum    | Aluminum |
|                             | Finish                       | Painted  | Anodized     | Anodized     | Anodized       | Anodized    | Anodized |
| Brake bracket               | Material                     | CFRP   | Aluminum     | Aluminum     | Aluminum       | Aluminum    | Aluminum |
|                             | Finish                       | Painted  | Painted      | Painted      | Painted        | Painted     | Painted  |
| Average weight (g)          |                              | 89 (/pair)   | -            | -            | -              | 170 (/pair) | -        |
| Note                        |                              | * Fixation structure is expanding plug clamp, handle bar inside diameter: 19.0 - 22.5 dim, handle bar outside diameter: 22.2 - 24.0 dim. |              |              |                |             |          |

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# Brake Lever

| Series                      |                              | SHIMANO      |
|-----------------------------|------------------------------|--------------|
| Model no.                   |                              | BL-R400      |
| Color                       | 1                            | Series color |
|                             | 2                            | -            |
|                             | 3                            | -            |
| Compatible brake type       | V-BRAKE                      | -            |
|                             | Mechanical disc brake (Road) | -            |
|                             | Caliper (NEW SUPER SLR)      | -            |
|                             | Caliper (SUPER SLR)          | ✓            |
|                             | Cantilever brake             | -            |
|                             | Roller brake                 | -            |
| Recommended POWER MODULATOR | V-BRAKE                      | -            |
|                             | Mechanical disc brake (MTB)  | -            |
| Clamp band                  | Open clamp band              | -            |
|                             | I-SPEC                       | -            |
|                             | Diameter (mm)                | 23.8-24.2    |
| Internal bumper stop        |                              | -            |
| Lever size (finger)         |                              | -            |
| Brake cable type            |                              | -            |
| Power adjuster              |                              | -            |
| SERVO WAVE                  |                              | -            |
| Reach adjust                |                              | -            |
| Cable adjust                |                              | -            |
| Cable adjust type           |                              | -            |
| Brake lever                 | Material                     | Aluminum     |
|                             | Finish                       | Barrel       |
| Brake bracket               | Material                     | Aluminum     |
|                             | Finish                       | Anodized     |
| Average weight (g)          |                              | -            |
| Note                        |                              |              |

# Brake (Hydraulic Disc Brake)

ROAD

| Series                                  |                    | DURA-ACE                 | DURA-ACE                         | DURA-ACE                         | ULTEGRA                 | ULTEGRA                          | ULTEGRA                          |
|---|--------------------|--------------------------|----------------------------------|----------------------------------|-------------------------|----------------------------------|----------------------------------|
| Model no.                               |                    | BR-R9270                 | BR-R9170-F                       | BR-R9170-R                       | BR-R8170                | BR-R8070-F                       | BR-R8070-R                       |
| Color                                   | 1                  | Series color             | Series color                     | Series color                     | Series color            | Series color                     | Series color                     |
|   | 2                  | -                        | -                                | -                                | -                       | -                                | -                                |
|   | 3                  | -                        | -                                | -                                | -                       | -                                | -                                |
| Brake type                              |                    | Hydraulic disc brake     | Hydraulic disc brake             | Hydraulic disc brake             | Hydraulic disc brake    | Hydraulic disc brake             | Hydraulic disc brake             |
| Brake hose (kit)                        |                    | SM-BH90-JK-SSR           | SM-BH90-JK-SSR                   | SM-BH90-JK-SSR                   | SM-BH90-JK-SSR          | SM-BH90-JK-SSR,<br>SM-BH90-J-SSR | SM-BH90-JK-SSR,<br>SM-BH90-J-SSR |
| Hose joint                              |                    | Straight                 | Straight                         | Straight                         | Straight                | Straight                         | Straight                         |
| Brake hose color (kit)                  | 1                  | Black                    | Black                            | Black                            | Black                   | Black                            | Black                            |
|   | 2                  | -                        | -                                | -                                | -                       | -                                | -                                |
| J-Kit spec (for OEM)                    |                    | ✓                        | ✓                                | ✓                                | ✓                       | ✓                                | ✓                                |
| ICE TECHNOLOGIES pad compatible caliper |                    | ✓                        | ✓                                | ✓                                | ✓                       | ✓                                | ✓                                |
| Pad                                     | Standard 1         | K05Ti-RX Resin (w/o fin) | K05Ti-RX Resin (w/o fin)         | K05Ti-RX Resin (w/o fin)         | K05S-RX Resin (w/o fin) | K05S-RX Resin (w/o fin)          | K05S-RX Resin (w/o fin)          |
|   | Standard 2         | L05A-RF Resin (w/ fin)   | L05A-RF Resin (w/ fin)           | L05A-RF Resin (w/ fin)           | L05A-RF Resin (w/ fin)  | L05A-RF Resin (w/ fin)           | L05A-RF Resin (w/ fin)           |
|   | Option 1           | K04Ti-MX Metal (w/o fin) | K04Ti-MX Metal (w/o fin)         | K04Ti-MX Metal (w/o fin)         | L04C-MF Metal (w/ fin)  | K04S-MX Metal (w/o fin)          | K04S-MX Metal (w/o fin)          |
|   | Option 2           | L04C-MF Metal (w/ fin)   | L04C-MF Metal (w/ fin)           | L04C-MF Metal (w/ fin)           | -                       | L04C-MF Metal (w/ fin)           | L04C-MF Metal (w/ fin)           |
| Fixing screw spec for rear mount        | 10 mm mount        | ✓                        | -                                | -                                | ✓                       | -                                | ✓                                |
|   | 15 mm mount        | ✓                        | -                                | ✓                                | ✓                       | -                                | ✓                                |
|   | 20 mm mount        | ✓                        | -                                | ✓                                | ✓                       | -                                | ✓                                |
|   | 25 mm mount        | ✓                        | -                                | ✓                                | ✓                       | -                                | ✓                                |
|   | 30 mm mount        | ✓                        | -                                | ✓                                | ✓                       | -                                | ✓                                |
|   | 35 mm mount        | ✓                        | -                                | ✓                                | ✓                       | -                                | ✓                                |
|   | 15.2 mm            | -                        | -                                | -                                | -                       | -                                | -                                |
|   | 18.7 mm            | -                        | -                                | -                                | -                       | -                                | -                                |
| Recommended brake lever                 |                    | ST-R9270<br>ST-R9180     | ST-R9180<br>ST-R9170<br>ST-R9120 | ST-R9180<br>ST-R9170<br>ST-R9120 | ST-R8170                | ST-R8070<br>ST-R8020             | ST-R8070<br>ST-R8020             |
| Recommended disc brake rotor            |                    | RT-MT900<br>RT-CL900     | SM-RT900<br>RT-MT900<br>RT-CL900 | SM-RT900<br>RT-MT900<br>RT-CL900 | RT-MT800<br>RT-CL800    | SM-RT800                         | SM-RT800                         |
| Oil                                     |                    | SHIMANO mineral          | SHIMANO mineral                  | SHIMANO mineral                  | SHIMANO mineral         | SHIMANO mineral                  | SHIMANO mineral                  |
| ONE WAY BLEEDING                        |                    | ✓                        | ✓                                | ✓                                | ✓                       | ✓                                | ✓                                |
| Mount type                              |                    | Flat mount               | Flat mount                       | Flat mount                       | Flat mount              | Flat mount                       | Flat mount                       |
| Piston                                  |                    | 2                        | 2                                | 2                                | 2                       | 2                                | 2                                |
| Piston material                         |                    | Resin                    | Ceramic                          | Ceramic                          | Resin                   | Ceramic                          | Ceramic                          |
| Caliper                                 | MONO-BODY          | ✓                        | -                                | -                                | -                       | -                                | -                                |
|   | Material           | Aluminum                 | Aluminum                         | Aluminum                         | Aluminum                | Aluminum                         | Aluminum                         |
|   | Finish             | Anodized                 | Anodized                         | Anodized                         | Painted                 | Anodized                         | Anodized                         |
| Caliper fixing screw                    | Material           | Steel                    | Steel                            | Steel                            | Steel                   | Steel                            | Steel                            |
|   | Tool size          | 4 mm                     | 4 mm                             | 4 mm                             | 4 mm                    | 4 mm                             | 4 mm                             |
|   | Anti loosen method | Screw fix pin+Snap ring  | Screw fix pin+Snap ring          | Screw fix pin                    | Screw fix pin+Snap ring | Screw fix pin+Snap ring          | Screw fix pin                    |
| Pad mount                               |                    | Pad axle                 | Pad axle                         | Pad axle                         | Pad axle                | Pad axle                         | Pad axle                         |
| Average weight (g)                      |                    | 97                       | 131                              | 111                              | 123                     | 141                              | 124                              |
| Note                                    |                    |                          |                                  |                                  |                         |                                  |                                  |

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# Brake (Hydraulic Disc Brake)

| Series                                  |                    | SHIMANO 105                     | SHIMANO 105                      | SHIMANO 105                      | TIAGRA                  | TIAGRA                  | SHIMANO                 |
|---|--------------------|---------------------------------|----------------------------------|----------------------------------|-------------------------|-------------------------|-------------------------|
| Model no.                               |                    | BR-R7170                        | BR-R7070-F                       | BR-R7070-R                       | BR-4770-F               | BR-4770-R               | BR-RS785                |
| Color                                   | 1                  | Black                           | Silky black                      | Silky black                      | Series color            | Series color            | Series color (ULTEGRA)  |
|   | 2                  | -                               | Spark silver                     | Spark silver                     | -                       | -                       | -                       |
|   | 3                  | -                               | -                                | -                                | -                       | -                       | -                       |
| Brake type                              |                    | Hydraulic disc brake            | Hydraulic disc brake             | Hydraulic disc brake             | Hydraulic disc brake    | Hydraulic disc brake    | Hydraulic disc brake    |
| Brake hose (kit)                        |                    | SM-BH90-J-SSR<br>SM-BH90-JK-SSR | SM-BH90-JK-SSR,<br>SM-BH90-J-SSR | SM-BH90-JK-SSR,<br>SM-BH90-J-SSR | SM-BH90-JK-SSR          | SM-BH90-JK-SSR          | SM-BH90-JK-SSR          |
| Hose joint                              |                    | Straight                        | Straight                         | Straight                         | Straight                | Straight                | Straight                |
| Brake hose color (kit)                  | 1                  | Black                           | Black                            | Black                            | Black                   | Black                   | Black                   |
|   | 2                  | -                               | -                                | -                                | -                       | -                       | White                   |
| J-Kit spec (for OEM)                    |                    | ✓                               | ✓                                | ✓                                | ✓                       | ✓                       | ✓                       |
| ICE TECHNOLOGIES pad compatible caliper |                    | ✓                               | ✓                                | ✓                                | -                       | -                       | ✓                       |
| Pad                                     | Standard 1         | K05S-RX Resin (w/o fin)         | K05S-RX Resin (w/o fin)          | K05S-RX Resin (w/o fin)          | K05S-RX Resin (w/o fin) | K05S-RX Resin (w/o fin) | J05A-RF Resin (w/ fin)  |
|   | Standard 2         | L05A-RF Resin (w/ fin)          | L05A-RF Resin (w/ fin)           | L05A-RF Resin (w/ fin)           | K04S-MX Metal (w/o fin) | K04S-MX Metal (w/o fin) | J04C-MF Metal (w/ fin)  |
|   | Option 1           | L04C-MF Metal (w/ fin)          | K04S-MX Metal (w/o fin)          | K04S-MX Metal (w/o fin)          | L03A-RF Resin (w/ fin)  | L03A-RF Resin (w/ fin)  | G03A-RX Resin (w/o fin) |
|   | Option 2           | -                               | L04C-MF Metal (w/ fin)           | L04C-MF Metal (w/ fin)           | -                       | -                       | -                       |
| Fixing screw spec for rear mount        | 10 mm mount        | ✓                               | -                                | ✓                                | -                       | ✓                       | -                       |
|   | 15 mm mount        | ✓                               | -                                | ✓                                | -                       | ✓                       | -                       |
|   | 20 mm mount        | ✓                               | -                                | ✓                                | -                       | ✓                       | -                       |
|   | 25 mm mount        | ✓                               | -                                | ✓                                | -                       | ✓                       | -                       |
|   | 30 mm mount        | ✓                               | -                                | ✓                                | -                       | ✓                       | -                       |
|   | 35 mm mount        | ✓                               | -                                | ✓                                | -                       | ✓                       | -                       |
|   | 15.2 mm            | -                               | -                                | -                                | -                       | -                       | -                       |
|   | 18.7 mm            | -                               | -                                | -                                | -                       | -                       | ✓                       |
| Recommended brake lever                 |                    | ST-R7170                        | ST-R7020<br>ST-R7025             | ST-R7020<br>ST-R7025             | ST-4720<br>ST-4725      | ST-4720<br>ST-4725      | ST-R8070                |
| Recommended disc brake rotor            |                    | SM-RT70, SM-RT64                | SM-RT70                          | SM-RT70                          | SM-RT64                 | SM-RT64                 | SM-RT99                 |
| Oil                                     |                    | SHIMANO mineral                 | SHIMANO mineral                  | SHIMANO mineral                  | SHIMANO mineral         | SHIMANO mineral         | SHIMANO mineral         |
| ONE WAY BLEEDING                        |                    | ✓                               | ✓                                | ✓                                | ✓                       | ✓                       | ✓                       |
| Mount type                              |                    | Flat mount                      | Flat mount                       | Flat mount                       | Flat mount              | Flat mount              | Post type               |
| Piston                                  |                    | 2                               | 2                                | 2                                | 2                       | 2                       | 2                       |
| Piston material                         |                    | Resin                           | Ceramic                          | Ceramic                          | Resin                   | Resin                   | Ceramic                 |
| Caliper                                 | MONO-BODY          | -                               | -                                | -                                | -                       | -                       | -                       |
|   | Material           | Aluminum                        | Aluminum                         | Aluminum                         | Aluminum                | Aluminum                | Aluminum                |
|   | Finish             | Painted                         | Painted                          | Painted                          | Painted                 | Painted                 | Painted                 |
| Caliper fixing screw                    | Material           | Steel                           | Steel                            | Steel                            | Steel                   | Steel                   | Steel                   |
|   | Tool size          | 4 mm                            | 4 mm                             | 4 mm                             | 4 mm                    | 4 mm                    | 5 mm                    |
|   | Anti loosen method | Screw fix pin                   | Screw fix pin+Snap ring          | Screw fix pin                    | Screw fix pin+Snap ring | Screw fix pin           | Snap ring               |
| Pad mount                               |                    | Pad axle                        | Pad axle                         | Pad axle                         | Pad axle                | Pad axle                | Pad axle                |
| Average weight (g)                      |                    | 123                             | 141                              | 124                              | -                       | -                       | 271 (/pair)             |
| Note                                    |                    |                                 |                                  |                                  |                         |                         |                         |

# Brake (Hydraulic Disc Brake)

| Series                                  |                    | SHIMANO                                | SHIMANO                                |
|---|--------------------|--|--|
| Model no.                               |                    | BR-RS405-F                             | BR-RS405-R                             |
| Color                                   | 1                  | Dark gray                              | Dark gray                              |
|   | 2                  | -                                      | -                                      |
|   | 3                  | -                                      | -                                      |
| Brake type                              |                    | Hydraulic disc brake                   | Hydraulic disc brake                   |
| Brake hose (kit)                        |                    | SM-BH59-J-SS<br>SM-BH59-JK-SS          | SM-BH59-J-SS<br>SM-BH59-JK-SS          |
| Hose joint                              |                    | Straight                               | Straight                               |
| Brake hose color (kit)                  | 1                  | Black                                  | Black                                  |
|   | 2                  | -                                      | -                                      |
| J-Kit spec (for OEM)                    |                    | ✓                                      | ✓                                      |
| ICE TECHNOLOGIES pad compatible caliper |                    | ✓                                      | ✓                                      |
| Pad                                     | Standard 1         | K05S-RX Resin (w/o fin)                | K05S-RX Resin (w/o fin)                |
|   | Standard 2         | -                                      | -                                      |
|   | Option 1           | L05A-RF Resin (w/ fin)                 | L05A-RF Resin (w/ fin)                 |
|   | Option 2           | -                                      | -                                      |
| Fixing screw spec for rear mount        | 10 mm mount        | -                                      | ✓                                      |
|   | 15 mm mount        | -                                      | ✓                                      |
|   | 20 mm mount        | -                                      | ✓                                      |
|   | 25 mm mount        | -                                      | ✓                                      |
|   | 30 mm mount        | -                                      | ✓                                      |
|   | 35 mm mount        | -                                      | ✓                                      |
|   | 15.2 mm            | -                                      | -                                      |
|   | 18.7 mm            | -                                      | -                                      |
| Recommended brake lever                 |                    | ST-U6030, ST-RS405, BL-U6030, BL-RS600 | ST-U6030, ST-RS405, BL-U6030, BL-RS600 |
| Recommended disc brake rotor            |                    | SM-RT70                                | SM-RT70                                |
| Oil                                     |                    | SHIMANO mineral                        | SHIMANO mineral                        |
| ONE WAY BLEEDING                        |                    | ✓                                      | ✓                                      |
| Mount type                              |                    | Flat mount                             | Flat mount                             |
| Piston                                  |                    | 2                                      | 2                                      |
| Piston material                         |                    | Resin                                  | Resin                                  |
| Caliper                                 | MONO-BODY          | -                                      | -                                      |
|   | Material           | Aluminum                               | Aluminum                               |
|   | Finish             | Painted                                | Painted                                |
| Caliper fixing screw                    | Material           | Steel                                  | Steel                                  |
|   | Tool size          | 4 mm                                   | 4 mm                                   |
|   | Anti loosen method | Screw fix pin+Snap ring                | Screw fix pin                          |
| Pad mount                               |                    | Pad axle                               | Pad axle                               |
| Average weight (g)                      |                    | -                                      | -                                      |
| Note                                    |                    |  |  |

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## Brake (Mechanical Disc Brake)

| Series                                  |                    | SHIMANO                            | SHIMANO  | SHIMANO  |
|---|--------------------|------------------------------------|--|--|
| Model no.                               |                    | BR-R317                            | BR-RS305-F                                     | BR-RS305-R                                     |
| Color                                   | 1                  | Black                              | Black  | Black  |
|   | 2                  | -                                  | -  | -  |
| Brake type                              |                    | Mechanical disc brake              | Mechanical disc brake                          | Mechanical disc brake                          |
| Compatibility                           |                    | NEW SUPER SLR                      | NEW SUPER SLR                                  | NEW SUPER SLR                                  |
| ICE TECHNOLOGIES pad compatible caliper |                    | -                                  | ✓  | ✓  |
| Pad                                     | Standard 1         | G05A-RX Resin (w/o fin)            | K05S-RX Resin (w/o fin)                        | K05S-RX Resin (w/o fin)                        |
|   | Standard 2         | -                                  | -  | -  |
|   | Option 1           | -                                  | L05A-RF Resin (w/ fin)                         | L05A-RF Resin (w/ fin)                         |
|   | Option 2           | -                                  | -  | -  |
| Fixing screw spec for rear mount        | 10 mm mount        | -                                  | -  | ✓  |
|   | 15 mm mount        | -                                  | -  | ✓  |
|   | 20 mm mount        | -                                  | -  | ✓  |
|   | 25 mm mount        | -                                  | -  | ✓  |
|   | 30 mm mount        | -                                  | -  | ✓  |
|   | 35 mm mount        | -                                  | -  | ✓  |
| Recommended brake lever                 |                    | BL-R2000                           | -  | -  |
| Recommended disc brake rotor            |                    | SM-RT54 (160 mm), SM-RT70 (140 mm) | SM-RT54/RT56 (160 mm), SM-RT70 (140 mm/160 mm) | SM-RT54/RT56 (160 mm), SM-RT70 (140 mm/160 mm) |
| Mount type                              |                    | Post type                          | Flat mount                                     | Flat mount                                     |
| Piston                                  |                    | 1                                  | 1  | 1  |
| Piston material                         |                    | -                                  | -  | -  |
| Caliper                                 | MONO-BODY          | -                                  | -  | -  |
|   | Material           | Aluminum                           | Aluminum                                       | Aluminum                                       |
|   | Finish             | Painted                            | Painted  | Painted  |
| Caliper fixing screw                    | Material           | Steel                              | Steel  | Steel  |
|   | Tool size          | 5 mm                               | 4 mm   | 4 mm   |
|   | Anti loosen method | Snap ring                          | Screw fix pin+Snap ring                        | Screw fix pin                                  |
| Pad mount                               |                    | Pad axle                           | Pad axle                                       | Pad axle                                       |
| Average weight (g)                      |                    | -                                  | -  | -  |
| Note                                    |                    | SHIMANO logo                       | SHIMANO logo                                   | SHIMANO logo                                   |

# Brake (Caliper Brake)

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| Series                      |                 |      | DURA-ACE                             | DURA-ACE                             | DURA-ACE                             | DURA-ACE                             | DURA-ACE                             | DURA-ACE  |
|-----------------------------|-----------------|------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|---|
| Model no.                   |                 |      | BR-R9200                             | BR-R9210-F                           | BR-R9210-R5                          | BR-R9100                             | BR-R9110-F                           | BR-R9110-R  |
| Color                       | 1               |      | Series color                         | Series color                         | Series color                         | Series color                         | Series color                         | Series color  |
|                             | 2               |      | -                                    | -                                    | -                                    | -                                    | -                                    | -   |
| Type                        |                 |      | SLR-EV Dual Pivot                    | Direct mount type                    | Direct mount type                    | SLR-EV Dual Pivot                    | Direct mount type                    | Direct mount type   |
| Reach (mm)                  |                 |      | 51                                   | 51                                   | 51                                   | 51                                   | 51                                   | 51  |
| Brake shoe                  | Standard        |      | R55C4                                | R55C4                                | R55C4                                | R55C4                                | R55C4                                | R55C4   |
|                             | Optional choice |      | R55C4 carbon, R55C4-A carbon, R55CT4 | R55C4 carbon, R55C4-A carbon, R55CT4 | R55C4 carbon, R55C4-A carbon, R55CT4 | R55C4 carbon, R55C4-A carbon, R55CT4 | R55C4 carbon, R55C4-A carbon, R55CT4 | R55C4 carbon, R55C4-A carbon, R55CT4  |
| Compatibility               |                 |      | SLR-EV                               | SLR-EV                               | SLR-EV                               | SLR-EV                               | SLR-EV                               | SLR-EV  |
| Assembly pivot nut (mm)     | Front (mm)      | 10.5 | ✓                                    | -                                    | -                                    | ✓                                    | -                                    | -   |
|                             |                 | 12.5 | ✓                                    | -                                    | -                                    | ✓                                    | -                                    | -   |
|                             |                 | 18.0 | ✓                                    | -                                    | -                                    | ✓                                    | -                                    | -   |
|                             |                 | 27.0 | ✓                                    | -                                    | -                                    | ✓                                    | -                                    | -   |
|                             |                 | 32.0 | ✓                                    | -                                    | -                                    | ✓                                    | -                                    | -   |
|                             | Rear (mm)       | 10.5 | ✓                                    | -                                    | -                                    | ✓                                    | -                                    | -   |
| Cartridge shoe holder       |                 |      | ✓                                    | ✓                                    | ✓                                    | ✓                                    | ✓                                    | ✓   |
| Tire guide bumpers          |                 |      | ✓                                    | ✓                                    | ✓                                    | ✓                                    | ✓                                    | ✓   |
| Quick release lever         |                 |      | ✓                                    | ✓                                    | ✓                                    | ✓                                    | ✓                                    | -   |
| Shoe angle adjusting        |                 |      | ✓                                    | ✓                                    | ✓                                    | ✓                                    | ✓                                    | ✓   |
| Spring tension adjusting    |                 |      | -                                    | -                                    | -                                    | -                                    | -                                    | ✓   |
| Maximum tire size           |                 |      | 28C                                  | 28C                                  | 28C                                  | 28C                                  | 28C                                  | 28C   |
| Rim width (mm)              |                 |      | 20.8-28                              | 20.8-28                              | 20.8-28                              | 20.8-28                              | 20.8-28                              | 20.8-28   |
| Cartridge shoe holder       | Material        |      | Magnesium                            | Magnesium                            | Magnesium                            | Magnesium                            | Magnesium                            | Magnesium   |
|                             | Finish          |      | Painted                              | Painted                              | Painted                              | Painted                              | Painted                              | Painted   |
| C-arm                       | Material        |      | Aluminum                             | Aluminum                             | Aluminum                             | Aluminum                             | Aluminum                             | Aluminum  |
|                             | Finish          |      | Anodized                             | Anodized                             | Anodized                             | Anodized                             | Anodized                             | Anodized  |
| Y-arm                       | Material        |      | Aluminum                             | Aluminum                             | Aluminum                             | Aluminum                             | Aluminum                             | Aluminum  |
|                             | Finish          |      | Anodized                             | Anodized                             | Anodized                             | Anodized                             | Anodized                             | Anodized  |
| Gate                        | Material        |      | Aluminum                             | -                                    | -                                    | Aluminum                             | -                                    | -   |
|                             | Finish          |      | Anodized                             | -                                    | -                                    | Anodized                             | -                                    | -   |
| Quick release lever         | Material        |      | Resin                                | Resin                                | Resin                                | Resin                                | Resin                                | -   |
|                             | Finish          |      | Painted                              | Painted                              | Painted                              | Painted                              | Painted                              | -   |
| Titanium cable fixing screw |                 |      | ✓                                    | ✓                                    | ✓                                    | ✓                                    | ✓                                    | ✓   |
| Titanium pivot bolt         |                 |      | ✓                                    | ✓ (fixing screw)                     | ✓ (fixing screw)                     | ✓                                    | ✓ (fixing screw)                     | ✓ (fixing screw)  |
| Average weight (g)          |                 |      | 327 (/pair)                          | 156 (/pc)                            | 154 (/pc)                            | 327 (/pair)                          | 150 (/pc)                            | 139 (/pc)   |
| Note                        |                 |      |                                      |                                      |                                      |                                      |                                      | Need inline cable adjuster (SM-CB90) for cable adjusting and quick release feature. |

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# Brake (Caliper Brake)

| Series                      |                 |      | DURA-ACE                                   | ULTEGRA                                    | ULTEGRA                                    | ULTEGRA                                    | SHIMANO   | ULTEGRA                                    |
|-----------------------------|-----------------|------|--|--|--|--|---|--|
| Model no.                   |                 |      | BR-R9110-RS                                | BR-R8100                                   | BR-R8110-F                                 | BR-R8110-RS                                | BR-RS811-R  | BR-R8000                                   |
| Color                       | 1               |      | Series color                               | Series color                               | Series color                               | Series color                               | Black   | Series color                               |
|                             | 2               |      | -  | -  | -  | -  | -   | -  |
| Type                        |                 |      | Direct mount type                          | SLR-EV Dual Pivot                          | Direct mount type                          | Direct mount type                          | Direct mount type   | SLR-EV Dual Pivot                          |
| Reach (mm)                  |                 |      | 51   | 51   | 51   | 51   | 51  | 51   |
| Brake shoe                  | Standard        |      | R55C4                                      | R55C4                                      | R55C4                                      | R55C4                                      | R55C4   | R55C4                                      |
|                             | Optional choice |      | R55C4 carbon,<br>R55C4-A carbon,<br>R55CT4 | R55C4 carbon,<br>R55C4-A carbon,<br>R55CT4 | R55C4 carbon,<br>R55C4-A carbon,<br>R55CT4 | R55C4 carbon,<br>R55C4-A carbon,<br>R55CT4 | R55C4 carbon,<br>R55C4-A carbon,<br>R55CT4  | R55C4 carbon,<br>R55C4-A carbon,<br>R55CT4 |
| Compatibility               |                 |      | SLR-EV                                     | SLR-EV                                     | SLR-EV                                     | SLR-EV                                     | SLR-EV  | SLR-EV                                     |
| Assembly pivot nut<br>(mm)  | Front<br>(mm)   | 10.5 | -  | ✓  | -  | -  | -   | ✓  |
|                             |                 | 12.5 | -  | ✓  | -  | -  | -   | ✓  |
|                             |                 | 18.0 | -  | ✓  | -  | -  | -   | ✓  |
|                             |                 | 27.0 | -  | ✓  | -  | -  | -   | ✓  |
|                             |                 | 32.0 | -  | ✓  | -  | -  | -   | ✓  |
|                             | Rear<br>(mm)    | 10.5 | -  | ✓  | -  | -  | -   | ✓  |
| Cartridge shoe holder       |                 |      | ✓  | ✓  | ✓  | ✓  | ✓   | ✓  |
| Tire guide bumpers          |                 |      | ✓  | ✓  | ✓  | ✓  | ✓   | ✓  |
| Quick release lever         |                 |      | ✓  | ✓  | ✓  | ✓  | -   | ✓  |
| Shoe angle adjusting        |                 |      | ✓  | ✓  | ✓  | ✓  | ✓   | ✓  |
| Spring tension adjusting    |                 |      | -  | -  | -  | -  | ✓   | -  |
| Maximum tire size           |                 |      | 28C  | 28C  | 28C  | 28C  | 28C   | 28C  |
| Rim width (mm)              |                 |      | 20.8-28                                    | 20.8-28                                    | 20.8-28                                    | 20.8-28                                    | 20.8-28   | 20.8-28                                    |
| Cartridge shoe holder       | Material        |      | Magnesium                                  | Aluminum                                   | Aluminum                                   | Aluminum                                   | Aluminum  | Aluminum                                   |
|                             | Finish          |      | Painted                                    | Painted                                    | Painted                                    | Painted                                    | Painted   | Painted                                    |
| C-arm                       | Material        |      | Aluminum                                   | Aluminum                                   | Aluminum                                   | Aluminum                                   | Aluminum  | Aluminum                                   |
|                             | Finish          |      | Anodized                                   | Anodized                                   | Anodized                                   | Anodized                                   | Painted   | Anodized                                   |
| Y-arm                       | Material        |      | Aluminum                                   | Aluminum                                   | Aluminum                                   | Aluminum                                   | Aluminum  | Aluminum                                   |
|                             | Finish          |      | Anodized                                   | Anodized                                   | Anodized                                   | Anodized                                   | Painted   | Anodized                                   |
| Gate                        | Material        |      | -  | Aluminum                                   | -  | -  | -   | Aluminum                                   |
|                             | Finish          |      | -  | Anodized                                   | -  | -  | -   | Anodized                                   |
| Quick release lever         | Material        |      | Resin                                      | Resin                                      | Resin                                      | Resin                                      | -   | Resin                                      |
|                             | Finish          |      | Painted                                    | -  | -  | -  | -   | -  |
| Titanium cable fixing screw |                 |      | ✓  | -  | -  | -  | -   | -  |
| Titanium pivot bolt         |                 |      | ✓ (fixing screw)                           | -  | -  | -  | -   | -  |
| Average weight (g)          |                 |      | 148 (/pc)                                  | 182 (Front)<br>180 (Rear)                  | 180 (/pc)                                  | 178 (/pc)                                  | -   | 182 (Front)<br>178 (Rear)                  |
| Note                        |                 |      |  |  |  |  | Need inline cable adjuster (SM-CB90) for cable adjusting and quick release feature. |  |

# Brake (Caliper Brake)

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| Series                      |                 |      | ULTEGRA                              | ULTEGRA   | ULTEGRA                              | ULTEGRA                                | ULTEGRA                                | ULTEGRA                                |
|-----------------------------|-----------------|------|--------------------------------------|---|--------------------------------------|--|--|--|
| Model no.                   |                 |      | BR-R8010-F                           | BR-R8010-R  | BR-R8010-RS                          | BR-6800                                | BR-6810-F                              | BR-6810-RS                             |
| Color                       | 1               |      | Series color                         | Series color  | Series color                         | Series color                           | Series color                           | Series color                           |
|                             | 2               |      | -                                    | -   | -                                    | -                                      | -                                      | -                                      |
| Type                        |                 |      | Direct mount type                    | Direct mount type   | Direct mount type                    | SLR-EV Dual Pivot                      | Direct mount type                      | Direct mount type                      |
| Reach (mm)                  |                 |      | 51                                   | 51  | 51                                   | 51                                     | 51                                     | 51                                     |
| Brake shoe                  | Standard        |      | R55C4                                | R55C4   | R55C4                                | R55C4                                  | R55C4                                  | R55C4                                  |
|                             | Optional choice |      | R55C4 carbon, R55C4-A carbon, R55CT4 | R55C4 carbon, R55C4-A carbon, R55CT4  | R55C4 carbon, R55C4-A carbon, R55CT4 | R55C4 carbon, R55C4-A carbon           | R55C4 carbon, R55C4-A carbon, R55CT4   | R55C4 carbon, R55C4-A carbon, R55CT4   |
| Compatibility               |                 |      | SLR-EV                               | SLR-EV  | SLR-EV                               | SLR-EV                                 | SLR-EV                                 | SLR-EV                                 |
| Assembly pivot nut (mm)     | Front (mm)      | 10.5 | -                                    | -   | -                                    | ✓                                      | -                                      | -                                      |
|                             |                 | 12.5 | -                                    | -   | -                                    | ✓                                      | -                                      | -                                      |
|                             |                 | 18.0 | -                                    | -   | -                                    | ✓                                      | -                                      | -                                      |
|                             |                 | 27.0 | -                                    | -   | -                                    | ✓                                      | -                                      | -                                      |
|                             |                 | 32.0 | -                                    | -   | -                                    | ✓                                      | -                                      | -                                      |
|                             | Rear (mm)       | 10.5 | -                                    | -   | -                                    | ✓                                      | -                                      | -                                      |
| Cartridge shoe holder       |                 |      | ✓                                    | ✓   | ✓                                    | ✓                                      | ✓                                      | ✓                                      |
| Tire guide bumpers          |                 |      | ✓                                    | ✓   | ✓                                    | ✓                                      | ✓                                      | ✓                                      |
| Quick release lever         |                 |      | ✓                                    | -   | ✓                                    | ✓                                      | ✓                                      | ✓                                      |
| Shoe angle adjusting        |                 |      | ✓                                    | ✓   | ✓                                    | ✓                                      | ✓                                      | ✓                                      |
| Spring tension adjusting    |                 |      | -                                    | ✓   | -                                    | ✓                                      | -                                      | -                                      |
| Maximum tire size           |                 |      | 28C                                  | 28C   | 28C                                  | 25C                                    | 28C                                    | 28C                                    |
| Rim width (mm)              |                 |      | 20.8-28                              | 20.8-28   | 20.8-28                              | 19-28                                  | 19-28                                  | 19-28                                  |
| Cartridge shoe holder       | Material        |      | Aluminum                             | Aluminum  | Aluminum                             | Aluminum                               | Aluminum                               | Aluminum                               |
|                             | Finish          |      | Painted                              | Painted   | Painted                              | Painted                                | Painted                                | Painted                                |
| C-arm                       | Material        |      | Aluminum                             | Aluminum  | Aluminum                             | Aluminum                               | Aluminum                               | Aluminum                               |
|                             | Finish          |      | Anodized                             | Anodized  | Anodized                             | Anodized                               | Anodized                               | Anodized                               |
| Y-arm                       | Material        |      | Aluminum                             | Aluminum  | Aluminum                             | Aluminum                               | Aluminum                               | Aluminum                               |
|                             | Finish          |      | Anodized                             | Anodized  | Anodized                             | Anodized                               | Anodized                               | Anodized                               |
| Gate                        | Material        |      | -                                    | -   | -                                    | Aluminum                               | -                                      | -                                      |
|                             | Finish          |      | -                                    | -   | -                                    | Anodized                               | -                                      | -                                      |
| Quick release lever         | Material        |      | Resin                                | -   | Resin                                | Aluminum                               | Aluminum                               | Aluminum                               |
|                             | Finish          |      | -                                    | -   | -                                    | Painted                                | Painted                                | Painted                                |
| Titanium cable fixing screw |                 |      | -                                    | -   | -                                    | -                                      | -                                      | -                                      |
| Titanium pivot bolt         |                 |      | -                                    | -   | -                                    | -                                      | -                                      | -                                      |
| Average weight (g)          |                 |      | 174 ( /pc)                           | 160 ( /pc)  | 172 ( /pc)                           | 335 ( /pair)                           | 173 ( /pc)                             | 168 ( /pc)                             |
| Note                        |                 |      |                                      | Need inline cable adjuster (SM-CB90) for cable adjusting and quick release feature. |                                      | * Rim width: 19-28 mm (R55C4-A carbon) | * Rim width: 19-28 mm (R55C4-A carbon) | * Rim width: 19-28 mm (R55C4-A carbon) |

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# Brake (Caliper Brake)

| Series                      |                 |      | SHIMANO 105                          | SHIMANO 105                          | SHIMANO 105                          | TIAGRA                   | SORA                     | SHIMANO CLARIS           |
|-----------------------------|-----------------|------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------|--------------------------|--------------------------|
| Model no.                   |                 |      | BR-R7000                             | BR-R7010-F                           | BR-R7010-R5                          | BR-4700                  | BR-R3000                 | BR-R2000                 |
| Color                       | 1               |      | Silky black                          | Silky black                          | Silky black                          | Series color             | Series color             | Series color             |
|                             | 2               |      | Spark silver                         | -                                    | -                                    | -                        | -                        | -                        |
| Type                        |                 |      | SLR-EV Dual Pivot                    | Direct mount type                    | Direct mount type                    | NEW SUPER SLR Dual pivot | NEW SUPER SLR Dual pivot | NEW SUPER SLR Dual pivot |
| Reach (mm)                  |                 |      | 51                                   | 51                                   | 51                                   | 51                       | 51                       | 51                       |
| Brake shoe                  | Standard        |      | R55C4                                | R55C4                                | R55C4                                | R50T5                    | R50T5                    | R50T5                    |
|                             | Optional choice |      | R55C4 carbon, R55C4-A carbon, R55CT4 | R55C4 carbon, R55C4-A carbon, R55CT4 | R55C4 carbon, R55C4-A carbon, R55CT4 | R50T4                    | R50T4                    | R50T4                    |
| Compatibility               |                 |      | SLR-EV                               | SLR-EV                               | SLR-EV                               | NEW SUPER SLR            | NEW SUPER SLR            | NEW SUPER SLR            |
| Assembly pivot nut (mm)     | Front (mm)      | 10.5 | ✓                                    | -                                    | -                                    | ✓                        | ✓                        | ✓                        |
|                             |                 | 12.5 | ✓                                    | -                                    | -                                    | ✓                        | ✓                        | ✓                        |
|                             |                 | 18.0 | ✓                                    | -                                    | -                                    | ✓                        | ✓                        | ✓                        |
|                             |                 | 27.0 | ✓                                    | -                                    | -                                    | ✓                        | ✓                        | ✓                        |
|                             |                 | 32.0 | ✓                                    | -                                    | -                                    | ✓                        | ✓                        | ✓                        |
|                             | Rear (mm)       | 10.5 | ✓                                    | -                                    | -                                    | ✓                        | ✓                        | ✓                        |
| Cartridge shoe holder       |                 |      | ✓                                    | ✓                                    | ✓                                    | -                        | -                        | -                        |
| Tire guide bumpers          |                 |      | ✓                                    | ✓                                    | ✓                                    | -                        | -                        | -                        |
| Quick release lever         |                 |      | ✓                                    | ✓                                    | ✓                                    | ✓                        | ✓                        | ✓                        |
| Shoe angle adjusting        |                 |      | ✓                                    | ✓                                    | ✓                                    | ✓                        | ✓                        | ✓                        |
| Spring tension adjusting    |                 |      | -                                    | -                                    | -                                    | -                        | -                        | -                        |
| Maximum tire size           |                 |      | 28C                                  | 28C                                  | 28C                                  | 28C                      | 28C                      | 28C                      |
| Rim width (mm)              |                 |      | 20.8-28                              | 20.8-28                              | 20.8-28                              | 19-26                    | 19-28                    | 19-26                    |
| Cartridge shoe holder       | Material        |      | Aluminum                             | Aluminum                             | Aluminum                             | -                        | -                        | -                        |
|                             | Finish          |      | Painted                              | Painted                              | Painted                              | -                        | -                        | -                        |
| C-arm                       | Material        |      | Aluminum                             | Aluminum                             | Aluminum                             | Aluminum                 | Aluminum                 | Aluminum                 |
|                             | Finish          |      | Anodized                             | Anodized                             | Anodized                             | Anodized                 | Painted                  | Painted                  |
| Y-arm                       | Material        |      | Aluminum                             | Aluminum                             | Aluminum                             | Aluminum                 | Aluminum                 | Aluminum                 |
|                             | Finish          |      | Anodized                             | Anodized                             | Anodized                             | Anodized                 | Painted                  | Painted                  |
| Gate                        | Material        |      | Aluminum                             | -                                    | -                                    | Aluminum                 | Aluminum                 | Aluminum                 |
|                             | Finish          |      | Anodized                             | -                                    | -                                    | Anodized                 | Anodized                 | Anodized                 |
| Quick release lever         | Material        |      | Resin                                | Resin                                | Resin                                | Resin                    | Resin                    | Resin                    |
|                             | Finish          |      | -                                    | -                                    | -                                    | Painted                  | -                        | -                        |
| Titanium cable fixing screw |                 |      | -                                    | -                                    | -                                    | -                        | -                        | -                        |
| Titanium pivot bolt         |                 |      | -                                    | -                                    | -                                    | -                        | -                        | -                        |
| Average weight (g)          |                 |      | 379 (/pair)                          | 174 (/pc)                            | 174 (/pc)                            | -                        | -                        | -                        |
| Note                        |                 |      | -                                    | -                                    | -                                    |                          |                          |                          |

# Brake (Caliper Brake)

| Series                      |                 |      | SHIMANO                                    | SHIMANO  |
|-----------------------------|-----------------|------|--|--|
| Model no.                   |                 |      | BR-R561                                    | BR-R451  |
| Color                       | 1               |      | Silver                                     | Black  |
|                             | 2               |      | Black                                      | Silver   |
| Type                        |                 |      | NEW SUPER SLR Dual pivot                   | SUPER SLR Dual Pivot                                     |
| Reach (mm)                  |                 |      | 49   | 57   |
| Brake shoe                  | Standard        |      | R55C3                                      | R50T2  |
|                             | Optional choice |      | R55C for ceramic rim, R55C3 for carbon rim | -  |
| Compatibility               |                 |      | NEW SUPER SLR                              | SUPER SLR  |
| Assembly pivot nut (mm)     | Front (mm)      | 10.5 | ✓  | ✓  |
|                             |                 | 12.5 | ✓  | ✓  |
|                             |                 | 18.0 | ✓  | ✓  |
|                             |                 | 27.0 | ✓  | ✓  |
|                             |                 | 32.0 | -  | -  |
|                             | Rear (mm)       | 10.5 | ✓  | ✓  |
| Cartridge shoe holder       |                 |      | ✓  | -  |
| Tire guide bumpers          |                 |      | -  | -  |
| Quick release lever         |                 |      | ✓  | ✓  |
| Shoe angle adjusting        |                 |      | ✓  | ✓  |
| Spring tension adjusting    |                 |      | -  | -  |
| Maximum tire size           |                 |      | 28C  | 32C  |
| Rim width (mm)              |                 |      | 19-26                                      | 19-26  |
| Cartridge shoe holder       | Material        |      | Aluminum                                   | -  |
|                             | Finish          |      | Painted                                    | -  |
| C-arm                       | Material        |      | Aluminum                                   | Aluminum   |
|                             | Finish          |      | Anodized                                   | Painted  |
| Y-arm                       | Material        |      | Aluminum                                   | Aluminum   |
|                             | Finish          |      | Anodized                                   | Painted  |
| Gate                        | Material        |      | Aluminum                                   | Aluminum   |
|                             | Finish          |      | Anodized                                   | Painted  |
| Quick release lever         | Material        |      | Zinc                                       | Resin  |
|                             | Finish          |      | Plated                                     | -  |
| Titanium cable fixing screw |                 |      | -  | -  |
| Titanium pivot bolt         |                 |      | -  | -  |
| Average weight (g)          |                 |      | -  | -  |
| Note                        |                 |      | Maximum tire size: 28 mm                   | Quick release lever wider open. Maximum tire size: 32 mm |

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## Brake (V-BRAKE)

| Series                            |                 | SHIMANO        |
|-----------------------------------|-----------------|----------------|
| Model no.                         |                 | BR-R353        |
| Color                             | 1               | Silver         |
|                                   | 2               | Black          |
|                                   | 3               | -              |
| Brake type                        |                 | V-BRAKE        |
| Brake shoe                        | Standard 1      | S70T           |
|                                   | Standard 2      | -              |
|                                   | Option 1        | M70T4          |
|                                   | Option 2        | -              |
| Cartridge shoe holder             |                 | -              |
| Arch size (mm)                    |                 | 90             |
| Spacer type                       | X type          | ✓              |
|                                   | Y type          | -              |
| Compatible lead pipe angle (deg.) |                 | 45/90/135      |
| Sleeve & bushing axle             |                 | ✓              |
| V-arm/caliper                     | Material        | Aluminum       |
|                                   | Finish          | Painted        |
| Fixing screw length (mm)          | 16              | ✓              |
|                                   | 25              | ✓              |
| Fixing screw                      | Material        | Steel          |
|                                   | Finish          | Plated (black) |
|                                   | Chamfered screw | -              |
| POWER MODULATOR                   |                 | -              |
| Linear spring                     |                 | ✓              |
| Threaded brake shoe post          |                 | ✓              |
| Average weight (g)                |                 | -              |
| Note                              |                 | SHIMANO logo   |

## Brake (Cantilever Brake)

| Series                   |                 | SHIMANO          |
|--------------------------|-----------------|------------------|
| Model no.                |                 | BR-CX50          |
| Color                    | 1               | Silver           |
|                          | 2               | -                |
| Brake type               |                 | Cantilever brake |
| Reach                    |                 | -                |
| Brake shoe               | Standard        | R50T2            |
|                          | Optional choice | -                |
| Compatibility            |                 | NEW SUPER SLR    |
| Assembly pivot nut (mm)  |                 | -                |
| Cartridge shoe holder    |                 | -                |
| Tire guide bumpers       |                 | -                |
| Quick release lever      |                 | -                |
| Toe-in adjust            |                 | ✓                |
| Spring tension adjusting |                 | ✓                |
| Cartridge shoe holder    | Material        | -                |
|                          | Finish          | -                |
| Cantilever               | Material        | Aluminum         |
|                          | Finish          | Anodized         |
| Average weight (g)       |                 | 175              |
| Note                     |                 | Cyclocross usage |

## Brake Cable

| Series       |                       | DURA-ACE             | SHIMANO              | SHIMANO |
|--------------|-----------------------|----------------------|----------------------|---------|
| Model no.    |                       | BC-9000              | BC-R680              | BC-1051 |
| Color        | High-tech gray        | ✓                    | ✓                    | ✓       |
|              | Black                 | ✓                    | ✓                    | ✓       |
|              | White                 | ✓                    | ✓                    | ✓       |
|              | Red                   | ✓                    | ✓                    | ✓       |
|              | Blue                  | ✓                    | ✓                    | -       |
|              | Lime-green            | ✓                    | ✓                    | -       |
|              | Orange                | ✓                    | ✓                    | -       |
|              | Yellow                | ✓                    | ✓                    | -       |
| Brake type   |                       | Caliper              | Caliper              | Caliper |
| Inner cable  | Material              | Stainless steel      | Stainless steel      | Steel   |
|              | Coated                | Polymer-coated cable | Polymer-coated cable | -       |
| Outer casing | Material              | Steel (plated)       | Steel (plated)       | Steel   |
|              | Prelubricated casings | ✓                    | ✓                    | -       |
| Note         |                       |                      |                      |         |

# Rear Derailleur

ROAD

| Series                       |                          |                                  | DURA-ACE                     | DURA-ACE               | ULTEGRA                      | ULTEGRA                      | ULTEGRA                | ULTEGRA                |
|------------------------------|--------------------------|----------------------------------|------------------------------|------------------------|------------------------------|------------------------------|------------------------|------------------------|
| Model no.                    |                          |                                  | RD-R9100-SS                  | RD-9000-SS             | RD-R8000-SS                  | RD-R8000-GS                  | RD-6800-SS             | RD-6800-GS             |
| Color                        | 1                        |                                  | Series color                 | Series color           | Series color                 | Series color                 | Series color           | Series color           |
|                              | 2                        |                                  | -                            | -                      | -                            | -                            | -                      | -                      |
| Rear speeds                  |                          |                                  | 11                           | 11                     | 11                           | 11                           | 11                     | 11                     |
| Compatible chain             |                          |                                  | LINKGLIDE, HG 11-speed       | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed       | LINKGLIDE, HG 11-speed       | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed |
| RD construction              | SHIMANO SHADOW RD        |                                  | ✓                            | -                      | ✓                            | ✓                            | -                      | -                      |
|                              | SHIMANO SHADOW RD+       |                                  | -                            | -                      | -                            | -                            | -                      | -                      |
|                              | Double servo             |                                  | -                            | ✓                      | -                            | -                            | ✓                      | ✓                      |
| Applicable derailleur hanger | SHIMANO MTB type         | Direct attachment (conventional) | -                            | -                      | -                            | -                            | -                      | -                      |
|                              |                          | Direct mount                     | -                            | -                      | -                            | -                            | -                      | -                      |
|                              | SHIMANO ROAD type        | Direct attachment (conventional) | ✓                            | ✓                      | ✓                            | ✓                            | ✓                      | ✓                      |
|                              |                          | Direct mount                     | ✓                            | -                      | ✓                            | ✓                            | -                      | -                      |
|                              | UDH standard             |                                  | -                            | -                      | -                            | -                            | -                      | -                      |
|                              | Riveted adapter          | ROAD type                        | -                            | -                      | -                            | -                            | -                      | -                      |
|                              |                          | BMX-track type                   | -                            | -                      | -                            | -                            | -                      | -                      |
|                              | Cable adjuster           |                                  |                              | ✓                      | ✓                            | ✓                            | ✓                      | ✓                      |
| Max. front difference        |                          |                                  | 16T                          | 16T                    | 16T                          | 16T                          | 16T                    | 16T                    |
| Total capacity               |                          |                                  | 35T                          | 33T                    | 35T                          | 39T                          | 33T                    | 37T                    |
| Low sprocket                 | Max.                     |                                  | 30T                          | 28T                    | 30T                          | 34T                          | 28T                    | 32T                    |
|                              | Min.                     |                                  | 25T                          | 23T                    | 25T                          | 28T                          | 23T                    | 28T                    |
| Top sprocket                 | Max.                     |                                  | 14T                          | 14T                    | 14T                          | 12T                          | 14T                    | 12T                    |
|                              | Min.                     |                                  | 11T                          | 11T                    | 11T                          | 11T                          | 11T                    | 11T                    |
| Fluoric coated link bushings |                          |                                  | 4                            | 4                      | 4                            | 4                            | 4                      | 4                      |
| Pulley                       | Guide pulley bearing     |                                  | ✓                            | ✓                      | ✓                            | ✓                            | ✓                      | ✓                      |
|                              | Tension pulley bearing   |                                  | ✓                            | ✓                      | ✓                            | ✓                            | ✓                      | ✓                      |
|                              | Teeth                    |                                  | 11T                          | 11T                    | 11T                          | 11T                          | 11T                    | 11T                    |
|                              | Screws material          |                                  | Stainless steel              | Stainless steel        | Stainless steel              | Stainless steel              | Stainless steel        | Stainless steel        |
|                              | Sunken type pulley screw |                                  | ✓                            | ✓                      | ✓                            | ✓                            | ✓                      | ✓                      |
| Bracket                      | Material                 |                                  | Aluminum                     | -                      | -                            | -                            | -                      | -                      |
|                              | Finish                   |                                  | Anodized                     | -                      | -                            | -                            | -                      | -                      |
| B-axle                       | Hollow axle              |                                  | ✓                            | ✓                      | ✓                            | ✓                            | ✓                      | ✓                      |
|                              | Material                 |                                  | Aluminum                     | Aluminum               | Stainless steel              | Stainless steel              | Stainless steel        | Stainless steel        |
|                              | Finish                   |                                  | Anodized                     | -                      | -                            | -                            | -                      | -                      |
| B-axle 2                     | Hollow axle              |                                  | -                            | -                      | -                            | -                            | -                      | -                      |
|                              | Material                 |                                  | Aluminum                     | -                      | -                            | -                            | -                      | -                      |
|                              | Finish                   |                                  | Anodized                     | -                      | -                            | -                            | -                      | -                      |
| Bracket body                 | Material                 |                                  | Aluminum                     | Aluminum               | Aluminum                     | Aluminum                     | Aluminum               | Aluminum               |
|                              | Finish                   |                                  | Anodized                     | Anodized               | Painted                      | Painted                      | Painted                | Painted                |
| P-axle                       | Material                 |                                  | Aluminum                     | Aluminum               | Aluminum                     | Aluminum                     | Aluminum               | Aluminum               |
|                              | Finish                   |                                  | Plated                       | Plated                 | Plated                       | Plated                       | Plated                 | Plated                 |
| Plate body                   | Material                 |                                  | CFRP                         | CFRP                   | GFRP                         | GFRP                         | CFRP                   | CFRP                   |
|                              | Finish                   |                                  | Painted                      | Painted                | Painted                      | Painted                      | Painted                | Painted                |
| Outer link                   | Material                 |                                  | Aluminum                     | Aluminum               | Aluminum                     | Aluminum                     | Aluminum               | Aluminum               |
|                              | Finish                   |                                  | Anodized                     | Anodized               | Painted                      | Painted                      | Painted                | Painted                |
| Inner link                   | Material                 |                                  | Aluminum                     | Aluminum               | GFRP                         | GFRP                         | Aluminum               | Aluminum               |
|                              | Finish                   |                                  | Anodized                     | Anodized               | -                            | -                            | Painted                | Painted                |
| Outer plate                  | Material                 |                                  | Carbon                       | Carbon                 | Aluminum                     | Aluminum                     | Aluminum               | Aluminum               |
|                              | Finish                   |                                  | Clear coated                 | Clear coated           | Painted                      | Painted                      | Painted                | Painted                |
| Inner plate                  | Material                 |                                  | CFRP                         | CFRP                   | Aluminum                     | Aluminum                     | Aluminum               | Aluminum               |
|                              | Finish                   |                                  | Clear coated                 | Clear coated           | Painted                      | Painted                      | Painted                | Painted                |
| Cable fixing screw           | Material                 |                                  | Stainless steel              | Stainless steel        | Stainless steel              | Stainless steel              | Stainless steel        | Stainless steel        |
|                              | Finish                   |                                  | Black coated                 | -                      | Black coated                 | Black coated                 | -                      | -                      |
| Stroke adjusting screw       | Material                 |                                  | Aluminum                     | Aluminum               | Steel                        | Steel                        | Steel                  | Steel                  |
|                              | Finish                   |                                  | Anodized                     | Anodized               | Plated                       | Plated                       | Plated                 | Plated                 |
| Average weight (g)           |                          |                                  | 158                          | 158                    | 200                          | 210                          | 195                    | 207                    |
| Note                         |                          |                                  | * w/o Bracket spec available |                        | * w/o Bracket spec available | * w/o Bracket spec available |                        |                        |

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# Rear Derailleur

| Series                       |                          |                                  | ULTEGRA RX                   | SHIMANO 105     | SHIMANO 105                  | SHIMANO 105                  | SHIMANO 105                            | SHIMANO 105                            |
|------------------------------|--------------------------|----------------------------------|------------------------------|-----------------|------------------------------|------------------------------|--|--|
| Model no.                    |                          |                                  | RD-RX800-GS                  | RD-R7100        | RD-R7000-SS                  | RD-R7000-GS                  | RD-5701-SS                             | RD-5701-GS                             |
| Color                        | 1                        | Series color                     |                              | Series color    | Silky black                  | Silky black                  | Black                                  | Black                                  |
|                              | 2                        | -                                |                              | -               | Spark silver                 | Spark silver                 | Silver                                 | Silver                                 |
| Rear speeds                  |                          |                                  | 11                           | 12              | 11                           | 11                           | 10                                     | 10                                     |
| Compatible chain             |                          |                                  | LINKGLIDE, HG 11-speed       | HG 12-speed     | LINKGLIDE, HG 11-speed       | LINKGLIDE, HG 11-speed       | HG 10-speed                            | HG 10-speed                            |
| RD construction              | SHIMANO SHADOW RD        |                                  | -                            | ✓               | ✓                            | ✓                            | -                                      | -                                      |
|                              | SHIMANO SHADOW RD+       |                                  | ✓                            | -               | -                            | -                            | -                                      | -                                      |
|                              | Double servo             |                                  | -                            | -               | -                            | -                            | ✓                                      | ✓                                      |
| Applicable derailleur hanger | SHIMANO MTB type         | Direct attachment (conventional) | -                            | -               | -                            | -                            | -                                      | -                                      |
|                              |                          | Direct mount                     | -                            | -               | -                            | -                            | -                                      | -                                      |
|                              | SHIMANO ROAD type        | Direct attachment (conventional) | ✓                            | ✓               | ✓                            | ✓                            | ✓                                      | ✓                                      |
|                              |                          | Direct mount                     | ✓                            | ✓               | ✓                            | ✓                            | -                                      | -                                      |
|                              | UDH standard             |                                  | -                            | -               | -                            | -                            | -                                      | -                                      |
|                              | Riveted adapter          | ROAD type                        | -                            | -               | -                            | -                            | -                                      | -                                      |
|                              |                          | BMX-track type                   | -                            | -               | -                            | -                            | -                                      | -                                      |
|                              | Cable adjuster           |                                  |                              | ✓               | ✓                            | ✓                            | ✓                                      | ✓                                      |
| Max. front difference        |                          |                                  | 16T                          | 16T             | 16T                          | 16T                          | 16T                                    | 16T (front double), 22T (front triple) |
| Total capacity               |                          |                                  | 39T                          | 41T             | 35T                          | 39T                          | 34T                                    | 40T                                    |
| Low sprocket                 | Max.                     | 34T                              | 36T                          | 30T             | 34T                          | 30T                          | 30T (front triple), 32T (front double) |  |
|                              | Min.                     | 28T                              | 34T                          | 25T             | 28T                          | 25T                          | 27T (front double), 25T (front triple) |  |
| Top sprocket                 | Max.                     | 11T                              | 11T                          | 14T             | 12T                          | 14T                          | 12T (front double), 14T (front triple) |  |
|                              | Min.                     | 11T                              | 11T                          | 11T             | 11T                          | 11T                          | 11T                                    |  |
| Fluoric coated link bushings |                          |                                  | 4                            | 2               | 2                            | 2                            | 2                                      |  |
| Pulley                       | Guide pulley bearing     |                                  | ✓                            | ✓               | -                            | -                            | -                                      | -                                      |
|                              | Tension pulley bearing   |                                  | ✓                            | -               | -                            | -                            | -                                      | -                                      |
|                              | Teeth                    |                                  | 11T                          | 11T             | 11T                          | 11T                          | 11T                                    | 11T                                    |
|                              | Screws material          |                                  | Stainless steel              | Stainless steel | Stainless steel              | Stainless steel              | Stainless steel                        | Stainless steel                        |
|                              | Sunken type pulley screw |                                  | ✓                            | ✓               | ✓                            | ✓                            | ✓                                      | ✓                                      |
| Bracket                      | Material                 |                                  | Aluminum                     | -               | -                            | -                            | -                                      | -                                      |
|                              | Finish                   |                                  | Anodized                     | -               | -                            | -                            | -                                      | -                                      |
| B-axle                       | Hollow axle              |                                  | ✓                            | -               | -                            | -                            | -                                      | -                                      |
|                              | Material                 |                                  | Stainless steel              | Stainless steel | Stainless steel              | Stainless steel              | Steel                                  | Steel                                  |
|                              | Finish                   |                                  | -                            | -               | -                            | -                            | Plated                                 | Plated                                 |
| B-axle 2                     | Hollow axle              |                                  | -                            | -               | -                            | -                            | -                                      | -                                      |
|                              | Material                 |                                  | -                            | -               | -                            | -                            | -                                      | -                                      |
|                              | Finish                   |                                  | -                            | -               | -                            | -                            | -                                      | -                                      |
| Bracket body                 | Material                 |                                  | Aluminum                     | Aluminum        | Aluminum                     | Aluminum                     | Aluminum                               | Aluminum                               |
|                              | Finish                   |                                  | Painted                      | Painted         | Painted                      | Painted                      | Painted                                | Painted                                |
| P-axle                       | Material                 |                                  | Steel                        | Steel           | Steel                        | Steel                        | Steel                                  | Steel                                  |
|                              | Finish                   |                                  | -                            | Plated          | Plated                       | Plated                       | Plated                                 | Plated                                 |
| Plate body                   | Material                 |                                  | Aluminum                     | GFRP            | GFRP                         | GFRP                         | Aluminum                               | Aluminum                               |
|                              | Finish                   |                                  | Painted                      | Painted         | Painted                      | Painted                      | Painted                                | Painted                                |
| Outer link                   | Material                 |                                  | Aluminum                     | Aluminum        | Aluminum                     | Aluminum                     | Aluminum                               | Aluminum                               |
|                              | Finish                   |                                  | Painted                      | Painted         | Painted                      | Painted                      | Painted                                | Painted                                |
| Inner link                   | Material                 |                                  | Aluminum                     | GFRP            | GFRP                         | GFRP                         | Steel                                  | Steel                                  |
|                              | Finish                   |                                  | Painted                      | -               | -                            | -                            | Plated                                 | Plated                                 |
| Outer plate                  | Material                 |                                  | Aluminum                     | Aluminum        | Aluminum                     | Aluminum                     | Aluminum                               | Aluminum                               |
|                              | Finish                   |                                  | Painted                      | Painted         | Painted                      | Painted                      | Painted                                | Painted                                |
| Inner plate                  | Material                 |                                  | Aluminum                     | Aluminum        | Aluminum                     | Aluminum                     | Aluminum                               | Aluminum                               |
|                              | Finish                   |                                  | Painted                      | Painted         | Painted                      | Painted                      | Painted                                | Painted                                |
| Cable fixing screw           | Material                 |                                  | Stainless steel              | Steel           | Steel                        | Steel                        | Steel                                  | Steel                                  |
|                              | Finish                   |                                  | Passivation                  | Plated          | Plated                       | Plated                       | Plated                                 | Plated                                 |
| Stroke adjusting screw       | Material                 |                                  | Steel                        | Steel           | Steel                        | Steel                        | Steel                                  | Steel                                  |
|                              | Finish                   |                                  | Plated                       | Plated          | Plated                       | Plated                       | Plated                                 | Plated                                 |
| Average weight (g)           |                          |                                  | 248                          | 249             | 225                          | 232                          | 230                                    | 243                                    |
| Note                         |                          |                                  | * w/o bracket spec available |                 | * w/o Bracket spec available | * w/o Bracket spec available |  |  |

# Rear Derailleur

ROAD

| Series                       |                          |                                  | TIAGRA                                 | TIAGRA                                 | SORA            | SORA            | SHIMANO         | SHIMANO CLARIS  |
|------------------------------|--------------------------|----------------------------------|--|--|-----------------|-----------------|-----------------|-----------------|
| Model no.                    |                          |                                  | RD-4700-SS                             | RD-4700-GS                             | RD-R3000-SS     | RD-R3000-GS     | RD-R350-GS      | RD-R2000-SS     |
| Color                        | 1                        | Series color                     | Series color                           | Series color                           | Series color    | Black           | Series color    |                 |
|                              | 2                        | -                                | -                                      | -                                      | -               | -               | -               |                 |
| Rear speeds                  |                          |                                  | 10                                     | 10                                     | 9               | 9               | 9               | 8               |
| Compatible chain             |                          |                                  | HG-X 10-speed                          | HG-X 10-speed                          | HG 9-speed      | HG 9-speed      | HG 9-speed      | HG 8/7/6-speed  |
| RD construction              | SHIMANO SHADOW RD        |                                  | -                                      | -                                      | -               | -               | -               |                 |
|                              | SHIMANO SHADOW RD+       |                                  | -                                      | -                                      | -               | -               | -               |                 |
|                              | Double servo             |                                  | ✓                                      | ✓                                      | ✓               | ✓               | ✓               |                 |
| Applicable derailleur hanger | SHIMANO MTB type         | Direct attachment (conventional) | -                                      | -                                      | -               | -               | -               | -               |
|                              |                          | Direct mount                     | -                                      | -                                      | -               | -               | -               | -               |
|                              | SHIMANO ROAD type        | Direct attachment (conventional) | ✓                                      | ✓                                      | ✓               | ✓               | ✓               | ✓               |
|                              |                          | Direct mount                     | -                                      | -                                      | -               | -               | -               | -               |
|                              | UDH standard             |                                  | -                                      | -                                      | -               | -               | -               | -               |
|                              | Riveted adapter          | ROAD type                        | -                                      | -                                      | -               | -               | -               | -               |
|                              |                          | BMX-track type                   | -                                      | -                                      | -               | -               | -               | -               |
|                              | Cable adjuster           |                                  |  | ✓                                      | ✓               | ✓               | ✓               | ✓               |
| Max. front difference        |                          |                                  | 16T                                    | 16T (front double), 20T (front triple) | 16T             | 20T             | 20T             | 16T             |
| Total capacity               |                          |                                  | 33T                                    | 41T                                    | 37T             | 43T             | 41T             | 37T             |
| Low sprocket                 | Max.                     | 28T                              | 32T (front triple), 34T (front double) | 32T                                    | 34T             | 32T             | 32T             |                 |
|                              | Min.                     | 25T                              | 28T (front double), 25T (front triple) | 25T                                    | 28T             | 25T             | 25T             |                 |
| Top sprocket                 | Max.                     | 14T                              | 12T                                    | 14T                                    | 14T             | 14T             | 13T             |                 |
|                              | Min.                     | 11T                              | 11T                                    | 11T                                    | 11T             | 11T             | 11T             |                 |
| Fluoroc coated link bushings |                          |                                  | 2                                      | 2                                      | 2               | 2               | 2               | -               |
| Pulley                       | Guide pulley bearing     |                                  | -                                      | -                                      | -               | -               | -               | -               |
|                              | Tension pulley bearing   |                                  | -                                      | -                                      | -               | -               | -               | -               |
|                              | Teeth                    |                                  | 11T                                    | 11T                                    | 11T             | 11T             | 11T             | 11T             |
|                              | Screws material          |                                  | Stainless steel                        | Stainless steel                        | Steel           | Steel           | Steel           | Steel           |
|                              | Sunken type pulley screw |                                  | ✓                                      | ✓                                      | -               | -               | ✓               | ✓               |
| Bracket                      | Material                 |                                  | -                                      | -                                      | -               | -               | -               | -               |
|                              | Finish                   |                                  | -                                      | -                                      | -               | -               | -               | -               |
| B-axle                       | Hollow axle              |                                  | -                                      | -                                      | -               | -               | -               | -               |
|                              | Material                 |                                  | Stainless steel                        | Stainless steel                        | Stainless steel | Stainless steel | Stainless steel | Stainless steel |
|                              | Finish                   |                                  | -                                      | -                                      | -               | -               | -               | Plated          |
| B-axle 2                     | Hollow axle              |                                  | -                                      | -                                      | -               | -               | -               | -               |
|                              | Material                 |                                  | -                                      | -                                      | -               | -               | -               | -               |
|                              | Finish                   |                                  | -                                      | -                                      | -               | -               | -               | -               |
| Bracket body                 | Material                 |                                  | Aluminum                               | Aluminum                               | Aluminum        | Aluminum        | Aluminum        | Aluminum        |
|                              | Finish                   |                                  | Painted                                | Painted                                | Painted         | Painted         | Painted         | Painted         |
| P-axle                       | Material                 |                                  | Steel                                  | Steel                                  | Steel           | Steel           | Steel           | Steel           |
|                              | Finish                   |                                  | Plated                                 | Plated                                 | Plated          | Plated          | Plated          | Plated          |
| Plate body                   | Material                 |                                  | Aluminum                               | Aluminum                               | Resin           | Resin           | Resin           | Resin           |
|                              | Finish                   |                                  | Painted                                | Painted                                | Painted         | Painted         | Painted         | Painted         |
| Outer link                   | Material                 |                                  | Aluminum                               | Aluminum                               | Aluminum        | Aluminum        | Aluminum        | Steel           |
|                              | Finish                   |                                  | Painted                                | Painted                                | Painted         | Painted         | Painted         | Painted         |
| Inner link                   | Material                 |                                  | Steel                                  | Steel                                  | Steel           | Steel           | Steel           | Steel           |
|                              | Finish                   |                                  | Plated                                 | Plated                                 | Painted         | Painted         | Painted         | Painted         |
| Outer plate                  | Material                 |                                  | Steel                                  | Steel                                  | Steel           | Steel           | Steel           | Steel           |
|                              | Finish                   |                                  | Plated                                 | Plated                                 | Painted         | Painted         | Painted         | Painted         |
| Inner plate                  | Material                 |                                  | Steel                                  | Steel                                  | Steel           | Steel           | Steel           | Steel           |
|                              | Finish                   |                                  | Plated                                 | Plated                                 | Painted         | Painted         | Painted         | Painted         |
| Cable fixing screw           | Material                 |                                  | Steel                                  | Steel                                  | Steel           | Steel           | Steel           | Steel           |
|                              | Finish                   |                                  | Plated                                 | Plated                                 | Nickel plated   | Nickel plated   | Nickel plated   | Nickel plated   |
| Stroke adjusting screw       | Material                 |                                  | Steel                                  | Steel                                  | Steel           | Steel           | Steel           | Steel           |
|                              | Finish                   |                                  | Plated                                 | Plated                                 | Zinc Plated     | Zinc Plated     | Zinc Plated     | Zinc Plated     |
| Average weight (g)           |                          |                                  | -                                      | -                                      | -               | -               | -               | -               |
| Note                         |                          |                                  |  |  |                 |                 | SHIMANO logo    |                 |

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# Rear Derailleur

| Series                       |                          |                                  | SHIMANO CLARIS  |
|------------------------------|--------------------------|----------------------------------|-----------------|
| Model no.                    |                          |                                  | RD-R2000-GS     |
| Color                        | 1                        |                                  | Series color    |
|                              | 2                        |                                  | -               |
| Rear speeds                  |                          |                                  | 8               |
| Compatible chain             |                          |                                  | HG 8/7/6-speed  |
| RD construction              | SHIMANO SHADOW RD        |                                  | -               |
|                              | SHIMANO SHADOW RD+       |                                  | -               |
|                              | Double servo             |                                  | ✓               |
| Applicable derailleur hanger | SHIMANO MTB type         | Direct attachment (conventional) | -               |
|                              |                          | Direct mount                     | -               |
|                              | SHIMANO ROAD type        | Direct attachment (conventional) | ✓               |
|                              |                          | Direct mount                     | -               |
|                              | UDH standard             |                                  | -               |
|                              | Riveted adapter          | ROAD type                        | -               |
|                              |                          | BMX-track type                   | -               |
|                              | Cable adjuster           |                                  |                 |
| Max. front difference        |                          |                                  | 20T             |
| Total capacity               |                          |                                  | 43T             |
| Low sprocket                 | Max.                     |                                  | 34T             |
|                              | Min.                     |                                  | 28T             |
| Top sprocket                 | Max.                     |                                  | 13T             |
|                              | Min.                     |                                  | 11T             |
| Fluoric coated link bushings |                          |                                  | -               |
| Pulley                       | Guide pulley bearing     |                                  | -               |
|                              | Tension pulley bearing   |                                  | -               |
|                              | Teeth                    |                                  | 11T             |
|                              | Screws material          |                                  | Steel           |
|                              | Sunken type pulley screw |                                  | ✓               |
| Bracket                      | Material                 |                                  | -               |
|                              | Finish                   |                                  | -               |
| B-axle                       | Hollow axle              |                                  | -               |
|                              | Material                 |                                  | Stainless steel |
| B-axle 2                     | Finish                   |                                  | Plated          |
|                              | Hollow axle              |                                  | -               |
|                              | Material                 |                                  | -               |
| Bracket body                 | Finish                   |                                  | -               |
|                              | Material                 |                                  | Aluminum        |
|                              | Finish                   |                                  | Painted         |
| P-axle                       | Material                 |                                  | Steel           |
|                              | Finish                   |                                  | Plated          |
| Plate body                   | Material                 |                                  | Resin           |
|                              | Finish                   |                                  | Painted         |
| Outer link                   | Material                 |                                  | Steel           |
|                              | Finish                   |                                  | Painted         |
| Inner link                   | Material                 |                                  | Steel           |
|                              | Finish                   |                                  | Painted         |
| Outer plate                  | Material                 |                                  | Steel           |
|                              | Finish                   |                                  | Painted         |
| Inner plate                  | Material                 |                                  | Steel           |
|                              | Finish                   |                                  | Painted         |
| Cable fixing screw           | Material                 |                                  | Steel           |
|                              | Finish                   |                                  | Nickel plated   |
| Stroke adjusting screw       | Material                 |                                  | Steel           |
|                              | Finish                   |                                  | Zinc Plated     |
| Average weight (g)           |                          |                                  | -               |
| Note                         |                          |                                  |                 |

# Front Derailleur

ROAD

| Series   |                    |      | DURA-ACE               | DURA-ACE               | DURA-ACE               | DURA-ACE               | ULTEGRA                | ULTEGRA                |
|--|--------------------|------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Model no.  |                    |      | FD-R9100-F             | FD-R9100-B             | FD-9000-F              | FD-9000-B              | FD-R8000-F             | FD-R8000-B             |
| Color  | 1                  |      | Series color           | Series color           | Series color           | Series color           | Series color           | Series color           |
|  | 2                  |      | -                      | -                      | -                      | -                      | -                      | -                      |
| Front speeds   |                    |      | 2                      | 2                      | 2                      | 2                      | 2                      | 2                      |
| Rear speeds  |                    |      | 11                     | 11                     | 11                     | 11                     | 11                     | 11                     |
| Compatible chain   |                    |      | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed |
| Action   | TOP SWING          |      | -                      | -                      | -                      | -                      | -                      | -                      |
|  | Down swing         |      | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
| Mount  | Clamp band (mm)    | 28.6 | -                      | ✓ (w/ S size adapter)  | -                      | ✓ (w/ S size adapter)  | -                      | ✓ (w/ S size adapter)  |
|  |                    | 31.8 | -                      | ✓                      | -                      | ✓                      | -                      | ✓                      |
|  |                    | 34.9 | -                      | ✓                      | -                      | ✓                      | -                      | ✓                      |
|  | Brazed-on          |      | ✓                      | -                      | ✓                      | -                      | ✓                      | -                      |
| Cable adjust   |                    |      | ✓                      | ✓                      | -                      | -                      | ✓                      | ✓                      |
| Cable route type   | Top-pull exclusive |      | -                      | -                      | -                      | -                      | -                      | -                      |
| Chain line (mm)  |                    |      | 43.5                   | 43.5                   | 43.5                   | 43.5                   | 43.5                   | 43.5                   |
| Chainstay angle (deg.)                                       |                    |      | 61-66                  | 61-66                  | 61-66                  | 61-66                  | 61-66                  | 61-66                  |
| Top gear teeth   |                    |      | 50-55T                 | 50-55T                 | 50-55T                 | 50-55T                 | 46-53T                 | 46-53T                 |
| Total capacity   |                    |      | 16T                    | 16T                    | 16T                    | 16T                    | 16T                    | 16T                    |
| Applicable top-mid tooth difference                          |                    |      | -                      | -                      | -                      | -                      | -                      | -                      |
| Angled clamp band design                                     |                    |      | -                      | -                      | -                      | -                      | -                      | -                      |
| Multi-bearing construction                                   |                    |      | 2                      | 2                      | -                      | -                      | -                      | -                      |
| Link bushings  |                    |      | 8                      | 8                      | 7                      | 7                      | 8                      | 8                      |
| Front clamp band   | Material           |      | -                      | Aluminum               | -                      | Aluminum               | -                      | Aluminum               |
|  | Finish             |      | -                      | Painted                | -                      | Anodized               | -                      | Painted                |
| Rear clamp band, base bracket                                | Material           |      | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               |
|  | Finish             |      | Painted                | Painted                | Anodized               | Anodized               | Painted                | Painted                |
| Clamp screw  | Material           |      | -                      | -                      | -                      | -                      | -                      | -                      |
|  | Finish             |      | -                      | -                      | -                      | -                      | -                      | -                      |
| Outer link   | Material           |      | CFRF                   | CFRF                   | Aluminum               | Aluminum               | GFRP                   | GFRP                   |
|  | Finish             |      | Plated/Painted         | Plated/Painted         | Anodized               | Anodized               | Painted                | Painted                |
| Inner link   | Material           |      | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               |
|  | Finish             |      | Anodized               | Anodized               | Anodized               | Anodized               | Painted                | Painted                |
| Chain guide  | Material           |      | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Steel                  | Steel                  |
|  | Finish             |      | Nickel plated          | Nickel plated          | Nickel plated          | Nickel plated          | Chrome plated          | Chrome plated          |
| Cable fixing screw   | Material           |      | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        |
|  | Finish             |      | -                      | -                      | -                      | -                      | -                      | -                      |
| Stroke adjusting screw                                       | Material           |      | Steel                  | Steel                  | Aluminum               | Aluminum               | Stainless steel        | Stainless steel        |
|  | Finish             |      | Black                  | Black                  | Anodized               | Anodized               | Black                  | Black                  |
| Average weight (g) (band type: L size, direct type w/ screw) |                    |      | 70                     | 85                     | 66                     | 78                     | 92                     | 106                    |
| Note   |                    |      |                        |                        |                        |                        |                        |                        |



# Front Derailleur

| Series   |                    |      | ULTEGRA                | ULTEGRA                | SHIMANO 105     | SHIMANO 105           | SHIMANO 105            | SHIMANO 105            |
|--|--------------------|------|------------------------|------------------------|-----------------|-----------------------|------------------------|------------------------|
| Model no.  |                    |      | FD-6800-F              | FD-6800-B              | FD-R7100-F      | FD-R7100-B            | FD-R7000-F             | FD-R7000-B             |
| Color  | 1                  |      | Series color           | Series color           | Series color    | Series color          | Silky black            | Silky black            |
|  | 2                  |      | -                      | -                      | -               | -                     | Spark silver           | Spark silver           |
| Front speeds   |                    |      | 2                      | 2                      | 2               | 2                     | 2                      | 2                      |
| Rear speeds  |                    |      | 11                     | 11                     | 12              | 12                    | 11                     | 11                     |
| Compatible chain   |                    |      | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed | HG 12-speed     | HG 12-speed           | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed |
| Action   | TOP SWING          |      | -                      | -                      | -               | -                     | -                      | -                      |
|  | Down swing         |      | ✓                      | ✓                      | ✓               | ✓                     | ✓                      | ✓                      |
| Mount  | Clamp band (mm)    | 28.6 | -                      | ✓ (w/ S size adapter)  | -               | ✓ (w/ S size adapter) | -                      | ✓ (w/ S size adapter)  |
|  |                    | 31.8 | -                      | ✓                      | -               | ✓                     | -                      | ✓                      |
|  |                    | 34.9 | -                      | ✓                      | -               | ✓                     | -                      | ✓                      |
|  | Brazed-on          |      | ✓                      | -                      | ✓               | -                     | ✓                      | -                      |
| Cable adjust   |                    |      | -                      | -                      | ✓               | ✓                     | ✓                      | ✓                      |
| Cable route type   | Top-pull exclusive |      | -                      | -                      | -               | -                     | -                      | -                      |
| Chain line (mm)  |                    |      | 43.5                   | 43.5                   | 44.5            | 44.5                  | 43.5                   | 43.5                   |
| Chainstay angle (deg.)                                       |                    |      | 61-66                  | 61-66                  | 61-66           | 61-66                 | 61-66                  | 61-66                  |
| Top gear teeth   |                    |      | 46-53T                 | 46-53T                 | 50-52T          | 50-52T                | 46-53T                 | 46-53T                 |
| Total capacity   |                    |      | 16T                    | 16T                    | 16T             | 16T                   | 16T                    | 16T                    |
| Applicable top-mid tooth difference                          |                    |      | -                      | -                      | -               | -                     | -                      | -                      |
| Angled clamp band design                                     |                    |      | -                      | -                      | -               | ✓                     | -                      | ✓                      |
| Multi-bearing construction                                   |                    |      | -                      | -                      | -               | -                     | -                      | -                      |
| Link bushings  |                    |      | 7                      | 7                      | 7               | 7                     | 7                      | 7                      |
| Front clamp band   | Material           |      | -                      | Aluminum               | -               | Aluminum              | -                      | Aluminum               |
|  | Finish             |      | -                      | Painted                | -               | Painted               | -                      | Painted                |
| Rear clamp band, base bracket                                | Material           |      | Aluminum               | Aluminum               | Aluminum        | Aluminum              | Aluminum               | Aluminum               |
|  | Finish             |      | Painted                | Painted                | Painted         | Painted               | Painted                | Painted                |
| Clamp screw  | Material           |      | -                      | -                      | -               | -                     | -                      | -                      |
|  | Finish             |      | -                      | -                      | -               | -                     | -                      | -                      |
| Outer link   | Material           |      | Aluminum               | Aluminum               | GFRP            | GFRP                  | GFRP                   | GFRP                   |
|  | Finish             |      | Painted                | Painted                | Painted         | Painted               | Painted                | Painted                |
| Inner link   | Material           |      | Aluminum               | Aluminum               | Steel           | Steel                 | Steel                  | Steel                  |
|  | Finish             |      | Painted                | Painted                | Plated          | Plated                | Plated                 | Plated                 |
| Chain guide  | Material           |      | Steel                  | Steel                  | Steel           | Steel                 | Steel                  | Steel                  |
|  | Finish             |      | Chrome plated          | Chrome plated          | Chrome Plated   | Chrome Plated         | Chrome Plated          | Chrome Plated          |
| Cable fixing screw   | Material           |      | Stainless steel        | Stainless steel        | Stainless steel | Stainless steel       | Stainless steel        | Stainless steel        |
|  | Finish             |      | -                      | -                      | -               | -                     | -                      | -                      |
| Stroke adjusting screw                                       | Material           |      | Stainless steel        | Stainless steel        | Stainless steel | Stainless steel       | Stainless steel        | Stainless steel        |
|  | Finish             |      | -                      | -                      | Black           | Black                 | Black                  | Black                  |
| Average weight (g) (band type: L size, direct type w/ screw) |                    |      | 89                     | 104                    | 96              | 111                   | 96                     | 111                    |
| Note   |                    |      |                        |                        | -               | -                     | -                      | -                      |

# Front Derailleur

ROAD

| Series   |                    | SHIMANO 105     | SHIMANO 105             | TIAGRA          | TIAGRA                                   | TIAGRA          | TIAGRA                                   |
|--|--------------------|-----------------|-------------------------|-----------------|--|-----------------|--|
| Model no.  |                    | FD-5700-F       | FD-5703-F               | FD-4700-F       | FD-4700-B                                | FD-4703-F       | FD-4703-B                                |
| Color  | 1                  | Black           | Black                   | Series color    | Series color                             | Series color    | Series color                             |
|  | 2                  | Silver          | Silver                  | -               | -  | -               | -  |
| Front speeds   |                    | 2               | 3                       | 2               | 2  | 3               | 3  |
| Rear speeds  |                    | 10              | 10                      | 10              | 10                                       | 10              | 10                                       |
| Compatible chain   |                    | HG 10-speed     | HG 10-speed (for 3x10s) | HG-X 10-speed   | HG-X 10-speed                            | HG-X 10-speed   | HG-X 10-speed                            |
| Action   | TOP SWING          | -               | -                       | -               | -  | -               | -  |
|  | Down swing         | ✓               | ✓                       | ✓               | ✓  | ✓               | ✓  |
| Mount  | Clamp band (mm)    | 28.6            | -                       | -               | ✓ *                                      | -               | ✓ *                                      |
|  |                    | 31.8            | -                       | -               | ✓  | -               | ✓  |
|  |                    | 34.9            | -                       | -               | ✓  | -               | ✓  |
|  | Brazed-on          | ✓               | ✓                       | ✓               | -  | ✓               | -  |
| Cable adjust   |                    | -               | -                       | -               | -  | -               | -  |
| Cable route type   | Top-pull exclusive | -               | -                       | -               | -  | -               | -  |
| Chain line (mm)  |                    | 43.5            | 45                      | 43.5            | 43.5                                     | 45              | 45                                       |
| Chainstay angle (deg.)                                       |                    | 61-66           | 63-66                   | 61-66           | 61-66                                    | 63-66           | 63-66                                    |
| Top gear teeth   |                    | 50-56T          | 50T                     | 46-52T          | 46-52T                                   | 50T             | 50T                                      |
| Total capacity   |                    | 16T             | 20T                     | 16T             | 16T                                      | 20T             | 20T                                      |
| Applicable top-mid tooth difference                          |                    | -               | 11T                     | -               | -  | 11T             | 11T                                      |
| Angled clamp band design                                     |                    | -               | -                       | -               | -  | -               | -  |
| Multi-bearing construction                                   |                    | -               | -                       | -               | -  | -               | -  |
| Link bushings  |                    | -               | -                       | -               | -  | -               | -  |
| Front clamp band   | Material           | -               | -                       | Aluminum        | Aluminum                                 | Aluminum        | Aluminum                                 |
|  | Finish             | -               | -                       | Painted         | Painted                                  | Painted         | Painted                                  |
| Rear clamp band, base bracket                                | Material           | Aluminum        | Aluminum                | Aluminum        | Aluminum                                 | Aluminum        | Aluminum                                 |
|  | Finish             | Painted         | Painted                 | Painted         | Painted                                  | Painted         | Painted                                  |
| Clamp screw  | Material           | -               | -                       | -               | -  | -               | -  |
|  | Finish             | -               | -                       | -               | -  | -               | -  |
| Outer link   | Material           | Aluminum        | Aluminum                | Aluminum        | Aluminum                                 | Aluminum        | Aluminum                                 |
|  | Finish             | Painted         | Painted                 | Painted         | Painted                                  | Painted         | Painted                                  |
| Inner link   | Material           | Aluminum        | Aluminum                | Aluminum        | Aluminum                                 | Aluminum        | Aluminum                                 |
|  | Finish             | Painted         | Painted                 | Painted         | Painted                                  | Painted         | Painted                                  |
| Chain guide  | Material           | Steel           | Steel                   | Steel           | Steel                                    | Steel           | Steel                                    |
|  | Finish             | Chrome plated   | Chrome plated           | Chrome plated   | Chrome plated                            | Chrome plated   | Chrome plated                            |
| Cable fixing screw   | Material           | Stainless steel | Stainless steel         | Stainless steel | Stainless steel                          | Stainless steel | Stainless steel                          |
|  | Finish             | -               | -                       | -               | -  | -               | -  |
| Stroke adjusting screw                                       | Material           | Stainless steel | Stainless steel         | Stainless steel | Stainless steel                          | Stainless steel | Stainless steel                          |
|  | Finish             | -               | -                       | -               | -  | -               | -  |
| Average weight (g) (band type: L size, direct type w/ screw) |                    | 89              | 114                     | -               | -  | -               | -  |
| Note   |                    |                 |                         |                 | * 28.6 mm Clamp band: 31.8 mm w/ Adapter |                 | * 28.6 mm Clamp band: 31.8 mm w/ Adapter |

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# Front Derailleur

| Series   |                    |      | SHIMANO         | SHIMANO         | SORA          | SORA                  | SORA          | SORA                  |
|--|--------------------|------|-----------------|-----------------|---------------|-----------------------|---------------|-----------------------|
| Model no.  |                    |      | FD-CX70-F-T     | FD-CX70-F-D     | FD-R3000-F    | FD-R3000-B            | FD-R3030-F    | FD-R3030-B            |
| Color  | 1                  |      | Gray            | Gray            | Series color  | Series color          | Series color  | Series color          |
|  | 2                  |      | -               | -               | -             | -                     | -             | -                     |
| Front speeds   |                    |      | 2               | 2               | 2             | 2                     | 3             | 3                     |
| Rear speeds  |                    |      | 10              | 10              | 9             | 9                     | 9             | 9                     |
| Compatible chain   |                    |      | HG 10-speed     | HG 10-speed     | -             | -                     | -             | -                     |
| Action   | TOP SWING          |      | -               | -               | -             | -                     | -             | -                     |
|  | Down swing         |      | ✓               | ✓               | ✓             | ✓                     | ✓             | ✓                     |
| Mount  | Clamp band (mm)    | 28.6 | -               | -               | -             | ✓ (w/ S size adapter) | -             | ✓ (w/ S size adapter) |
|  |                    | 31.8 | -               | -               | -             | ✓ (w/ M size adapter) | -             | ✓ (w/ M size adapter) |
|  |                    | 34.9 | -               | -               | -             | ✓                     | -             | ✓                     |
|  | Brazed-on          |      | ✓               | ✓               | ✓             | -                     | ✓             | -                     |
| Cable adjust   |                    |      | -               | -               | -             | -                     | -             | -                     |
| Cable route type   | Top-pull exclusive |      | ✓               | -               | -             | -                     | -             | -                     |
| Chain line (mm)  |                    |      | 43.5            | 43.5            | 43.5          | 43.5                  | 45            | 45                    |
| Chainstay angle (deg.)                                       |                    |      | 63-66           | 63-66           | 61-66         | 61-66                 | 63-66         | 63-66                 |
| Top gear teeth   |                    |      | 46-52T          | 46-52T          | 46-52T        | 46-52T                | 50T           | 50T                   |
| Total capacity   |                    |      | 16T             | 16T             | 16T           | 16T                   | 20T           | 20T                   |
| Applicable top-mid tooth difference                          |                    |      | -               | -               | -             | -                     | 11T           | 11T                   |
| Angled clamp band design                                     |                    |      | -               | -               | ✓             | ✓                     | ✓             | ✓                     |
| Multi-bearing construction                                   |                    |      | -               | -               | -             | -                     | -             | -                     |
| Link bushings  |                    |      | 7               | 7               | -             | -                     | -             | -                     |
| Front clamp band   | Material           |      | -               | -               | -             | Aluminum              | -             | Aluminum              |
|  | Finish             |      | -               | -               | -             | Painted               | -             | Painted               |
| Rear clamp band, base bracket                                | Material           |      | Aluminum        | Aluminum        | Aluminum      | Aluminum              | Aluminum      | Aluminum              |
|  | Finish             |      | Painted         | Painted         | Painted       | Painted               | Painted       | Painted               |
| Clamp screw  | Material           |      | -               | -               | -             | -                     | -             | -                     |
|  | Finish             |      | -               | -               | -             | -                     | -             | -                     |
| Outer link   | Material           |      | Aluminum        | Aluminum        | Aluminum      | Aluminum              | Aluminum      | Aluminum              |
|  | Finish             |      | Painted         | Painted         | Painted       | Painted               | Painted       | Painted               |
| Inner link   | Material           |      | Aluminum        | Aluminum        | Aluminum      | Aluminum              | Aluminum      | Aluminum              |
|  | Finish             |      | Painted         | Painted         | Painted       | Painted               | Painted       | Painted               |
| Chain guide  | Material           |      | Steel           | Steel           | Steel         | Steel                 | Steel         | Steel                 |
|  | Finish             |      | Chrome plated   | Chrome plated   | Chrome plated | Chrome plated         | Chrome plated | Chrome plated         |
| Cable fixing screw   | Material           |      | Stainless steel | Stainless steel | Steel         | Steel                 | Steel         | Steel                 |
|  | Finish             |      | -               | -               | Nickel plated | Nickel plated         | Nickel plated | Nickel plated         |
| Stroke adjusting screw                                       | Material           |      | Stainless steel | Stainless steel | Steel         | Steel                 | Steel         | Steel                 |
|  | Finish             |      | -               | -               | Zinc plated   | Zinc plated           | Zinc plated   | Zinc plated           |
| Average weight (g) (band type: L size, direct type w/ screw) |                    |      | 92              | 87              | -             | -                     | -             | -                     |
| Note   |                    |      |                 |                 |               |                       |               |                       |

# Front Derailleur

ROAD

| Series   |                    |      | SHIMANO CLARIS | SHIMANO CLARIS        | SHIMANO CLARIS | SHIMANO CLARIS        |
|--|--------------------|------|----------------|-----------------------|----------------|-----------------------|
| Model no.  |                    |      | FD-R2000-F     | FD-R2000-B            | FD-R2030-F     | FD-R2030-B            |
| Color  | 1                  |      | Series color   | Series color          | Series color   | Series color          |
|  | 2                  |      | -              | -                     | -              | -                     |
| Front speeds   |                    |      | 2              | 2                     | 3              | 3                     |
| Rear speeds  |                    |      | 8              | 8                     | 8              | 8                     |
| Compatible chain   |                    |      | HG 8/7/6-speed | HG 8/7/6-speed        | HG 8/7/6-speed | HG 8/7/6-speed        |
| Action   | TOP SWING          |      | -              | -                     | -              | -                     |
|  | Down swing         |      | ✓              | ✓                     | ✓              | ✓                     |
| Mount  | Clamp band (mm)    | 28.6 | -              | ✓ (w/ S size adapter) | -              | ✓ (w/ S size adapter) |
|  |                    | 31.8 | -              | ✓ (w/ M size adapter) | -              | ✓ (w/ M size adapter) |
|  |                    | 34.9 | -              | ✓                     | -              | ✓                     |
|  | Brazed-on          |      | ✓              |                       | ✓              |                       |
| Cable adjust   |                    |      | -              | -                     | -              | -                     |
| Cable route type   | Top-pull exclusive |      | -              | -                     | -              | -                     |
| Chain line (mm)  |                    |      | 43.5           | 43.5                  | 45             | 45                    |
| Chainstay angle (deg.)                                       |                    |      | 61-66          | 61-66                 | 63-66          | 63-66                 |
| Top gear teeth   |                    |      | 46-52T         | 46-52T                | 50T            | 50T                   |
| Total capacity   |                    |      | 16T            | 16T                   | 20T            | 20T                   |
| Applicable top-mid tooth difference                          |                    |      | -              | -                     | 11T            | 11T                   |
| Angled clamp band design                                     |                    |      | ✓              | ✓                     | ✓              | ✓                     |
| Multi-bearing construction                                   |                    |      | -              | -                     | -              | -                     |
| Link bushings  |                    |      | -              | -                     | -              | -                     |
| Front clamp band   | Material           |      | -              | Steel                 | -              | Steel                 |
|  | Finish             |      | -              | Painted               | -              | Painted               |
| Rear clamp band, base bracket                                | Material           |      | Aluminum       | Aluminum              | Aluminum       | Aluminum              |
|  | Finish             |      | Painted        | Painted               | Painted        | Painted               |
| Clamp screw  | Material           |      | -              | -                     | -              | -                     |
|  | Finish             |      | -              | -                     | -              | -                     |
| Outer link   | Material           |      | Aluminum       | Aluminum              | Aluminum       | Aluminum              |
|  | Finish             |      | Painted        | Painted               | Painted        | Painted               |
| Inner link   | Material           |      | Steel          | Steel                 | Steel          | Steel                 |
|  | Finish             |      | Painted        | Painted               | Painted        | Painted               |
| Chain guide  | Material           |      | Steel          | Steel                 | Steel          | Steel                 |
|  | Finish             |      | Chrome plated  | Chrome plated         | Chrome plated  | Chrome plated         |
| Cable fixing screw   | Material           |      | Steel          | Steel                 | Steel          | Steel                 |
|  | Finish             |      | Nickel plated  | Nickel plated         | Nickel plated  | Nickel plated         |
| Stroke adjusting screw                                       | Material           |      | Steel          | Steel                 | Steel          | Steel                 |
|  | Finish             |      | Zinc plated    | Zinc plated           | Zinc plated    | Zinc plated           |
| Average weight (g) (band type: L size, direct type w/ screw) |                    |      | -              | -                     | -              | -                     |
| Note   |                    |      |                |                       |                |                       |

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# Crankset

| Series  |                          | DURA-ACE   | ULTEGRA  | SHIMANO 105     | SHIMANO         | DURA-ACE                                     | DURA-ACE   |
|---|--------------------------|--|--|-----------------|-----------------|--|--|
| Model no.                                       |                          | FC-R9200   | FC-R8100   | FC-R7100        | FC-RS520        | FC-09  | FC-R9100   |
| Color   | 1                        | Series color   | Series color                                     | Black           | Black           | Series color                                 | Series color   |
|   | 2                        | -  | -  | -               | -               | -  | -  |
| Rear speeds                                     |                          | 12   | 12   | 12              | 12              | 11   | 11   |
| Compatible chain                                |                          | HG 12-speed  | HG 12-speed                                      | HG 12-speed     | HG 12-speed     | LINKGLIDE, HG 11-speed                       | LINKGLIDE, HG 11-speed   |
| Chain line (mm)                                 |                          | 44.5   | 44.5   | 44.5            | 44.5            | 44.5   | 43.5   |
| P.C.D. (mm)                                     |                          | 110  | 110  | 110             | 110             | 110  | 110  |
| Spider/gear arms                                |                          | 4  | 4  | 4               | 4               | 4  | 4  |
| Chaining combination                            |                          | 46-36T, 50-34T, 52-36T, 54-40T                               | 46-36T, 50-34T, 52-36T                           | 50-34T, 52-36T  | 50-34T          | 50-34T, 52-36T, 54-40T                       | 50-34T, 52-36T, 53-39T, 54-42T, 55-42T                                       |
| Q-factor (mm)                                   |                          | 148  | 148  | 148             | 150             | 148  | 146  |
| Crank arm length (mm)                           | 160                      | ✓  | ✓  | ✓               | -               | -  | -  |
|   | 165                      | ✓  | ✓  | ✓               | ✓               | ✓  | ✓  |
|   | 167.5                    | ✓  | -  | -               | -               | ✓  | ✓  |
|   | 170                      | ✓  | ✓  | ✓               | ✓               | ✓  | ✓  |
|   | 172.5                    | ✓  | ✓  | ✓               | ✓               | ✓  | ✓  |
|   | 175                      | ✓  | ✓  | ✓               | ✓               | ✓  | ✓  |
|   | 177.5                    | ✓  | -  | -               | -               | ✓  | ✓  |
|   | 180                      | -  | -  | -               | -               | -  | ✓  |
| Optional chain guard                            | With chain guard         | -  | -  | -               | -               | -  | -  |
|   | Without chain/bash guard | ✓  | ✓  | ✓               | ✓               | ✓  | ✓  |
| HOLLOWTECH II                                   |                          | ✓  | ✓  | ✓               | -               | ✓  | ✓  |
| 2-PIECE CRANKSET                                |                          | -  | -  | -               | ✓               | -  | -  |
| HOLLOWTECH crank arm                            |                          | ✓  | ✓  | ✓               | -               | ✓  | ✓  |
| OCTALINK  |                          | -  | -  | -               | -               | -  | -  |
| HOLLOWGLIDE                                     |                          | ✓  | ✓  | -               | -               | ✓  | ✓  |
| Compatible bottom bracket type                  | Outboard                 | ✓  | ✓  | ✓               | ✓               | ✓  | ✓  |
|   | OCTALINK                 | -  | -  | -               | -               | -  | -  |
|   | Square                   | -  | -  | -               | -               | -  | -  |
| Recommended bottom bracket                      | Threaded (normal)        | BB-R9100   | SM-BBR60   | SM-BBR60        | BB-RS501        | BB-R9100                                     | BB-R9100   |
|   | Press-Fit                | SM-BB92-41B  | SM-BB72-41B                                      | SM-BB72-41B     | BB-RS500-PB     | SM-BB92-41B                                  | SM-BB92-41B  |
| Axle length of BB-UN/ES (mm)                    |                          | -  | -  | -               | -               | -  | -  |
| Threaded bottom bracket shell width (mm)        | 68                       | ✓  | ✓  | ✓               | ✓               | ✓  | ✓  |
|   | 70                       | ✓  | ✓  | ✓               | ✓               | ✓  | ✓  |
| Crank arm                                       | Material                 | Aluminum   | Aluminum   | Aluminum        | Aluminum        | Aluminum                                     | Aluminum   |
|   | Finish                   | Anodized   | Anodized   | Anodized        | Anodized        | Anodized                                     | Anodized   |
| Crank axle                                      | Material                 | Steel  | Steel  | Steel           | Steel           | Steel  | Steel  |
|   | Finish                   | Plated   | Plated   | Plated          | Plated          | Plated                                       | Plated   |
| Spider arm                                      | Material                 | -  | -  | -               | -               | -  | -  |
|   | Finish                   | -  | -  | -               | -               | -  | -  |
| Spider arm cover                                | Material                 | -  | -  | -               | -               | -  | -  |
|   | Finish                   | -  | -  | -               | -               | -  | -  |
| Outer ring                                      | Material                 | Aluminum/CFRP (except 46-36T), Aluminum (46-36T)             | Aluminum/CFRP (except 46-36T), Aluminum (46-36T) | Aluminum+GFRP   | Aluminum+Resin  | Aluminum+CFRP                                | Aluminum/CFRP  |
|   | Finish                   | Anodized   | Anodized   | Anodized        | Painted         | Anodized                                     | Anodized   |
| Middle ring                                     | Material                 | -  | -  | -               | -               | -  | -  |
|   | Finish                   | -  | -  | -               | -               | -  | -  |
| Inner ring                                      | Material                 | Aluminum   | Aluminum   | Aluminum        | Aluminum        | Aluminum                                     | Aluminum   |
|   | Finish                   | Anodized   | Anodized   | Anodized        | Anodized        | Anodized                                     | Anodized   |
| Outer/middle ring fixing bolt                   | Material                 | Aluminum   | Aluminum   | Stainless Steel | Stainless Steel | Aluminum                                     | Aluminum   |
|   | Finish                   | Anodized   | Anodized   | -               | -               | Anodized                                     | Anodized   |
| Inner ring fixing screw                         | Material                 | -  | -  | -               | -               | -  | -  |
|   | Finish                   | -  | -  | -               | -               | -  | -  |
| Crank fixing screw included                     |                          | ✓  | ✓  | ✓               | ✓               | ✓  | ✓  |
| Average weight (g) (170 mm, w/o bottom bracket) |                          | 693 (46-36T)<br>685 (50-34T)<br>692 (52-36T)<br>714 (54-40T) | 702 (46-36T)<br>700 (50-34T)<br>711 (52-36T)     | 754 (50-34T)    | -               | 685 (50-34T)<br>692 (52-36T)<br>714 (54-40T) | 614 (50-34T)<br>624 (52-36T)<br>626 (53-39T)<br>642 (54-42T)<br>650 (55-42T) |
| Note  |                          |  |  |                 |                 |  |  |

# Crankset

ROAD

| Series  |                          | DURA-ACE   | ULTEGRA  | ULTEGRA  | SHIMANO 105  | SHIMANO                | DURA-ACE                           |
|---|--------------------------|--|--|--|--|------------------------|------------------------------------|
| Model no.                                       |                          | FC-9000  | FC-08  | FC-R8000   | FC-R7000   | FC-RS510               | FC-7710                            |
| Color   | 1                        | Series color   | Series color   | Series color   | Silky black  | Black                  | Series color                       |
|   | 2                        | -  | -  | -  | Spark silver                                       | -                      | -                                  |
| Rear speeds                                     |                          | 11   | 11   | 11   | 11   | 11                     | 1                                  |
| Compatible chain                                |                          | LINKGLIDE, HG 11-speed   | LINKGLIDE, HG 11-speed                                   | LINKGLIDE, HG 11-speed                                       | LINKGLIDE, HG 11-speed                             | LINKGLIDE, HG 11-speed | 1/2 x 1/8, 1/2 x 3/32              |
| Chain line (mm)                                 |                          | 43.5   | 44.5   | 43.5   | 43.5   | 43.5                   | 42.5                               |
| P.C.D. (mm)                                     |                          | 110  | 110  | 110  | 110  | 110                    | 144                                |
| Spider/gear arms                                |                          | 4  | 4  | 4  | 4  | 4                      | 5                                  |
| Chaining combination                            |                          | 50-34T, 52-36T, 52-38T, 53-39T, 54-42T, 55-42T   | 46-36T, 50-34T, 52-36T                                   | 46-36T, 50-34T, 52-36T, 53-39T                               | 50-34T, 52-36T, 53-39T                             | 46-36T, 50-34T, 52-36T | 45T to 55T (1/2 x 1/8, 1/2 x 3/32) |
| Q-factor (mm)                                   |                          | 146  | 148  | 146  | 146  | 150                    | 136.3                              |
| Crank arm length (mm)                           | 160                      | -  | -  | -  | ✓  | -                      | -                                  |
|   | 165                      | ✓  | ✓  | ✓  | ✓  | ✓                      | ✓                                  |
|   | 167.5                    | ✓  | -  | -  | -  | -                      | ✓                                  |
|   | 170                      | ✓  | ✓  | ✓  | ✓  | ✓                      | ✓                                  |
|   | 172.5                    | ✓  | ✓  | ✓  | ✓  | ✓                      | ✓                                  |
|   | 175                      | ✓  | ✓  | ✓  | ✓  | ✓                      | ✓                                  |
|   | 177.5                    | ✓  | -  | -  | -  | -                      | -                                  |
|   | 180                      | ✓  | -  | -  | -  | -                      | -                                  |
| Optional chain guard                            | With chain guard         | -  | -  | -  | -  | -                      | -                                  |
|   | Without chain/bash guard | ✓  | ✓  | ✓  | ✓  | ✓                      | ✓                                  |
| HOLLOWTECH II                                   |                          | ✓  | ✓  | ✓  | ✓  | -                      | -                                  |
| 2-PIECE CRANKSET                                |                          | -  | -  | -  | -  | ✓                      | -                                  |
| HOLLOWTECH crank arm                            |                          | ✓  | ✓  | ✓  | ✓  | -                      | ✓                                  |
| OCTALINK  |                          | -  | -  | -  | -  | -                      | ✓                                  |
| HOLLOWGLIDE                                     |                          | ✓  | ✓  | ✓, - (46-36T)  | -  | -                      | -                                  |
| Compatible bottom bracket type                  | Outboard                 | ✓  | ✓  | ✓  | ✓  | ✓                      | -                                  |
|   | OCTALINK                 | -  | -  | -  | -  | -                      | ✓                                  |
|   | Square                   | -  | -  | -  | -  | -                      | -                                  |
| Recommended bottom bracket                      | Threaded (normal)        | BB-R9100   | SM-BBR60   | SM-BBR60   | SM-BBR60   | BB-RS501               | BB-7710, BB-7700                   |
|   | Press-Fit                | SM-BB92-41B  | SM-BB72-41B  | SM-BB72-41B  | SM-BB72-41B  | BB-RS500-PB            | -                                  |
| Axle length of BB-UN/ES (mm)                    |                          | -  | -  | -  | -  | -                      | 109.5                              |
| Threaded bottom bracket shell width (mm)        | 68                       | ✓  | ✓  | ✓  | ✓  | ✓                      | ✓                                  |
|   | 70                       | ✓  | ✓  | ✓  | ✓  | ✓                      | ✓                                  |
| Crank arm                                       | Material                 | Aluminum   | Aluminum   | Aluminum   | Aluminum   | Aluminum               | Aluminum                           |
|   | Finish                   | Anodized   | Anodized   | Anodized   | Anodized   | Anodized               | Anodized                           |
| Crank axle                                      | Material                 | Steel  | Steel  | Steel  | Steel  | Steel                  | -                                  |
|   | Finish                   | Plated   | Plated   | Plated   | Plated   | Plated                 | -                                  |
| Spider arm                                      | Material                 | -  | -  | -  | -  | -                      | -                                  |
|   | Finish                   | -  | -  | -  | -  | -                      | -                                  |
| Spider arm cover                                | Material                 | -  | -  | -  | -  | -                      | -                                  |
|   | Finish                   | -  | -  | -  | -  | -                      | -                                  |
| Outer ring                                      | Material                 | Aluminum+CFRP or GFRP  | Aluminum   | Aluminum+CFRP or Aluminum (46-36T only)                      | Aluminum+GFRP                                      | Aluminum+Resin         | Aluminum                           |
|   | Finish                   | Anodized   | Anodized   | Anodized   | Anodized   | Anodized               | Anodized                           |
| Middle ring                                     | Material                 | -  | -  | -  | -  | -                      | -                                  |
|   | Finish                   | -  | -  | -  | -  | -                      | -                                  |
| Inner ring                                      | Material                 | Aluminum   | Aluminum   | Aluminum   | Aluminum   | Aluminum               | Aluminum                           |
|   | Finish                   | Anodized   | Anodized   | Anodized   | Anodized   | Anodized               | Anodized                           |
| Outer/middle ring fixing bolt                   | Material                 | Aluminum   | Aluminum   | Aluminum   | Stainless steel                                    | Stainless steel        | Stainless steel                    |
|   | Finish                   | Anodized   | Anodized   | Anodized   | -  | -                      | -                                  |
| Inner ring fixing screw                         | Material                 | -  | -  | -  | -  | -                      | -                                  |
|   | Finish                   | -  | -  | -  | -  | -                      | -                                  |
| Crank fixing screw included                     |                          | ✓  | ✓  | ✓  | ✓  | ✓                      | ✓                                  |
| Average weight (g) (170 mm, w/o bottom bracket) |                          | 610 (50-34T)<br>618 (52-36T)<br>622 (52-38T)<br>618 (53-39T)<br>632 (54-42T)<br>639 (55-42T) | 702 (46-36T)<br>700 (50-34T)<br>711 (52-36T)             | 668 (46-36T)<br>674 (50-34T)<br>681 (52-36T)<br>690 (53-39T) | 713.4 (50-34T)<br>742.6 (52-36T)<br>757.8 (53-39T) | 908 (50-34T)           | 566 (52T, 1/2 inch x 1/8 inch)     |
| Note  |                          |  | *46T chaining color is black. Fixed with dedicated nuts. |  |  |                        |                                    |

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# Crankset

| Series  |                          | SHIMANO 105     | SHIMANO 105             | SHIMANO         | TIAGRA  | TIAGRA          | SHIMANO         |
|---|--------------------------|-----------------|-------------------------|-----------------|---|-----------------|-----------------|
| Model no.                                       |                          | FC-5750         | FC-5703                 | FC-CX50         | FC-4700   | FC-4703         | FC-RS400        |
| Color   | 1                        | Black           | Black                   | Silver          | Series color  | Series color    | Black           |
|   | 2                        | -               | -                       | Black           | -   | -               | -               |
| Rear speeds                                     |                          | 10              | 10                      | 10              | 10  | 10              | 10              |
| Compatible chain                                |                          | HG 10-speed     | HG 10-speed (for 3x10s) | HG 10-speed     | HG-X 10-speed   | HG-X 10-speed   | HG-X 10-speed   |
| Chain line (mm)                                 |                          | 43.5            | 45                      | 43.5            | 43.5  | 45              | 43.5            |
| P.C.D. (mm)                                     |                          | 110             | 130/74                  | 110             | 110   | 110/74          | 110             |
| Spider/gear arms                                |                          | 5               | 5                       | 5               | 4   | 4               | 5               |
| Chaining combination                            |                          | 50-34T          | 50-39-30T               | 46-36T          | 48-34T, 50-34T, 52-36T                                  | 50-39-30T       | 50-34T          |
| Q-factor (mm)                                   |                          | 146             | 154.76                  | 150             | 150   | 158.8           | 150.3           |
| Crank arm length (mm)                           | 160                      | -               | -                       | -               | -   | -               | -               |
|   | 165                      | ✓               | ✓                       | -               | ✓   | ✓               | -               |
|   | 167.5                    | -               | -                       | -               | -   | -               | -               |
|   | 170                      | ✓               | ✓                       | ✓               | ✓   | ✓               | ✓               |
|   | 172.5                    | ✓               | ✓                       | ✓               | ✓   | ✓               | -               |
|   | 175                      | ✓               | ✓                       | ✓               | ✓   | ✓               | ✓               |
|   | 177.5                    | -               | -                       | -               | -   | -               | -               |
| Optional chain guard                            | 180                      | -               | -                       | -               | -   | -               | -               |
|   | With chain guard         | -               | -                       | -               | -   | -               | -               |
|   | Without chain/bash guard | ✓               | ✓                       | ✓               | ✓   | ✓               | ✓               |
| HOLLOWTECH II                                   |                          | ✓               | ✓                       | -               | -   | -               | -               |
| 2-PIECE CRANKSET                                |                          | -               | -                       | ✓               | ✓   | ✓               | ✓               |
| HOLLOWTECH crank arm                            |                          | ✓               | ✓                       | -               | -   | -               | -               |
| OCTALINK  |                          | -               | -                       | -               | -   | -               | -               |
| HOLLOWGLIDE                                     |                          | -               | -                       | -               | -   | -               | -               |
| Compatible bottom bracket type                  | Outboard                 | ✓               | ✓                       | ✓               | ✓   | ✓               | ✓               |
|   | OCTALINK                 | -               | -                       | -               | -   | -               | -               |
|   | Square                   | -               | -                       | -               | -   | -               | -               |
| Recommended bottom bracket                      | Threaded (normal)        | SM-BB5700       | SM-BB5700               | BB-RS501        | BB-RS501  | BB-RS501        | BB-RS501        |
|   | Press-Fit                | SM-BB71-41B     | SM-BB71-41B             | SM-BB71-41B     | BB-RS500-PB   | BB-RS500-PB     | BB-RS500-PB     |
| Axle length of BB-UN/ES (mm)                    |                          | -               | -                       | -               | -   | -               | -               |
| Threaded bottom bracket shell width (mm)        | 68                       | ✓               | ✓                       | ✓               | ✓   | ✓               | ✓               |
|   | 70                       | ✓               | ✓                       | ✓               | ✓   | ✓               | ✓               |
| Crank arm                                       | Material                 | Aluminum        | Aluminum                | Aluminum        | Aluminum  | Aluminum        | Aluminum        |
|   | Finish                   | Anodized        | Anodized                | Anodized        | Anodized  | Anodized        | Painted         |
| Crank axle                                      | Material                 | Steel           | Steel                   | Steel           | Steel   | Steel           | -               |
|   | Finish                   | Plated          | Plated                  | Plated          | Plated  | Plated          | -               |
| Spider arm                                      | Material                 | -               | -                       | -               | -   | -               | -               |
|   | Finish                   | -               | -                       | -               | -   | -               | -               |
| Spider arm cover                                | Material                 | -               | -                       | -               | -   | -               | -               |
|   | Finish                   | -               | -                       | -               | -   | -               | -               |
| Outer ring                                      | Material                 | Aluminum        | Aluminum                | Aluminum        | Aluminum/Resin (48-34T), Aluminum/GFRP (50-34T, 52-36T) | Aluminum+GFRP   | Aluminum        |
|   | Finish                   | Anodized        | Anodized                | Anodized        | Anodized+Painted (48-34T), Anodized (50-34T, 52-36T)    | Anodized        | Anodized        |
| Middle ring                                     | Material                 | -               | Aluminum                | -               | -   | Aluminum        | -               |
|   | Finish                   | -               | Anodized                | -               | -   | Anodized        | -               |
| Inner ring                                      | Material                 | Aluminum        | Aluminum                | Aluminum        | Aluminum  | Steel           | Aluminum        |
|   | Finish                   | Anodized        | Anodized                | Anodized        | Anodized  | Plated          | Anodized        |
| Outer/middle ring fixing bolt                   | Material                 | Stainless steel | Stainless steel         | Stainless steel | Stainless steel   | Stainless steel | Stainless steel |
|   | Finish                   | -               | -                       | -               | -   | -               | -               |
| Inner ring fixing screw                         | Material                 | -               | Stainless steel         | -               | -   | Stainless steel | -               |
|   | Finish                   | -               | -                       | -               | -   | -               | -               |
| Crank fixing screw included                     |                          | ✓               | ✓                       | ✓               | ✓   | ✓               | ✓               |
| Average weight (g) (170 mm, w/o bottom bracket) |                          | 716             | 831                     | 798             | -   | -               | -               |
| Note  |                          |                 |                         |                 |   |                 |                 |

# Crankset

ROAD

| Series  |                          | SORA            | SORA                 | SORA            | SORA                 | SHIMANO         | SHIMANO CLARIS  |
|---|--------------------------|-----------------|----------------------|-----------------|----------------------|-----------------|-----------------|
| Model no.                                       |                          | FC-R3030        | FC-R3030-CG          | FC-R3000        | FC-R3000-CG          | FC-R345         | FC-R2030        |
| Color   | 1                        | Series color    | Series color         | Series color    | Series color         | Silver          | Series color    |
|   | 2                        | -               | -                    | -               | -                    | Black           | -               |
| Rear speeds                                     |                          | 9               | 9                    | 9               | 9                    | 9               | 8               |
| Compatible chain                                |                          | HG 9-speed      | HG 9-speed           | HG 9-speed      | HG 9-speed           | HG 9-speed      | HG 8/7/6-speed  |
| Chain line (mm)                                 |                          | 45              | 45                   | 43.5            | 43.5                 | 43.5            | 45              |
| P.C.D. (mm)                                     |                          | 110/74          | 130/74               | 110             | 110                  | 110             | 110/74          |
| Spider/gear arms                                |                          | 4               | 5                    | 4               | 5                    | 5               | 4               |
| Chainring combination                           |                          | 50-39-30T       | 50-39-30T            | 50-34T          | 50-34T               | 50-34T          | 50-39-30T       |
| Q-factor (mm)                                   |                          | 158.8           | 158.8                | 150             | 150                  | 152.2           | 158.8           |
| Crank arm length (mm)                           | 160                      | -               | -                    | -               | -                    | -               | -               |
|   | 165                      | ✓               | ✓                    | ✓               | ✓                    | -               | ✓               |
|   | 167.5                    | -               | -                    | -               | -                    | -               | -               |
|   | 170                      | ✓               | ✓                    | ✓               | ✓                    | ✓               | ✓               |
|   | 172.5                    | -               | -                    | -               | -                    | -               | -               |
|   | 175                      | ✓               | ✓                    | ✓               | ✓                    | ✓               | ✓               |
|   | 177.5                    | -               | -                    | -               | -                    | -               | -               |
|   | 180                      | -               | -                    | -               | -                    | -               | -               |
| Optional chain guard                            | With chain guard         | -               | ✓                    | -               | ✓                    | ✓               | -               |
|   | Without chain/bash guard | ✓               | -                    | ✓               | -                    | ✓               | ✓               |
| HOLLOWTECH II                                   |                          | -               | -                    | -               | -                    | -               | -               |
| 2-PIECE CRANKSET                                |                          | ✓               | ✓                    | ✓               | ✓                    | -               | ✓               |
| HOLLOWTECH crank arm                            |                          | -               | -                    | -               | -                    | -               | -               |
| OCTALINK  |                          | -               | -                    | -               | -                    | ✓               | -               |
| HOLLOWGLIDE                                     |                          | -               | -                    | -               | -                    | -               | -               |
| Compatible bottom bracket type                  | Outboard                 | ✓               | ✓                    | ✓               | ✓                    | -               | ✓               |
|   | OCTALINK                 | -               | -                    | -               | -                    | ✓               | -               |
|   | Square                   | -               | -                    | -               | -                    | -               | -               |
| Recommended bottom bracket                      | Threaded (normal)        | BB-R5501        | BB-R5501             | BB-R5501        | BB-R5501             | BB-ES300        | BB-R5501        |
|   | Press-Fit                | BB-R5500-PB     | BB-R5500-PB          | BB-R5500-PB     | BB-R5500-PB          | -               | BB-R5500-PB     |
| Axle length of BB-UN/ES (mm)                    |                          | -               | -                    | -               | -                    | 113             | -               |
| Threaded bottom bracket shell width (mm)        | 68                       | ✓               | ✓                    | ✓               | ✓                    | ✓               | ✓               |
|   | 70                       | ✓               | ✓                    | ✓               | ✓                    | ✓               | ✓               |
| Crank arm                                       | Material                 | Aluminum        | Aluminum             | Aluminum        | Aluminum             | Aluminum        | Aluminum        |
|   | Finish                   | Painted         | Painted              | Painted         | Painted              | Painted         | Painted         |
| Crank axle                                      | Material                 | Steel           | Steel                | Steel           | Steel                | -               | Steel           |
|   | Finish                   | Plated          | Plated               | Plated          | Plated               | -               | Plated          |
| Spider arm                                      | Material                 | -               | -                    | -               | -                    | -               | -               |
|   | Finish                   | -               | -                    | -               | -                    | -               | -               |
| Spider arm cover                                | Material                 | -               | -                    | -               | -                    | -               | -               |
|   | Finish                   | -               | -                    | -               | -                    | -               | -               |
| Outer ring                                      | Material                 | Aluminum+Resin  | Aluminum+Resin       | Aluminum+Resin  | Aluminum+Resin       | Aluminum        | Steel+Resin     |
|   | Finish                   | Anodized        | Anodized             | Anodized        | Anodized             | Anodized        | Painted         |
| Middle ring                                     | Material                 | Steel           | Steel                | -               | -                    | -               | Steel           |
|   | Finish                   | Painted         | Painted              | -               | -                    | -               | Painted         |
| Inner ring                                      | Material                 | Steel           | Steel                | Steel           | Steel                | Steel           | Steel           |
|   | Finish                   | Painted         | Painted              | Painted         | Painted              | Painted         | Painted         |
| Outer/middle ring fixing bolt                   | Material                 | Stainless steel | Stainless steel      | Stainless steel | Stainless steel      | Stainless steel | Stainless steel |
|   | Finish                   | -               | -                    | -               | -                    | -               | -               |
| Inner ring fixing screw                         | Material                 | Stainless steel | Stainless steel      | Stainless steel | Stainless steel      | -               | Stainless steel |
|   | Finish                   | -               | -                    | -               | -                    | -               | -               |
| Crank fixing screw included                     |                          | ✓               | ✓                    | ✓               | ✓                    | ✓               | ✓               |
| Average weight (g) (170 mm, w/o bottom bracket) |                          | -               | -                    | -               | -                    | -               | -               |
| Note  |                          |                 | w/ Chain guard spec. |                 | w/ Chain guard spec. |                 |                 |

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# Crankset

| Series  |                          | SHIMANO CLARIS  | SHIMANO CLARIS  | SHIMANO CLARIS  | SHIMANO         |
|---|--------------------------|-----------------|-----------------|-----------------|-----------------|
| Model no.                                       |                          | FC-R2030-CG     | FC-R2000        | FC-R2000-CG     | FC-RS200        |
| Color   | 1                        | Series color    | Series color    | Series color    | Black           |
|   | 2                        | -               | -               | -               | -               |
| Rear speeds                                     |                          | 8               | 8               | 8               | 8               |
| Compatible chain                                |                          | HG 8/7/6-speed  | HG 8/7/6-speed  | HG 8/7/6-speed  | HG 8/7/6-speed  |
| Chain line (mm)                                 |                          | 45              | 43.5            | 43.5            | 43.5            |
| P.C.D. (mm)                                     |                          | 110/74          | 110             | 110             | 110             |
| Spider/gear arms                                |                          | 4               | 4               | 4               | 5               |
| Chaining combination                            |                          | 50-39-30T       | 50-34T          | 50-34T          | 46-34T, 50-34T  |
| Q-factor (mm)                                   |                          | 158.8           | 150             | 150             | 153.7           |
| Crank arm length (mm)                           | 160                      | -               | -               | -               | -               |
|   | 165                      | ✓               | ✓               | ✓               | ✓               |
|   | 167.5                    | -               | -               | -               | -               |
|   | 170                      | ✓               | ✓               | ✓               | ✓               |
|   | 172.5                    | -               | -               | -               | -               |
|   | 175                      | ✓               | ✓               | ✓               | ✓               |
|   | 177.5                    | -               | -               | -               | -               |
|   | 180                      | -               | -               | -               | -               |
| Optional chain guard                            | With chain guard         | ✓               | -               | ✓               | ✓               |
|   | Without chain/bash guard | -               | ✓               | -               | ✓               |
| HOLLOWTECH II                                   |                          | -               | -               | -               | -               |
| 2-PIECE CRANKSET                                |                          | ✓               | ✓               | ✓               | -               |
| HOLLOWTECH crank arm                            |                          | -               | -               | -               | -               |
| OCTALINK  |                          | -               | -               | -               | -               |
| HOLLOWGLIDE                                     |                          | -               | -               | -               | -               |
| Compatible bottom bracket type                  | Outboard                 | ✓               | ✓               | ✓               | -               |
|   | OCTALINK                 | -               | -               | -               | -               |
|   | Square                   | -               | -               | -               | ✓               |
| Recommended bottom bracket                      | Threaded (normal)        | BB-RS501        | BB-RS501        | BB-RS501        | BB-UN300        |
|   | Press-Fit                | BB-RS500-PB     | BB-RS500-PB     | BB-RS500-PB     | -               |
| Axle length of BB-UN/ES (mm)                    |                          | -               | -               | -               | MM110           |
| Threaded bottom bracket shell width (mm)        | 68                       | ✓               | ✓               | ✓               | ✓               |
|   | 70                       | ✓               | ✓               | ✓               | ✓               |
| Crank arm                                       | Material                 | Aluminum        | Aluminum        | Aluminum        | Aluminum        |
|   | Finish                   | Painted         | Painted         | Painted         | Painted         |
| Crank axle                                      | Material                 | Steel           | Steel           | Steel           | -               |
|   | Finish                   | Plated          | Plated          | Plated          | -               |
| Spider arm                                      | Material                 | -               | -               | -               | -               |
|   | Finish                   | -               | -               | -               | -               |
| Spider arm cover                                | Material                 | -               | -               | -               | -               |
|   | Finish                   | -               | -               | -               | -               |
| Outer ring                                      | Material                 | Steel+Resin     | Steel+Resin     | Steel+Resin     | Steel           |
|   | Finish                   | Painted         | Painted         | Painted         | Painted         |
| Middle ring                                     | Material                 | Steel           | -               | -               | -               |
|   | Finish                   | Painted         | -               | -               | -               |
| Inner ring                                      | Material                 | Steel           | Steel           | Steel           | Steel           |
|   | Finish                   | Painted         | Painted         | Painted         | Painted         |
| Outer/middle ring fixing bolt                   | Material                 | Stainless steel | Stainless steel | Stainless steel | Stainless steel |
|   | Finish                   | -               | -               | -               | -               |
| Inner ring fixing screw                         | Material                 | Stainless steel | Stainless steel | Stainless steel | -               |
|   | Finish                   | -               | -               | -               | -               |
| Crank fixing screw included                     |                          | ✓               | ✓               | ✓               | ✓               |
| Average weight (g) (170 mm, w/o bottom bracket) |                          | -               | -               | -               | -               |
| Note  |                          |                 |                 |                 |                 |

# Crankset (Power Meter)

ROAD

| Series  |                         |  | DURA-ACE   | DURA-ACE   | DURA-ACE   | ULTEGRA  |
|---|-------------------------|--|--|--|--|--|
| Model no.   |                         |  | FC-R9200-P   | FC-R9200-PX  | FC-R9100-P   | FC-R8100-P   |
| Chaining combination  |                         |  | 50-34T, 52-36T, 54-40T, w/o chainrings   | 50-34T, 52-36T, 54-40T   | 50-34T, 52-36T, 53-39T, w/o chainrings   | 50-34T, 52-36T, w/o chainrings   |
| Crank arm length (mm)   | 160                     |  | ✓  | -  | -  | ✓ *  |
|   | 165                     |  | ✓  | ✓  | ✓ *  | ✓  |
|   | 167.5                   |  | ✓ *  | -  | ✓ *  | -  |
|   | 170                     |  | ✓  | ✓  | ✓  | ✓  |
|   | 172.5                   |  | ✓  | ✓  | ✓  | ✓  |
|   | 175                     |  | ✓  | ✓  | ✓  | ✓  |
|   | 177.5                   |  | ✓ *  | -  | ✓ *  | -  |
|   | 180                     |  | -  | -  | ✓ *  | -  |
| Force measurement   | Right side              |  | ✓  | ✓  | ✓  | ✓  |
|   | Left side               |  | ✓  | ✓  | ✓  | ✓  |
|   | Number of strain sensor |  | 24   | 24   | 24   | 24   |
| Cadence measurement   | Magnet                  |  | ✓  | ✓  | ✓  | ✓  |
|   | Accelerometer           |  | -  | -  | -  | -  |
| Accuracy (%)  |                         |  | ±1.5   | ±1.5   | ±2   | ±2   |
| LED for system status   |                         |  | ✓  | ✓  | ✓  | ✓  |
| Number of control button  |                         |  | 1  | 1  | 1  | 1  |
| Zero offset   | By control button       |  | ✓  | ✓  | ✓  | ✓  |
|   | By device               |  | ✓  | ✓  | ✓  | ✓  |
| Active temperature compensation   |                         |  | ✓  | ✓  | ✓  | ✓  |
| Battery   | Type                    | Lithium ion                            | ✓  | ✓  | ✓  | ✓  |
|   |                         | Coin cell                              | -  | -  | -  | -  |
|   | Life                    |  | 226 h  | 226 h  | 300 h or longer  | 226 h  |
|   | Charging port           |  | ✓  | ✓  | ✓  | ✓  |
|   | Charging cable          |  | EW-EC300   | EW-EC300   | Included   | EW-EC300   |
| Firmware update by E-TUBE PROJECT   |                         |  | ✓  | ✓  | ✓  | ✓  |
| Di2 connectivity wired  | Di2 shifting            |  | -  | -  | -  | -  |
| Di2 connectivity wireless   | Di2 shifting            |  | -  | -  | -  | -  |
|   | Bluetooth h® LE         | Cycling power                          | ✓  | ✓  | ✓  | ✓  |
|   |                         | Bicycle power                          | ✓  | ✓  | ✓  | ✓  |
|   | ANT+                    | Adjust mode information                | -  | -  | -  | -  |
|   |                         | Di2 battery level                      | -  | -  | -  | -  |
|   |                         | Gear position                          | -  | -  | -  | -  |
|   |                         | SHIMANO E-BIKE SYSTEMS data items (*3) | -  | -  | -  | -  |
|   |                         | Compatible with E-TUBE RIDE            | ✓  | ✓  | ✓  | ✓  |
|   |                         | Compatible with E-TUBE PROJECT         | ✓  | ✓  | ✓  | ✓  |
|   | ANT private (*2)        | Adjust mode information                | -  | -  | -  | -  |
|   |                         | Di2 battery level                      | -  | -  | -  | -  |
|   |                         | Gear position                          | -  | -  | -  | -  |
|   |                         | SHIMANO E-BIKE SYSTEMS data items (*3) | -  | -  | -  | -  |
|   | SD50 port (pcs)         |  |  | 0  | 0  | 0  |
| SD300 port (pcs)  |                         |  | 0  | 0  | 0  | 0  |
| SD50 connector (pcs)  |                         |  | 0  | 0  | 0  | 0  |
| SD300 connector (pcs)   |                         |  | 0  | 0  | 0  | 0  |
| Average weight (g) (170 mm, w/o bottom bracket)   |                         |  | 745 (50-34T)<br>752 (52-36T)<br>774 (54-40T)   | 745 (50-34T)<br>752 (52-36T)<br>774 (54-40T)   | 685 (50-34T)<br>695 (52-36T)<br>696 (53-39T)   | 758 (50-34T)<br>769 (52-36T)   |
| Note *1 Compatible with a Bluetooth LE cycle computer and smartphone/tablet but not freely open profile. *2 Compatible with ANT+ cycle computer but not freely open profile. *3 Will be shown only when connected to SHIMANO E-BIKE SYSTEMS bike. |                         |  | Crankset specifications not listed here are the same as FC-R9200<br><br>* w/o chainrings<br><br>Chemistry: Li-ion<br>Rated voltage: 3.7 V<br>Rated capacity: 0.66 Ah<br>Rated capacity: 2.442 Wh | Crankset specifications not listed here are the same as FC-R9200<br><br>Chemistry: Li-ion<br>Rated voltage: 3.7 V<br>Rated capacity: 0.66 Ah<br>Rated capacity: 2.442 Wh | Crankset specifications not listed here are the same as FC-R9100<br><br>* w/o chainrings<br><br>Chemistry: Li-ion<br>Rated voltage: 3.7 V<br>Rated capacity: 0.66 Ah<br>Rated capacity: 2.442 Wh | Crankset specifications not listed here are the same as FC-R8100<br><br>* w/o chainrings<br><br>Chemistry: Li-ion<br>Rated voltage: 3.7 V<br>Rated capacity: 0.66 Ah<br>Rated capacity: 2.442 Wh |

## Bottom Bracket (HOLLOWTECH II)

| Series                                    |                              | SHIMANO  | SHIMANO     | SHIMANO     | SHIMANO     | SHIMANO  | SHIMANO  |
|---|------------------------------|----------|-------------|-------------|-------------|----------|----------|
| Model no.                                 |                              | BB-R9100 | SM-BB92-41B | SM-BB72-41B | SM-BB71-41B | SM-BBR60 | BB-RS501 |
| HOLLOWTECH II bottom bracket              | Threaded bottom bracket type | ✓        | -           | -           | -           | ✓        | ✓        |
|   | Press-Fit type               | -        | ✓           | ✓           | ✓           | -        | -        |
| Threaded bottom bracket shell width (mm)  | 68                           | ✓        | -           | -           | -           | ✓        | ✓        |
|   | 70                           | ✓        | -           | -           | -           | ✓        | ✓        |
| Press-Fit bottom bracket shell width (mm) | 86.5                         | -        | ✓           | ✓           | ✓           | -        | -        |
| Small ball bearing                        |                              | ✓        | ✓           | ✓           | -           | ✓        | -        |
| Adapter                                   | Material                     | Aluminum | Resin       | Resin       | Resin       | Aluminum | Aluminum |
|   | Finish                       | Anodized | -           | -           | -           | Anodized | Anodized |
| Average weight (g)                        |                              | 65       | 54          | 69          | 71          | 77       | 93       |
| Note                                      |                              |          |             |             |             |          |          |

| Series                                    |                              | SHIMANO  | SHIMANO     |
|---|------------------------------|----------|-------------|
| Model no.                                 |                              | BB-RS500 | BB-RS500-PB |
| HOLLOWTECH II bottom bracket              | Threaded bottom bracket type | ✓        | -           |
|   | Press-Fit type               | -        | ✓           |
| Threaded bottom bracket shell width (mm)  | 68                           | ✓        | -           |
|   | 70                           | ✓        | -           |
| Press-Fit bottom bracket shell width (mm) | 86.5                         | -        | ✓           |
| Small ball bearing                        |                              | -        | -           |
| Adapter                                   | Material                     | Aluminum | Resin       |
|   | Finish                       | Anodized | -           |
| Average weight (g)                        |                              | 92       | 71          |
| Note                                      |                              |          |             |

# Bottom Bracket

ROAD

| Series                       |             |             | DURA-ACE | DURA-ACE  | SHIMANO 105    |
|------------------------------|-------------|-------------|----------|-----------|----------------|
| Model no.                    |             |             | BB-7700  | BB-7710   | BB-5500        |
| Spindle                      | Hollow pipe |             | ✓        | ✓         | ✓              |
|                              | OCTALINK    |             | ✓        | ✓         | ✓              |
|                              | Square type |             | -        | -         | -              |
| Axle length/shell width (mm) | 109.5       | 68 (BC1.37) | ✓        | ✓         | ✓ (for double) |
|                              |             | 70 (M36)    | ✓        | -         | ✓ (for double) |
|                              | MM110       | 68 (BC1.37) | -        | -         | -              |
|                              |             | 70 (M36)    | -        | -         | -              |
|                              | LL113       | 68 (BC1.37) | -        | -         | -              |
|                              |             | 70 (M36)    | -        | -         | -              |
|                              | 113         | 68 (BC1.37) | -        | -         | -              |
|                              |             | 70 (M36)    | -        | -         | -              |
|                              | 118.5       | 68 (BC1.37) | -        | -         | ✓ (for triple) |
|                              |             | 70 (M36)    | -        | -         | ✓ (for triple) |
|                              | 121         | 68 (BC1.37) | -        | -         | -              |
|                              |             |             |          |           |                |
| Spindle                      | Material    |             | Steel    | Steel     | Steel          |
|                              | Finish      |             | Plated   | Plated    | Plated         |
| Left hand adapter            | Material    |             | Aluminum | Aluminum  | Aluminum       |
|                              | Finish      |             | Anodized | Anodized  | Anodized       |
| Average weight (g)           |             |             | 173      | 244       | -              |
| Note                         |             |             |          | For track |                |

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# Cassette

| Series                         |  | DURA-ACE                                       | ULTEGRA                              | ULTEGRA                              |
|--------------------------------|--|--|--------------------------------------|--------------------------------------|
| Model no.                      |  | CS-R9200-12                                    | CS-R8101-12                          | CS-R8100-12                          |
| Type                           |  | HYPERGLIDE+                                    | HYPERGLIDE+                          | HYPERGLIDE+                          |
| Rear speeds                    |  | 12   | 12                                   | 12                                   |
| Compatible chain               |  | HG 12-speed                                    | HG 12-speed                          | HG 12-speed                          |
| Combination name (Group name)  |  | 11-30T, 11-34T                                 | 11-30T, 11-34T                       | 11-30T, 11-34T                       |
| Combination *<br>Titanium gear | 1  | 11-12-13-14-15-16-17-19*21*-24*-27*-30*<br>T   | 11-12-13-14-15-16-17-19-21-24-27-30T | 11-12-13-14-15-16-17-19-21-24-27-30T |
|                                | 2  | 11-12-13-14-15-17-19*-21*-24*-27*-30*-34<br>*T | 11-12-13-14-15-17-19-21-24-27-30-34T | 11-12-13-14-15-17-19-21-24-27-30-34T |
|                                | 3  | -  | -                                    | -                                    |
|                                | 4  | -  | -                                    | -                                    |
|                                | 5  | -  | -                                    | -                                    |
|                                | 6  | -  | -                                    | -                                    |
|                                | 7  | -  | -                                    | -                                    |
| Spline type                    | MICRO SPLINE   | -  | -                                    | -                                    |
|                                | HG spline L2 (ROAD<br>12-speed dedicated)                                  | ✓  | ✓                                    | ✓                                    |
|                                | HG spline L (ROAD<br>12/11-speed)  | -  | -                                    | -                                    |
|                                | HG spline M (10/9/<br>8-speed, MTB<br>11-speed, 7-speed<br>CS-HG400/HG210) | -  | -                                    | -                                    |
|                                | HG spline S<br>(7-speed)   | -  | -                                    | -                                    |
| Carbon spider arm              | QTY (pcs)  | -  | -                                    | -                                    |
|                                | Finish   | -  | -                                    | -                                    |
| Aluminum spider<br>arm         | QTY (pcs)  | 2  | 2                                    | 2                                    |
|                                | Finish   | Anodized                                       | -                                    | -                                    |
| Steel spider arm               | QTY (pcs)  | -  | -                                    | -                                    |
|                                | Finish   | -  | -                                    | -                                    |
| Titanium gear                  | QTY (pcs)  | 5 (11-30T), 6 (11-34T)                         | 0                                    | 0                                    |
|                                | Finish   | Titanium                                       | -                                    | -                                    |
| Aluminum gear                  | QTY (pcs)  | 0  | 0                                    | 0                                    |
|                                | Finish   | -  | -                                    | -                                    |
| Steel gear                     | QTY (pcs)  | 7 (11-30T), 6 (11-34T)                         | 12                                   | 12                                   |
|                                | Finish   | Nickel plated                                  | Nickel plated                        | Nickel plated                        |
| Lock ring                      | Material   | Aluminum                                       | Aluminum                             | Aluminum                             |
|                                | Finish   | Anodized                                       | Anodized                             | Anodized                             |
| Average weight (g)             |  | 223 (11-30T)<br>253 (11-34T)                   | 291 (11-30T)<br>345 (11-34T)         | 291 (11-30T)<br>345 (11-34T)         |
| Note                           |  |  |                                      |                                      |

| Series                         |  | SHIMANO 105                          | SHIMANO 105                          | SHIMANO                              |
|--------------------------------|--|--------------------------------------|--------------------------------------|--------------------------------------|
| Model no.                      |  | CS-R7101-12                          | CS-R7100-12                          | CS-HG710-12                          |
| Type                           |  | HG                                   | HG                                   | HG                                   |
| Rear speeds                    |  | 12                                   | 12                                   | 12                                   |
| Compatible chain               |  | HG 12-speed                          | HG 12-speed                          | HG 12-speed                          |
| Combination name (Group name)  |  | 11-34T                               | 11-34T                               | 11-36T                               |
| Combination *<br>Titanium gear | 1  | 11-12-13-14-15-17-19-21-24-27-30-34T | 11-12-13-14-15-17-19-21-24-27-30-34T | 11-12-13-14-15-17-19-21-24-28-32-36T |
|                                | 2  | -                                    | -                                    | -                                    |
|                                | 3  | -                                    | -                                    | -                                    |
|                                | 4  | -                                    | -                                    | -                                    |
|                                | 5  | -                                    | -                                    | -                                    |
|                                | 6  | -                                    | -                                    | -                                    |
|                                | 7  | -                                    | -                                    | -                                    |
| Spline type                    | MICRO SPLINE   | -                                    | -                                    | -                                    |
|                                | HG spline L2 (ROAD<br>12-speed dedicated)                                  | ✓                                    | ✓                                    | ✓                                    |
|                                | HG spline L (ROAD<br>12/11-speed)  | -                                    | -                                    | -                                    |
|                                | HG spline M (10/9/<br>8-speed, MTB<br>11-speed, 7-speed<br>CS-HG400/HG210) | -                                    | -                                    | -                                    |
|                                | HG spline S<br>(7-speed)   | -                                    | -                                    | -                                    |
| Carbon spider arm              | QTY (pcs)  | -                                    | -                                    | -                                    |
|                                | Finish   | -                                    | -                                    | -                                    |
| Aluminum spider<br>arm         | QTY (pcs)  | 1                                    | 1                                    | 1                                    |
|                                | Finish   | Anodized                             | Anodized                             | Anodized                             |
| Steel spider arm               | QTY (pcs)  | -                                    | -                                    | -                                    |
|                                | Finish   | -                                    | -                                    | -                                    |
| Titanium gear                  | QTY (pcs)  | 0                                    | 0                                    | 0                                    |
|                                | Finish   | -                                    | -                                    | -                                    |
| Aluminum gear                  | QTY (pcs)  | 0                                    | 0                                    | 0                                    |
|                                | Finish   | -                                    | -                                    | -                                    |
| Steel gear                     | QTY (pcs)  | 12                                   | 12                                   | 12                                   |
|                                | Finish   | Nickel plated                        | Nickel plated                        | Nickel plated                        |
| Lock ring                      | Material   | Steel                                | Steel                                | Steel                                |
|                                | Finish   | Nickel plated                        | Nickel plated                        | Nickel plated                        |
| Average weight (g)             |  | 361                                  | 361                                  | 391                                  |
| Note                           |  |                                      |                                      |                                      |

# Cassette

ROAD

| Series                         |  | DURA-ACE   | ULTEGRA  | SHIMANO                           |
|--------------------------------|--|--|--|-----------------------------------|
| Model no.                      |  | CS-R9100   | CS-R8000   | CS-HG800-11                       |
| Type                           |  | HG-EV  | HG-EV  | HG-EV                             |
| Rear speeds                    |  | 11   | 11   | 11                                |
| Compatible chain               |  | LINKGLIDE, HG 11-speed   | LINKGLIDE, HG 11-speed   | LINKGLIDE, HG 11-speed            |
| Combination name (Group name)  |  | 11-25T, 11-28T, 11-30T, 12-25T, 12-28T                                       | 11-25T, 11-28T, 11-30T, 11-32T, 12-25T, 14-28T   | 11-34T                            |
| Combination *<br>Titanium gear | 1  | 11-12-13-14-15-16-17*-19*-21*-23*-25*T                                       | 11-12-13-14-15-16-17-19-21-23-25T  | 11-13-15-17-19-21-23-25-27-30-34T |
|                                | 2  | 11-12-13-14-15-17-19*-21*-23*-25*-28*T                                       | 11-12-13-14-15-17-19-21-23-25-28T  | -                                 |
|                                | 3  | 11-12-13-14-15-17-19*-21*-24*-27*-30*T                                       | 11-12-13-14-15-17-19-21-24-27-30T  | -                                 |
|                                | 4  | 12-13-14-15-16-17-18*-19*-21*-23*-25*T                                       | 12-13-14-15-16-17-18-19-21-23-25T  | -                                 |
|                                | 5  | 12-13-14-15-16-17-19*-21*-23*-25*-28*T                                       | 14-15-16-17-18-19-20-21-23-25-28T  | -                                 |
|                                | 6  | -  | 11-12-13-14-16-18-20-22-25-28-32T  | -                                 |
|                                | 7  | -  | -  | -                                 |
| Spline type                    | MICRO SPLINE   | -  | -  | -                                 |
|                                | HG spline L2 (ROAD 12-speed dedicated)                           | -  | -  | -                                 |
|                                | HG spline L (ROAD 12/11-speed)                                   | ✓  | ✓  | -                                 |
|                                | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | -  | -  | ✓                                 |
|                                | HG spline S (7-speed)  | -  | -  | -                                 |
| Carbon spider arm              | QTY (pcs)  | 1  | 1  | -                                 |
|                                | Finish   | -  | -  | -                                 |
| Aluminum spider arm            | QTY (pcs)  | 1  | 1  | 2                                 |
|                                | Finish   | Anodized   | Anodized   | Anodized                          |
| Steel spider arm               | QTY (pcs)  | -  | -  | -                                 |
|                                | Finish   | -  | -  | -                                 |
| Titanium gear                  | QTY (pcs)  | 5  | 0  | 0                                 |
|                                | Finish   | Titanium   | -  | -                                 |
| Aluminum gear                  | QTY (pcs)  | 0  | 0  | 0                                 |
|                                | Finish   | -  | -  | -                                 |
| Steel gear                     | QTY (pcs)  | 6  | 11   | 11                                |
|                                | Finish   | Nickel plated  | Nickel plated  | Nickel plated                     |
| Lock ring                      | Material   | Aluminum   | Aluminum   | Aluminum                          |
|                                | Finish   | Anodized   | Anodized   | Anodized                          |
| Average weight (g)             |  | 175 (11-25T)<br>193 (11-28T)<br>211 (11-30T)<br>189 (12-25T)<br>205 (12-28T) | 232 (11-25T)<br>251 (11-28T)<br>269 (11-30T)<br>243 (12-25T)<br>300 (14-28T)<br>292 (11-32T) | 335                               |
| Note                           |  |  |  |                                   |

| Series                         |  | SHIMANO 105  | SHIMANO                           | ULTEGRA  |
|--------------------------------|--|--|-----------------------------------|--|
| Model no.                      |  | CS-R7000   | CS-HG700-11                       | CS-6700  |
| Type                           |  | HG-EV  | HG-EV                             | HG   |
| Rear speeds                    |  | 11   | 11                                | 10   |
| Compatible chain               |  | LINKGLIDE, HG 11-speed                                       | LINKGLIDE, HG 11-speed            | HG 10-speed  |
| Combination name (Group name)  |  | 11-28T, 11-30T, 11-32T, 12-25T                               | 11-34T                            | 11-25T, 11-28T, 12-25T, 12-30T                               |
| Combination *<br>Titanium gear | 1  | 11-12-13-14-15-17-19-21-23-25-28T                            | 11-13-15-17-19-21-23-25-27-30-34T | 11-12-13-14-15-17-19-21-23-25T                               |
|                                | 2  | 11-12-13-14-15-17-19-21-24-27-30T                            | -                                 | 11-12-13-14-15-17-19-21-24-28T                               |
|                                | 3  | 11-12-13-14-16-18-20-22-25-28-32T                            | -                                 | 12-13-14-15-16-17-19-21-23-25T                               |
|                                | 4  | 12-13-14-15-16-17-18-19-21-23-25T                            | -                                 | 12-13-14-15-17-19-21-24-27-30T                               |
|                                | 5  | -  | -                                 | -  |
|                                | 6  | -  | -                                 | -  |
|                                | 7  | -  | -                                 | -  |
| Spline type                    | MICRO SPLINE   | -  | -                                 | -  |
|                                | HG spline L2 (ROAD 12-speed dedicated)                           | -  | -                                 | -  |
|                                | HG spline L (ROAD 12/11-speed)                                   | ✓  | -                                 | -  |
|                                | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | -  | ✓                                 | ✓  |
|                                | HG spline S (7-speed)  | -  | -                                 | -  |
| Carbon spider arm              | QTY (pcs)  | -  | -                                 | -  |
|                                | Finish   | -  | -                                 | -  |
| Aluminum spider arm            | QTY (pcs)  | 1  | 1                                 | 1  |
|                                | Finish   | Anodized   | Anodized                          | Anodized   |
| Steel spider arm               | QTY (pcs)  | -  | -                                 | -  |
|                                | Finish   | -  | -                                 | -  |
| Titanium gear                  | QTY (pcs)  | 0  | 0                                 | 0  |
|                                | Finish   | -  | -                                 | -  |
| Aluminum gear                  | QTY (pcs)  | 0  | 0                                 | 0  |
|                                | Finish   | -  | -                                 | -  |
| Steel gear                     | QTY (pcs)  | 11   | 11                                | 10   |
|                                | Finish   | Nickel plated  | Nickel plated                     | Nickel plated  |
| Lock ring                      | Material   | Steel  | Steel                             | Aluminum   |
|                                | Finish   | Nickel plated  | Nickel plated                     | Anodized   |
| Average weight (g)             |  | 284 (11-28T)<br>304 (11-30T)<br>320 (11-32T)<br>269 (12-25T) | 379                               | 230 (11-25T)<br>242 (11-28T)<br>238 (11-25T)<br>275 (12-30T) |
| Note                           |  |  |                                   |  |

# Cassette

| Series                         |  | SHIMANO                        | SHIMANO                             |
|--------------------------------|--|--------------------------------|-------------------------------------|
| Model no.                      |  | CS-HG500-10                    | CS-HG50-9                           |
| Type                           |  | HG                             | HG                                  |
| Rear speeds                    |  | 10                             | 9                                   |
| Compatible chain               |  | HG-X 10-speed, HG 10-speed     | HG 9-speed                          |
| Combination name (Group name)  |  | 11-25T, 12-28T, 11-32T, 11-34T | 11-30T (bQ), 12-25T, 13-25T, 14-25T |
| Combination *<br>Titanium gear | 1  | 11-12-13-14-15-17-19-21-23-25T | 11-12-14-16-18-20-23-26-30T (bQ)    |
|                                | 2  | 12-13-14-15-17-19-21-23-25-28T | 12-13-14-15-17-19-21-23-25T         |
|                                | 3  | 11-12-14-16-18-20-22-25-28-32T | 13-14-15-16-17-19-21-23-25T         |
|                                | 4  | 11-13-15-17-19-21-23-26-30-34T | 14-15-16-17-18-19-21-23-25T         |
|                                | 5  | -                              | -                                   |
|                                | 6  | -                              | -                                   |
|                                | 7  | -                              | -                                   |
| Spline type                    | MICRO SPLINE   | -                              | -                                   |
|                                | HG spline L2 (ROAD 12-speed dedicated)                           | -                              | -                                   |
|                                | HG spline L (ROAD 12/11-speed)                                   | -                              | -                                   |
|                                | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | ✓                              | ✓                                   |
|                                | HG spline S (7-speed)  | -                              | -                                   |
| Carbon spider arm              | QTY (pcs)  | -                              | -                                   |
|                                | Finish   | -                              | -                                   |
| Aluminum spider arm            | QTY (pcs)  | -                              | -                                   |
|                                | Finish   | -                              | -                                   |
| Steel spider arm               | QTY (pcs)  | -                              | -                                   |
|                                | Finish   | -                              | -                                   |
| Titanium gear                  | QTY (pcs)  | 0                              | 0                                   |
|                                | Finish   | -                              | -                                   |
| Aluminum gear                  | QTY (pcs)  | 0                              | 0                                   |
|                                | Finish   | -                              | -                                   |
| Steel gear                     | QTY (pcs)  | 10                             | 9                                   |
|                                | Finish   | Nickel plated                  | Nickel plated                       |
| Lock ring                      | Material   | Steel                          | Steel                               |
|                                | Finish   | Nickel plated                  | Nickel plated                       |
| Average weight (g)             |  | -                              | -                                   |
| Note                           |  |                                |                                     |

# Front Hub (Rim/Disc Brake)

ROAD

| Series                                      |                 | DURA-ACE   | DURA-ACE  | DURA-ACE   | ULTEGRA           | SHIMANO 105   | SHIMANO 105            |
|---|-----------------|--|---|--|-------------------|---------------|------------------------|
| Model no.                                   |                 | HB-9000  | HB-7710   | HB-7600  | HB-6800           | HB-R7000      | HB-R7070               |
| Color                                       | 1 Hub shell     | Series color   | Silver  | Silver   | Series color      | Silky black   | Silky black            |
|   | 1 Quick release | Series color   | Silver  | Silver   | Series color      | Black         | -                      |
|   | 2 Hub shell     | -  | -   | -  | -                 | Spark silver  | -                      |
|   | 2 Quick release | -  | -   | -  | -                 | Black         | -                      |
| Brake type                                  |                 | Rim brake  | Rim brake   | Rim brake  | Rim brake         | Rim brake     | CENTER LOCK disc brake |
| O.L.D. (mm)                                 |                 | 100  | 100 (front), 120 (rear)   | 100 (front), 120 (rear)  | 100               | 100           | 100                    |
| Spoke hole                                  | 24H             | ✓  | -   | -  | -                 | -             | -                      |
|   | 28H             | ✓  | ✓   | ✓  | -                 | -             | -                      |
|   | 32H             | ✓  | ✓   | ✓  | ✓                 | ✓             | ✓                      |
|   | 36H             | ✓  | ✓   | ✓  | ✓                 | ✓             | ✓                      |
| Axle fixing method                          |                 | Quick release  | Nut   | Nut  | Quick release     | Quick release | 12 mm E-THRU           |
| Quick release skewer length (mm)            | 129             | -  | -   | -  | -                 | -             | -                      |
|   | 133             | ✓  | -   | -  | ✓                 | ✓             | -                      |
| Thru axle (length x inner diameter ; mm)    | 100 x 8         | -  | -   | -  | -                 | -             | -                      |
|   | 100 x 12        | -  | -   | -  | -                 | -             | ✓                      |
|   | 100 x 15        | -  | -   | -  | -                 | -             | -                      |
|   | 110 x 20        | -  | -   | -  | -                 | -             | -                      |
| Flange distance (mm)                        |                 | 74.0   | 74.0 (front), 72.5 (single thread/rear), 67.0 (double thread/rear)              | 72.3 (front), 75.5 (single thread, rear), 65.0 (double thread, rear) | 71.6              | 71.6          | 59.6                   |
| Offset (mm)                                 |                 | 0  | 0 (front), 2.75 (single thread/rear), 0 (double thread/rear)                    | 0 (front), 5.25 (rear)   | 0                 | 0             | 6                      |
| P.C.D. left / right (mm)                    |                 | 38   | 38 (Front), 44 (Rear)   | 67   | 40                | 38            | 44                     |
| Flange diameter (mm)                        |                 | 48.4   | 46 (Front), 52 (Rear)   | 75   | 50.4              | 48.4          | 52.8                   |
| Seal  |                 | Labyrinth+Contact  | Dust cap  | Dust cap   | Labyrinth+Contact | Contact       | Contact                |
| Internal grease sleeve                      |                 | ✓  | -   | -  | ✓                 | ✓             | ✓                      |
| Digital adjustment system                   |                 | ✓  | -   | -  | ✓                 | -             | -                      |
| Bearing                                     | Stainless ball  | ✓  | ✓   | ✓  | -                 | -             | -                      |
|   | Cup             | Super finishing **   | Polish  | CBN+Polish   | Polish            | Polish        | Polish                 |
|   | Cone            | CBN+Polish   | CBN+Polish  | CBN+Polish   | CBN+Polish        | CBN+Polish    | CBN+Polish             |
| Hub shell                                   | Material        | Aluminum   | Aluminum  | Aluminum   | Aluminum          | Aluminum      | Aluminum               |
|   | Finish          | Anodized   | Anodized  | Anodized   | Anodized          | Anodized      | Anodized               |
| Axle  | Material        | Aluminum   | Steel   | Steel  | Aluminum          | Steel         | Aluminum               |
|   | Finish          | Anodized   | Plating   | Plating  | Anodized          | -             | Anodized               |
| Quick release lever                         | Material        | Aluminum   | -   | -  | Aluminum          | Aluminum      | -                      |
|   | Finish          | Anodized   | -   | -  | Anodized          | Anodized      | -                      |
| Quick release housing                       | Material        | Anodized   | -   | -  | Aluminum          | Aluminum      | -                      |
|   | Finish          | Silver   | -   | -  | Anodized          | Anodized      | -                      |
| Quick release nut                           | Material        | Anodized   | -   | -  | Resin             | Resin         | -                      |
|   | Finish          | Silver   | -   | -  | Black             | Black         | -                      |
| Radial lacing                               |                 | ✓  | -   | -  | ✓                 | ✓             | -                      |
| Average weight (g) (w/o axle and lock ring) |                 | 120  | 298 (rear w/ lock ring), 203 (front)  | 313 (rear LF w/ lock ring), 241 (front LF)                           | 158               | 155           | 165                    |
| Note  |                 | * Aero spoke hole available(18H/24H)<br>** Super Finishing | For Track<br>* Dishing Distance R (Single Thread): 2.75 mm / (Double Thread): 0 |  |                   | -             | -                      |



## Front Hub (Rim/Disc Brake)

| Series                                      |                 | SHIMANO                | SHIMANO       | SHIMANO                | SHIMANO       |
|---|-----------------|------------------------|---------------|------------------------|---------------|
| Model no.                                   |                 | HB-RS770               | HB-RS400      | HB-RS470               | HB-RS300      |
| Color                                       | 1 Hub shell     | Black/Silver           | Black         | Black                  | Silver        |
|   | 1 Quick release | -                      | Black         | -                      | Silver        |
|   | 2 Hub shell     | -                      | Silver        | -                      | Black         |
|   | 2 Quick release | -                      | Black         | -                      | Black         |
| Brake type                                  |                 | CENTER LOCK disc brake | Rim brake     | CENTER LOCK disc brake | Rim brake     |
| O.L.D. (mm)                                 |                 | 100                    | 100           | 100                    | 100           |
| Spoke hole                                  | 24H             | -                      | -             | -                      | -             |
|   | 28H             | ✓                      | ✓             | ✓                      | ✓             |
|   | 32H             | ✓                      | ✓             | ✓                      | ✓             |
|   | 36H             | ✓                      | ✓             | -                      | ✓             |
| Axle fixing method                          |                 | 12 mm E-THRU           | Quick release | 12 mm E-THRU           | Quick release |
| Quick release skewer length (mm)            | 129             | -                      | -             | -                      | ✓             |
|   | 133             | -                      | ✓             | -                      | ✓             |
| Thru axle (length x inner diameter ; mm)    | 100 x 8         | -                      | -             | -                      | -             |
|   | 100 x 12        | ✓                      | -             | ✓                      | -             |
|   | 100 x 15        | -                      | -             | -                      | -             |
|   | 110 x 20        | -                      | -             | -                      | -             |
| Flange distance (mm)                        |                 | 59.6                   | 71.6          | 59.6                   | 71.6          |
| Offset (mm)                                 |                 | 6                      | 0             | 6.3                    | 0             |
| P.C.D. left / right (mm)                    |                 | 44                     | 38            | 44                     | 38            |
| Flange diameter (mm)                        |                 | 52.8                   | 48.4          | 52.8                   | 48.4          |
| Seal  |                 | Labyrinth+Contact      | Contact       | Contact                | Contact       |
| Internal grease sleeve                      |                 | -                      | ✓             | ✓                      | -             |
| Digital adjustment system                   |                 | -                      | -             | -                      | -             |
| Bearing                                     | Stainless ball  | -                      | -             | -                      | -             |
|   | Cup             | CBN                    | Polish        | Polish                 | -             |
|   | Cone            | CBN                    | CBN           | CBN+Polish             | -             |
| Hub shell                                   | Material        | Aluminum               | Aluminum      | Aluminum               | Aluminum      |
|   | Finish          | Anodized               | Anodized      | Anodized               | Anodized      |
| Axle  | Material        | Aluminum               | Steel         | Aluminum               | Steel         |
|   | Finish          | Anodized               | -             | -                      | -             |
| Quick release lever                         | Material        | -                      | Aluminum      | -                      | Aluminum      |
|   | Finish          | -                      | Painted       | -                      | Painted       |
| Quick release housing                       | Material        | -                      | Aluminum      | -                      | Steel         |
|   | Finish          | -                      | Painted       | -                      | Painted       |
| Quick release nut                           | Material        | -                      | Resin         | -                      | Resin         |
|   | Finish          | -                      | Black         | -                      | Black         |
| Radial lacing                               |                 | -                      | ✓             | ✓                      | ✓             |
| Average weight (g) (w/o axle and lock ring) |                 | 125                    | -             | -                      | -             |
| Note  |                 | -                      | -             | -                      | -             |

# FREEHUB (Rim/Disc Brake)

ROAD

| Series   |  | DURA-ACE   | ULTEGRA       | SHIMANO 105   | SHIMANO 105            | SHIMANO                | SHIMANO       |
|--|--|--|---------------|---------------|------------------------|------------------------|---------------|
| Model no.  |  | FH-9000  | FH-6800       | FH-R7000      | FH-R7070               | FH-RS770               | FH-RS400      |
| Color  | 1 Hub shell  | Series color   | Series color  | Silky black   | Silky black            | Black/Silver           | Black         |
|  | 1 Quick release  | Series color   | Series color  | Black         | Black                  | -                      | Black         |
|  | 2 Hub shell  | -  | -             | Spark silver  | -                      | -                      | Silver        |
|  | 2 Quick release  | -  | -             | Black         | -                      | -                      | Black         |
| Brake type   |  | Rim brake  | Rim brake     | Rim brake     | CENTER LOCK disc brake | CENTER LOCK disc brake | Rim brake     |
| Rear speeds  |  | 11/10 *  | 11/10 *       | 11/10 *       | 11/10 *                | 11/10 *                | 11/10         |
| O.L.D. (mm)  |  | 130  | 130           | 130           | 142                    | 142                    | 130           |
| Spoke hole   | 24H  | ✓  | -             | -             | -                      | -                      | -             |
|  | 28H  | ✓  | -             | -             | -                      | ✓                      | ✓             |
|  | 32H  | ✓  | ✓             | ✓             | ✓                      | ✓                      | ✓             |
|  | 36H  | ✓  | ✓             | ✓             | ✓                      | ✓                      | ✓             |
| External serration disc brake rotor lock ring              | With   | -  | -             | -             | -                      | -                      | -             |
|  | Without  | -  | -             | -             | -                      | -                      | -             |
| Internal serration disc brake rotor lock ring              | With   | -  | -             | -             | -                      | -                      | -             |
|  | Without  | -  | -             | -             | ✓                      | ✓                      | -             |
| CENTER LOCK mount cover option                             |  | -  | -             | -             | ✓                      | -                      | -             |
| Axle fixing method   |  | Quick release  | Quick release | Quick release | 12 mm E-THRU           | 12 mm E-THRU           | Quick release |
| Quick release skewer length (mm)                           | 161  | -  | -             | -             | -                      | -                      | -             |
|  | 163  | ✓  | ✓             | ✓             | -                      | -                      | ✓             |
|  | 166  | -  | -             | -             | -                      | -                      | -             |
|  | 168  | ✓  | ✓             | ✓             | -                      | -                      | ✓             |
|  | 170  | -  | -             | -             | -                      | -                      | -             |
|  | 173  | -  | -             | -             | -                      | -                      | -             |
| Thru axle (length x inner diameter ; mm)                   | 135 x 10   | -  | -             | -             | -                      | -                      | -             |
|  | 135 x 12   | -  | -             | -             | -                      | -                      | -             |
|  | 142 x 12   | -  | -             | -             | ✓                      | ✓                      | -             |
|  | 148 x 12   | -  | -             | -             | -                      | -                      | -             |
|  | 150 x 12   | -  | -             | -             | -                      | -                      | -             |
| Flange distance (mm)                                       |  | 56.9 **  | 56.9          | 56.9          | 55.7                   | 55.7                   | 56.9          |
| Offset (mm)  |  | 9.75 **  | 9.7           | 9.75          | 7.45                   | 7.5                    | 9.75          |
| P.C.D. left / right (mm)                                   |  | 44/45  | 44/45         | 44/45         | 44/45                  | 44/45                  | 44/45         |
| Flange diameter left / right (mm)                          |  | 52.8/53.8  | 52.8/53.8     | 52.8/53.8     | 52.8/53.8              | 52.8/53.8              | 52.8/53.8     |
| Spline type  | MICRO SPLINE   | -  | -             | -             | -                      | -                      | -             |
|  | HG spline L2 (ROAD 12-speed dedicated)                           | -  | -             | -             | -                      | -                      | -             |
|  | HG spline L (ROAD 12/11-speed)                                   | ✓  | ✓             | ✓             | ✓                      | ✓                      | ✓             |
|  | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | -  | -             | -             | -                      | -                      | -             |
|  | HG spline S (7-speed)  | -  | -             | -             | -                      | -                      | -             |
| Seal   | Hub  | Contact  | Contact       | Contact       | Contact                | Contact                | Contact       |
|  | FREEHUB body   | Contact  | Contact       | Contact       | Contact                | Contact                | Contact       |
| Internal grease sleeve                                     |  | ✓  | ✓             | ✓             | ✓                      | -                      | ✓             |
| Digital adjustment system                                  |  | ✓  | ✓             | -             | -                      | -                      | -             |
| Bearing  | Stainless ball   | ✓  | -             | -             | -                      | -                      | -             |
|  | Cup  | CBN  | Polish        | Polish        | Polish                 | CBN                    | Polish        |
|  | Cone   | CBN  | CBN           | CBN           | CBN                    | CBN                    | CBN           |
| FREEHUB body   | Material   | Titanium   | Steel         | Steel         | Steel                  | Steel                  | Steel         |
|  | Finish   | -  | -             | -             | -                      | -                      | -             |
| Hub shell  | Material   | Aluminum   | Aluminum      | Aluminum      | Aluminum               | Aluminum               | Aluminum      |
|  | Finish   | Anodized   | Anodized      | Anodized      | Anodized               | Anodized               | Anodized      |
| Axle   | Material   | Aluminum   | Aluminum      | Steel         | Steel                  | Aluminum               | Steel         |
|  | Finish   | Anodized   | Anodized      | -             | -                      | Anodized               | -             |
| Quick release lever  | Material   | Aluminum   | Aluminum      | Aluminum      | -                      | -                      | Aluminum      |
|  | Finish   | Anodized   | Anodized      | Anodized      | -                      | -                      | Painted       |
|  | Color  | 9000SLV  | Black         | Black         | -                      | -                      | Black         |
| Quick release housing                                      | Material   | Aluminum   | Aluminum      | Aluminum      | -                      | -                      | Aluminum      |
|  | Finish   | Anodized   | Anodized      | Anodized      | -                      | -                      | Painted       |
| Quick release nut  | Material   | Aluminum   | Resin         | Resin         | -                      | -                      | Resin         |
|  | Finish   | Anodized   | Black         | Black         | -                      | -                      | Black         |
| Disc brake rotor lock ring                                 | Material   | -  | -             | -             | -                      | -                      | -             |
|  | Finish   | -  | -             | -             | -                      | -                      | -             |
| Radial lacing  |  | -  | -             | -             | -                      | -                      | -             |
| Average weight (g) (w/o axle, quick release nor lock ring) |  | 247  | 330           | 368           | 361                    | 302                    | -             |
| Note   |  | <p>* Can be used for 10-speed with an additional spacer</p> <p>** Aero spoke hole available</p> <p>*** Flange Distance: 56.5, Dish: 9.95 (only for 28H)</p> <p>**** Super Finishing.</p> |               |               |                        |                        |               |

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## FREEHUB (Rim/Disc Brake)

| Series   |  | SHIMANO  | SHIMANO       |
|--|--|--|---------------|
| Model no.  |  | FH-RS470   | FH-RS300      |
| Color  | 1 Hub shell  | Black  | Silver        |
|  | 1 Quick release  | -  | Silver        |
|  | 2 Hub shell  | -  | Black         |
|  | 2 Quick release  | -  | Black         |
| Brake type   |  | CENTER LOCK disc brake                               | Rim brake     |
| Rear speeds  |  | 11/10 *  | 11/10/9/8/7   |
| O.L.D. (mm)  |  | 142  | 130           |
| Spoke hole   | 24H  | -  | -             |
|  | 28H  | ✓  | ✓             |
|  | 32H  | ✓  | ✓             |
|  | 36H  | -  | ✓             |
| External serration disc brake rotor lock ring              | With   | -  | -             |
|  | Without  | -  | -             |
| Internal serration disc brake rotor lock ring              | With   | -  | -             |
|  | Without  | ✓  | -             |
| CENTER LOCK mount cover option                             |  | -  | -             |
| Axle fixing method   |  | 12 mm E-THRU   | Quick release |
| Quick release skewer length (mm)                           | 161  | -  | -             |
|  | 163  | -  | ✓             |
|  | 166  | -  | -             |
|  | 168  | -  | ✓             |
|  | 170  | -  | -             |
|  | 173  | -  | -             |
| Thru axle (length x inner diameter ; mm)                   | 135 x 10   | -  | -             |
|  | 135 x 12   | -  | -             |
|  | 142 x 12   | ✓  | -             |
|  | 148 x 12   | -  | -             |
|  | 150 x 12   | -  | -             |
| Flange distance (mm)                                       |  | 55.7   | 57.9          |
| Offset (mm)  |  | 7.45   | 8.4           |
| P.C.D. left / right (mm)                                   |  | 44/45  | 45            |
| Flange diameter left / right (mm)                          |  | 52.8/53.8  | 53.8          |
| Spline type  | MICRO SPLINE   | -  | -             |
|  | HG spline L2 (ROAD 12-speed dedicated)                           | -  | -             |
|  | HG spline L (ROAD 12/11-speed)                                   | ✓  | -             |
|  | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | -  | ✓             |
|  | HG spline S (7-speed)  | -  | -             |
| Seal   | Hub  | Contact  | Contact       |
|  | FREEHUB body   | Contact  | Contact       |
| Internal grease sleeve                                     |  | ✓  | ✓             |
| Digital adjustment system                                  |  | -  | -             |
| Bearing  | Stainless ball   | -  | -             |
|  | Cup  | Polish   | -             |
|  | Cone   | CBN  | -             |
| FREEHUB body   | Material   | Steel  | Steel         |
|  | Finish   | -  | -             |
| Hub shell  | Material   | Aluminum   | Aluminum      |
|  | Finish   | Anodized   | Anodized      |
| Axle   | Material   | Steel  | Steel         |
|  | Finish   | -  | -             |
| Quick release lever  | Material   | -  | Aluminum      |
|  | Finish   | -  | Painted       |
|  | Color  | -  | Black         |
| Quick release housing                                      | Material   | -  | Steel         |
|  | Finish   | -  | Painted       |
| Quick release nut  | Material   | -  | Resin         |
|  | Finish   | -  | Black         |
| Disc brake rotor lock ring                                 | Material   | -  | -             |
|  | Finish   | -  | -             |
| Radial lacing  |  | -  | -             |
| Average weight (g) (w/o axle, quick release not lock ring) |  | -  | -             |
| Note   |  | * Can be used for 10-speed with an additional spacer |               |

# Wheel (Disc Brake)

ROAD

| Series   |  | DURA-ACE               | DURA-ACE               | DURA-ACE               | DURA-ACE               | DURA-ACE               | DURA-ACE               |
|--|--|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Model no.  |  | WH-R9270-C60-HR-TU-F   | WH-R9270-C60-HR-TU-R   | WH-R9270-C60-HR-TL-F   | WH-R9270-C60-HR-TL-R   | WH-R9270-C50-TU-F      | WH-R9270-C50-TU-R      |
| Model name   |  | WH-R9270-C60-HR-TU-F   | WH-R9270-C60-HR-TU-R   | WH-R9270-C60-HR-TL-F   | WH-R9270-C60-HR-TL-R   | WH-R9270-C50-TU-F      | WH-R9270-C50-TU-R      |
| Specification  |  | F                      | R                      | F                      | R                      | F                      | R                      |
| Color  | 1 Hub shell  | Series color           | Series color           | Series color           | Series color           | Series color           | Series color           |
|  | 1 Quick release  | -                      | -                      | -                      | -                      | -                      | -                      |
|  | 2 Hub shell  | -                      | -                      | -                      | -                      | -                      | -                      |
|  | 2 Quick release  | -                      | -                      | -                      | -                      | -                      | -                      |
| Front/Rear   |  | Front                  | Rear                   | Front                  | Rear                   | Front                  | Rear                   |
| Brake type   |  | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake |
| Rear speeds  |  | -                      | 12                     | -                      | 12                     | -                      | 12                     |
| O.L.D. (mm)  |  | 100                    | 142                    | 100                    | 142                    | 100                    | 142                    |
| Wheel size   |  | 700C                   | 700C                   | 622 x 21C (700C)       | 622 x 21C (700C)       | 700C                   | 700C                   |
| Tire   | Type   | Tubular                | Tubular                | Tubeless               | Tubeless               | Tubular                | Tubular                |
|  | Recommended size   | 25-28" - 32-28"        | 25-28" - 32-28"        | 25-622 - 32-622        | 25-622 - 32-622        | 25-28" - 32-28"        | 25-28" - 32-28"        |
| Rim  | Height (mm)  | 60                     | 60                     | 60                     | 60                     | 50                     | 50                     |
|  | Internal width (mm)  | -                      | -                      | 21                     | 21                     | -                      | -                      |
|  | External width (mm)  | 28                     | 28                     | 28                     | 28                     | 28                     | 28                     |
|  | Rim joint  | -                      | -                      | -                      | -                      | -                      | -                      |
| Spokes   | Brazed reinforcement   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | OFFSET RIM   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | Requires rim tape  | -                      | -                      | ✓                      | ✓                      | -                      | -                      |
|  | Number   | 24                     | 24                     | 24                     | 24                     | 24                     | 24                     |
| Spokes   | Straight pull  | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
|  | Bladed   | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
|  | Butted   | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
|  | Diameter (mm)  | 2.0-1.8-2.0            | 2.0-1.8-2.0            | 2.0-1.8-2.0            | 2.0-1.8-2.0            | 2.0-1.5-2.0            | 2.0-1.5-2.0            |
| Axle fixing method   |  | 133                    | 133                    | 133                    | 133                    | 133                    | 133                    |
| Quick release skewer length (mm)   | 133  | -                      | -                      | -                      | -                      | -                      | -                      |
|  | 163  | -                      | -                      | -                      | -                      | -                      | -                      |
|  | 168  | -                      | -                      | -                      | -                      | -                      | -                      |
| Thru axle (length x inner diameter ; mm)   | 100 x 8  | -                      | -                      | -                      | -                      | -                      | -                      |
|  | 100 x 12   | ✓                      | -                      | ✓                      | -                      | ✓                      | -                      |
|  | 142 x 12   | -                      | ✓                      | -                      | ✓                      | -                      | ✓                      |
| Spline type  | MICRO SPLINE   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | HG spline L2 (ROAD 12-speed dedicated)                           | -                      | ✓                      | -                      | ✓                      | -                      | ✓                      |
|  | HG spline L (ROAD 12/11-speed)                                   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | -                      | -                      | -                      | -                      | -                      | -                      |
|  | HG spline S (7-speed)  | -                      | -                      | -                      | -                      | -                      | -                      |
| Engagement type  |  | -                      | Direct engagement      | -                      | Direct engagement      | -                      | Direct engagement      |
| Bearing  | Stainless ball   | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
|  | Cup  | CBN                    | CBN                    | CBN                    | CBN                    | CBN                    | CBN                    |
|  | Cone   | CBN                    | CBN                    | CBN                    | CBN                    | CBN                    | CBN                    |
| Disc mount   | CENTER LOCK  | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
|  | CENTER LOCK mount cover option                                   | -                      | -                      | -                      | -                      | -                      | -                      |
|  | 140 mm disc brake rotor compatible                               | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
| OPTBAL (2:1)   |  | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
| D2 rim   |  | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
| Digital adjustment system  |  | -                      | -                      | -                      | -                      | -                      | -                      |
| Seal   | Hub  | Contact                | Contact                | Contact                | Contact                | Contact                | Contact                |
|  | FREEHUB body   | -                      | Contact                | -                      | Contact                | -                      | Contact                |
| Internal grease sleeve   |  | -                      | -                      | -                      | -                      | -                      | -                      |
| Rim  | Material   | Carbon                 | Carbon                 | Carbon                 | Carbon                 | Carbon                 | Carbon                 |
|  | Finish   | Painted                | Painted                | Painted                | Painted                | Painted                | Painted                |
| Spoke  | Material   | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        |
|  | Finish   | Series color           | Series color           | Series color           | Series color           | Series color           | Series color           |
| Nipple   | Material   | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               |
|  | Finish   | Series color           | Series color           | Series color           | Series color           | Series color           | Series color           |
| FREEHUB body   | Material   | -                      | Aluminum               | -                      | Aluminum               | -                      | Aluminum               |
|  | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
| Hub shell  | Material   | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               |
|  | Finish   | Anodized               | Anodized               | Anodized               | Anodized               | Anodized               | Anodized               |
| Axle   | Material   | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               |
|  | Finish   | Anodized               | Anodized               | Anodized               | Anodized               | Anodized               | Anodized               |
| Quick release lever  |  | -                      | -                      | -                      | -                      | -                      | -                      |
| Quick release housing  |  | -                      | -                      | -                      | -                      | -                      | -                      |
| Quick release nut  |  | -                      | -                      | -                      | -                      | -                      | -                      |
| Compatible spoke protector   |  | -                      | CP-WR92C               | -                      | CP-WR92C               | -                      | CP-WR92A               |
| Reflector  | JIS/CPSC   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   |
|  | AS   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   |
|  | DIN  | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   |
| Average weight (g) (w/o quick release, rim tape, tubeless tape, valve stem, lock ring) |  | 667                    | 770                    | 751                    | 858                    | 610                    | 723                    |
| Note   |  | -                      | -                      | -                      | -                      | -                      | -                      |

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# Wheel (Disc Brake)

| Series   | DURA-ACE  | DURA-ACE               | DURA-ACE               | DURA-ACE               | DURA-ACE               | DURA-ACE               |
|--|---|------------------------|------------------------|------------------------|------------------------|------------------------|
| Model no.  | WH-R9270-C50-TL-F   | WH-R9270-C50-TL-R      | WH-R9270-C36-TU-F      | WH-R9270-C36-TU-R      | WH-R9270-C36-TL-F      | WH-R9270-C36-TL-R      |
| Model name   | WH-R9270-C50-TL   | WH-R9270-C50-TL        | WH-R9270-C36-TU        | WH-R9270-C36-TU        | WH-R9270-C36-TL        | WH-R9270-C36-TL        |
| Specification  | F   | R                      | F                      | R                      | F                      | R                      |
| Color  | 1 Hub shell   | Series color           | Series color           | Series color           | Series color           | Series color           |
|  | 1 Quick release   | -                      | -                      | -                      | -                      | -                      |
|  | 2 Hub shell   | -                      | -                      | -                      | -                      | -                      |
|  | 2 Quick release   | -                      | -                      | -                      | -                      | -                      |
| Front/Rear   | Front   | Rear                   | Front                  | Rear                   | Front                  | Rear                   |
| Brake type   | CENTER LOCK disc brake  | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake |
| Rear speeds  | 100   | 142                    | 100                    | 142                    | 100                    | 142                    |
| Wheel size   | 622 x 21C (700C)  | 622 x 21C (700C)       | 700C                   | 700C                   | 622 x 21C (700C)       | 622 x 21C (700C)       |
| Tire   | Type  | Tubeless               | Tubeless               | Tubeless               | Tubeless               | Tubeless               |
|  | Recommended size  | 25-622 - 32-622        | 25-622 - 32-622        | 25-28" - 32-28"        | 25-622 - 32-622        | 25-622 - 32-622        |
| Rim  | Height (mm)   | 50                     | 50                     | 36                     | 36                     | 36                     |
|  | Internal width (mm)   | 21                     | 21                     | -                      | 21                     | 21                     |
|  | External width (mm)   | 28                     | 28                     | 28                     | 28                     | 28                     |
|  | Rim joint   | -                      | -                      | -                      | -                      | -                      |
|  | Brazed reinforcement  | -                      | -                      | -                      | -                      | -                      |
|  | OFFSET RIM  | -                      | -                      | -                      | -                      | -                      |
| Spokes   | Requires rim tape   | ✓                      | ✓                      | -                      | ✓                      | ✓                      |
|  | Number  | 24                     | 24                     | 24                     | 24                     | 24                     |
|  | Straight pull   | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
|  | Bladed  | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
|  | Butted  | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
|  | Diameter (mm)   | 2.0-1.5-2.0            | 2.0-1.5-2.0            | 2.0-1.5-2.0            | 2.0-1.5-2.0            | 2.0-1.5-2.0            |
| Axle fixing method   |   | 12 mm E-THRU           | 12 mm E-THRU           | 12 mm E-THRU           | 12 mm E-THRU           | 12 mm E-THRU           |
| Quick release skewer length (mm)   | 133   | -                      | -                      | -                      | -                      | -                      |
|  | 163   | -                      | -                      | -                      | -                      | -                      |
|  | 168   | -                      | -                      | -                      | -                      | -                      |
| Thru axle (length x inner diameter ; mm)   | 100 x 8   | -                      | -                      | -                      | -                      | -                      |
|  | 100 x 12  | ✓                      | -                      | ✓                      | ✓                      | -                      |
|  | 142 x 12  | -                      | ✓                      | -                      | ✓                      | ✓                      |
| Spline type  | MICRO SPLINE  | -                      | -                      | -                      | -                      | -                      |
|  | HG spline L2 (ROAD 12-speed dedicated)                          | -                      | ✓                      | -                      | -                      | ✓                      |
|  | HG spline L (ROAD 12/11-speed)                                  | -                      | -                      | -                      | -                      | -                      |
|  | HG spline M (10/9/8-speed, MTB 11-speed, -speed CS-HG400/HG210) | -                      | -                      | -                      | -                      | -                      |
|  | HG spline S (7-speed)   | -                      | -                      | -                      | -                      | -                      |
|  | Engagement type   | -                      | Direct engagement      | -                      | Direct engagement      | Direct engagement      |
| Bearing  | Stainless ball  | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
|  | Cup   | CBN                    | CBN                    | CBN                    | CBN                    | CBN                    |
|  | Cone  | CBN                    | CBN                    | CBN                    | CBN                    | CBN                    |
| Disc mount   | CENTER LOCK   | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
|  | CENTER LOCK mount cover option                                  | -                      | -                      | -                      | -                      | -                      |
|  | 140 mm disc brake rotor compatible                              | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
| OPTBAL (2:1)   |   | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
| D2 rim   |   | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
| Digital adjustment system  |   | -                      | -                      | -                      | -                      | -                      |
| Seal   | Hub   | Contact                | Contact                | Contact                | Contact                | Contact                |
|  | FREEHUB body  | -                      | Contact                | -                      | Contact                | Contact                |
| Internal grease sleeve   |   | -                      | -                      | -                      | -                      | -                      |
| Rim  | Material  | Carbon                 | Carbon                 | Carbon                 | Carbon                 | Carbon                 |
|  | Finish  | Painted                | Painted                | Painted                | Painted                | Painted                |
| Spoke  | Material  | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        |
|  | Finish  | Series color           | Series color           | Series color           | Series color           | Series color           |
| Nipple   | Material  | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               |
|  | Finish  | Series color           | Series color           | Series color           | Series color           | Series color           |
| FREEHUB body   | Material  | -                      | Aluminum               | -                      | Aluminum               | -                      |
|  | Finish  | -                      | -                      | -                      | -                      | -                      |
| Hub shell  | Material  | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               |
|  | Finish  | Anodized               | Anodized               | Anodized               | Anodized               | Anodized               |
| Axle   | Material  | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               |
|  | Finish  | Anodized               | Anodized               | Anodized               | Anodized               | Anodized               |
| Quick release lever  | Material  | -                      | -                      | -                      | -                      | -                      |
|  | Finish  | -                      | -                      | -                      | -                      | -                      |
| Quick release housing  | Material  | -                      | -                      | -                      | -                      | -                      |
|  | Finish  | -                      | -                      | -                      | -                      | -                      |
| Quick release nut  | Material  | -                      | -                      | -                      | -                      | -                      |
|  | Finish  | -                      | -                      | -                      | -                      | -                      |
| Compatible spoke protector   |   | -                      | CP-WR92A               | -                      | CP-WR92A               | -                      |
| Reflector  | JIS/CPSC  | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   |
|  | AS  | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   |
|  | DIN   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   |
|  |   | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   |
| Average weight (g) (w/o quick release, rim tape, tubeless tape, valve stem, lock ring) |   | 674                    | 787                    | 522                    | 632                    | 620                    |
| Note   |   |                        |                        |                        |                        | 730                    |

# Wheel (Disc Brake)

| Series   | ULTEGRA   | ULTEGRA                | ULTEGRA                | ULTEGRA                | ULTEGRA                | ULTEGRA                |
|--|---|------------------------|------------------------|------------------------|------------------------|------------------------|
| Model no.  | WH-R8170-C60-TL-F   | WH-R8170-C60-TL-R      | WH-R8170-C50-TL-F      | WH-R8170-C50-TL-R      | WH-R8170-C36-TL-F      | WH-R8170-C36-TL-R      |
| Model name   | WH-R8170-C60-TL   | WH-R8170-C60-TL        | WH-R8170-C50-TL        | WH-R8170-C50-TL        | WH-R8170-C36-TL        | WH-R8170-C36-TL        |
| Specification  | F   | R                      | F                      | R                      | F                      | R                      |
| Color  | 1 Hub shell   | Series color           | Series color           | Series color           | Series color           | Series color           |
|  | 1 Quick release   | -                      | -                      | -                      | -                      | -                      |
|  | 2 Hub shell   | -                      | -                      | -                      | -                      | -                      |
|  | 2 Quick release   | -                      | -                      | -                      | -                      | -                      |
| Front/Rear   | Front   | Rear                   | Front                  | Rear                   | Front                  | Rear                   |
| Brake type   | CENTER LOCK disc brake  | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake |
| Rear speeds  | 12/11   | 12/11                  | 12/11                  | 12/11                  | 12/11                  | 12/11                  |
| Wheel size   | 100   | 100                    | 100                    | 100                    | 100                    | 100                    |
| Tire   | 622 x 21C (700C)  | 622 x 21C (700C)       | 622 x 21C (700C)       | 622 x 21C (700C)       | 622 x 21C (700C)       | 622 x 21C (700C)       |
|  | Tubeless  | Tubeless               | Tubeless               | Tubeless               | Tubeless               | Tubeless               |
| Rim  | Recommended size  | 25-622 - 32-622        | 25-622 - 32-622        | 25-622 - 32-622        | 25-622 - 32-622        | 25-622 - 32-622        |
|  | Type  | 60                     | 60                     | 50                     | 36                     | 36                     |
| Rim  | Height (mm)   | 21                     | 21                     | 21                     | 21                     | 21                     |
|  | Internal width (mm)   | 28                     | 28                     | 28                     | 28                     | 28                     |
| Rim  | External width (mm)   | -                      | -                      | -                      | -                      | -                      |
|  | Rim joint   | -                      | -                      | -                      | -                      | -                      |
| Rim  | Brazed reinforcement  | -                      | -                      | -                      | -                      | -                      |
|  | OFFSET RIM  | -                      | -                      | -                      | -                      | -                      |
| Spokes   | Requires rim tape   | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
|  | Number  | 24                     | 24                     | 24                     | 24                     | 24                     |
| Spokes   | Straight pull   | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
|  | Bladed  | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
| Spokes   | Butted  | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
|  | Diameter (mm)   | 2.0-1.6-2.0            | 2.0-1.6-2.0            | 2.0-1.6-2.0            | 2.0-1.6-2.0            | 2.0-1.6-2.0            |
| Axle fixing method   | 12 mm E-THRU  | 12 mm E-THRU           | 12 mm E-THRU           | 12 mm E-THRU           | 12 mm E-THRU           | 12 mm E-THRU           |
| Quick release skewer length (mm)   | 133   | -                      | -                      | -                      | -                      | -                      |
|  | 163   | -                      | -                      | -                      | -                      | -                      |
| Thru axle (length x inner diameter ; mm)   | 100 x 8   | -                      | -                      | -                      | -                      | -                      |
|  | 100 x 12  | ✓                      | -                      | ✓                      | ✓                      | -                      |
| Spline type  | 142 x 12  | -                      | ✓                      | -                      | ✓                      | ✓                      |
|  | MICRO SPLINE  | -                      | -                      | -                      | -                      | -                      |
| Spline type  | HG spline L2 (ROAD 12-speed dedicated)                          | -                      | -                      | -                      | -                      | -                      |
|  | HG spline L (ROAD 12/11-speed)                                  | -                      | ✓                      | -                      | ✓                      | ✓                      |
| Spline type  | HG spline M (10/9/8-speed, MTB 11-speed, -speed CS-HG400/HG210) | -                      | -                      | -                      | -                      | -                      |
|  | HG spline S (7-speed)   | -                      | -                      | -                      | -                      | -                      |
| Engagement type  | -   | Pawl ratchet           | -                      | Pawl ratchet           | -                      | Pawl ratchet           |
| Bearing  | Stainless ball  | -                      | -                      | -                      | -                      | -                      |
|  | Cup   | Polish                 | Polish                 | Polish                 | Polish                 | Polish                 |
| Disc mount   | Cone  | CBN                    | CBN                    | CBN                    | CBN                    | CBN                    |
|  | CENTER LOCK   | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
| Disc mount   | CENTER LOCK mount cover option                                  | -                      | -                      | -                      | -                      | -                      |
|  | 140 mm disc brake rotor compatible                              | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
| OPTBAL (2:1)   | -   | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
| D2 rim   | ✓   | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
| Digital adjustment system  | -   | -                      | -                      | -                      | -                      | -                      |
| Seal   | Hub   | Contact                | Contact                | Contact                | Contact                | Contact                |
| Internal grease sleeve   | FREEHUB body  | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
| Rim  | Material  | Carbon                 | Carbon                 | Carbon                 | Carbon                 | Carbon                 |
| Spoke  | Finish  | Painted                | Painted                | Painted                | Painted                | Painted                |
| Nipple   | Material  | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        |
| FREEHUB body   | Finish  | Series color           | Series color           | Series color           | Series color           | Series color           |
| Hub shell  | Material  | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               |
| Hub shell  | Finish  | Series color           | Series color           | Series color           | Series color           | Series color           |
| Axle   | Material  | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               |
| Quick release lever  | Finish  | Anodized               | Anodized               | Anodized               | Anodized               | Anodized               |
| Quick release housing  | Material  | -                      | -                      | -                      | -                      | -                      |
| Quick release nut  | Material  | -                      | -                      | -                      | -                      | -                      |
| Quick release nut  | Finish  | -                      | -                      | -                      | -                      | -                      |
| Compatible spoke protector   | -   | CP-WR81A               | -                      | CP-WR81A               | -                      | CP-WR81A               |
| Reflector  | JIS/CPSC  | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   |
|  | AS  | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   |
| Average weight (g) (w/o quick release, rim tape, tubeless tape, valve stem, lock ring) | DIN   | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   |
|  | Note  | 738                    | 911                    | 698                    | 872                    | 657                    |
| Average weight (g) (w/o quick release, rim tape, tubeless tape, valve stem, lock ring) | -   | -                      | -                      | -                      | -                      | -                      |
|  | -   | -                      | -                      | -                      | -                      | -                      |

# Wheel (Disc Brake)

| Series   |  | SHIMANO                | SHIMANO                                      | SHIMANO                | SHIMANO                                      | DURA-ACE               | SHIMANO                |
|--|--|------------------------|--|------------------------|--|------------------------|------------------------|
| Model no.  |  | WH-RS710-C32-TL-F      | WH-RS710-C32-TL-R                            | WH-RS710-C46-TL-F      | WH-RS710-C46-TL-R                            | WH-R9170-C60-TU-F12    | WH-RS370-TL-F12        |
| Model name   |  | WH-RS710 C32-TL-F      | WH-RS710 C32-TL-R                            | WH-RS710 C46-TL-F      | WH-RS710 C46-TL-R                            | WH-R9170-C60-TU-F12    | WH-RS370-TL-F12        |
| Specification  |  |                        |  |                        |  |                        |                        |
| Color  | 1 Hub shell  | Black                  | Black  | Black                  | Black  | Series color           | Black                  |
|  | 1 Quick release  | -                      | -  | -                      | -  | -                      | -                      |
|  | 2 Hub shell  | -                      | -  | -                      | -  | -                      | -                      |
|  | 2 Quick release  | -                      | -  | -                      | -  | -                      | -                      |
| Front/Rear   |  | Front                  | Rear   | Front                  | Rear   | Front                  | Front                  |
| Brake type   |  | CENTER LOCK disc brake | CENTER LOCK disc brake                       | CENTER LOCK disc brake | CENTER LOCK disc brake                       | CENTER LOCK disc brake | CENTER LOCK disc brake |
| Rear speeds  |  | 12/11                  | 12/11  | 12/11                  | 12/11  | 12/11                  | 12/11                  |
| O.L.D. (mm)  |  | 100                    | 142  | 100                    | 142  | 100                    | 100                    |
| Wheel size   |  | 622 x 21C (700C)       | 622 x 21C (700C)                             | 622 x 21C (700C)       | 622 x 21C (700C)                             | 700C                   | 622 x 19C (700C)       |
| Tire   | Type   | Tubeless               | Tubeless                                     | Tubeless               | Tubeless                                     | Tubular                | Tubeless               |
|  | Recommended size   | 25-622 - 32-622        | 25-622 - 32-622                              | 25-622 - 32-622        | 25-622 - 32-622                              | 23-28" - 28-28"        | 28-622 - 45-622        |
| Rim  | Height (mm)  | 32                     | 32   | 46                     | 46   | 60                     | 19                     |
|  | Internal width (mm)  | 21                     | 21   | 21                     | 21   | -                      | 19                     |
|  | External width (mm)  | 28                     | 28   | 28                     | 28   | 28                     | 23.4                   |
|  | Rim joint  | -                      | -  | -                      | -  | -                      | Welded                 |
|  | Brazed reinforcement   | -                      | -  | -                      | -  | -                      | -                      |
|  | OFFSET RIM   | -                      | -  | -                      | -  | -                      | -                      |
| Spokes   | Requires rim tape  | ✓                      | ✓  | ✓                      | ✓  | -                      | ✓                      |
|  | Number   | 24                     | 24   | 24                     | 24   | 24                     | 24                     |
|  | Straight pull  | -                      | -  | -                      | -  | ✓                      | ✓                      |
|  | Bladed   | ✓                      | ✓  | ✓                      | ✓  | ✓                      | -                      |
|  | Butted   | ✓                      | ✓  | ✓                      | ✓  | ✓                      | -                      |
|  | Diameter (mm)  | 2.0-1.6-2.0            | 2.0-1.6-2.0                                  | 2.0-1.6-2.0            | 2.0-1.6-2.0                                  | 2.0-1.8-2.0            | 2.0-1.8-2.0            |
| Axle fixing method   |  | 12 mm E-THRU           | 12 mm E-THRU                                 | 12 mm E-THRU           | 12 mm E-THRU                                 | 12 mm E-THRU           | 12 mm E-THRU           |
| Quick release skewer length (mm)   | 123  | -                      | -  | -                      | -  | -                      | -                      |
|  | 133  | -                      | -  | -                      | -  | -                      | -                      |
|  | 168  | -                      | -  | -                      | -  | -                      | -                      |
|  | 100 x 8  | -                      | -  | -                      | -  | -                      | -                      |
| Thru axle (length x inner diameter, mm)  | 100 x 12   | ✓                      | -  | ✓                      | -  | ✓                      | ✓                      |
|  | 142 x 12   | -                      | ✓  | -                      | ✓  | -                      | -                      |
|  | 142 x 12   | -                      | -  | -                      | -  | -                      | -                      |
| Spline type  | MICRO SPLINE   | -                      | -  | -                      | -  | -                      | -                      |
|  | HG spline L2 (ROAD 12-speed dedicated)                           | -                      | -  | -                      | -  | -                      | -                      |
|  | HG spline L (ROAD 12/11-speed)                                   | -                      | ✓  | -                      | ✓  | -                      | -                      |
|  | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | -                      | -  | -                      | -  | -                      | -                      |
|  | HG spline S (7-speed)  | -                      | -  | -                      | -  | -                      | -                      |
|  | Engagement type  | -                      | Pawl ratchet                                 | -                      | Pawl ratchet                                 | -                      | -                      |
| Bearing  | Stainless ball   | -                      | -  | -                      | -  | ✓                      | -                      |
|  | Cup  | Polish                 | Polish                                       | Polish                 | Polish                                       | CBN                    | Polish                 |
|  | Cone   | CBN                    | CBN  | CBN                    | CBN  | CBN                    | CBN                    |
| Disc mount   | CENTER LOCK  | ✓                      | ✓  | ✓                      | ✓  | ✓                      | ✓                      |
|  | CENTER LOCK mount cover option                                   | -                      | -  | -                      | -  | -                      | -                      |
|  | 140 mm disc brake rotor compatible                               | ✓                      | ✓  | ✓                      | ✓  | ✓                      | ✓                      |
| OPTRAL (2-1)   |  | -                      | -  | -                      | -  | -                      | -                      |
| D2 rim   |  | ✓                      | ✓  | ✓                      | ✓  | ✓                      | -                      |
| Digital adjustment system  |  | -                      | -  | -                      | -  | -                      | -                      |
| Seal   | Hub  | Contact                | Contact                                      | Contact                | Contact                                      | Contact                | Contact                |
|  | FREEHUB body   | -                      | Contact                                      | -                      | Contact                                      | -                      | -                      |
| Internal grease sleeve   |  | -                      | -  | -                      | -  | ✓                      | ✓                      |
| Rim  | Material   | Carbon                 | Carbon                                       | Carbon                 | Carbon                                       | Carbon                 | Aluminum               |
|  | Finish   | Painted                | Painted                                      | Painted                | Painted                                      | Painted                | Anodized               |
| Spoke  | Material   | Stainless steel        | Stainless steel                              | Stainless steel        | Stainless steel                              | Stainless steel        | Stainless steel        |
|  | Finish   | Black                  | Black  | Black                  | Black  | Black                  | Black                  |
| Nipple   | Material   | Aluminum               | Aluminum                                     | Aluminum               | Aluminum                                     | Aluminum               | Aluminum               |
|  | Finish   | Black                  | Black  | Black                  | Black  | Silver                 | Black                  |
| FREEHUB body   | Material   | -                      | Steel  | -                      | Steel  | -                      | -                      |
|  | Finish   | -                      | -  | -                      | -  | -                      | -                      |
| Hub shell  | Material   | Aluminum               | Aluminum                                     | Aluminum               | Aluminum                                     | Aluminum               | Aluminum               |
|  | Finish   | Anodized               | Anodized                                     | Anodized               | Anodized                                     | Anodized               | Anodized               |
| Axle   | Material   | Aluminum               | Aluminum                                     | Aluminum               | Aluminum                                     | Aluminum               | Aluminum               |
|  | Finish   | Anodized               | Anodized                                     | Anodized               | Anodized                                     | Anodized               | -                      |
| Quick release lever  | Material   | -                      | -  | -                      | -  | -                      | -                      |
|  | Finish   | -                      | -  | -                      | -  | -                      | -                      |
| Quick release housing  | Material   | -                      | -  | -                      | -  | -                      | -                      |
|  | Finish   | -                      | -  | -                      | -  | -                      | -                      |
| Quick release nut  | Material   | -                      | -  | -                      | -  | -                      | -                      |
|  | Finish   | -                      | -  | -                      | -  | -                      | -                      |
| Compatible spoke protector   |  | -                      | CP-WH24(11-28,30,32,34T)<br>CP-WR71A(11-36T) | -                      | CP-WH24(11-28,30,32,34T)<br>CP-WR71A(11-36T) | -                      | -                      |
| Reflector  | JIS/CPSC   | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW                         | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW                         | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   |
|  | AS   | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW                         | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW                         | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   |
|  | DIN  | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW                         | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW                         | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   |
| Average weight (g) (w/o quick release, rim tape, tubeless tape, valve stem, lock ring)<br>Note |  | 665                    | 839  | 719                    | 893  | 678                    | 890                    |

# Wheel (Disc Brake)

| Series   |  | SHIMANO   | SHIMANO                | SHIMANO   | SHIMANO                | SHIMANO  |
|--|--|---|------------------------|---|------------------------|--|
| Model no.  |  | WH-RS370-TL-R12   | WH-RS171-CL-F12-700C   | WH-RS171-CL-R12-700C  | WH-RX010-CL-F          | WH-RX010-CL-R  |
| Model name   |  | WH-RS370-TL   | WH-RS171-CL            | WH-RS171-CL   | WH-RX010-CL            | WH-RX010-CL  |
| Specification  |  | R12   | F12-700C               | F12-700C  | F                      | R  |
| Color  | 1 Hub shell  | Black   | Black                  | Black   | Black                  | Black  |
|  | 1 Quick release  | -   | -                      | -   | -                      | -  |
|  | 2 Hub shell  | -   | -                      | -   | -                      | -  |
|  | 2 Quick release  | -   | -                      | -   | -                      | -  |
| Front/Rear   |  | Rear  | Front                  | Rear  | Front                  | Rear   |
| Brake type   |  | CENTER LOCK disc brake  | CENTER LOCK disc brake | CENTER LOCK disc brake  | CENTER LOCK disc brake | CENTER LOCK disc brake   |
| Rear speeds  |  | 11/10 *   | 11/10 *                | 11/10 *   | 11/10 *                | 11/10 *  |
| O.L.D. (mm)  |  | 142   | 100                    | 142   | 100                    | 135  |
| Wheel size   |  | 622 x 19C (700C)  | 622 x 19C (700C)       | 622 x 19C (700C)  | 622 x 17C (700C)       | 622 x 17C (700C)   |
| Tire   | Type   | Tubeless  | Clincher               | Clincher  | Clincher               | Clincher   |
|  | Recommended size   | 28-622 - 45-622   | 28-622 - 42-622        | 28-622 - 42-622   | 25-622 - 38-622        | 25-622 - 38-622  |
| Rim  | Height (mm)  | 19  | 19                     | 19  | 24                     | 24   |
|  | Internal width (mm)  | 19  | 19                     | 19  | -                      | -  |
|  | External width (mm)  | 23.4  | 24.6                   | 24.6  | 23                     | 23   |
|  | Rim joint  | Welded  | Sleeve                 | Sleeve  | Sleeve                 | Sleeve   |
|  | Brazed reinforcement   | -   | -                      | -   | -                      | -  |
|  | OFFSET RIM   | -   | -                      | -   | -                      | -  |
| Spokes   | Requires rim tape  | ✓   | ✓                      | ✓   | ✓                      | ✓  |
|  | Number   | 24  | 28                     | 28  | 28                     | 28   |
|  | Straight pull  | ✓   | -                      | -   | -                      | -  |
|  | Bladed   | -   | -                      | -   | -                      | -  |
|  | Butted   | -   | -                      | -   | -                      | -  |
| Axle fixing method   |  | 2.0-1.8-2.0   | 2                      | 2   | 2                      | 2  |
| Quick release skewer length (mm)   |  | 12 mm E-THRU  | 12 mm E-THRU           | 12 mm E-THRU  | Quick release          | Quick release  |
| Thru axle (length x inner diameter , mm)   | 133  | -   | -                      | -   | ✓                      | -  |
|  | 163  | -   | -                      | -   | -                      | -  |
|  | 168  | -   | -                      | -   | -                      | ✓  |
|  | 100 x 8  | -   | -                      | -   | -                      | -  |
| Spline type  | 100 x 12   | -   | ✓                      | -   | -                      | -  |
|  | 142 x 12   | ✓   | -                      | ✓   | -                      | -  |
|  | MICRO SPLINE   | -   | -                      | -   | -                      | -  |
| Engagement type  | HG spline J2 (ROAD 12-speed dedicated)                           | -   | -                      | -   | -                      | -  |
|  | HG spline L (ROAD 12/11-speed)                                   | ✓   | -                      | ✓   | -                      | ✓  |
|  | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | -   | -                      | -   | -                      | -  |
|  | HG spline S (7-speed)  | -   | -                      | -   | -                      | -  |
|  | Pawl ratchet   | -   | -                      | Pawl ratchet  | -                      | Pawl ratchet   |
|  | Stainless ball   | -   | -                      | -   | -                      | -  |
| Bearing  | Cup  | Polish  | Polish                 | Polish  | Polish                 | Polish   |
|  | Cone   | CBN   | CBN                    | CBN   | CBN                    | CBN  |
|  | CENTER LOCK  | ✓   | ✓                      | ✓   | ✓                      | ✓  |
| Disc mount   | CENTER LOCK mount cover option                                   | -   | -                      | -   | -                      | -  |
|  | 140 mm disc brake rotor compatible                               | ✓   | ✓                      | ✓   | ✓                      | ✓  |
| OPTBAL (2:1)   |  | -   | -                      | -   | -                      | -  |
| D2 rim   |  | -   | -                      | -   | -                      | -  |
| Digital adjustment system  |  | -   | -                      | -   | -                      | -  |
| Seal   | Hub  | Contact   | Contact                | Contact   | Contact                | Contact  |
|  | FREEHUB body   | Contact   | Contact                | Contact   | Contact                | Contact  |
| Internal grease sleeve   |  | ✓   | ✓                      | ✓   | ✓                      | ✓  |
| Rim  | Material   | Aluminum  | Aluminum               | Aluminum  | Aluminum               | Aluminum   |
|  | Finish   | Anodized  | Anodized               | Anodized  | Anodized (black)       | Anodized (black)   |
| Spoke  | Material   | Stainless steel   | Stainless steel        | Stainless steel   | Stainless steel        | Stainless steel  |
|  | Finish   | Black   | Black                  | Black   | Black                  | Black  |
| Nipple   | Material   | Aluminum  | Brass                  | Brass   | Brass                  | Brass  |
|  | Finish   | Black   | Silver                 | Silver  | Silver                 | Silver   |
| FREEHUB body   | Material   | Steel   | Steel                  | Steel   | Steel                  | Steel  |
|  | Finish   | -   | -                      | -   | -                      | -  |
| Hub shell  | Material   | Aluminum  | Aluminum               | Aluminum  | Aluminum               | Aluminum   |
|  | Finish   | Anodized  | Anodized               | Anodized  | Anodized               | Anodized   |
| Axle   | Material   | Steel   | Aluminum               | Aluminum  | Steel                  | Steel  |
|  | Finish   | -   | -                      | -   | -                      | -  |
| Quick release lever  | Material   | -   | -                      | -   | Aluminum               | Aluminum   |
|  | Finish   | -   | -                      | -   | Painted                | Painted  |
| Quick release housing  | Material   | -   | -                      | -   | Steel                  | Steel  |
|  | Finish   | -   | -                      | -   | Painted                | Painted  |
| Quick release nut  | Material   | -   | -                      | -   | Resin                  | Resin  |
|  | Finish   | -   | -                      | -   | Black                  | Black  |
| Compatible spoke protector   |  | CP-FH08 (23-28T 11-speed)<br>CP-WH41 (23-30T 10-speed)<br>CP-WH12 (32T 10/11-speed) | -                      | CP-FH08 (23-28T 11-speed)<br>CP-WH41 (23-30T 10-speed)<br>CP-WH12 (32T 10/11-speed) | -                      | CP-FH08/CP-WH12 (11-speed), CP-FH40/CP-FH41/CP-WH12 (10-speed) |
| Reflector  | JIS/CPSC   | CATEYE RR-550-WUW SW  | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW  | CATEYE RR-550-WUW SW   | CATEYE RR-550-WUW SW   |
|  | AS   | CATEYE RR-550-WUA SW  | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW  | CATEYE RR-550-WUA SW   | CATEYE RR-550-WUA SW   |
|  | DIN  | CATEYE RR-317-WUA SW  | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW  | CATEYE RR-317-WUA SW   | CATEYE RR-317-WUA SW   |
| Average weight (g) (w/o quick release, rim tape, tubeless tape, valve stem, lock ring) |  | 1090  | 897                    | 1098  | 982                    | 1177   |
| Note   |  | * The adapter is needed to use 10-speed cassette                                    | -                      | * The adapter is needed to use 10-speed cassette                                    | -                      | * The adapter is needed to use 10-speed cassette               |

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# Wheel (Rim Brake)

| Series   |  | DURA-ACE             | DURA-ACE             | DURA-ACE             | DURA-ACE             | DURA-ACE             | DURA-ACE             |
|--|--|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Model no.  |  | WH-R9200-C60-HR-TU-F | WH-R9200-C60-HR-TU-R | WH-R9200-C50-TU-F    | WH-R9200-C50-TU-R    | WH-R9200-C36-TU-F    | WH-R9200-C36-TU-R    |
| Model name   |  | WH-R9200-C60-HR-TU   | WH-R9200-C60-HR-TU   | WH-R9200-C50-TU      | WH-R9200-C50-TU      | WH-R9200-C36-TU      | WH-R9200-C36-TU      |
| Specification  |  | F                    | R                    | F                    | R                    | F                    | R                    |
| Color  | 1 Hub shell  | Series color         | Series color         | Series color         | Series color         | Series color         | Series color         |
|  | 1 Quick release  | Series color         | Series color         | Series color         | Series color         | Series color         | Series color         |
|  | 2 Hub shell  | -                    | -                    | -                    | -                    | -                    | -                    |
|  | 2 Quick release  | -                    | -                    | -                    | -                    | -                    | -                    |
| Front/Rear   |  | Front                | Rear                 | Front                | Rear                 | Front                | Rear                 |
| Brake type   |  | Rim brake            | Rim brake            | Rim brake            | Rim brake            | Rim brake            | Rim brake            |
| Rear speeds  |  | -                    | 12                   | -                    | 12                   | -                    | 12                   |
| O.L.D. (mm)  |  | 100                  | 130                  | 100                  | 130                  | 100                  | 130                  |
| Wheel size   |  | 700C                 | 700C                 | 700C                 | 700C                 | 700C                 | 700C                 |
| Tire   | Type   | Tubular              | Tubular              | Tubular              | Tubular              | Tubular              | Tubular              |
|  | Recommended size   | 25-28" - 32-28"      | 25-28" - 32-28"      | 25-28" - 32-28"      | 25-28" - 32-28"      | 25-28" - 32-28"      | 25-28" - 32-28"      |
| Rim  | Height (mm)  | 60                   | 60                   | 50                   | 50                   | 36                   | 36                   |
|  | Internal width (mm)  | -                    | -                    | -                    | -                    | -                    | -                    |
|  | External width (mm)  | 28                   | 28                   | 28                   | 28                   | 28                   | 28                   |
|  | Rim joint  | -                    | -                    | -                    | -                    | -                    | -                    |
|  | Brazed reinforcement   | -                    | -                    | -                    | -                    | -                    | -                    |
|  | OFFSET RIM   | -                    | -                    | -                    | -                    | -                    | -                    |
| Spokes   | Requires rim tape  | -                    | -                    | -                    | -                    | -                    | -                    |
|  | Number   | 16                   | 21                   | 16                   | 21                   | 16                   | 21                   |
|  | Straight pull  | ✓                    | ✓                    | ✓                    | ✓                    | ✓                    | ✓                    |
|  | Bladed   | ✓                    | ✓                    | ✓                    | ✓                    | ✓                    | ✓                    |
|  | Butted   | ✓                    | ✓                    | ✓                    | ✓                    | ✓                    | ✓                    |
| Diameter (mm)  |  | 2.0-1.8-2.0          | 2.0-1.8-2.0          | 2.0-1.6-2.0          | 2.0-1.6-2.0          | 2.0-1.6-2.0          | 2.0-1.6-2.0          |
| Axle fixing method   |  | Quick release        | Quick release        | Quick release        | Quick release        | Quick release        | Quick release        |
| Quick release skewer length (mm)   | 133  | ✓                    | -                    | ✓                    | -                    | ✓                    | -                    |
|  | 163  | -                    | ✓                    | -                    | ✓                    | -                    | ✓                    |
|  | 168  | -                    | ✓                    | -                    | ✓                    | -                    | ✓                    |
| Thru axle (length x inner diameter ; mm)   | 100 x 12   | -                    | -                    | -                    | -                    | -                    | -                    |
|  | 142 x 12   | -                    | -                    | -                    | -                    | -                    | -                    |
| Spline type  | MICRO SPLINE   | -                    | -                    | -                    | -                    | -                    | -                    |
|  | HG spline J2 (ROAD 12-speed dedicated)                           | -                    | ✓                    | -                    | ✓                    | -                    | ✓                    |
|  | HG spline L (ROAD 12/11-speed)                                   | -                    | -                    | -                    | -                    | -                    | -                    |
|  | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | -                    | -                    | -                    | -                    | -                    | -                    |
|  | HG spline S (7-speed)  | -                    | -                    | -                    | -                    | -                    | -                    |
| Engagement type  |  | -                    | Direct engagement    | -                    | Direct engagement    | -                    | Direct engagement    |
| Bearing  | Stainless ball   | ✓                    | ✓                    | ✓                    | ✓                    | ✓                    | ✓                    |
|  | Cup  | CBN                  | CBN                  | CBN                  | CBN                  | CBN                  | CBN                  |
|  | Cone   | CBN                  | CBN                  | CBN                  | CBN                  | CBN                  | CBN                  |
| Disc mount   | CENTER LOCK  | -                    | -                    | -                    | -                    | -                    | -                    |
|  | CENTER LOCK mount cover option                                   | -                    | -                    | -                    | -                    | -                    | -                    |
|  | 140 mm disc brake rotor compatible                               | -                    | -                    | -                    | -                    | -                    | -                    |
| OPTBAL (2:1)   |  | -                    | ✓                    | -                    | ✓                    | -                    | ✓                    |
| D2 rim   |  | -                    | -                    | -                    | -                    | -                    | -                    |
| Digital adjustment system  |  | -                    | -                    | -                    | -                    | -                    | -                    |
| Seal   | Hub  | Contact              | Contact              | Contact              | Contact              | Contact              | Contact              |
|  | FREEHUB body   | -                    | Contact              | -                    | Contact              | -                    | Contact              |
| Internal grease sleeve   |  | -                    | -                    | -                    | -                    | -                    | -                    |
| Rim  | Material   | Carbon               | Carbon               | Carbon               | Carbon               | Carbon               | Carbon               |
|  | Finish   | Painted              | Painted              | Painted              | Painted              | Painted              | Painted              |
| Spoke  | Material   | Stainless steel      | Stainless steel      | Stainless steel      | Stainless steel      | Stainless steel      | Stainless steel      |
|  | Finish   | Series color         | Series color         | Series color         | Series color         | Series color         | Series color         |
| Nipple   | Material   | Aluminum             | Aluminum             | Aluminum             | Aluminum             | Aluminum             | Aluminum             |
|  | Finish   | Series color         | Series color         | Series color         | Series color         | Series color         | Series color         |
| FREEHUB body   | Material   | -                    | Aluminum             | -                    | Aluminum             | -                    | Aluminum             |
|  | Finish   | -                    | Anodized             | -                    | Anodized             | -                    | Anodized             |
| Hub shell  | Material   | Aluminum             | Aluminum             | Aluminum             | Aluminum             | Aluminum             | Aluminum             |
|  | Finish   | Anodized             | Anodized             | Anodized             | Anodized             | Anodized             | Anodized             |
| Axle   | Material   | Aluminum             | Aluminum             | Aluminum             | Aluminum             | Aluminum             | Aluminum             |
|  | Finish   | Anodized             | Anodized             | Anodized             | Anodized             | Anodized             | Anodized             |
| Quick release lever  | Material   | Aluminum             | Aluminum             | Aluminum             | Aluminum             | Aluminum             | Aluminum             |
|  | Finish   | Anodized             | Anodized             | Anodized             | Anodized             | Anodized             | Anodized             |
| Quick release housing  | Material   | Aluminum             | Aluminum             | Aluminum             | Aluminum             | Aluminum             | Aluminum             |
|  | Finish   | Anodized             | Anodized             | Anodized             | Anodized             | Anodized             | Anodized             |
| Quick release nut  | Material   | Aluminum             | Aluminum             | Aluminum             | Aluminum             | Aluminum             | Aluminum             |
|  | Finish   | Series color         | Series color         | Series color         | Series color         | Series color         | Series color         |
| Compatible spoke protector   |  | -                    | CP-W124              | -                    | CP-W124              | -                    | CP-W124              |
| Reflector  | JIS/CPSC   | CATEYE RR-550-WUW SW | CATEYE RR-550-WUW SW | CATEYE RR-550-WUW SW | CATEYE RR-550-WUW SW | CATEYE RR-550-WUW SW | CATEYE RR-550-WUW SW |
|  | AS   | CATEYE RR-550-WUA SW | CATEYE RR-550-WUA SW | CATEYE RR-550-WUA SW | CATEYE RR-550-WUA SW | CATEYE RR-550-WUA SW | CATEYE RR-550-WUA SW |
|  | DIN  | CATEYE RR-317-WUA SW | CATEYE RR-317-WUA SW | CATEYE RR-317-WUA SW | CATEYE RR-317-WUA SW | CATEYE RR-317-WUA SW | CATEYE RR-317-WUA SW |
| Average weight (g) (w/o quick release, rim tape, tubeless tape, valve stem, lock ring) |  | 653                  | 796                  | 586                  | 723                  | 602                  | 684                  |
| Note   |  |                      |                      |                      |                      |                      |                      |

# Wheel (Rim Brake)

ROAD

| Series   |  | DURA-ACE             | DURA-ACE             | DURA-ACE   | SHIMANO              | SHIMANO  | SHIMANO              |
|--|--|----------------------|----------------------|--|----------------------|--|----------------------|
| Model no.  |  | WH-R9100-C60-TU-F    | WH-R9100-C40-TU-F    | WH-R9100-C40-TU-R                                | WH-RS700-C30-TL-F    | WH-RS700-C30-TL-R                                | WH-RS500-TL-F        |
| Model name   |  | WH-R9100-C60-TU      | WH-R9100-C40-TU-F    | WH-R9100-C40-TU-R                                | WH-RS700-C30-TL      | WH-RS700-C30-TL                                  | WH-RS500-TL          |
| Specification  |  | F                    | F                    | R  | F                    | R  | F                    |
| Color  | 1 Hub shell  | Series color         | Series color         | Series color                                     | Silver               | Silver   | Silver               |
|  | 1 Quick release  | Series color         | Series color         | Series color                                     | Silver               | Silver   | Silver               |
|  | 2 Hub shell  | -                    | -                    | -  | -                    | -  | -                    |
|  | 2 Quick release  | -                    | -                    | -  | -                    | -  | -                    |
| Front/Rear   |  | Front                | Front                | Rear   | Front                | Rear   | Front                |
| Brake type   |  | Rim brake            | Rim brake            | Rim brake  | Rim brake            | Rim brake  | Rim brake            |
| Rear speeds  |  | -                    | -                    | 11/10 *  | -                    | 11/10 *  | -                    |
| O.L.D. (mm)  |  | 100                  | 100                  | 130  | 100                  | 130  | 100                  |
| Wheel size   |  | 700C                 | 700C                 | 700C   | 622 x 15C (700C)     | 622 x 15C (700C)                                 | 622 x 15C (700C)     |
| Tire   | Type   | Tubular              | Tubular              | Tubular  | Tubeless             | Tubeless   | Tubeless             |
|  | Recommended size   | 23-28" - 28-28"      | 23-28" - 28-28"      | 23-28" - 28-28"                                  | 23-622 - 32-622      | 23-622 - 32-622                                  | 23-622 - 32-622      |
| Rim  | Height (mm)  | 60                   | 37                   | 37   | 24                   | 31   | 24                   |
|  | Internal width (mm)  | -                    | -                    | -  | 15                   | 15   | 15                   |
|  | External width (mm)  | 28                   | 28                   | 28   | 20.8                 | 20.8   | 20.8                 |
|  | Rim joint  | -                    | -                    | -  | Welded               | Welded   | Welded               |
|  | Brazed reinforcement   | -                    | -                    | -  | -                    | -  | ✓                    |
|  | OFFSET RIM   | -                    | -                    | ✓  | -                    | ✓  | -                    |
|  | Requires rim tape  | -                    | -                    | -  | ✓                    | ✓  | -                    |
|  | Number   | 16                   | 16                   | 21   | 16                   | 21   | 16                   |
| Spokes   | Straight pull  | ✓                    | ✓                    | ✓  | ✓                    | ✓  | ✓                    |
|  | Bladed   | ✓                    | ✓                    | ✓  | ✓                    | ✓  | ✓                    |
|  | Butted   | ✓                    | ✓                    | ✓  | ✓                    | ✓  | ✓                    |
|  | Diameter (mm)  | 2.0-1.8-2.0          | 2.0-1.8-2.0          | 2.0-1.8-2.0                                      | 2.0-1.5-2.0          | 2.0-1.8-2.0                                      | 2.0-1.5-2.0          |
| Axle fixing method   |  | Quick release        | Quick release        | Quick release                                    | Quick release        | Quick release                                    | Quick release        |
| Quick release skewer length (mm)   | 133  | ✓                    | ✓                    | -  | ✓                    | -  | ✓                    |
|  | 163  | -                    | -                    | ✓  | -                    | ✓  | -                    |
|  | 168  | -                    | -                    | ✓  | -                    | ✓  | -                    |
| Thru axle (length x inner diameter ; mm)   | 100 x 12   | -                    | -                    | -  | -                    | -  | -                    |
|  | 142 x 12   | -                    | -                    | -  | -                    | -  | -                    |
| Spline type  | MICRO SPLINE   | -                    | -                    | -  | -                    | -  | -                    |
|  | HG spline L2 (ROAD 12-speed dedicated)                           | -                    | -                    | -  | -                    | -  | -                    |
|  | HG spline L (ROAD 12/11-speed)                                   | -                    | -                    | ✓  | -                    | ✓  | -                    |
|  | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | -                    | -                    | -  | -                    | -  | -                    |
|  | HG spline S (7-speed)  | -                    | -                    | -  | -                    | -  | -                    |
| Engagement type  |  | -                    | -                    | Pawl ratchet                                     | -                    | Pawl ratchet                                     | -                    |
| Bearing  | Stainless ball   | ✓                    | ✓                    | ✓  | ✓                    | -  | -                    |
|  | Cup  | CBN                  | CBN                  | CBN  | CBN                  | CBN  | Polish               |
|  | Cone   | CBN                  | CBN                  | CBN  | CBN                  | CBN  | CBN+Polish           |
| Disc mount   | CENTER LOCK  | -                    | -                    | -  | -                    | -  | -                    |
|  | CENTER LOCK mount cover option                                   | -                    | -                    | -  | -                    | -  | -                    |
|  | 140 mm disc brake rotor compatible                               | -                    | -                    | -  | -                    | -  | -                    |
| OPTBAL (2:1)   |  | -                    | -                    | ✓  | -                    | ✓  | -                    |
| D2 rim   |  | ✓                    | ✓                    | ✓  | -                    | -  | -                    |
| Digital adjustment system  |  | ✓                    | ✓                    | ✓  | -                    | -  | ✓                    |
| Seal   | Hub  | Contact              | Contact              | Contact  | Contact              | Contact  | Contact              |
|  | FREEHUB body   | -                    | -                    | Contact  | -                    | Contact  | -                    |
| Internal grease sleeve   |  | ✓                    | ✓                    | ✓  | ✓                    | ✓  | ✓                    |
| Rim  | Material   | Carbon               | Carbon               | Carbon   | Carbon+AL            | Carbon+AL  | Aluminum             |
|  | Finish   | Painted              | Painted              | Painted  | Painted              | Painted  | Anodized             |
| Spoke  | Material   | Stainless steel      | Stainless steel      | Stainless steel                                  | Stainless steel      | Stainless steel                                  | Stainless steel      |
|  | Finish   | Black                | Black                | Black  | Black                | Black  | Black                |
| Nipple   | Material   | Aluminum             | Aluminum             | Aluminum   | Aluminum             | Aluminum   | Aluminum             |
|  | Finish   | Silver               | Silver               | Silver   | Black                | Black  | Black                |
| FREEHUB body   | Material   | -                    | -                    | Titanium (rear)                                  | -                    | Steel  | -                    |
|  | Finish   | -                    | -                    | -  | -                    | -  | -                    |
| Hub shell  | Material   | Aluminum             | Aluminum             | Aluminum   | Aluminum             | Aluminum   | Aluminum             |
|  | Finish   | Anodized             | Anodized             | Anodized   | Anodized             | Anodized   | Anodized             |
| Axle   | Material   | Aluminum             | Aluminum             | Aluminum   | Aluminum             | Aluminum   | Aluminum             |
|  | Finish   | Anodized             | Anodized             | Anodized   | Anodized             | Anodized   | Anodized             |
| Quick release lever  | Material   | Aluminum             | Aluminum             | Aluminum   | Aluminum             | Aluminum   | Aluminum             |
|  | Finish   | Anodized             | Anodized             | Anodized   | Anodized             | Anodized   | Anodized             |
| Quick release housing  | Material   | Aluminum             | Aluminum             | Aluminum   | Aluminum             | Aluminum   | Aluminum             |
|  | Finish   | Anodized             | Anodized             | Anodized   | Anodized             | Anodized   | Anodized             |
| Quick release nut  | Material   | Aluminum             | Aluminum             | Aluminum   | Resin                | Resin  | Resin                |
|  | Finish   | Series color         | Series color         | Series color                                     | Black                | Black  | Black                |
| Compatible spoke protector   |  | -                    | -                    | CP-W124  | -                    | CP-W124  | -                    |
| Reflector  | JIS/CPSC   | CATEYE RR-550-WUW SW | CATEYE RR-550-WUW SW | CATEYE RR-550-WUW SW                             | CATEYE RR-550-WUW SW | CATEYE RR-550-WUW SW                             | CATEYE RR-550-WUW SW |
|  | AS   | CATEYE RR-550-WUA SW | CATEYE RR-550-WUA SW | CATEYE RR-550-WUA SW                             | CATEYE RR-550-WUA SW | CATEYE RR-550-WUA SW                             | CATEYE RR-550-WUA SW |
|  | DIN  | CATEYE RR-317-WUA SW | CATEYE RR-317-WUA SW | CATEYE RR-317-WUA SW                             | CATEYE RR-317-WUA SW | CATEYE RR-317-WUA SW                             | CATEYE RR-317-WUA SW |
| Average weight (g) (w/o quick release, rim tape, tubeless tape, valve stem, lock ring) |  | 666                  | 637                  | 747  | 616                  | 924  | 705                  |
| Note   |  | -                    | -                    | * The adapter is needed to use 10-speed cassette | -                    | * The adapter is needed to use 10-speed cassette | -                    |

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# Wheel (Rim Brake)

| Series                                   |  | SHIMANO   | SHIMANO              | SHIMANO  | SHIMANO              | SHIMANO  | SHIMANO              |
|--|--|---|----------------------|--|----------------------|--|----------------------|
| Model no.                                |  | WH-RS500-TL-R   | WH-RS300-CL-F        | WH-RS300-CL-R                                    | WH-RS330-CL-F        | WH-RS330-CL-R                                    | WH-RS100-CL-F        |
| Model name                               |  | WH-RS500-TL   | WH-RS300-CL          | WH-RS300-CL                                      | WH-RS330-CL          | WH-RS330-CL                                      | WH-RS100-CL          |
| Specification                            |  | R   | F                    | R  | F                    | R  | F                    |
| Color                                    | 1 Hub shell  | Silver  | Black                | Black  | Black                | Black  | Black                |
|  | 1 Quick release  | Silver  | Black                | Black  | Black                | Black  | Black                |
|  | 2 Hub shell  | -   | -                    | -  | -                    | -  | -                    |
|  | 2 Quick release  | -   | -                    | -  | -                    | -  | -                    |
| Front/Rear                               |  | Rear  | Front                | Rear   | Front                | Rear   | Front                |
| Brake type                               |  | Rim brake   | Rim brake            | Rim brake  | Rim brake            | Rim brake  | Rim brake            |
| Rear speeds                              |  | 11/10 *   | -                    | 11/10 *  | -                    | 11/10 *  | -                    |
| O.L.D. (mm)                              |  | 130   | 100                  | 130  | 100                  | 130  | 100                  |
| Wheel size                               |  | 622 x 15C (700C)  | 622 x 17C (700C)     | 622 x 17C (700C)                                 | 622 x 15C (700C)     | 622 x 15C (700C)                                 | 622 x 17C (700C)     |
| Tire                                     | Type   | Tubeless  | Clincher             | Clincher   | Clincher             | Clincher   | Clincher             |
|  | Recommended size   | 23-622 - 32-622   | 23-622 - 32-622      | 23-622 - 32-622                                  | 23-622 - 32-622      | 23-622 - 32-622                                  | 23-622 - 32-622      |
| Rim                                      | Height (mm)  | 24  | 24                   | 24   | 30                   | 30   | 24                   |
|  | Internal width (mm)  | 15  | 17                   | 17   | 15                   | 15   | 17                   |
|  | External width (mm)  | 20.8  | 23.2                 | 23.2   | 20.8                 | 20.8   | 23.2                 |
|  | Rim joint  | Welded  | Sleeve               | Sleeve   | Sleeve               | Sleeve   | Sleeve               |
|  | Brazed reinforcement   | ✓   | -                    | -  | -                    | -  | -                    |
|  | OFFSET RIM   | ✓   | -                    | ✓  | -                    | ✓  | -                    |
|  | Requires rim tape  | -   | 18-622               | 18-622   | ✓                    | ✓  | 18-622               |
|  | Number   | 20  | 16                   | 20   | 16                   | 21   | 20                   |
| Spokes                                   | Straight pull  | ✓   | ✓                    | ✓  | ✓                    | ✓  | -                    |
|  | Bladed   | ✓   | ✓                    | ✓  | ✓                    | ✓  | -                    |
|  | Butted   | ✓   | ✓                    | ✓  | ✓                    | ✓  | -                    |
|  | Diameter (mm)  | 2.0-1.8-2.0   | 2                    | 2  | 2                    | 2  | 2                    |
| Axle fixing method                       |  | Quick release   | Quick release        | Quick release                                    | Quick release        | Quick release                                    | Quick release        |
| Quick release skewer length (mm)         | 133  | -   | ✓                    | -  | ✓                    | -  | ✓                    |
|  | 163  | ✓   | -                    | ✓  | -                    | ✓  | -                    |
|  | 168  | ✓   | -                    | ✓  | -                    | ✓  | -                    |
| Thru axle (length x inner diameter ; mm) | 100 x 12   | -   | -                    | -  | -                    | -  | -                    |
|  | 142 x 12   | -   | -                    | -  | -                    | -  | -                    |
| Spline type                              | MICRO SPLINE   | -   | -                    | -  | -                    | -  | -                    |
|  | HG spline L2 (ROAD 12-speed dedicated)   | -   | -                    | -  | -                    | -  | -                    |
|  | HG spline L (ROAD 12/11-speed)   | ✓   | -                    | ✓  | -                    | ✓  | -                    |
|  | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210)                       | -   | -                    | -  | -                    | -  | -                    |
|  | HG spline S (7-speed)  | -   | -                    | -  | -                    | -  | -                    |
| Engagement type                          |  | Pawl ratchet  | -                    | Pawl ratchet                                     | -                    | Pawl ratchet                                     | -                    |
| Bearing                                  | Stainless ball   | -   | -                    | -  | -                    | -  | -                    |
|  | Cup  | Polish  | Polish               | Polish   | Polish               | Polish   | Polish               |
|  | Cone   | CBN+Polish  | CBN                  | CBN  | CBN+Polish           | CBN+Polish                                       | CBN                  |
| Disc mount                               | CENTER LOCK  | -   | -                    | -  | -                    | -  | -                    |
|  | CENTER LOCK mount cover option   | -   | -                    | -  | -                    | -  | -                    |
|  | 140 mm disc brake rotor compatible   | -   | -                    | -  | -                    | -  | -                    |
| OPTBAL (2:1)                             |  | -   | -                    | -  | -                    | ✓  | -                    |
| D2 rim                                   |  | -   | -                    | -  | -                    | -  | -                    |
| Digital adjustment system                |  | ✓   | -                    | -  | -                    | -  | -                    |
| Seal                                     | Hub  | Contact   | Contact              | Contact  | Contact              | Contact  | Contact              |
|  | FREEHUB body   | Contact   | -                    | Contact  | -                    | Contact  | -                    |
| Internal grease sleeve                   |  | ✓   | ✓                    | ✓  | ✓                    | ✓  | -                    |
| Rim                                      | Material   | Aluminum  | Aluminum             | Aluminum   | Aluminum             | Aluminum   | Aluminum             |
|  | Finish   | Anodized  | Black                | Black  | Painted              | Painted  | Black                |
| Spoke                                    | Material   | Stainless steel   | Stainless steel      | Stainless steel                                  | Stainless steel      | Stainless steel                                  | Stainless steel      |
|  | Finish   | Black   | Black                | Black  | Black                | Black  | Black                |
| Nipple                                   | Material   | Aluminum  | Aluminum             | Aluminum   | Aluminum             | Aluminum   | Brass                |
|  | Finish   | Black   | Black anodized       | Black anodized                                   | Black                | Black  | Silver               |
| FREEHUB body                             | Material   | Steel   | -                    | Steel  | -                    | Steel  | -                    |
|  | Finish   | -   | -                    | -  | -                    | -  | -                    |
| Hub shell                                | Material   | Aluminum  | Aluminum             | Aluminum   | Aluminum             | Aluminum   | Aluminum             |
|  | Finish   | Anodized  | Anodized             | Anodized   | -                    | -  | Painted              |
| Axle                                     | Material   | Aluminum  | Steel                | Steel  | Steel                | Steel  | Steel                |
|  | Finish   | Anodized  | -                    | -  | -                    | -  | -                    |
| Quick release lever                      | Material   | Aluminum  | Aluminum             | Aluminum   | Aluminum             | Aluminum   | Aluminum             |
|  | Finish   | Anodized  | Anodized             | Anodized   | -                    | -  | Painted              |
| Quick release housing                    | Material   | Aluminum  | Aluminum             | Aluminum   | Aluminum             | Aluminum   | Steel                |
|  | Finish   | Anodized  | Anodized             | Anodized   | Anodized             | Anodized   | Black                |
| Quick release nut                        | Material   | Resin   | Resin                | Resin  | Resin                | Resin  | Resin                |
|  | Finish   | Black   | Black                | Black  | Black                | Black  | Black                |
| Compatible spoke protector               |  | CP-WH23 (23-28T)<br>CP-W120 (32T)<br>CP-W020 (10-speed) | -                    | CP-WH23 (23-28T)<br>CP-W120 (32T)                | -                    | CP-W124  | -                    |
| Reflector                                | JIS/CPSC   | CATEYE RR-550-WUW SW                                    | CATEYE RR-550-WUW SW | CATEYE RR-550-WUW SW                             | CATEYE RR-550-WUW SW | CATEYE RR-550-WUW SW                             | CATEYE RR-550-WUW SW |
|  | AS   | CATEYE RR-550-WUA SW                                    | CATEYE RR-550-WUA SW | CATEYE RR-550-WUA SW                             | CATEYE RR-550-WUA SW | CATEYE RR-550-WUA SW                             | CATEYE RR-550-WUA SW |
|  | DIN  | CATEYE RR-317-WUA SW                                    | CATEYE RR-317-WUA SW | CATEYE RR-317-WUA SW                             | CATEYE RR-317-WUA SW | CATEYE RR-317-WUA SW                             | CATEYE RR-317-WUA SW |
|  | Average weight (g) (w/o quick release, rim tape, tubeless tape, valve stem, lock ring) | 944   | 770                  | 1057   | 875                  | 1176   | 827                  |
| Note                                     |  | * The adapter is needed to use 10-speed cassette        | -                    | * The adapter is needed to use 10-speed cassette | -                    | * The adapter is needed to use 10-speed cassette | -                    |

# Wheel (Rim Brake)

ROAD

| Series   |  | SHIMANO  | SHIMANO                 | SHIMANO  | SHIMANO                 | SHIMANO                                  | SHIMANO                 |
|--|--|--|-------------------------|--|-------------------------|--|-------------------------|
| Model no.  |  | WH-R5100-CL-R                                    | WH-R5010-CL-F           | WH-R5010-CL-R                                    | WH-R501-A-CL-F          | WH-R501-A-CL-R                           | WH-R501-CL-F            |
| Model name   |  | WH-R5100-CL                                      | WH-R5010-CL             | WH-R5010-CL                                      | WH-R501-A-CL            | WH-R501-A-CL                             | WH-R501-CL              |
| Specification  |  | R  | F                       | R  | F                       | R  | F                       |
| Color  | 1 Hub shell  | Black  | Black                   | Black  | Black                   | Black                                    | Black                   |
|  | 1 Quick release  | Black  | Black                   | Black  | Black                   | Black                                    | Black                   |
|  | 2 Hub shell  | -  | -                       | -  | Silver                  | Silver                                   | Silver                  |
|  | 2 Quick release  | -  | Black                   | Black  | Black                   | Black                                    | Black                   |
| Front/Rear   |  | Rear   | Front                   | Rear   | Front                   | Rear                                     | Front                   |
| Brake type   |  | Rim brake  | Rim brake               | Rim brake  | Rim brake               | Rim brake                                | Rim brake               |
| Rear speeds  |  | 11/10 *  | -                       | 11/10 *  | -                       | 11/10/9/8/7                              | -                       |
| O.L.D. (mm)  |  | 130  | 100                     | 130  | 100                     | 130                                      | 100                     |
| Wheel size   |  | 622 x 17C (700C)                                 | 622 x 15C (700C)        | 622 x 15C (700C)                                 | 622 x 15C (700C)        | 622 x 15C (700C)                         | 622 x 15C (700C)        |
| Tire   | Type   | Clincher   | Clincher                | Clincher   | Clincher                | Clincher                                 | Clincher                |
|  | Recommended size   | 23-622 - 32-622                                  | 23-622 - 32-622         | 23-622 - 32-622                                  | 23-622 - 32-622         | 23-622 - 32-622                          | 23-622 - 32-622         |
| Rim  | Height (mm)  | 24   | 24                      | 24   | 24                      | 24                                       | 24                      |
|  | Internal width (mm)  | 17   | 15                      | 15   | 15                      | 15                                       | 15                      |
|  | External width (mm)  | 23.2   | 20.8                    | 20.8   | 20.8                    | 20.8                                     | 20.8                    |
|  | Rim joint  | Sleeve   | Sleeve                  | Sleeve   | Sleeve                  | Sleeve                                   | Sleeve                  |
|  | Brazed reinforcement   | -  | -                       | -  | -                       | -  | -                       |
|  | OFFSET RIM   | ✓  | -                       | ✓  | -                       | -  | -                       |
|  | Requires rim tape  | 18-622   | ✓                       | ✓  | ✓                       | ✓  | ✓                       |
| Spokes   | Number   | 24   | 20                      | 24   | 20                      | 24                                       | 20                      |
|  | Straight pull  | -  | -                       | -  | -                       | -  | -                       |
|  | Bladed   | -  | -                       | -  | ✓                       | ✓  | -                       |
|  | Butted   | -  | -                       | -  | -                       | -  | -                       |
|  | Diameter (mm)  | 2  | 2                       | 2  | 2                       | 2  | 2                       |
| Axle fixing method   |  | Quick release                                    | Quick release           | Quick release                                    | Quick release           | Quick release                            | Quick release           |
| Quick release skewer length (mm)   | 133  | -  | ✓                       | -  | ✓                       | -  | ✓                       |
|  | 163  | ✓  | -                       | ✓  | -                       | ✓  | -                       |
|  | 168  | ✓  | -                       | ✓  | -                       | ✓  | -                       |
| Thru axle (length x inner diameter ; mm)   | 100 x 12   | -  | -                       | -  | -                       | -  | -                       |
|  | 142 x 12   | -  | -                       | -  | -                       | -  | -                       |
| Spline type  | MICRO SPLINE   | -  | -                       | -  | -                       | -  | -                       |
|  | HG spline J2 (ROAD 12-speed dedicated)                           | -  | -                       | -  | -                       | -  | -                       |
|  | HG spline L (ROAD 12/11-speed)                                   | ✓  | -                       | ✓  | -                       | -  | -                       |
|  | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | -  | -                       | -  | -                       | ✓  | -                       |
|  | HG spline S (7-speed)  | -  | -                       | -  | -                       | -  | -                       |
| Engagement type  |  | Pawl ratchet                                     | -                       | Pawl ratchet                                     | -                       | Pawl ratchet                             | -                       |
| Bearing  | Stainless ball   | -  | -                       | -  | -                       | -  | -                       |
|  | Cup  | Polish   | Polish                  | Polish   | Polish                  | Polish                                   | Polish                  |
|  | Cone   | CBN  | CBN                     | CBN  | CBN                     | CBN                                      | CBN                     |
| Disc mount   | CENTER LOCK  | -  | -                       | -  | -                       | -  | -                       |
|  | CENTER LOCK mount cover option                                   | -  | -                       | -  | -                       | -  | -                       |
|  | 140 mm disc brake rotor compatible                               | -  | -                       | -  | -                       | -  | -                       |
| OPTBAL (2:1)   |  | -  | -                       | -  | -                       | -  | -                       |
| D2 rim   |  | -  | -                       | -  | -                       | -  | -                       |
| Digital adjustment system  |  | -  | -                       | -  | -                       | -  | -                       |
| Seal   | Hub  | Contact  | Contact                 | Contact  | Contact                 | Contact                                  | Contact                 |
|  | FREEHUB body   | Contact  | -                       | Contact  | -                       | Contact                                  | -                       |
| Internal grease sleeve   |  | -  | -                       | -  | -                       | -  | -                       |
| Rim  | Material   | Aluminum   | Aluminum                | Aluminum   | Aluminum                | Aluminum                                 | Aluminum                |
|  | Finish   | Black  | Anodized                | Anodized   | Anodized                | Anodized                                 | Anodized                |
| Spoke  | Material   | Stainless steel                                  | Stainless steel         | Stainless steel                                  | Stainless steel         | Stainless steel                          | Stainless steel         |
|  | Finish   | Black  | Black                   | Black  | Black                   | Black                                    | Black                   |
| Nipple   | Material   | Brass  | Brass                   | Brass  | Brass                   | Brass                                    | Brass                   |
|  | Finish   | Silver   | Silver                  | Silver   | Silver                  | Silver                                   | Silver                  |
| FREEHUB body   | Material   | Steel  | -                       | Steel  | -                       | Steel                                    | -                       |
|  | Finish   | -  | -                       | -  | -                       | -  | -                       |
| Hub shell  | Material   | Aluminum   | Aluminum                | Aluminum   | Aluminum                | Aluminum                                 | Aluminum                |
|  | Finish   | Painted  | Anodized                | Anodized   | Anodized                | Anodized                                 | Anodized                |
| Axle   | Material   | Steel  | Steel                   | Steel  | Steel                   | Steel                                    | Steel                   |
|  | Finish   | -  | -                       | -  | -                       | -  | -                       |
| Quick release lever  | Material   | Aluminum   | Aluminum                | Aluminum   | Aluminum                | Aluminum                                 | Aluminum                |
|  | Finish   | Painted  | Painted                 | Painted  | Painted                 | Painted                                  | Painted                 |
| Quick release housing  | Material   | Steel  | Steel                   | Steel  | Steel                   | Steel                                    | Steel                   |
|  | Finish   | Black  | Painted                 | Painted  | Painted                 | Painted                                  | Painted                 |
| Quick release nut  | Material   | Resin  | Resin                   | Resin  | Resin                   | Resin                                    | Resin                   |
|  | Finish   | Black  | Black                   | Black  | Black                   | Black                                    | Black                   |
| Compatible spoke protector   |  | CP-WH24<br>CP-FH53 (34T)                         | -                       | CP-WH24<br>CP-FH53 (34T)                         | -                       | CP-FH06<br>CP-FH31<br>CP-FH46<br>CP-WH24 | -                       |
| Reflector  | JIS/CPSC   | CATEYE<br>RR-550-WUW SW                          | CATEYE<br>RR-550-WUW SW | CATEYE<br>RR-550-WUW SW                          | CATEYE<br>RR-550-WUW SW | CATEYE<br>RR-550-WUW SW                  | CATEYE<br>RR-550-WUW SW |
|  | AS   | CATEYE<br>RR-550-WUA SW                          | CATEYE<br>RR-550-WUA SW | CATEYE<br>RR-550-WUA SW                          | CATEYE<br>RR-550-WUA SW | CATEYE<br>RR-550-WUA SW                  | CATEYE<br>RR-550-WUA SW |
|  | DIN  | CATEYE<br>RR-317-WUA SW                          | CATEYE<br>RR-317-WUA SW | CATEYE<br>RR-317-WUA SW                          | CATEYE<br>RR-317-WUA SW | CATEYE<br>RR-317-WUA SW                  | CATEYE<br>RR-317-WUA SW |
| Average weight (g) (w/o quick release, rim tape, tubeless tape, valve stem, lock ring) |  | 1105   | 818                     | 1102   | 820                     | 1069                                     | 820                     |
| Note   |  | * The adapter is needed to use 10-speed cassette |                         | * The adapter is needed to use 10-speed cassette |                         |  |                         |

ST

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WH

WH

HP

# Wheel (Rim Brake)

|  |  |  |
|--|--|--|
| Series   |  | SHIMANO                                  |
| Model no.  |  | WH-R501-CL-R                             |
| Model name   |  | WH-R501-CL                               |
| Specification  |  | R  |
| Color  | 1 Hub shell  | Black                                    |
|  | 1 Quick release  | Black                                    |
|  | 2 Hub shell  | Silver                                   |
|  | 2 Quick release  | Black                                    |
| Front/Rear   |  | Rear                                     |
| Brake type   |  | Rim brake                                |
| Rear speeds  |  | 11/10/9/8/7                              |
| O.L.D. (mm)  |  | 130                                      |
| Wheel size   |  | 622 x 15C (700C)                         |
| Tire   | Type   | Clincher                                 |
|  | Recommended size   | 23-622 - 32-622                          |
| Rim  | Height (mm)  | 24                                       |
|  | Internal width (mm)  | 15                                       |
|  | External width (mm)  | 20.8                                     |
|  | Rim joint  | Sleeve                                   |
|  | Brazed reinforcement   | -  |
|  | OFFSET RIM   | -  |
|  | Requires rim tape  | ✓  |
| Spokes   | Number   | 24                                       |
|  | Straight pull  | -  |
|  | Bladed   | -  |
|  | Butted   | -  |
|  | Diameter (mm)  | 2  |
| Axle fixing method   |  | Quick release                            |
| Quick release skewer length (mm)   | 133  | -  |
|  | 163  | ✓  |
|  | 168  | ✓  |
| Thru axle (length x inner diameter ; mm)   | 100 x 12   | -  |
|  | 142 x 12   | -  |
| Spline type  | MICRO SPLINE   | -  |
|  | HG spline L2 (ROAD 12-speed dedicated)                           | -  |
|  | HG spline L (ROAD 12/11-speed)                                   | -  |
|  | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | ✓  |
|  | HG spline S (7-speed)  | -  |
| Engagement type  |  | Pawl ratchet                             |
| Bearing  | Stainless ball   | -  |
|  | Cup  | Polish                                   |
|  | Cone   | CBN                                      |
| Disc mount   | CENTER LOCK  | -  |
|  | CENTER LOCK mount cover option                                   | -  |
|  | 140 mm disc brake rotor compatible                               | -  |
|  | OPTBAL (2:1)   | -  |
| D2 rim   |  | -  |
| Digital adjustment system  |  | -  |
| Seal   | Hub  | Contact                                  |
|  | FREEHUB body   | Contact                                  |
| Internal grease sleeve   |  | -  |
| Rim  | Material   | Aluminum                                 |
|  | Finish   | Anodized                                 |
| Spoke  | Material   | Stainless steel                          |
|  | Finish   | Black                                    |
| Nipple   | Material   | Brass                                    |
|  | Finish   | Silver                                   |
| FREEHUB body   | Material   | Steel                                    |
|  | Finish   | -  |
| Hub shell  | Material   | Aluminum                                 |
|  | Finish   | Anodized                                 |
| Axle   | Material   | Steel                                    |
|  | Finish   | -  |
| Quick release lever  | Material   | Aluminum                                 |
|  | Finish   | Painted                                  |
| Quick release housing  | Material   | Steel                                    |
|  | Finish   | Painted                                  |
| Quick release nut  | Material   | Resin                                    |
|  | Finish   | Black                                    |
| Compatible spoke protector   |  | CP-FH06<br>CP-FH31<br>CP-FH46<br>CP-WH24 |
| Reflector  | JIS/CPSC   | CATEYE<br>RR-550-WUW SW                  |
|  | AS   | CATEYE<br>RR-550-WUA SW                  |
|  | DIN  | CATEYE<br>RR-317-WUA SW                  |
| Average weight (g) (w/o quick release, rim tape, tubeless tape, valve stem, lock ring) |  | 1069                                     |
| Note   |  |  |

# Head Parts

ROAD

|                           |          |                  |
|---------------------------|----------|------------------|
| Series                    |          | DURA-ACE         |
| Model no.                 |          | HP-7410          |
| Size                      |          | JIS, ENGLISH     |
| Thread                    |          | BC 1 x 24 T.P.I. |
| Sealed cartridge bearings |          | ✓                |
| Stack height (mm)         |          | 37.6             |
| Lock nut                  | Material | Aluminum         |
|                           | Finish   | Anodized         |
| Upper / Lower cups        | Material | Aluminum         |
|                           | Finish   | Anodized         |
| Upper stem cone           | Material | Aluminum         |
|                           | Finish   | Anodized         |
| Stem cone                 | Material | Aluminum         |
|                           | Finish   | Anodized         |
| Average weight (g)        |          | 101              |
| Note                      |          |                  |

ST

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CS

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# LIFESTYLE Active

<Mechanical spec.>

|  | Page       |    |
|--|------------|----|
| <b>Shifter</b>   | <b>190</b> | SL |
| <b>Brake Lever</b> (Hydraulic Disc Brake, Flat Handlebar Type)       | <b>201</b> | BL |
| <b>Brake Lever</b> (Hydraulic Disc Brake, Drop Handlebar Type)       | <b>202</b> | BL |
| <b>Brake Lever</b> (Drop Handlebar Type)                             | <b>203</b> | BL |
| <b>Shift/Brake Lever</b> (Hydraulic Disc Brake, Flat Handlebar type) | <b>204</b> | ST |
| <b>Shift/Brake Lever</b> (Flat Handlebar type)                       | <b>206</b> | ST |
| <b>Shift/Brake Lever</b> (Hydraulic Disc Brake, Drop Handlebar type) | <b>209</b> | ST |
| <b>Shift/Brake Lever</b> (Drop Handlebar type)                       | <b>210</b> | ST |
| <b>Rear Derailleur</b>   | <b>211</b> | RD |
| <b>Front Derailleur</b>  | <b>216</b> | FD |
| <b>Brake</b> (Hydraulic Disc Brake)                                  | <b>224</b> | BR |
| <b>Brake</b> (Mechanical Disc Brake)                                 | <b>225</b> | BL |
| <b>Crankset</b>  | <b>226</b> | FC |
| <b>Bottom Bracket</b> (HOLLOWTECH II)                                | <b>230</b> | BB |
| <b>Bottom Bracket</b>  | <b>231</b> | BB |
| <b>Cassette</b>  | <b>233</b> | CS |
| <b>Multiple Freewheel</b>  | <b>237</b> | MF |
| <b>Front Hub</b> (Disc Brake)  | <b>238</b> | HB |
| <b>Front Hub</b> (Rim Brake)   | <b>240</b> | HB |
| <b>FREEHUB</b> (Disc Brake)  | <b>241</b> | FH |
| <b>FREEHUB</b> (Rim Brake)   | <b>244</b> | FH |
| <Di2 spec.> <b>Shift Switch</b>                                      | <b>246</b> | SW |
| <b>Rear Derailleur</b>   | <b>247</b> | RD |
| <b>AUTO SHIFT Dynamo FREEHUB</b>                                     | <b>248</b> | FH |



# Shifter

| Series                                      |                  |                      | CUES                      | CUES                      | CUES                | CUES                | CUES                      | CUES                      |
|---|------------------|----------------------|---------------------------|---------------------------|---------------------|---------------------|---------------------------|---------------------------|
| Model no.                                   |                  |                      | SL-U8000-11R              | SL-U8000-11IR             | SL-U8000-L          | SL-U8000-IL         | SL-U6000-11R              | SL-U6050-11R              |
| Color                                       | 1                |                      | Series color              | Series color              | Series color        | Series color        | Series color              | Series color              |
|   | 2                |                      | -                         | -                         | -                   | -                   | -                         | -                         |
|   | 3                |                      | -                         | -                         | -                   | -                   | -                         | -                         |
| Shifter type                                |                  |                      | RAPIDFIRE PLUS            | RAPIDFIRE PLUS            | RAPIDFIRE PLUS MONO | RAPIDFIRE PLUS MONO | RAPIDFIRE PLUS            | RAPIDFIRE                 |
| Front speeds                                |                  |                      | -                         | -                         | 2                   | 2                   | -                         | -                         |
| Rear speeds                                 |                  |                      | 11                        | 11                        | -                   | -                   | 11                        | 11                        |
| Compatible rear derailleur type             |                  |                      | LINKGLIDE system 11-speed | LINKGLIDE system 11-speed | -                   | -                   | LINKGLIDE system 11-speed | LINKGLIDE system 11-speed |
| Mount type                                  | Clamp band       |                      | ✓                         | -                         | ✓                   | -                   | ✓                         | ✓                         |
|   | I-SPEC B         |                      | -                         | -                         | -                   | -                   | -                         | -                         |
|   | I-SPEC II        |                      | -                         | ✓                         | -                   | ✓                   | -                         | -                         |
|   | I-SPEC EV        |                      | -                         | -                         | -                   | -                   | -                         | -                         |
| Shift lever position adjust                 |                  |                      | -                         | -                         | -                   | -                   | -                         | -                         |
| Shift lever rotation adjust (non I-SPEC EV) |                  |                      | -                         | ✓                         | -                   | ✓                   | -                         | -                         |
| Shift lever cable adjust                    |                  |                      | ✓                         | ✓                         | ✓                   | ✓                   | ✓                         | ✓                         |
| Front 2/3 mode converter                    |                  |                      | -                         | -                         | -                   | -                   | -                         | -                         |
| Max. multiple shifts (main lever/rear)      |                  |                      | 2                         | 2                         | -                   | -                   | 2                         | 2                         |
| Release function                            | MULTI RELEASE    |                      | -                         | -                         | -                   | -                   | -                         | -                         |
|   | INSTANT RELEASE  |                      | ✓                         | ✓                         | ✓                   | ✓                   | -                         | -                         |
|   | 2-WAY RELEASE    |                      | ✓                         | ✓                         | ✓                   | ✓                   | ✓                         | -                         |
|   | Adjustable lever |                      | -                         | -                         | ✓                   | ✓                   | -                         | -                         |
| OPTICAL GEAR DISPLAY                        | With             |                      | ✓                         | ✓                         | ✓                   | ✓                   | ✓                         | ✓                         |
|   | With (removable) |                      | -                         | -                         | -                   | -                   | -                         | -                         |
|   | Without          |                      | ✓                         | ✓                         | ✓                   | ✓                   | ✓                         | ✓                         |
| Multi-bearing construction                  |                  |                      | 2                         | 2                         | 2                   | 2                   | -                         | -                         |
| Shift lever bracket                         | Material         |                      | Aluminum                  | Aluminum                  | Aluminum            | Aluminum            | Aluminum                  | Aluminum                  |
|   | Finish           |                      | painted                   | painted                   | painted             | painted             | painted                   | painted                   |
| Clamp screw                                 | Material         |                      | Stainless steel           | Stainless steel           | Stainless steel     | Stainless steel     | Stainless steel           | Stainless steel           |
|   | Finish           |                      | Black                     | Black                     | Black               | Black               | Black                     | Black                     |
| Main lever body                             | Material         |                      | Aluminum                  | Aluminum                  | Aluminum            | Aluminum            | Steel+GFRP                | Steel+GFRP                |
|   | Finish           |                      | painted                   | painted                   | painted             | painted             | -                         | -                         |
| Release lever body                          | Material         |                      | Steel+GFRP                | Steel+GFRP                | -                   | -                   | Steel+Resin               | Steel+Resin               |
|   | Finish           |                      | -                         | -                         | -                   | -                   | -                         | -                         |
| Base cover                                  | Material         |                      | GFRP                      | GFRP                      | GFRP                | GFRP                | Resin                     | Resin                     |
|   | Finish           |                      | painted                   | painted                   | painted             | painted             | -                         | -                         |
| Shift lever cable                           | Inner cable      | Polymer-coated cable | -                         | -                         | -                   | -                   | -                         | -                         |
|   |                  | OPTISLIC K           | ✓                         | ✓                         | ✓                   | ✓                   | ✓                         | ✓                         |
|   |                  | SIL-TEC              | -                         | -                         | -                   | -                   | -                         | -                         |
|   |                  | Stainless            | ✓                         | ✓                         | ✓                   | ✓                   | -                         | -                         |
|   |                  | Steel                | -                         | -                         | -                   | -                   | ✓                         | ✓                         |
| Recommended shift lever outer casing        |                  |                      | OT-SP41                   | OT-SP41                   | OT-SP41             | OT-SP41             | OT-SP41                   | OT-SP41                   |
| Average weight (g)                          |                  |                      | 120                       | 112                       | -                   | -                   | -                         | -                         |
| Note  |                  |                      |                           |                           |                     |                     |                           | Short reach               |

# Shifter

LIFESTYLE  
Active

| Series                                      |                  |                      | CUES                      | CUES                | CUES                      | CUES                     | CUES                     | CUES                     |
|---|------------------|----------------------|---------------------------|---------------------|---------------------------|--------------------------|--------------------------|--------------------------|
| Model no.                                   |                  |                      | SL-U6000-10R              | SL-U6000-L          | SL-U6050-10R              | SL-U4000-9R              | SL-U4010-9R              | SL-U4050-9R              |
| Color                                       | 1                |                      | Series color              | Series color        | Series color              | Series color             | Series color             | Series color             |
|   | 2                |                      | -                         | -                   | -                         | -                        | -                        | -                        |
|   | 3                |                      | -                         | -                   | -                         | -                        | -                        | -                        |
| Shifter type                                |                  |                      | RAPIDFIRE PLUS            | RAPIDFIRE PLUS MONO | RAPIDFIRE                 | RAPIDFIRE PLUS           | RAPIDFIRE PLUS           | RAPIDFIRE                |
| Front speeds                                |                  |                      | -                         | 2                   | -                         | -                        | -                        | -                        |
| Rear speeds                                 |                  |                      | 10                        | -                   | 10                        | 9                        | 9                        | 9                        |
| Compatible rear derailleur type             |                  |                      | LINKGLIDE system 10-speed | -                   | LINKGLIDE system 10-speed | LINKGLIDE system 9-speed | LINKGLIDE system 9-speed | LINKGLIDE system 9-speed |
| Mount type                                  | Clamp band       |                      | ✓                         | ✓                   | ✓                         | ✓                        | ✓                        | ✓                        |
|   | I-SPEC B         |                      | -                         | -                   | -                         | -                        | -                        | -                        |
|   | I-SPEC II        |                      | -                         | -                   | -                         | -                        | -                        | -                        |
|   | I-SPEC EV        |                      | -                         | -                   | -                         | -                        | -                        | -                        |
| Shift lever position adjust                 |                  |                      | -                         | -                   | -                         | -                        | -                        | -                        |
| Shift lever rotation adjust (non I-SPEC EV) |                  |                      | -                         | -                   | -                         | -                        | -                        | -                        |
| Shift lever cable adjust                    |                  |                      | ✓                         | ✓                   | ✓                         | ✓                        | ✓                        | ✓                        |
| Front 2/3 mode converter                    |                  |                      | -                         | -                   | -                         | -                        | -                        | -                        |
| Max. multiple shifts (main lever/rear)      |                  |                      | 2                         | -                   | 2                         | 2                        | 2                        | 2                        |
| Release function                            | MULTI RELEASE    |                      | -                         | -                   | -                         | -                        | -                        | -                        |
|   | INSTANT RELEASE  |                      | -                         | -                   | -                         | -                        | -                        | -                        |
|   | 2-WAY RELEASE    |                      | ✓                         | ✓                   | -                         | -                        | ✓                        | -                        |
|   | Adjustable lever |                      | -                         | -                   | -                         | -                        | -                        | -                        |
| OPTICAL GEAR DISPLAY                        | With             |                      | ✓                         | ✓                   | ✓                         | ✓                        | ✓                        | ✓                        |
|   | With (removable) |                      | -                         | -                   | -                         | -                        | -                        | -                        |
|   | Without          |                      | ✓                         | ✓                   | ✓                         | -                        | -                        | -                        |
| Multi-bearing construction                  |                  |                      | -                         | -                   | -                         | -                        | -                        | -                        |
| Shift lever bracket                         | Material         |                      | Aluminum                  | Aluminum            | Aluminum                  | Aluminum                 | Aluminum                 | Aluminum                 |
|   | Finish           |                      | painted                   | painted             | painted                   | painted                  | painted                  | painted                  |
| Clamp screw                                 | Material         |                      | Stainless steel           | Stainless steel     | Stainless steel           | steel                    | Steel                    | steel                    |
|   | Finish           |                      | Black                     | Black               | Black                     | plated                   | plated                   | plated                   |
| Main lever body                             | Material         |                      | Steel+GFRP                | Steel+GFRP          | Steel+GFRP                | Steel+GFRP               | Steel+GFRP               | Steel+GFRP               |
|   | Finish           |                      | -                         | -                   | -                         | -                        | -                        | -                        |
| Release lever body                          | Material         |                      | Steel+Resin               | -                   | Steel+Resin               | Steel+Resin              | Steel+Resin              | Steel+Resin              |
|   | Finish           |                      | -                         | -                   | -                         | -                        | -                        | -                        |
| Base cover                                  | Material         |                      | Resin                     | Resin               | Resin                     | Resin                    | Resin                    | Resin                    |
|   | Finish           |                      | -                         | -                   | -                         | -                        | -                        | -                        |
| Shift lever cable                           | Inner cable      | Polymer-coated cable | -                         | -                   | -                         | -                        | -                        | -                        |
|   |                  | OPTISLICK            | ✓                         | ✓                   | ✓                         | ✓                        | ✓                        | ✓                        |
|   |                  | SIL-TEC              | -                         | -                   | -                         | -                        | -                        | -                        |
|   |                  | Stainless            | -                         | -                   | -                         | -                        | -                        | -                        |
|   |                  | Steel                | ✓                         | ✓                   | ✓                         | ✓                        | ✓                        | ✓                        |
| Recommended shift lever outer casing        |                  |                      | OT-SP41                   | OT-SP41             | OT-SP41                   | OT-SP41                  | OT-SP41                  | OT-SP41                  |
| Average weight (g)                          |                  |                      | -                         | -                   | -                         | -                        | -                        | -                        |
| Note  |                  |                      |                           |                     | Short reach               |                          |                          | Short reach              |

SL

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# Shifter

| Series                                      |                  |                      | CUES                | SHIMANO ALIVIO | SHIMANO ALIVIO | SHIMANO ALIVIO      | ACERA           | ACERA           |
|---|------------------|----------------------|---------------------|----------------|----------------|---------------------|-----------------|-----------------|
| Model no.                                   |                  |                      | SL-U4000-L          | SL-M3100-R     | SL-M3100-L     | SL-M3100-2L         | SL-M3000-R      | SL-M3010-L      |
| Color                                       | 1                |                      | Series color        | Series color   | Series color   | Series color        | Series color    | Series color    |
|   | 2                |                      | -                   | -              | -              | -                   | -               | -               |
|   | 3                |                      | -                   | -              | -              | -                   | -               | -               |
| Shifter type                                |                  |                      | RAPIDFIRE PLUS MONO | RAPIDFIRE PLUS | RAPIDFIRE PLUS | RAPIDFIRE PLUS MONO | RAPIDFIRE PLUS  | RAPIDFIRE PLUS  |
| Front speeds                                |                  |                      | 2                   | -              | 3              | 2                   | -               | 2               |
| Rear speeds                                 |                  |                      | -                   | 9              | -              | -                   | 9               | -               |
| Compatible rear derailleur type             |                  |                      | -                   | MTB 9-speed    | -              | -                   | MTB 9-speed     | -               |
| Mount type                                  | Clamp band       |                      | ✓                   | ✓              | ✓              | ✓                   | ✓               | ✓               |
|   | I-SPEC B         |                      | -                   | -              | -              | -                   | -               | -               |
|   | I-SPEC II        |                      | -                   | -              | -              | -                   | -               | -               |
|   | I-SPEC EV        |                      | -                   | -              | -              | -                   | -               | -               |
| Shift lever position adjust                 |                  |                      | -                   | -              | -              | -                   | -               | -               |
| Shift lever rotation adjust (non I-SPEC EV) |                  |                      | -                   | -              | -              | -                   | -               | -               |
| Shift lever cable adjust                    |                  |                      | ✓                   | ✓              | ✓              | ✓                   | ✓               | ✓               |
| Front 2/3 mode converter                    |                  |                      | -                   | -              | -              | -                   | -               | -               |
| Max. multiple shifts (main lever/rear)      |                  |                      | -                   | 3              | -              | -                   | 3               | -               |
| Release function                            | MULTI RELEASE    |                      | -                   | -              | -              | -                   | -               | -               |
|   | INSTANT RELEASE  |                      | -                   | -              | -              | -                   | -               | -               |
|   | 2-WAY RELEASE    |                      | -                   | -              | -              | ✓                   | -               | -               |
|   | Adjustable lever |                      | -                   | -              | -              | -                   | -               | -               |
| OPTICAL GEAR DISPLAY                        | With             |                      | ✓                   | ✓              | ✓              | -                   | ✓               | ✓               |
|   | With (removable) |                      | -                   | -              | -              | -                   | -               | -               |
|   | Without          |                      | -                   | -              | -              | ✓                   | -               | -               |
| Multi-bearing construction                  |                  |                      | -                   | -              | -              | -                   | -               | -               |
| Shift lever bracket                         | Material         |                      | Aluminum            | Aluminum       | Aluminum       | Aluminum            | Aluminum        | Aluminum        |
|   | Finish           |                      | painted             | Painted        | Painted        | Painted             | Painted         | Painted         |
| Clamp screw                                 | Material         |                      | steel               | Steel          | Steel          | Steel               | Stainless steel | Stainless steel |
|   | Finish           |                      | plated              | Plated         | Plated         | Plated              | -               | -               |
| Main lever body                             | Material         |                      | Steel+GFRP          | Steel+Resin    | Steel+Resin    | Steel+Resin         | Steel+Resin     | Steel+Resin     |
|   | Finish           |                      | -                   | -              | -              | -                   | -               | -               |
| Release lever body                          | Material         |                      | -                   | Steel+Resin    | -              | Steel+Resin         | Steel+Resin     | Steel+Resin     |
|   | Finish           |                      | -                   | -              | -              | -                   | -               | -               |
| Base cover                                  | Material         |                      | Resin               | Resin          | Resin          | Resin               | Resin           | Resin           |
|   | Finish           |                      | -                   | -              | -              | -                   | -               | -               |
| Shift lever cable                           | Inner cable      | Polymer-coated cable | -                   | -              | -              | -                   | -               | -               |
|   |                  | OPTISLIC K           | ✓                   | ✓              | ✓              | ✓                   | -               | -               |
|   |                  | SIL-TEC              | -                   | -              | -              | -                   | -               | -               |
|   |                  | Stainless            | -                   | -              | -              | -                   | ✓ *             | -               |
|   |                  | Steel                | ✓                   | ✓              | ✓              | ✓                   | ✓               | ✓               |
| Recommended shift lever outer casing        |                  |                      | OT-SP41             | OT-SP41        | OT-SP41        | OT-SP41             | OT-SP41         | OT-SP41         |
| Average weight (g)                          |                  |                      | -                   | -              | -              | -                   | -               | -               |
| Note  |                  |                      |                     |                |                |                     | * Option        |                 |

# Shifter

LIFESTYLE  
Active

| Series                                      |                  |                      | ACERA          | SHIMANO ALTUS  | SHIMANO ALTUS  | SHIMANO ALTUS  | SHIMANO        | SHIMANO        |
|---|------------------|----------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Model no.                                   |                  |                      | SL-M360-R      | SL-M2010-9R    | SL-M2010-L     | SL-M2010-2L    | SL-M315-8R     | SL-M315-7R     |
| Color                                       | 1                |                      | Series color   | Series color   | Series color   | Series color   | Series color   | Series color   |
|   | 2                |                      | -              | -              | -              | -              | -              | -              |
|   | 3                |                      | -              | -              | -              | -              | -              | -              |
| Shifter type                                |                  |                      | RAPIDFIRE PLUS | RAPIDFIRE PLUS | RAPIDFIRE PLUS | RAPIDFIRE PLUS | RAPIDFIRE PLUS | RAPIDFIRE PLUS |
| Front speeds                                |                  |                      | -              | -              | 3              | 2              | -              | -              |
| Rear speeds                                 |                  |                      | 8              | 9              | -              | -              | 8              | 7              |
| Compatible rear derailleur type             |                  |                      | MTB 8-speed    | MTB 9-speed    | -              | -              | MTB 8-speed    | MTB 7-speed    |
| Mount type                                  | Clamp band       |                      | ✓              | ✓              | ✓              | ✓              | ✓              | ✓              |
|   | I-SPEC B         |                      | -              | -              | -              | -              | -              | -              |
|   | I-SPEC II        |                      | -              | -              | -              | -              | -              | -              |
|   | I-SPEC EV        |                      | -              | -              | -              | -              | -              | -              |
| Shift lever position adjust                 |                  |                      | -              | -              | -              | -              | -              | -              |
| Shift lever rotation adjust (non I-SPEC EV) |                  |                      | -              | -              | -              | -              | -              | -              |
| Shift lever cable adjust                    |                  |                      | ✓              | ✓              | ✓              | ✓              | ✓              | ✓              |
| Front 2/3 mode converter                    |                  |                      | -              | -              | -              | -              | -              | -              |
| Max. multiple shifts (main lever/rear)      |                  |                      | 3              | 3              | -              | -              | 3              | 3              |
| Release function                            | MULTI RELEASE    |                      | -              | -              | -              | -              | -              | -              |
|   | INSTANT RELEASE  |                      | -              | -              | -              | -              | -              | -              |
|   | 2-WAY RELEASE    |                      | -              | -              | -              | -              | -              | -              |
|   | Adjustable lever |                      | -              | -              | -              | -              | -              | -              |
| OPTICAL GEAR DISPLAY                        | With             |                      | ✓              | ✓              | ✓              | ✓              | ✓              | ✓              |
|   | With (removable) |                      | -              | -              | -              | -              | -              | -              |
|   | Without          |                      | -              | -              | -              | -              | -              | -              |
| Multi-bearing construction                  |                  |                      | -              | -              | -              | -              | -              | -              |
| Shift lever bracket                         | Material         |                      | Aluminum       | Aluminum       | Aluminum       | Aluminum       | Aluminum       | Aluminum       |
|   | Finish           |                      | Painted        | Painted        | Painted        | Painted        | Painted        | Painted        |
| Clamp screw                                 | Material         |                      | Steel          | Steel          | Steel          | Steel          | Steel          | Steel          |
|   | Finish           |                      | -              | Plated         | Plated         | Plated         | Plated         | Plated         |
| Main lever body                             | Material         |                      | Steel+Resin    | Steel+Resin    | Steel+Resin    | Steel+Resin    | Steel+Resin    | Steel+Resin    |
|   | Finish           |                      | -              | -              | -              | -              | -              | -              |
| Release lever body                          | Material         |                      | Steel+Resin    | Steel+Resin    | Steel+Resin    | Steel+Resin    | Steel+Resin    | Steel+Resin    |
|   | Finish           |                      | -              | -              | -              | -              | -              | -              |
| Base cover                                  | Material         |                      | Resin          | Resin          | Resin          | Resin          | Resin          | Resin          |
|   | Finish           |                      | -              | -              | -              | -              | -              | -              |
| Shift lever cable                           | Inner cable      | Polymer-coated cable | -              | -              | -              | -              | -              | -              |
|   |                  | OPTISLICK            | -              | ✓              | ✓              | ✓              | -              | -              |
|   |                  | SIL-TEC              | -              | -              | -              | -              | -              | -              |
|   |                  | Stainless            | -              | -              | -              | -              | ✓              | ✓              |
|   |                  | Steel                | ✓              | ✓              | ✓              | ✓              | -              | -              |
| Recommended shift lever outer casing        |                  |                      | OT-SP41        | OT-SP41        | OT-SP41        | OT-SP41        | OT-SP41        | OT-SP41        |
| Average weight (g)                          |                  |                      | -              | -              | -              | -              | -              | -              |
| Note  |                  |                      |                |                |                |                |                |                |

SL

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# Shifter

| Series                                      |                  |                      | SHIMANO        | SHIMANO        | TOURNEY            | TOURNEY            | TOURNEY            | TOURNEY            |
|---|------------------|----------------------|----------------|----------------|--------------------|--------------------|--------------------|--------------------|
| Model no.                                   |                  |                      | SL-M315-L      | SL-M315-2L     | SL-FT55-7R         | SL-TX50-7R         | SL-TX50-6R         | SL-TX50-L          |
| Color                                       | 1                |                      | Series color   | Series color   | Series color       | Series color       | Series color       | Series color       |
|   | 2                |                      | -              | -              | -                  | -                  | -                  | -                  |
|   | 3                |                      | -              | -              | -                  | -                  | -                  | -                  |
| Shifter type                                |                  |                      | RAPIDFIRE PLUS | RAPIDFIRE PLUS | Thumb shifter Plus | Thumb Shifter Plus | Thumb Shifter Plus | Thumb Shifter Plus |
| Front speeds                                |                  |                      | 3              | 2              | -                  | -                  | -                  | 3                  |
| Rear speeds                                 |                  |                      | -              | -              | 7                  | 7                  | 6                  | -                  |
| Compatible rear derailleur type             |                  |                      | -              | -              | MTB 7-speed        | MTB 7-speed        | MTB 6-speed        | -                  |
| Mount type                                  | Clamp band       |                      | ✓              | ✓              | ✓                  | ✓                  | ✓                  | ✓                  |
|   | I-SPEC B         |                      | -              | -              | -                  | -                  | -                  | -                  |
|   | I-SPEC II        |                      | -              | -              | -                  | -                  | -                  | -                  |
|   | I-SPEC EV        |                      | -              | -              | -                  | -                  | -                  | -                  |
| Shift lever position adjust                 |                  |                      | -              | -              | -                  | -                  | -                  | -                  |
| Shift lever rotation adjust (non I-SPEC EV) |                  |                      | -              | -              | -                  | -                  | -                  | -                  |
| Shift lever cable adjust                    |                  |                      | ✓              | ✓              | -                  | -                  | -                  | ✓                  |
| Front 2/3 mode converter                    |                  |                      | -              | -              | -                  | -                  | -                  | -                  |
| Max. multiple shifts (main lever/rear)      |                  |                      | -              | -              | 6                  | 6                  | 5                  | -                  |
| Release function                            | MULTI RELEASE    |                      | -              | -              | -                  | -                  | -                  | -                  |
|   | INSTANT RELEASE  |                      | -              | -              | -                  | -                  | -                  | -                  |
|   | 2-WAY RELEASE    |                      | -              | -              | -                  | -                  | -                  | -                  |
|   | Adjustable lever |                      | -              | -              | -                  | -                  | -                  | -                  |
| OPTICAL GEAR DISPLAY                        | With             |                      | ✓              | ✓              | ✓                  | ✓                  | ✓                  | ✓                  |
|   | With (removable) |                      | -              | -              | -                  | -                  | -                  | -                  |
|   | Without          |                      | -              | -              | -                  | -                  | -                  | -                  |
| Multi-bearing construction                  |                  |                      | -              | -              | -                  | -                  | -                  | -                  |
| Shift lever bracket                         | Material         |                      | Aluminum       | Aluminum       | Steel              | Steel              | Steel              | Steel              |
|   | Finish           |                      | Painted        | Painted        | Painted            | Painted            | Painted            | Painted            |
| Clamp screw                                 | Material         |                      | Steel          | Steel          | Steel              | Steel              | Steel              | Steel              |
|   | Finish           |                      | Plated         | Plated         | -                  | -                  | -                  | -                  |
| Main lever body                             | Material         |                      | Steel+Resin    | Steel+Resin    | Resin              | Resin              | Resin              | Resin              |
|   | Finish           |                      | -              | -              | -                  | -                  | -                  | -                  |
| Release lever body                          | Material         |                      | Steel+Resin    | Steel+Resin    | Resin              | Resin              | Resin              | Resin              |
|   | Finish           |                      | -              | -              | -                  | -                  | -                  | -                  |
| Base cover                                  | Material         |                      | Resin          | Resin          | Resin              | Resin              | Resin              | Resin              |
|   | Finish           |                      | -              | -              | -                  | -                  | -                  | -                  |
| Shift lever cable                           | Inner cable      | Polymer-coated cable | -              | -              | -                  | -                  | -                  | -                  |
|   |                  | OPTISLICK            | -              | -              | -                  | -                  | -                  | -                  |
|   |                  | SIL-TEC              | -              | -              | -                  | -                  | -                  | -                  |
|   |                  | Stainless            | ✓              | ✓              | -                  | -                  | -                  | -                  |
|   |                  | Steel                | -              | -              | ✓                  | ✓                  | ✓                  | ✓                  |
| Recommended shift lever outer casing        |                  |                      | OT-SP41        | OT-SP41        | OT-SIS40           | OT-SIS40           | OT-SIS40           | OT-SIS40           |
| Average weight (g)                          |                  |                      | -              | -              | -                  | -                  | -                  | -                  |
| Note  |                  |                      |                |                |                    |                    |                    |                    |

# Shifter

| Series                                      |                  |                      | TOURNEY            | TOURNEY            | TOURNEY            | TOURNEY            | TOURNEY      | TOURNEY                                |
|---|------------------|----------------------|--------------------|--------------------|--------------------|--------------------|--------------|--|
| Model no.                                   |                  |                      | SL-TX50-LN         | SL-TX30-7R         | SL-TX30-6R         | SL-TX30-LN         | SL-RS45-6R   | SL-RS36-7R                             |
| Color                                       | 1                |                      | Series color       | Series color       | Series color       | Series color       | Series color | Series color                           |
|   | 2                |                      | -                  | -                  | -                  | -                  | -            | -                                      |
|   | 3                |                      | -                  | -                  | -                  | -                  | -            | -                                      |
| Shifter type                                |                  |                      | Thumb Shifter Plus | Thumb Shifter Plus | Thumb Shifter Plus | Thumb Shifter Plus | REVOSHIFT    | REVOSHIFT                              |
| Front speeds                                |                  |                      | 3 (friction)       | -                  | -                  | 3 (friction)       | -            | -                                      |
| Rear speeds                                 |                  |                      | -                  | 7                  | 6                  | -                  | 6            | 7                                      |
| Compatible rear derailleur type             |                  |                      | -                  | MTB 7-speed        | MTB 6-speed        | -                  | MTB 6-speed  | MTB 7-speed                            |
| Mount type                                  | Clamp band       |                      | ✓                  | ✓                  | ✓                  | ✓                  | ✓            | ✓                                      |
|   | I-SPEC B         |                      | -                  | -                  | -                  | -                  | -            | -                                      |
|   | I-SPEC II        |                      | -                  | -                  | -                  | -                  | -            | -                                      |
|   | I-SPEC EV        |                      | -                  | -                  | -                  | -                  | -            | -                                      |
| Shift lever position adjust                 |                  |                      | -                  | -                  | -                  | -                  | -            | -                                      |
| Shift lever rotation adjust (non I-SPEC EV) |                  |                      | -                  | -                  | -                  | -                  | -            | -                                      |
| Shift lever cable adjust                    |                  |                      | ✓                  | -                  | -                  | ✓                  | ✓            | -                                      |
| Front 2/3 mode converter                    |                  |                      | -                  | -                  | -                  | -                  | -            | -                                      |
| Max. multiple shifts (main lever/rear)      |                  |                      | -                  | 6                  | 5                  | -                  | 5            | 6                                      |
| Release function                            | MULTI RELEASE    |                      | -                  | -                  | -                  | -                  | -            | -                                      |
|   | INSTANT RELEASE  |                      | -                  | -                  | -                  | -                  | -            | -                                      |
|   | 2-WAY RELEASE    |                      | -                  | -                  | -                  | -                  | -            | -                                      |
|   | Adjustable lever |                      | -                  | -                  | -                  | -                  | -            | -                                      |
| OPTICAL GEAR DISPLAY                        | With             |                      | ✓                  | ✓                  | ✓                  | ✓                  | ✓            | ✓                                      |
|   | With (removable) |                      | -                  | -                  | -                  | -                  | -            | -                                      |
|   | Without          |                      | -                  | -                  | -                  | -                  | -            | -                                      |
| Multi-bearing construction                  |                  |                      | -                  | -                  | -                  | -                  | -            | -                                      |
| Shift lever bracket                         | Material         |                      | Steel              | Steel              | Steel              | Steel              | Steel        | Steel                                  |
|   | Finish           |                      | Painted            | Painted            | Painted            | Painted            | Painted      | Painted                                |
| Clamp screw                                 | Material         |                      | Steel              | Steel              | Steel              | Steel              | Steel        | Steel                                  |
|   | Finish           |                      | -                  | -                  | -                  | -                  | -            | -                                      |
| Main lever body                             | Material         |                      | Resin              | Resin              | Resin              | Resin              | -            | -                                      |
|   | Finish           |                      | -                  | -                  | -                  | -                  | -            | -                                      |
| Release lever body                          | Material         |                      | Resin              | Resin              | Resin              | Resin              | -            | -                                      |
|   | Finish           |                      | -                  | -                  | -                  | -                  | -            | -                                      |
| Base cover                                  | Material         |                      | Resin              | Resin              | Resin              | Resin              | Resin        | Resin                                  |
|   | Finish           |                      | -                  | -                  | -                  | -                  | -            | -                                      |
| Shift lever cable                           | Inner cable      | Polymer-coated cable | -                  | -                  | -                  | -                  | -            | -                                      |
|   |                  | OPTISLICK            | -                  | -                  | -                  | -                  | -            | -                                      |
|   |                  | SIL-TEC              | -                  | -                  | -                  | -                  | -            | -                                      |
|   |                  | Stainless            | -                  | -                  | -                  | -                  | -            | -                                      |
|   |                  | Steel                | ✓                  | ✓                  | ✓                  | ✓                  | ✓            | ✓                                      |
| Recommended shift lever outer casing        |                  |                      | OT-SIS40           | OT-SIS40           | OT-SIS40           | OT-SIS40           | OT-SIS40     | OT-SIS40                               |
| Average weight (g)                          |                  |                      | -                  | -                  | -                  | -                  | -            | -                                      |
| Note  |                  |                      |                    |                    |                    |                    |              | w/ CI-DECK spec is available as option |

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# Shifter

| Series                                      |                  |                      | TOURNEY                                | TOURNEY                                | TOURNEY                                | TOURNEY      | TOURNEY      | SHIMANO      |
|---|------------------|----------------------|--|--|--|--------------|--------------|--------------|
| Model no.                                   |                  |                      | SL-RS36-6R                             | SL-RS35-7R                             | SL-RS35-6R                             | SL-RS35-L    | SL-RS35-LN   | SL-RV400-8R  |
| Color                                       | 1                |                      | Series color                           | Series color                           | Series color                           | Series color | Series color | Series color |
|   | 2                |                      | -                                      | -                                      | -                                      | -            | -            | -            |
|   | 3                |                      | -                                      | -                                      | -                                      | -            | -            | -            |
| Shifter type                                |                  |                      | REVOSHIFT                              | REVOSHIFT                              | REVOSHIFT                              | REVOSHIFT    | REVOSHIFT    | REVOSHIFT    |
| Front speeds                                |                  |                      | -                                      | -                                      | -                                      | 3            | 3 (friction) | -            |
| Rear speeds                                 |                  |                      | 6                                      | 7                                      | 6                                      | -            | -            | 8            |
| Compatible rear derailleur type             |                  |                      | MTB 6-speed                            | MTB 7-speed                            | MTB 6-speed                            | -            | -            | MTB 8-speed  |
| Mount type                                  | Clamp band       |                      | ✓                                      | ✓                                      | ✓                                      | ✓            | ✓            | ✓            |
|   | I-SPEC B         |                      | -                                      | -                                      | -                                      | -            | -            | -            |
|   | I-SPEC II        |                      | -                                      | -                                      | -                                      | -            | -            | -            |
|   | I-SPEC EV        |                      | -                                      | -                                      | -                                      | -            | -            | -            |
| Shift lever position adjust                 |                  |                      | -                                      | -                                      | -                                      | -            | -            | -            |
| Shift lever rotation adjust (non I-SPEC EV) |                  |                      | -                                      | -                                      | -                                      | -            | -            | -            |
| Shift lever cable adjust                    |                  |                      | -                                      | -                                      | -                                      | ✓            | ✓            | -            |
| Front 2/3 mode converter                    |                  |                      | -                                      | -                                      | -                                      | -            | -            | -            |
| Max. multiple shifts (main lever/rear)      |                  |                      | 5                                      | 6                                      | 5                                      | -            | -            | 7            |
| Release function                            | MULTI RELEASE    |                      | -                                      | -                                      | -                                      | -            | -            | -            |
|   | INSTANT RELEASE  |                      | -                                      | -                                      | -                                      | -            | -            | -            |
|   | 2-WAY RELEASE    |                      | -                                      | -                                      | -                                      | -            | -            | -            |
|   | Adjustable lever |                      | -                                      | -                                      | -                                      | -            | -            | -            |
| OPTICAL GEAR DISPLAY                        | With             |                      | ✓                                      | ✓                                      | ✓                                      | ✓            | ✓            | ✓            |
|   | With (removable) |                      | -                                      | -                                      | -                                      | -            | -            | -            |
|   | Without          |                      | -                                      | -                                      | -                                      | -            | -            | -            |
| Multi-bearing construction                  |                  |                      | -                                      | -                                      | -                                      | -            | -            | -            |
| Shift lever bracket                         | Material         |                      | Steel                                  | Resin                                  | Resin                                  | Resin        | Resin        | Resin        |
|   | Finish           |                      | Painted                                | Resin                                  | Resin                                  | Resin        | Resin        | Resin        |
| Clamp screw                                 | Material         |                      | Steel                                  | Steel                                  | Steel                                  | Steel        | Steel        | Steel        |
|   | Finish           |                      | -                                      | -                                      | -                                      | -            | -            | -            |
| Main lever body                             | Material         |                      | -                                      | -                                      | -                                      | -            | -            | -            |
|   | Finish           |                      | -                                      | -                                      | -                                      | -            | -            | -            |
| Release lever body                          | Material         |                      | -                                      | -                                      | -                                      | -            | -            | -            |
|   | Finish           |                      | -                                      | -                                      | -                                      | -            | -            | -            |
| Base cover                                  | Material         |                      | Resin                                  | Resin                                  | Resin                                  | Resin        | Resin        | Resin        |
|   | Finish           |                      | -                                      | -                                      | -                                      | -            | -            | -            |
| Shift lever cable                           | Inner cable      | Polymer-coated cable | -                                      | -                                      | -                                      | -            | -            | -            |
|   |                  | OPTISLICK            | -                                      | -                                      | -                                      | -            | -            | -            |
|   |                  | SIL-TEC              | -                                      | -                                      | -                                      | -            | -            | -            |
|   |                  | Stainless            | -                                      | -                                      | -                                      | -            | -            | -            |
|   |                  | Steel                | ✓                                      | ✓                                      | ✓                                      | ✓            | ✓            | ✓            |
| Recommended shift lever outer casing        |                  |                      | OT-SIS40                               | OT-SIS40                               | OT-SIS40                               | OT-SIS40     | OT-SIS40     | OT-SIS40     |
| Average weight (g)                          |                  |                      | -                                      | -                                      | -                                      | -            | -            | -            |
| Note  |                  |                      | w/ CI-DECK spec is available as option | w/ CI-DECK spec is available as option | w/ CI-DECK spec is available as option |              |              |              |

# Shifter

| Series                                      |                  |                      | SHIMANO      | SHIMANO      | SHIMANO      | SHIMANO      | SHIMANO      | SHIMANO      |
|---|------------------|----------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Model no.                                   |                  |                      | SL-RV400-7R  | SL-RV400-6R  | SL-RV400-L   | SL-RV400-LN  | SL-RV300-7R  | SL-RV300-6R  |
| Color                                       | 1                |                      | Series color | Series color | Series color | Series color | Series color | Series color |
|   | 2                |                      | -            | -            | -            | -            | -            | -            |
|   | 3                |                      | -            | -            | -            | -            | -            | -            |
| Shifter type                                |                  |                      | REVOSHIFT    | REVOSHIFT    | REVOSHIFT    | REVOSHIFT    | REVOSHIFT    | REVOSHIFT    |
| Front speeds                                |                  |                      | -            | -            | 3            | 3 (friction) | -            | -            |
| Rear speeds                                 |                  |                      | 7            | 6            | -            | -            | 7            | 6            |
| Compatible rear derailleur type             |                  |                      | MTB 7-speed  | MTB 6-speed  | -            | -            | MTB 7-speed  | MTB 6-speed  |
| Mount type                                  | Clamp band       |                      | ✓            | ✓            | ✓            | ✓            | ✓            | ✓            |
|   | I-SPEC B         |                      | -            | -            | -            | -            | -            | -            |
|   | I-SPEC II        |                      | -            | -            | -            | -            | -            | -            |
|   | I-SPEC EV        |                      | -            | -            | -            | -            | -            | -            |
| Shift lever position adjust                 |                  |                      | -            | -            | -            | -            | -            | -            |
| Shift lever rotation adjust (non I-SPEC EV) |                  |                      | -            | -            | -            | -            | -            | -            |
| Shift lever cable adjust                    |                  |                      | -            | -            | ✓            | -            | -            | -            |
| Front 2/3 mode converter                    |                  |                      | -            | -            | -            | -            | -            | -            |
| Max. multiple shifts (main lever/rear)      |                  |                      | 6            | 5            | -            | -            | 6            | 5            |
| Release function                            | MULTI RELEASE    |                      | -            | -            | -            | -            | -            | -            |
|   | INSTANT RELEASE  |                      | -            | -            | -            | -            | -            | -            |
|   | 2-WAY RELEASE    |                      | -            | -            | -            | -            | -            | -            |
|   | Adjustable lever |                      | -            | -            | -            | -            | -            | -            |
| OPTICAL GEAR DISPLAY                        | With             |                      | ✓            | ✓            | ✓            | ✓            | ✓            | ✓            |
|   | With (removable) |                      | -            | -            | -            | -            | -            | -            |
|   | Without          |                      | -            | -            | -            | -            | -            | -            |
| Multi-bearing construction                  |                  |                      | -            | -            | -            | -            | -            | -            |
| Shift lever bracket                         | Material         |                      | Resin        | Resin        | Resin        | Resin        | Resin        | Resin        |
|   | Finish           |                      | Resin        | Resin        | Resin        | Resin        | Resin        | Resin        |
| Clamp screw                                 | Material         |                      | Steel        | Steel        | Steel        | Steel        | Steel        | Steel        |
|   | Finish           |                      | -            | -            | -            | -            | -            | -            |
| Main lever body                             | Material         |                      | -            | -            | -            | -            | -            | -            |
|   | Finish           |                      | -            | -            | -            | -            | -            | -            |
| Release lever body                          | Material         |                      | -            | -            | -            | -            | -            | -            |
|   | Finish           |                      | -            | -            | -            | -            | -            | -            |
| Base cover                                  | Material         |                      | Resin        | Resin        | Resin        | Resin        | Resin        | Resin        |
|   | Finish           |                      | -            | -            | -            | -            | -            | -            |
| Shift lever cable                           | Inner cable      | Polymer-coated cable | -            | -            | -            | -            | -            | -            |
|   |                  | OPTISLICK            | -            | -            | -            | -            | -            | -            |
|   |                  | SIL-TEC              | -            | -            | -            | -            | -            | -            |
|   |                  | Stainless            | -            | -            | -            | -            | -            | -            |
|   |                  | Steel                | ✓            | ✓            | ✓            | ✓            | ✓            | ✓            |
| Recommended shift lever outer casing        |                  |                      | OT-SIS40     | OT-SIS40     | OT-SIS40     | OT-SIS40     | OT-SIS40     | OT-SIS40     |
| Average weight (g)                          |                  |                      | -            | -            | -            | -            | -            | -            |
| Note  |                  |                      |              |              |              |              |              |              |

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# Shifter

| Series                                      |                  |                      | SHIMANO      | SHIMANO      | SHIMANO      | SHIMANO      | SHIMANO      | SHIMANO      |
|---|------------------|----------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Model no.                                   |                  |                      | SL-RV300-L   | SL-RV300-LN  | SL-RV200-7R  | SL-RV200-6R  | SL-RV200-L   | SL-RV200-LN  |
| Color                                       | 1                |                      | Series color | Series color | Series color | Series color | Series color | Series color |
|   | 2                |                      | -            | -            | -            | -            | -            | -            |
|   | 3                |                      | -            | -            | -            | -            | -            | -            |
| Shifter type                                |                  |                      | REVOSHIFT    | REVOSHIFT    | REVOSHIFT    | REVOSHIFT    | REVOSHIFT    | REVOSHIFT    |
| Front speeds                                |                  |                      | 3            | 3 (friction) | -            | -            | 3            | 3 (friction) |
| Rear speeds                                 |                  |                      | -            | -            | 7            | 6            | -            | -            |
| Compatible rear derailleur type             |                  |                      | -            | -            | MTB 7-speed  | MTB 6-speed  | -            | -            |
| Mount type                                  | Clamp band       |                      | ✓            | ✓            | ✓            | ✓            | ✓            | ✓            |
|   | I-SPEC B         |                      | -            | -            | -            | -            | -            | -            |
|   | I-SPEC II        |                      | -            | -            | -            | -            | -            | -            |
|   | I-SPEC EV        |                      | -            | -            | -            | -            | -            | -            |
| Shift lever position adjust                 |                  |                      | -            | -            | -            | -            | -            | -            |
| Shift lever rotation adjust (non I-SPEC EV) |                  |                      | -            | -            | -            | -            | -            | -            |
| Shift lever cable adjust                    |                  |                      | -            | -            | -            | -            | ✓            | -            |
| Front 2/3 mode converter                    |                  |                      | -            | -            | -            | -            | -            | -            |
| Max. multiple shifts (main lever/rear)      |                  |                      | -            | -            | 6            | 5            | -            | -            |
| Release function                            | MULTI RELEASE    |                      | -            | -            | -            | -            | -            | -            |
|   | INSTANT RELEASE  |                      | -            | -            | -            | -            | -            | -            |
|   | 2-WAY RELEASE    |                      | -            | -            | -            | -            | -            | -            |
|   | Adjustable lever |                      | -            | -            | -            | -            | -            | -            |
| OPTICAL GEAR DISPLAY                        | With             |                      | ✓            | ✓            | ✓            | ✓            | ✓            | -            |
|   | With (removable) |                      | -            | -            | -            | -            | -            | -            |
|   | Without          |                      | -            | -            | -            | -            | -            | -            |
| Multi-bearing construction                  |                  |                      | -            | -            | -            | -            | -            | -            |
| Shift lever bracket                         | Material         |                      | Resin        | Resin        | Resin        | Resin        | Resin        | Resin        |
|   | Finish           |                      | Resin        | Resin        | Resin        | Resin        | Resin        | Resin        |
| Clamp screw                                 | Material         |                      | Steel        | Steel        | Steel        | Steel        | Steel        | Steel        |
|   | Finish           |                      | -            | -            | -            | -            | -            | -            |
| Main lever body                             | Material         |                      | -            | -            | -            | -            | -            | -            |
|   | Finish           |                      | -            | -            | -            | -            | -            | -            |
| Release lever body                          | Material         |                      | -            | -            | -            | -            | -            | -            |
|   | Finish           |                      | -            | -            | -            | -            | -            | -            |
| Base cover                                  | Material         |                      | Resin        | Resin        | Resin        | Resin        | Resin        | Resin        |
|   | Finish           |                      | -            | -            | -            | -            | -            | -            |
| Shift lever cable                           | Inner cable      | Polymer-coated cable | -            | -            | -            | -            | -            | -            |
|   |                  | OPTISLICK            | -            | -            | -            | -            | -            | -            |
|   |                  | SIL-TEC              | -            | -            | -            | -            | -            | -            |
|   |                  | Stainless            | -            | -            | -            | -            | -            | -            |
|   |                  | Steel                | ✓            | ✓            | ✓            | ✓            | ✓            | ✓            |
| Recommended shift lever outer casing        |                  |                      | OT-SIS40     | OT-SIS40     | OT-SIS40     | OT-SIS40     | OT-SIS40     | OT-SIS40     |
| Average weight (g)                          |                  |                      | -            | -            | -            | -            | -            | -            |
| Note  |                  |                      |              |              |              |              |              |              |

# Shifter

LIFESTYLE  
Active

| Series                                      |                  |                      | TOURNEY TZ                | TOURNEY TZ                | TOURNEY TZ                | SHIMANO A050             | SHIMANO A050             | SHIMANO                                      |
|---|------------------|----------------------|---------------------------|---------------------------|---------------------------|--------------------------|--------------------------|--|
| Model no.                                   |                  |                      | SL-TZ500-7R               | SL-TZ500-6R               | SL-TZ500-LN               | SL-A050-7R               | SL-A050-LN               | SL-SY20A-7                                   |
| Color                                       | 1                |                      | Series color              | Series color              | Series color              | Series color             | Series color             | Series color                                 |
|   | 2                |                      | -                         | -                         | -                         | -                        | -                        | -  |
|   | 3                |                      | -                         | -                         | -                         | -                        | -                        | -  |
| Shifter type                                |                  |                      | Thumb Shifter             | Thumb Shifter             | Thumb Shifter             | Handle bar mount shifter | Handle bar mount shifter | Down tube mount shifter                      |
| Front speeds                                |                  |                      | -                         | -                         | 3 (friction)              | -                        | 2 (friction)             | 2 (friction)                                 |
| Rear speeds                                 |                  |                      | 7                         | 6                         | -                         | 7                        | -                        | 7  |
| Compatible rear derailleur type             |                  |                      | MTB 7-speed               | MTB 6-speed               | -                         | ROAD 7-speed             | -                        | ROAD 7-speed                                 |
| Mount type                                  | Clamp band       |                      | ✓                         | ✓                         | ✓                         | ✓                        | ✓                        | -  |
|   | I-SPEC B         |                      | -                         | -                         | -                         | -                        | -                        | -  |
|   | I-SPEC II        |                      | -                         | -                         | -                         | -                        | -                        | -  |
|   | I-SPEC EV        |                      | -                         | -                         | -                         | -                        | -                        | -  |
| Shift lever position adjust                 |                  |                      | -                         | -                         | -                         | -                        | -                        | -  |
| Shift lever rotation adjust (non I-SPEC EV) |                  |                      | -                         | -                         | -                         | -                        | -                        | -  |
| Shift lever cable adjust                    |                  |                      | -                         | -                         | -                         | -                        | -                        | -  |
| Front 2/3 mode converter                    |                  |                      | -                         | -                         | -                         | -                        | -                        | -  |
| Max. multiple shifts (main lever/rear)      |                  |                      | 6                         | 5                         | -                         | -                        | -                        | -  |
| Release function                            | MULTI RELEASE    |                      | -                         | -                         | -                         | -                        | -                        | -  |
|   | INSTANT RELEASE  |                      | -                         | -                         | -                         | -                        | -                        | -  |
|   | 2-WAY RELEASE    |                      | -                         | -                         | -                         | -                        | -                        | -  |
|   | Adjustable lever |                      | -                         | -                         | -                         | -                        | -                        | -  |
| OPTICAL GEAR DISPLAY                        | With             |                      | ✓ *                       | ✓ *                       | ✓ *                       | -                        | -                        | -  |
|   | With (removable) |                      | -                         | -                         | -                         | -                        | -                        | -  |
|   | Without          |                      | -                         | -                         | -                         | ✓                        | ✓                        | ✓  |
| Multi-bearing construction                  |                  |                      | -                         | -                         | -                         | -                        | -                        | -  |
| Shift lever bracket                         | Material         |                      | Steel                     | Steel                     | Steel                     | Steel                    | Steel                    | Steel  |
|   | Finish           |                      | Painted                   | Painted                   | Painted                   | Zinc plated              | Zinc plated              | Zinc plated                                  |
| Clamp screw                                 | Material         |                      | Steel                     | Steel                     | Steel                     | -                        | -                        | -  |
|   | Finish           |                      | Zinc plated               | Zinc plated               | Zinc plated               | -                        | -                        | -  |
| Main lever body                             | Material         |                      | Resin                     | Resin                     | Resin                     | Resin                    | Resin                    | Resin  |
|   | Finish           |                      | -                         | -                         | -                         | -                        | -                        | -  |
| Release lever body                          | Material         |                      | -                         | -                         | -                         | Resin                    | Resin                    | Resin  |
|   | Finish           |                      | -                         | -                         | -                         | -                        | -                        | -  |
| Base cover                                  | Material         |                      | Resin                     | Resin                     | Resin                     | -                        | -                        | -  |
|   | Finish           |                      | -                         | -                         | -                         | -                        | -                        | -  |
| Shift lever cable                           | Inner cable      | Polymer-coated cable | -                         | -                         | -                         | -                        | -                        | -  |
|   |                  | OPTISLIC K           | -                         | -                         | -                         | -                        | -                        | -  |
|   |                  | SIL-TEC              | -                         | -                         | -                         | -                        | -                        | -  |
|   |                  | Stainless            | -                         | -                         | -                         | -                        | -                        | -  |
|   |                  | Steel                | ✓                         | ✓                         | ✓                         | ✓                        | ✓                        | ✓  |
| Recommended shift lever outer casing        |                  |                      | OT-SIS40                  | OT-SIS40                  | OT-SIS40                  | OT-SIS40                 | OT-SIS40                 | OT-SIS40                                     |
| Average weight (g)                          |                  |                      | -                         | -                         | -                         | -                        | -                        | -  |
| Note  |                  |                      | * Gear Position Indicator | * Gear Position Indicator | * Gear Position Indicator |                          |                          | Stem and brazed on, band types are available |

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# Shifter

| Series                                      |                  | SHIMANO                                      |   |
|---|------------------|--|---|
| Model no.                                   |                  | SL-SY20A-6                                   |   |
| Color                                       | 1                | Series color                                 |   |
|   | 2                | -  |   |
|   | 3                | -  |   |
| Shifter type                                |                  | Down tube mount shifter                      |   |
| Front speeds                                |                  | 2 (friction)                                 |   |
| Rear speeds                                 |                  | 6  |   |
| Compatible rear derailleur type             |                  | ROAD 6-speed                                 |   |
| Mount type                                  | Clamp band       | -  |   |
|   | I-SPEC B         | -  |   |
|   | I-SPEC II        | -  |   |
|   | I-SPEC EV        | -  |   |
| Shift lever position adjust                 |                  | -  |   |
| Shift lever rotation adjust (non I-SPEC EV) |                  |  |   |
| Shift lever cable adjust                    |                  | -  |   |
| Front 2/3 mode converter                    |                  |  |   |
| Max. multiple shifts (main lever/rear)      |                  | -  |   |
| Release function                            | MULTI RELEASE    | -  |   |
|   | INSTANT RELEASE  | -  |   |
|   | 2-WAY RELEASE    | -  |   |
|   | Adjustable lever | -  |   |
| OPTICAL GEAR DISPLAY                        | With             | -  |   |
|   | With (removable) | -  |   |
|   | Without          | ✓  |   |
| Multi-bearing construction                  |                  | -  |   |
| Shift lever bracket                         | Material         | Steel  |   |
|   | Finish           | Zinc plated                                  |   |
| Clamp screw                                 | Material         | -  |   |
|   | Finish           | -  |   |
| Main lever body                             | Material         | Resin  |   |
|   | Finish           | -  |   |
| Release lever body                          | Material         | Resin  |   |
|   | Finish           | -  |   |
| Base cover                                  | Material         | -  |   |
|   | Finish           | -  |   |
| Shift lever cable                           | Inner cable      | Polymer-coated cable                         | - |
|   |                  | OPTISLICK                                    | - |
|   |                  | SIL-TEC                                      | - |
|   |                  | Stainless                                    | - |
|   |                  | Steel  | ✓ |
| Recommended shift lever outer casing        |                  | OT-SIS40                                     |   |
| Average weight (g)                          |                  | -  |   |
| Note  |                  | Stem and brazed on, band types are available |   |

# Brake Lever (Hydraulic Disc Brake, Flat Handlebar Type)

| Series                    |            | CUES                 | SHIMANO              |
|---------------------------|------------|----------------------|----------------------|
| Model no.                 |            | BL-U8000             | BL-UR405             |
| Brake type                |            | Hydraulic disc brake | Hydraulic disc brake |
| Lever size (finger)       |            | 3                    | 3                    |
| Color                     | 1          | Series color         | Black                |
|                           | 2          | -                    | -                    |
|                           | 3          | -                    | -                    |
| Brake hose (kit)          |            | SM-BH90              | SM-BH59-JK-SS        |
| Hose joint                |            | Straight             | Straight             |
| Brake hose color (kit)    | 1          | Black                | Black                |
|                           | 2          | -                    | -                    |
| J-Kit spec (for OEM)      |            | ✓                    | ✓                    |
| SERVO WAVE                |            | -                    | -                    |
| Reach adjust              | Toolless   | ✓                    | -                    |
|                           | Tool       | -                    | ✓                    |
| Free stroke adjust        |            | -                    | -                    |
| Compatible shifter mount  | Clamp band | ✓                    | ✓                    |
|                           | I-SPEC B   | -                    | -                    |
|                           | I-SPEC II  | ✓                    | -                    |
| Clamp band                | Open clamp | ✓                    | -                    |
| Recommended brake caliper |            | BR-U8000, BR-U8020   | BR-MT410             |
| Oil                       |            | SHIMANO mineral      | SHIMANO mineral      |
| Funnel bleeding           |            | ✓                    | ✓                    |
| Clamp screw               | Material   | Stainless steel      | Steel                |
|                           | Finish     | Painted              | Plated               |
| Brake lever               | Material   | Aluminum             | Steel                |
|                           | Finish     | Anodized             | Painted              |
| Master cylinder           | Material   | Aluminum             | Aluminum             |
|                           | Finish     | Painted              | Painted              |
| Average weight (g)        |            | 110                  | -                    |
| Note                      |            |                      | SHORT REACH          |

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## Brake Lever (Hydraulic Disc Brake, Drop Handlebar Type)

|                           |               |                       |
|---------------------------|---------------|-----------------------|
| Series                    |               | CUES                  |
| Model no.                 |               | BL-U6030-L            |
| Brake type                |               | Hydraulic disc brake  |
| Lever size (finger)       |               | -                     |
| Color                     | 1             | Series color          |
|                           | 2             | Polished silver (NEW) |
| Bracket cover color       | 1             | Standard              |
|                           | 2             | -                     |
| Brake hose (kit)          |               | SM-BH59-JK-SSR        |
| Hose joint                |               | Straight              |
| Brake hose color (kit)    | 1             | Black                 |
|                           | 2             | -                     |
| SERVO WAVE                |               | -                     |
| Reach adjust              | Toolless      | -                     |
|                           | Tool          | ✓                     |
| Free stroke adjust        |               | -                     |
| Clamp band                | I-SPEC        | -                     |
|                           | Open clamp    | -                     |
|                           | Diameter (mm) | 23.8-24.2             |
| Recommended brake caliper |               | BR-U6030, BR-RS405    |
| Oil                       |               | SHIMANO Mineral       |
| Funnel bleeding           |               | ✓                     |
| Clamp band                | Material      | Steel                 |
| Bracket                   | Material      | Engineering composite |
|                           | Finish        | -                     |
| Brake lever               | Material      | Aluminum              |
|                           | Finish        | Painted               |
| Master cylinder           | Material      | -                     |
|                           | Finish        | -                     |
| Average weight (g)        |               | -                     |
| Note                      |               |                       |

# Brake Lever (Drop Handlebar Type)

| Series                      |                              | CUES                  | SHIMANO ESSA |
|-----------------------------|------------------------------|-----------------------|--------------|
| Model no.                   |                              | BL-U3030-L            | BL-U2030-L   |
| Color                       | 1                            | Series color          | Series color |
|                             | 2                            | Polished silver (NEW) | -            |
|                             | 3                            | -                     | -            |
| Compatible brake type       | V-BRAKE                      | -                     | -            |
|                             | Mechanical disc brake (MTB)  | -                     | -            |
|                             | Mechanical disc brake (Road) | ✓                     | ✓            |
|                             | Caliper (NEW SUPER SLR)      | ✓                     | ✓            |
|                             | Caliper (SUPER SLR)          | -                     | -            |
|                             | Cantilever brake             | -                     | -            |
|                             | Roller brake                 | -                     | -            |
| Recommended POWER MODULATOR | V-BRAKE                      | -                     | -            |
|                             | Mechanical disc brake (MTB)  | -                     | -            |
| Clamp band                  | Open clamp band              | -                     | -            |
|                             | I-SPEC                       | -                     | -            |
|                             | Diameter (mm)                | 23.8-24.2             | 23.8-24.2    |
| Internal bumper stop        |                              | -                     | -            |
| Lever size (finger)         |                              | -                     | -            |
| Brake cable type            |                              | -                     | -            |
| Power adjuster              |                              | ✓                     | ✓            |
| SERVO WAVE                  |                              | -                     | -            |
| Reach adjust                |                              | ✓                     | ✓            |
| Cable adjust                |                              | -                     | -            |
| Cable adjust type           |                              | -                     | -            |
| Brake lever                 | Material                     | Aluminum              | Aluminum     |
|                             | Finish                       | Painted               | Painted      |
| Brake bracket               | Material                     | GFRP                  | GFRP         |
|                             | Finish                       | -                     | -            |
| Stainless clamp screw       |                              | -                     | -            |
| Average weight (g)          |                              | -                     | -            |
| Note                        |                              |                       |              |

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# Shift/Brake Lever (Hydraulic Disc Brake, Flat Handlebar type)

| Series                |  |                      | SHIMANO         | SHIMANO         | SHIMANO         | SHIMANO         | SHIMANO         | SHIMANO         |
|-----------------------|--|----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Model no.             |  |                      | ST-EF515-8R     | ST-EF515-7R     | ST-EF515-2L     | ST-EF515-L      | ST-EF505-9R     | ST-EF505-8R     |
| Color                 | 1                                      |                      | Black           | Black           | Black           | Black           | Black           | Black           |
|                       | 2                                      |                      | -               | -               | -               | -               | -               | -               |
| Shifter type          |  |                      | EZ FIRE PLUS    | EZ FIRE PLUS    | EZ FIRE PLUS    | EZ FIRE PLUS    | EZ FIRE PLUS    | EZ FIRE PLUS    |
| Shift lever           | Front speeds                           |                      | -               | -               | 2               | 3               | -               | -               |
|                       | Rear speeds                            |                      | 8               | 7               | -               | -               | 9               | 8               |
|                       | 2/3 mode converter                     |                      | -               | -               | -               | -               | -               | -               |
|                       | Max. multiple shifts (main lever/rear) |                      | 3               | 3               | -               | -               | 3               | 3               |
|                       | Compatible rear derailleur type        |                      | MTB 8-speed     | MTB 7-speed     | -               | -               | MTB 9-speed     | MTB 8-speed     |
|                       | I-SPEC compatible                      |                      | -               | -               | -               | -               | -               | -               |
|                       | Shift lever position adjust            |                      | -               | -               | -               | -               | -               | -               |
|                       | Release function                       | MULTI RELEASE        | -               | -               | -               | -               | -               | -               |
|                       |  | INSTANT RELEASE      | -               | -               | -               | -               | -               | -               |
|                       |  | 2-WAY RELEASE        | -               | -               | -               | -               | -               | -               |
|                       | Shift lever cable adjust               |                      | ✓               | ✓               | ✓               | ✓               | ✓               | ✓               |
|                       | OPTICAL GEAR DISPLAY                   | With                 | ✓               | ✓               | ✓               | ✓               | ✓               | ✓               |
|                       |  | With (removable)     | -               | -               | -               | -               | -               | -               |
|                       |  | Without              | -               | -               | -               | -               | -               | -               |
|                       | Multi-bearing construction             |                      | -               | -               | -               | -               | -               | -               |
| Shift lever cable     | Outer casing                           | Lever side           | OT-SP41         | OT-SP41         | OT-SP41         | OT-SP41         | OT-SP41         | OT-SP41         |
|                       | Inner cable                            | Polymer-coated cable | -               | -               | -               | -               | -               | -               |
|                       |  | OPTISLICK            | ✓               | ✓               | ✓               | ✓               | ✓               | ✓               |
|                       |  | SIL-TEC              | -               | -               | -               | -               | -               | -               |
|                       |  | Stainless            | -               | -               | -               | -               | -               | -               |
|                       |  | Steel                | ✓               | ✓               | ✓               | ✓               | ✓               | ✓               |
| Brake lever           | Lever size (finger)                    |                      | 3               | 3               | 3               | 3               | 3               | 3               |
|                       | Brake hose (kit)                       |                      | SM-BH59-JK-SS   | SM-BH59-JK-SS   | SM-BH59-JK-SS   | SM-BH59-JK-SS   | SM-BH59-JK-SS   | SM-BH59-JK-SS   |
|                       | Hose joint                             |                      | Straight        | Straight        | Straight        | Straight        | Straight        | Straight        |
|                       | Brake hose color (kit)                 | 1                    | Black           | Black           | Black           | Black           | Black           | Black           |
|                       |  | 2                    | -               | -               | -               | -               | -               | -               |
|                       | J-Kit spec (for OEM)                   |                      | ✓               | ✓               | ✓               | ✓               | ✓               | ✓               |
|                       | Recommended brake caliper              |                      | BR-MT200        | BR-MT200        | BR-MT200        | BR-MT200        | BR-MT200        | BR-MT200        |
|                       | Oil                                    |                      | SHIMANO Mineral | SHIMANO Mineral | SHIMANO Mineral | SHIMANO Mineral | SHIMANO Mineral | SHIMANO Mineral |
|                       | Reach adjust                           | Toolless             | -               | -               | -               | -               | -               | -               |
|                       |  | Tool                 | ✓               | ✓               | ✓               | ✓               | ✓               | ✓               |
|                       | Funnel bleeding                        |                      | ✓               | ✓               | ✓               | ✓               | ✓               | ✓               |
|                       | Free stroke adjust                     |                      | -               | -               | -               | -               | -               | -               |
|                       | SERVO WAVE                             |                      | -               | -               | -               | -               | -               | -               |
| Material              |  | Steel                | Steel           | Steel           | Steel           | Aluminum        | Aluminum        |                 |
| Finish                |  | Painted              | Painted         | Painted         | Painted         | Painted         | Painted         |                 |
| Clamp band            |  | Open clamp           | -               | -               | -               | -               | -               | -               |
| Shifter lever body    | Main                                   |                      | Steel & Resin   | Steel & Resin   | Steel & Resin   | Steel & Resin   | Steel & Resin   | Steel & Resin   |
|                       | Release                                |                      | Steel & Resin   | Steel & Resin   | Steel & Resin   | Steel & Resin   | Steel & Resin   | Steel & Resin   |
| Master cylinder       | Material                               |                      | Aluminum        | Aluminum        | Aluminum        | Aluminum        | Aluminum        | Aluminum        |
|                       | Finish                                 |                      | Painted         | Painted         | Painted         | Painted         | Painted         | Painted         |
| Bracket               | Bracket                                | Material             | Aluminum        | Aluminum        | Aluminum        | Aluminum        | Aluminum        | Aluminum        |
|                       |  | Finish               | Painted         | Painted         | Painted         | Painted         | Painted         | Painted         |
|                       | Clamp screw                            | Material             | Steel           | Steel           | Steel           | Steel           | Steel           | Steel           |
|                       |  | Finish               | Zinc plated     | Zinc plated     | Zinc plated     | Zinc plated     | Zinc plated     | Zinc plated     |
| Stainless clamp screw |  |                      | -               | -               | -               | -               | -               | -               |
| Average weight (g)    |  |                      | -               | -               | -               | -               | -               | -               |
| Note                  |  |                      |                 |                 |                 |                 |                 |                 |

# Shift/Brake Lever (Hydraulic Disc Brake, Flat Handlebar type)

| Series                |  |                      | SHIMANO         | SHIMANO         | SHIMANO         |
|-----------------------|--|----------------------|-----------------|-----------------|-----------------|
| Model no.             |  |                      | ST-EF505-7R     | ST-EF505-2L     | ST-EF505-L      |
| Color                 | 1                                      |                      | Black           | Black           | Black           |
|                       | 2                                      |                      | -               | -               | -               |
| Shifter type          |  |                      | EZ FIRE PLUS    | EZ FIRE PLUS    | EZ FIRE PLUS    |
| Shift lever           | Front speeds                           |                      | -               | 2               | 3               |
|                       | Rear speeds                            |                      | 7               | -               | -               |
|                       | 2/3 mode converter                     |                      | -               | -               | -               |
|                       | Max. multiple shifts (main lever/rear) |                      | 3               | -               | -               |
|                       | Compatible rear derailleur type        |                      | MTB 7-speed     | -               | -               |
|                       | I-SPEC compatible                      |                      | -               | -               | -               |
|                       | Shift lever position adjust            |                      | -               | -               | -               |
|                       | Release function                       | MULTI RELEASE        | -               | -               | -               |
|                       |  | INSTANT RELEASE      | -               | -               | -               |
|                       |  | 2-WAY RELEASE        | -               | -               | -               |
|                       | Shift lever cable adjust               |                      | ✓               | ✓               | ✓               |
|                       | OPTICAL GEAR DISPLAY                   | With                 | ✓               | ✓               | ✓               |
|                       |  | With (removable)     | -               | -               | -               |
|                       |  | Without              | -               | -               | -               |
|                       | Multi-bearing construction             |                      | -               | -               | -               |
| Shift lever cable     | Outer casing                           | Lever side           | OT-SP41         | OT-SP41         | OT-SP41         |
|                       | Inner cable                            | Polymer-coated cable | -               | -               | -               |
|                       |  | OPTISLICK            | ✓               | ✓               | ✓               |
|                       |  | SIL-TEC              | -               | -               | -               |
|                       |  | Stainless            | -               | -               | -               |
| Brake lever           | Steel                                  | ✓                    | ✓               | ✓               |                 |
|                       |  | ✓                    | ✓               | ✓               |                 |
|                       |  | ✓                    | ✓               | ✓               |                 |
|                       |  | ✓                    | ✓               | ✓               |                 |
|                       |  | ✓                    | ✓               | ✓               |                 |
|                       | Lever size (finger)                    |                      | 3               | 3               | 3               |
|                       | Brake hose (kit)                       |                      | SM-BH59-JK-SS   | SM-BH59-JK-SS   | SM-BH59-JK-SS   |
|                       | Hose joint                             |                      | Straight        | Straight        | Straight        |
|                       | Brake hose color (kit)                 | 1                    | Black           | Black           | Black           |
|                       |  | 2                    | -               | -               | -               |
|                       | J-Kit spec (for OEM)                   |                      | ✓               | ✓               | ✓               |
|                       | Recommended brake caliper              |                      | BR-MT200        | BR-MT200        | BR-MT200        |
|                       | Oil                                    |                      | SHIMANO Mineral | SHIMANO Mineral | SHIMANO Mineral |
|                       | Reach adjust                           | Toolless             | -               | -               | -               |
|                       |  | Tool                 | ✓               | ✓               | ✓               |
| Funnel bleeding       |  | ✓                    | ✓               | ✓               |                 |
| Free stroke adjust    |  | -                    | -               | -               |                 |
| SERVO WAVE            |  | -                    | -               | -               |                 |
| Material              |  | Aluminum             | Aluminum        | Aluminum        |                 |
| Finish                |  | Painted              | Painted         | Painted         |                 |
| Clamp band            | Open clamp                             |                      | -               | -               | -               |
| Shifter lever body    | Main                                   |                      | Steel & Resin   | Steel & Resin   | Steel & Resin   |
|                       | Release                                |                      | Steel & Resin   | Steel & Resin   | Steel & Resin   |
| Master cylinder       | Material                               |                      | Aluminum        | Aluminum        | Aluminum        |
|                       | Finish                                 |                      | Painted         | Painted         | Painted         |
| Bracket               | Bracket                                | Material             | Aluminum        | Aluminum        | Aluminum        |
|                       |  | Finish               | Painted         | Painted         | Painted         |
|                       | Clamp screw                            | Material             | Steel           | Steel           | Steel           |
|                       |  | Finish               | Zinc plated     | Zinc plated     | Zinc plated     |
| Stainless clamp screw |  |                      | -               | -               | -               |
| Average weight (g)    |  |                      | -               | -               | -               |
| Note                  |  |                      |                 |                 |                 |

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# Shift/Brake Lever (Flat Handlebar type)

| Series             |  |                              | SHIMANO  | SHIMANO        | SHIMANO       | SHIMANO        | TOURNEY TX   | TOURNEY TX   |        |
|--------------------|--|------------------------------|--|----------------|---------------|----------------|--------------|--------------|--------|
| Model no.          |  |                              | ST-M310-8R2                                    | ST-M310-L2     | ST-EF500-8R2A | ST-EF500-8R4A  | ST-TX800-8R  | ST-TX800-L   |        |
| Color              | 1                                      |                              | Black  | Black          | Black         | Black          | Black        | Black        |        |
|                    | 2                                      |                              | Silver   | Silver         | -             | -              | Silver       | Silver       |        |
| Shifter type       |  |                              | RAPIDFIRE PLUS                                 | RAPIDFIRE PLUS | EZ FIRE PLUS  | EZ FIRE PLUS   | EZ FIRE PLUS | EZ FIRE PLUS |        |
| Shift lever        | Front speeds                           |                              | -  | 3              | -             | -              | -            | 3            |        |
|                    | Rear speeds                            |                              | 8  | -              | 8             | 8              | 8            | -            |        |
|                    | Compatible rear derailleur type        |                              | MTB 8-speed                                    | -              | MTB 8-speed   | MTB 8-speed    | MTB 8-speed  | -            |        |
|                    | Shift lever position adjust            |                              | -  | -              | -             | -              | -            | -            |        |
|                    | Shift lever cable adjust               |                              | ✓  | ✓              | -             | -              | -            | ✓            |        |
|                    | 2/3 mode converter                     |                              | -  | -              | -             | -              | -            | -            |        |
|                    | Max. multiple shifts (main lever/rear) |                              | 3  | -              | 3             | 3              | 3            | -            |        |
|                    | Release function                       | MULTI RELEASE                | -  | -              | -             | -              | -            | -            |        |
|                    |  | INSTANT RELEASE              | -  | -              | -             | -              | -            | -            |        |
|                    |  | 2-WAY RELEASE                | -  | -              | -             | -              | -            | -            |        |
|                    | OPTICAL GEAR DISPLAY                   | With                         | ✓  | ✓              | ✓             | ✓              | ✓            | ✓            |        |
|                    |  | With (removable)             | -  | -              | -             | -              | -            | -            |        |
|                    |  | Without                      | -  | -              | -             | -              | -            | -            |        |
|                    | Multi-Bearing construction             |                              | -  | -              | -             | -              | -            | -            |        |
|                    | Main lever body                        | Material                     | Steel+Resin                                    | Steel+Resin    | Steel+Resin   | Steel+Resin    | Resin        | Resin        |        |
|                    |  | Finish                       | -  | -              | -             | -              | -            | -            |        |
|                    | Release lever body                     | Material                     | Steel+Resin                                    | Steel+Resin    | Steel+Resin   | Steel+Resin    | Resin        | Resin        |        |
|                    |  | Finish                       | -  | -              | -             | -              | -            | -            |        |
| Shift lever cable  | Outer casing                           |                              | OT-SP41  | OT-SP41        | OT-SP41       | OT-SP41        | OT-SIS40     | OT-SIS40     |        |
|                    | Inner cable                            | Polymer-coated cable         | -  | -              | -             | -              | -            | -            |        |
|                    |  | OPTISLICK                    | -  | -              | -             | -              | -            | -            |        |
|                    |  | SIL-TEC                      | -  | -              | -             | -              | -            | -            |        |
|                    |  | Stainless                    | -  | -              | -             | -              | -            | -            |        |
| Brake lever        | Compatible brake type                  | Steel                        | ✓  | ✓              | ✓             | ✓              | ✓            | ✓            |        |
|                    |  | V-BRAKE                      | ✓  | ✓              | ✓             | ✓ with switch* | ✓            | ✓            |        |
|                    |  | Mechanical disc brake (MTB)  | ✓  | ✓              | ✓             | ✓ with switch* | ✓            | ✓            |        |
|                    |  | Mechanical disc brake (Road) | -  | -              | -             | -              | -            | -            |        |
|                    |  | Caliper (SLR-EV)             | -  | -              | -             | -              | -            | -            |        |
|                    |  | Caliper (NEW SUPER SLR)      | -  | -              | -             | -              | -            | -            |        |
|                    |  | Caliper (SUPER SLR)          | -  | -              | -             | ✓ with switch  | -            | -            |        |
|                    |  | Cantilever brake             | -  | -              | -             | ✓ with switch  | -            | -            |        |
|                    | Recommended POWER MODULATOR            | Roller brake                 | -  | -              | -             | ✓ with switch  | -            | -            |        |
|                    |  | V-BRAKE                      | -  | -              | -             | SM-PM40        | -            | -            |        |
|                    |  | Mechanical disc brake (MTB)  | -  | -              | -             | SM-PM50        | -            | -            |        |
|                    |  | Clamp band                   | Open clamp band                                | -              | -             | -              | -            | -            |        |
|                    |  | Internal bumper stop         |  | -              | -             | -              | -            | -            |        |
|                    |  | Lever size (finger)          |  | 2              | 2             | 2              | 4            | 2            | 2      |
|                    |  | Brake cable type             |  | T-type         | T-type        | T-type         | T-type       | T-type       | T-type |
|                    |  | Power adjuster               |  | -              | -             | -              | -            | -            | -      |
|                    | SERVO WAVE                             |                              | -  | -              | -             | -              | -            | -            |        |
|                    | Reach adjust                           |                              | ✓  | ✓              | ✓             | ✓              | ✓            | ✓            |        |
| Cable adjust       |  | ✓                            | ✓  | ✓              | ✓             | ✓              | ✓            |              |        |
| Cable adjust type  |  | Two hand                     | Two hand                                       | Two hand       | Two hand      | Two hand       | Two hand     |              |        |
| Bracket            | Brake lever                            | Material                     | Aluminum                                       | Aluminum       | Aluminum      | Aluminum       | Steel/Resin  | Steel/Resin  |        |
|                    |  | Finish                       | Anodized                                       | Anodized       | Painted       | Painted        | -            | -            |        |
| Bracket            | Clamp screw                            | Material                     | Aluminum                                       | Aluminum       | Aluminum      | Aluminum       | Steel        | Steel        |        |
|                    |  | Finish                       | Painted  | Painted        | Painted       | Painted        | Painted      | Painted      |        |
|                    |  | Material                     | Steel  | Steel          | Steel         | Steel          | Steel        |              |        |
|                    |  | Finish                       | Zinc plated                                    | Zinc plated    | Plated        | Plated         | Zinc plated  | Zinc plated  |        |
| Average weight (g) |  |                              | -  | -              | -             | -              | -            | -            |        |
| Note               |  |                              | * POWER MODULATOR must be used for front brake |                |               |                |              | -            |        |

# Shift/Brake Lever (Flat Handlebar type)

| Series             |  |                              | SHIMANO       | SHIMANO  | SHIMANO      | SHIMANO  | SHIMANO       | SHIMANO  |
|--------------------|--|------------------------------|---------------|--|--------------|--|---------------|--|
| Model no.          |  |                              | ST-EF500-7R2A | ST-EF500-7R4A                                  | ST-EF500-L2A | ST-EF500-L4A                                   | ST-EF500-2L2A | ST-EF500-2L4A                                  |
| Color              | 1                                      |                              | Black         | Black  | Black        | Black  | Black         | Black  |
|                    | 2                                      |                              | -             | -  | -            | -  | -             | -  |
| Shifter type       |  |                              | EZ FIRE PLUS  | EZ FIRE PLUS                                   | EZ FIRE PLUS | EZ FIRE PLUS                                   | EZ FIRE PLUS  | EZ FIRE PLUS                                   |
| Shift lever        | Front speeds                           |                              | -             | -  | 3            | 3  | 2             | 2  |
|                    | Rear speeds                            |                              | 7             | 7  | -            | -  | -             | -  |
|                    | Compatible rear derailleur type        |                              | MTB 7-speed   | MTB 7-speed                                    | -            | -  | -             | -  |
|                    | Shift lever position adjust            |                              | -             | -  | -            | -  | -             | -  |
|                    | Shift lever cable adjust               |                              | -             | -  | ✓            | ✓  | ✓             | ✓  |
|                    | 2/3 mode converter                     |                              | -             | -  | -            | -  | -             | -  |
|                    | Max. multiple shifts (main lever/rear) |                              | 3             | 3  | -            | -  | -             | -  |
|                    | Release function                       | MULTI RELEASE                | -             | -  | -            | -  | -             | -  |
|                    |  | INSTANT RELEASE              | -             | -  | -            | -  | -             | -  |
|                    |  | 2-WAY RELEASE                | -             | -  | -            | -  | -             | -  |
|                    | OPTICAL GEAR DISPLAY                   | With                         | ✓             | ✓  | ✓            | ✓  | ✓             | ✓  |
|                    |  | With (removable)             | -             | -  | -            | -  | -             | -  |
|                    |  | Without                      | -             | -  | -            | -  | -             | -  |
|                    | Multi-Bearing construction             |                              | -             | -  | -            | -  | -             | -  |
|                    | Main lever body                        | Material                     | Steel+Resin   | Steel+Resin                                    | Steel+Resin  | Steel+Resin                                    | Steel+Resin   | Steel+Resin                                    |
|                    |  | Finish                       | -             | -  | -            | -  | -             | -  |
|                    | Release lever body                     | Material                     | Steel+Resin   | Steel+Resin                                    | Steel+Resin  | Steel+Resin                                    | Steel+Resin   | Steel+Resin                                    |
|                    |  | Finish                       | -             | -  | -            | -  | -             | -  |
| Shift lever cable  | Outer casing                           |                              | OT-SP41       | OT-SP41  | OT-SP41      | OT-SP41  | OT-SP41       | OT-SP41  |
|                    | Inner cable                            | Polymer-coated cable         | -             | -  | -            | -  | -             | -  |
|                    |  | OPTISLICK                    | -             | -  | -            | -  | -             | -  |
|                    |  | SIL-TEC                      | -             | -  | -            | -  | -             | -  |
|                    |  | Stainless                    | -             | -  | -            | -  | -             | -  |
|                    |  | Steel                        | ✓             | ✓  | ✓            | ✓  | ✓             | ✓  |
| Brake lever        | Compatible brake type                  | V-BRAKE                      | ✓             | ✓ with switch*                                 | ✓            | ✓ with switch*                                 | ✓             | ✓ with switch*                                 |
|                    |  | Mechanical disc brake (MTB)  | ✓             | ✓ with switch*                                 | ✓            | ✓ with switch*                                 | ✓             | ✓ with switch*                                 |
|                    |  | Mechanical disc brake (Road) | -             | -  | -            | -  | -             | -  |
|                    |  | Caliper (SLR-EV)             | -             | -  | -            | -  | -             | -  |
|                    |  | Caliper (NEW SUPER SLR)      | -             | -  | -            | -  | -             | -  |
|                    |  | Caliper (SUPER SLR)          | -             | ✓ with switch                                  | -            | ✓ with switch                                  | -             | ✓ with switch                                  |
|                    |  | Canilever brake              | -             | ✓ with switch                                  | -            | ✓ with switch                                  | -             | ✓ with switch                                  |
|                    |  | Roller brake                 | -             | ✓ with switch                                  | -            | ✓ with switch                                  | -             | ✓ with switch                                  |
|                    | Recommended POWER MODULATOR            | V-BRAKE                      | -             | SM-PM40  | -            | SM-PM40  | -             | SM-PM40  |
|                    |  | Mechanical disc brake (MTB)  | -             | SM-PM50  | -            | SM-PM50  | -             | SM-PM50  |
|                    | Clamp band                             | Open clamp band              | -             | -  | -            | -  | -             | -  |
|                    | Internal bumper stop                   |                              | -             | -  | -            | -  | -             | -  |
|                    | Lever size (finger)                    |                              | 2             | 4  | 2            | 4  | 2             | 4  |
|                    | Brake cable type                       |                              | T-type        | T-type   | T-type       | T-type   | T-type        | T-type   |
|                    | Power adjuster                         |                              | -             | -  | -            | -  | -             | -  |
|                    | SERVO WAVE                             |                              | -             | -  | -            | -  | -             | -  |
|                    | Reach adjust                           |                              | ✓             | ✓  | ✓            | ✓  | ✓             | ✓  |
|                    | Cable adjust                           |                              | ✓             | ✓  | ✓            | ✓  | ✓             | ✓  |
| Cable adjust type  |  | Two hand                     | Two hand      | Two hand                                       | Two hand     | Two hand                                       | Two hand      |  |
| Bracket            | Brake lever                            | Material                     | Aluminum      | Aluminum                                       | Aluminum     | Aluminum                                       | Aluminum      | Aluminum                                       |
|                    |  | Finish                       | Painted       | Painted  | Painted      | Painted  | Painted       | Painted  |
|                    | Clamp screw                            | Material                     | Aluminum      | Aluminum                                       | Aluminum     | Aluminum                                       | Aluminum      | Aluminum                                       |
|                    |  | Finish                       | Painted       | Painted  | Painted      | Painted  | Painted       | Painted  |
| Average weight (g) |  |                              | -             | -  | -            | -  | -             | -  |
| Note               |  |                              | -             | * POWER MODULATOR must be used for front brake | -            | * POWER MODULATOR must be used for front brake | -             | * POWER MODULATOR must be used for front brake |

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## Shift/Brake Lever (Flat Handlebar type)

| Series             |  |                              | SHIMANO      | SHIMANO      | SHIMANO      |
|--------------------|--|------------------------------|--------------|--------------|--------------|
| Model no.          |  |                              | ST-EF41-7R   | ST-EF41-6R   | ST-EF41-L    |
| Color              | 1                                      |                              | Black        | Black        | Black        |
|                    | 2                                      |                              | -            | -            | -            |
| Shifter type       |  |                              | EZ FIRE PLUS | EZ FIRE PLUS | EZ FIRE PLUS |
| Shift lever        | Front speeds                           |                              | -            | -            | 3            |
|                    | Rear speeds                            |                              | 7            | 6            | -            |
|                    | Compatible rear derailleur type        |                              | MTB 7-speed  | MTB 6-speed  | -            |
|                    | Shift lever position adjust            |                              | -            | -            | -            |
|                    | Shift lever cable adjust               |                              | -            | -            | ✓            |
|                    | 2/3 mode converter                     |                              | -            | -            | -            |
|                    | Max. multiple shifts (main lever/rear) |                              | 3            | 3            | -            |
|                    | Release function                       | MULTI RELEASE                | -            | -            | -            |
|                    |  | INSTANT RELEASE              | -            | -            | -            |
|                    |  | 2-WAY RELEASE                | -            | -            | -            |
|                    | OPTICAL GEAR DISPLAY                   | With                         | ✓            | ✓            | ✓            |
|                    |  | With (removable)             | -            | -            | -            |
|                    |  | Without                      | -            | -            | -            |
|                    | Multi-Bearing construction             |                              | -            | -            | -            |
|                    | Main lever body                        | Material                     | Resin        | Resin        | Resin        |
|                    |  | Finish                       | -            | -            | -            |
|                    | Release lever body                     | Material                     | Resin        | Resin        | Resin        |
|                    |  | Finish                       | -            | -            | -            |
| Shift lever cable  | Outer casing                           |                              | OT-SIS40     | OT-SIS40     | OT-SIS40     |
|                    | Inner cable                            | Polymer-coated cable         | -            | -            | -            |
|                    |  | OPTISLICK                    | -            | -            | -            |
|                    |  | SIL-TEC                      | -            | -            | -            |
|                    |  | Stainless                    | -            | -            | -            |
| Brake lever        | Compatible brake type                  | Steel                        | ✓            | ✓            | ✓            |
|                    |  | V-BRAKE                      | ✓            | ✓            | ✓            |
|                    |  | Mechanical disc brake (MTB)  | ✓            | ✓            | ✓            |
|                    |  | Mechanical disc brake (Road) | -            | -            | -            |
|                    |  | Caliper (SLR-EV)             | -            | -            | -            |
|                    |  | Caliper (NEW SUPER SLR)      | -            | -            | -            |
|                    |  | Caliper (SUPER SLR)          | -            | -            | -            |
|                    |  | Cantilever brake             | -            | -            | -            |
|                    | Recommended POWER MODULATOR            | V-BRAKE                      | -            | -            | -            |
|                    |  | Mechanical disc brake (MTB)  | -            | -            | -            |
|                    | Clamp band                             | Open clamp band              | -            | -            | -            |
|                    | Internal bumper stop                   |                              | -            | -            | -            |
|                    | Lever size (finger)                    |                              | 2            | 2            | 2            |
|                    | Brake cable type                       |                              | T-type       | T-type       | T-type       |
|                    | Power adjuster                         |                              | -            | -            | -            |
|                    | SERVO WAVE                             |                              | -            | -            | -            |
|                    | Reach adjust                           |                              | ✓            | ✓            | ✓            |
|                    | Cable adjust                           |                              | ✓            | ✓            | ✓            |
|                    | Cable adjust type                      |                              | Two hand     | Two hand     | Two hand     |
|                    | Bracket                                | Bracket                      | Material     | Steel        | Steel        |
| Finish             |  |                              | Painted      | Painted      | Painted      |
| Clamp screw        |  | Material                     | Steel        | Steel        | Steel        |
|                    |  | Finish                       | Zinc plated  | Zinc plated  | Zinc plated  |
| Average weight (g) |  |                              | -            | -            | -            |
| Note               |  |                              |              |              |              |

# Shift/Brake Lever (Hydraulic Disc Brake, Drop Handlebar type)

| Series             |  |                      | CUES   | CUES                  |
|--------------------|--|----------------------|--|-----------------------|
| Model no.          |  |                      | ST-U6030-R                                   | ST-U6030-L            |
| Color              | 1                                      |                      | Series color                                 | Series color          |
|                    | 2                                      |                      | Polished silver (NEW)                        | -                     |
| Shifter type       |  |                      | DUAL CONTROL LEVER                           | DUAL CONTROL LEVER    |
| Shift lever        | Front speeds                           |                      | -  | 2                     |
|                    | Rear speeds                            |                      | 11/10  | -                     |
|                    | Max. multiple shifts (main lever/rear) |                      | 2  | -                     |
|                    | Multi-bearing construction             |                      | -  | -                     |
| Brake lever        | Brake hose (kit)                       |                      | SM-BH59-JK-SSR                               | SM-BH59-JK-SSR        |
|                    | Hose joint                             |                      | Straight                                     | Straight              |
|                    | Brake hose color (kit)                 | 1                    | Black  | Black                 |
|                    |  | 2                    | -  | -                     |
|                    | Recommended brake caliper              |                      | BR-U6030, BR-RS405                           | BR-U6030, BR-RS405    |
|                    | Oil                                    |                      | SHIMANO Mineral                              | SHIMANO Mineral       |
|                    | Reach adjust                           |                      | ✓  | ✓                     |
|                    | Clamp band (mm)                        |                      | 23.8-24.2                                    | 23.8-24.2             |
|                    | Funnel bleeding                        |                      | ✓  | ✓                     |
|                    | Free stroke adjust                     |                      | -  | -                     |
| SERVO WAVE         |  | -                    | -  |                       |
| Bracket            | Material                               |                      | Engineering composite                        | Engineering composite |
|                    | Finish                                 |                      | -  | -                     |
| Brake lever        | Material                               |                      | Aluminum                                     | Aluminum              |
|                    | Finish                                 |                      | Painted                                      | Painted               |
| Clamp band         | Material                               |                      | Steel  | Steel                 |
| Shift lever cable  | Outer casing                           | Lever side           | OT-SP41                                      | OT-SP41               |
|                    |  | Rear derailleur side | -  | -                     |
|                    | Inner cable                            | Polymer-coated cable | -  | -                     |
|                    |  | OPTISLICK            | ✓  | ✓                     |
|                    |  | SIL-TEC              | -  | -                     |
|                    |  | Stainless            | -  | -                     |
|                    |  | Steel                | ✓  | ✓                     |
| Average weight (g) |  |                      | -  | -                     |
| Note               |  |                      | Compatible with LINKGLIDE system 11/10-speed |                       |

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## Shift/Brake Lever (Drop Handlebar type)

| Series             |                            |                      | CUES               | CUES                  | CUES               | SHIMANO ESSA       | TOURNEY            | TOURNEY            |
|--------------------|----------------------------|----------------------|--------------------|-----------------------|--------------------|--------------------|--------------------|--------------------|
| Model no.          |                            |                      | ST-U3030-L         | ST-U3030-10R          | ST-U3030-9R        | ST-U2030-R         | ST-A070            | ST-A073-L          |
| Color              | 1                          |                      | Series color       | Series color          | Series color       | Series color       | Series color       | Series color       |
|                    | 2                          |                      | -                  | Polished silver (NEW) | -                  | -                  | -                  | -                  |
| Shifter type       |                            |                      | DUAL CONTROL LEVER | DUAL CONTROL LEVER    | DUAL CONTROL LEVER | DUAL CONTROL LEVER | DUAL CONTROL LEVER | DUAL CONTROL LEVER |
| Shift lever        | Front speeds               |                      | 2                  | -                     | -                  | -                  | 2                  | 3                  |
|                    | Rear speeds                |                      | -                  | 10                    | 9                  | 8                  | 7                  | -                  |
|                    | Multi-bearing construction |                      | 0                  | 0                     | 0                  | 0                  | -                  | -                  |
| Shift lever cable  | Outer casing               | Lever side           | OT-SP41            | OT-SP41               | OT-SP41            | OT-SP41            | OT-SIS40           | OT-SIS40           |
|                    |                            | Rear derailleur side | OT-SP41 sealed     | OT-SP41 sealed        | OT-SP41 sealed     | OT-SP41 sealed     | OT-SIS40           | OT-SIS40           |
|                    | Inner cable                | Polymer-coated cable | -                  | -                     | -                  | -                  | -                  | -                  |
|                    |                            | OPTISLICK            | ✓                  | ✓                     | ✓                  | ✓                  | -                  | -                  |
|                    |                            | SIL-TEC              | -                  | -                     | -                  | -                  | -                  | -                  |
|                    |                            | Stainless            | -                  | -                     | -                  | -                  | ✓ *                | ✓ *                |
|                    |                            | Steel                | ✓                  | ✓                     | ✓                  | ✓                  | -                  | -                  |
| Brake lever        | Reach adjust               |                      | Screw              | Screw                 | Screw              | Screw              | Screw              | Screw              |
|                    | Clamp band (mm)            |                      | 23.8-24.2          | 23.8-24.2             | 23.8-24.2          | 23.8-24.2          | 23.8-24.2          | 23.8-24.2          |
|                    | SLR-EV                     |                      | -                  | -                     | -                  | -                  | -                  | -                  |
|                    | NEW SUPER SLR              |                      | ✓                  | ✓                     | ✓                  | ✓                  | -                  | -                  |
|                    | SUPER SLR                  |                      | -                  | -                     | -                  | -                  | ✓                  | ✓                  |
|                    | Material                   |                      | Aluminum           | Aluminum              | Aluminum           | Aluminum           | Aluminum           | Aluminum           |
|                    | Finish                     |                      | Painted            | Painted               | Painted            | Painted            | Painted            | Painted            |
| Bracket            | Material                   |                      | GFRP               | GFRP                  | GFRP               | GFRP               | GFRP               | GFRP               |
|                    | Finish                     |                      | -                  | -                     | -                  | -                  | -                  | -                  |
| Average weight (g) |                            |                      | -                  | -                     | -                  | -                  | -                  | -                  |
| Note               |                            |                      |                    |                       |                    |                    | * Option           | * Option           |

# Rear Derailleur

| Series                       |                          |                                  | CUES                   | CUES                   | CUES                   | CUES                   | CUES                   | CUES                   |
|------------------------------|--------------------------|----------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Model no.                    |                          |                                  | RD-U8000               | RD-U8020               | RD-U6000               | RD-U6020-11            | RD-U6020-10            | RD-U4000               |
| Color                        | 1                        |                                  | Series color           | Series color           | Series color           | Series color           | Series color           | Series color           |
|                              | 2                        |                                  | -                      | -                      | Polished silver (NEW)  | -                      | -                      | -                      |
| Rear speeds                  |                          |                                  | 11                     | 11                     | 11/10                  | 11                     | 10                     | 9                      |
| Compatible chain             |                          |                                  | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed |
| RD construction              | SHIMANO SHADOW RD        |                                  | -                      | -                      | -                      | ✓                      | ✓                      | ✓                      |
|                              | SHIMANO SHADOW RD+       |                                  | ✓                      | ✓                      | ✓                      | -                      | -                      | -                      |
|                              | Double servo             |                                  | -                      | -                      | -                      | -                      | -                      | -                      |
| Applicable derailleur hanger | SHIMANO MTB type         | Direct attachment (conventional) | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
|                              |                          | Direct mount                     | -                      | -                      | -                      | -                      | -                      | -                      |
|                              | SHIMANO ROAD type        | Direct attachment (conventional) | -                      | -                      | -                      | -                      | -                      | -                      |
|                              |                          | Direct mount                     | -                      | -                      | -                      | -                      | -                      | -                      |
|                              | UDH standard             |                                  | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
|                              | Riveted adapter          | ROAD type                        | -                      | -                      | -                      | -                      | -                      | -                      |
|                              |                          | BMX-track type                   | -                      | -                      | -                      | -                      | -                      | -                      |
|                              | Mode converter           |                                  |                        | -                      | -                      | -                      | -                      | -                      |
| Cable adjuster               |                          |                                  | ✓                      | ✓ / -                  | ✓                      | ✓ / -                  | ✓ / -                  | ✓                      |
| Max. front difference        |                          |                                  | 0T                     | 14T                    | 0T                     | 14T                    | 16T                    | 0T                     |
| Total capacity               |                          |                                  | 39T                    | 48T                    | 39T                    | 48T                    | 44T                    | 35T                    |
| Low sprocket                 | Max.                     |                                  | 50T                    | 45T                    | 50T                    | 45T                    | 39T                    | 46T                    |
|                              | Min.                     |                                  | 50T                    | 45T                    | 48T                    | 45T                    | 39T                    | 41T                    |
| Top sprocket                 | Max.                     |                                  | 11T                    | 11T                    | 11T                    | 11T                    | 11T                    | 11T                    |
|                              | Min.                     |                                  | 11T                    | 11T                    | 11T                    | 11T                    | 11T                    | 11T                    |
| Fluoric coated link bushings |                          |                                  | 4                      | 4                      | 3                      | 3                      | 3                      | 1                      |
| Pulley                       | Guide pulley bearing     |                                  | Sealed bearing         | Sealed bearing         | -                      | -                      | -                      | -                      |
|                              | Tension pulley bearing   |                                  | Sealed bearing         | -                      | -                      | -                      | -                      | -                      |
|                              | Teeth                    |                                  | 13/13T                 | 11/13T                 | 13/13T                 | 11/13T                 | 11/13T                 | 13/13T                 |
|                              | Screws material          |                                  | Steel                  | Steel                  | Steel                  | Steel                  | Steel                  | Steel                  |
|                              | Sunken type pulley screw |                                  | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
| Bracket                      | Material                 |                                  | -                      | -                      | -                      | -                      | -                      | -                      |
|                              | Finish                   |                                  | -                      | -                      | -                      | -                      | -                      | -                      |
| B-axle                       | Hollow axle              |                                  | -                      | -                      | -                      | -                      | -                      | -                      |
|                              | Material                 |                                  | Aluminum               | Aluminum               | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        |
| B-axle 2                     | Finish                   |                                  | Black                  | Black                  | -                      | -                      | -                      | -                      |
|                              | Hollow axle              |                                  | -                      | -                      | -                      | -                      | -                      | -                      |
|                              | Material                 |                                  | -                      | -                      | -                      | -                      | -                      | -                      |
| Bracket body                 | Finish                   |                                  | -                      | -                      | -                      | -                      | -                      | -                      |
|                              | Material                 |                                  | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               |
|                              | Finish                   |                                  | Painted                | Painted                | Painted                | Painted                | Painted                | Painted                |
| P-axle                       | Material                 |                                  | Steel                  | Steel                  | Steel                  | Steel                  | Steel                  | Steel                  |
|                              | Finish                   |                                  | -                      | -                      | -                      | -                      | -                      | -                      |
| Plate body                   | Material                 |                                  | PA+GF                  | PA+GF                  | PA+GF                  | PA+GF                  | PA+GF                  | PA+GF                  |
|                              | Finish                   |                                  | -                      | -                      | -                      | -                      | -                      | -                      |
| Outer link                   | Material                 |                                  | Aluminum               | Aluminum               | Aluminum               | PA+GF                  | PA+GF                  | PA+GF                  |
|                              | Finish                   |                                  | Painted                | Painted                | Painted                | Painted                | Painted                | -                      |
| Inner link                   | Material                 |                                  | Aluminum               | Aluminum               | Aluminum               | PA+GF                  | PA+GF                  | Aluminum               |
|                              | Finish                   |                                  | Painted                | Painted                | Painted                | -                      | -                      | Painted                |
| Outer plate                  | Material                 |                                  | Aluminum               | Aluminum               | Steel                  | Steel                  | Steel                  | Steel                  |
|                              | Finish                   |                                  | Painted                | Painted                | Painted                | Painted                | Painted                | Painted                |
| Inner plate                  | Material                 |                                  | Aluminum               | Aluminum               | Steel                  | Steel                  | Steel                  | Steel                  |
|                              | Finish                   |                                  | Painted                | Painted                | Painted                | Painted                | Painted                | Painted                |
| Cable fixing screw           | Material                 |                                  | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        |
|                              | Finish                   |                                  | Black                  | Black                  | -                      | -                      | -                      | -                      |
| Stroke adjusting screw       | Material                 |                                  | Steel                  | Steel                  | Steel                  | Steel                  | Steel                  | Steel                  |
|                              | Finish                   |                                  | Plated                 | Plated                 | Plated                 | Plated                 | Plated                 | Plated                 |
| Average weight (g)           |                          |                                  | -                      | -                      | -                      | -                      | -                      | -                      |
| Note                         |                          |                                  | E-bike rated           | E-bike rated           | E-bike rated           | E-bike rated           | E-bike rated           | E-bike rated           |

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# Rear Derailleur

| Series                       |                          |                                  | CUES                   | CUES                   | CUES                   | SHIMANO ALIVIO  | SHIMANO ALTUS   | SHIMANO ALTUS                        |
|------------------------------|--------------------------|----------------------------------|------------------------|------------------------|------------------------|-----------------|-----------------|--------------------------------------|
| Model no.                    |                          |                                  | RD-U4010               | RD-U4020               | RD-U3020               | RD-M3100-SGS    | RD-M2000        | RD-M370-SGS                          |
| Color                        | 1                        |                                  | Series color           | Series color           | Series color           | Series color    | Series color    | Black                                |
|                              | 2                        |                                  | -                      | -                      | -                      | -               | -               | Silver                               |
| Rear speeds                  |                          |                                  | 9/10                   | 9                      | 9                      | 9               | 9               | 9                                    |
| Compatible chain             |                          |                                  | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed | HG 9-speed      | HG 9-speed      | HG 9-speed                           |
| RD construction              | SHIMANO SHADOW RD        |                                  | ✓                      | ✓                      | ✓                      | ✓               | ✓               | -                                    |
|                              | SHIMANO SHADOW RD+       |                                  | -                      | -                      | -                      | -               | -               | -                                    |
|                              | Double servo             |                                  | -                      | -                      | -                      | -               | -               | ✓                                    |
| Applicable derailleur hanger | SHIMANO MTB type         | Direct attachment (conventional) | ✓                      | ✓                      | ✓                      | ✓               | ✓               | ✓                                    |
|                              |                          | Direct mount                     | -                      | -                      | -                      | -               | -               | -                                    |
|                              | SHIMANO ROAD type        | Direct attachment (conventional) | -                      | -                      | -                      | -               | -               | -                                    |
|                              |                          | Direct mount                     | -                      | -                      | -                      | -               | -               | -                                    |
|                              | UDH standard             |                                  | ✓                      | ✓                      | ✓                      | -               | -               | -                                    |
|                              | Riveted adapter          | ROAD type                        | -                      | -                      | -                      | -               | -               | -                                    |
|                              |                          | BMX-track type                   | -                      | -                      | -                      | -               | -               | -                                    |
|                              | Mode converter           |                                  |                        | -                      | -                      | -               | -               | -                                    |
| Cable adjuster               |                          |                                  | -                      | ✓ / -                  | ✓ / -                  | ✓               | ✓               | ✓                                    |
| Max. front difference        |                          |                                  | 0T                     | 16T                    | 16T                    | 22T             | 22T             | 22T                                  |
| Total capacity               |                          |                                  | 28T                    | 41T                    | 41T                    | 45T             | 45T             | 45T                                  |
| Low sprocket                 | Max.                     |                                  | 39T                    | 36T                    | 36T                    | 36T             | 36T             | 34T                                  |
|                              | Min.                     |                                  | 36T                    | 36T                    | 36T                    | 32T             | 32T             | 28T                                  |
| Top sprocket                 | Max.                     |                                  | 11T                    | 11T                    | 11T                    | 12T             | 12T             | 11T                                  |
|                              | Min.                     |                                  | 11T                    | 11T                    | 11T                    | 11T             | 11T             | 11T                                  |
| Fluoric coated link bushings |                          |                                  | -                      | 1                      | -                      | 1               | -               | -                                    |
| Pulley                       | Guide pulley bearing     |                                  | -                      | -                      | -                      | -               | -               | -                                    |
|                              | Tension pulley bearing   |                                  | -                      | -                      | -                      | -               | -               | -                                    |
|                              | Teeth                    |                                  | 11/11T                 | 11/11T                 | 11/11T                 | 11T             | 11T             | 11/11T                               |
|                              | Screws material          |                                  | Steel                  | Steel                  | Steel                  | Steel           | Steel           | Steel                                |
|                              | Sunken type pulley screw |                                  | ✓                      | ✓                      | ✓                      | ✓               | ✓               | ✓ (guide pulley), - (tension pulley) |
| Bracket                      | Material                 |                                  | -                      | -                      | -                      | Steel           | Steel           | -                                    |
|                              | Finish                   |                                  | -                      | -                      | -                      | Painted         | Painted         | -                                    |
| B-axle                       | Hollow axle              |                                  | ✓                      | -                      | -                      | ✓               | -               | -                                    |
|                              | Material                 |                                  | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel | Stainless steel | Stainless steel                      |
|                              | Finish                   |                                  | -                      | -                      | -                      | -               | -               | -                                    |
| B-axle 2                     | Hollow axle              |                                  | -                      | -                      | -                      | -               | -               | -                                    |
|                              | Material                 |                                  | -                      | -                      | -                      | Stainless steel | Stainless steel | -                                    |
|                              | Finish                   |                                  | -                      | -                      | -                      | -               | -               | -                                    |
| Bracket body                 | Material                 |                                  | Aluminum               | Aluminum               | Aluminum               | Aluminum        | Aluminum        | Aluminum                             |
|                              | Finish                   |                                  | Painted                | Painted                | Painted                | Painted         | Painted         | Painted                              |
| P-axle                       | Material                 |                                  | Steel                  | Steel                  | Steel                  | Steel           | Steel           | Steel                                |
|                              | Finish                   |                                  | -                      | -                      | -                      | Zinc plated     | Zinc plated     | Zinc plated                          |
| Plate body                   | Material                 |                                  | PA+GF                  | PA+GF                  | PA+GF                  | PA+GF           | PA+GF           | Resin                                |
|                              | Finish                   |                                  | -                      | -                      | -                      | -               | -               | Painted                              |
| Outer link                   | Material                 |                                  | PA+GF                  | PA+GF                  | PA+GF                  | PA+GF           | PA+GF           | Steel                                |
|                              | Finish                   |                                  | -                      | -                      | -                      | -               | Painted         | Painted                              |
| Inner link                   | Material                 |                                  | PA+GF                  | PA+GF                  | PA+GF                  | Steel           | Steel           | Steel                                |
|                              | Finish                   |                                  | -                      | -                      | -                      | Painted         | Zinc plated     | Painted                              |
| Outer plate                  | Material                 |                                  | Steel                  | Steel                  | Steel                  | Steel           | Steel           | Steel                                |
|                              | Finish                   |                                  | Painted                | Painted                | Painted                | Painted         | Painted         | Painted                              |
| Inner plate                  | Material                 |                                  | Steel                  | Steel                  | Steel                  | Steel           | Steel           | Steel                                |
|                              | Finish                   |                                  | Painted                | Painted                | Painted                | Painted         | Painted         | Painted                              |
| Cable fixing screw           | Material                 |                                  | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel | Stainless steel | Steel                                |
|                              | Finish                   |                                  | -                      | -                      | -                      | -               | -               | Zinc plated                          |
| Stroke adjusting screw       | Material                 |                                  | Steel                  | Steel                  | Steel                  | Steel           | Steel           | Steel                                |
|                              | Finish                   |                                  | Plated                 | Plated                 | Plated                 | Plated          | Zinc plated     | Zinc plated                          |
| Average weight (g)           |                          |                                  | -                      | -                      | -                      | -               | -               | -                                    |
| Note                         |                          |                                  | E-bike rated           | E-bike rated           |                        |                 |                 |                                      |

# Rear Derailleur

| Series                       |                          |                                  | SHIMANO ESSA    | ACERA           | SHIMANO ALTUS   | TOURNEY TX     | TOURNEY A070              | TOURNEY        |
|------------------------------|--------------------------|----------------------------------|-----------------|-----------------|-----------------|----------------|---------------------------|----------------|
| Model no.                    |                          |                                  | RD-U2000        | RD-M3020-8      | RD-M310-Smart   | RD-TX800       | RD-A070                   | RD-TY500-SGS   |
| Color                        | 1                        | Series color                     |                 | Black           | Black           | Black          | Series color              | Series color   |
|                              | 2                        | -                                |                 | -               | Silver          | Silver         | -                         | -              |
| Rear speeds                  |                          |                                  | 8               | 8/7             | 8/7             | 8/7            | 7                         | 7/6            |
| Compatible chain             |                          |                                  | HG 8/7/6-speed  | HG 8/7/6-speed  | HG 8/7/6-speed  | HG 8/7/6-speed | HG 8/7/6-speed            | HG 8/7/6-speed |
| RD construction              | SHIMANO SHADOW RD        |                                  | ✓               | -               | -               | -              | -                         | -              |
|                              | SHIMANO SHADOW RD+       |                                  | -               | -               | -               | -              | -                         | -              |
|                              | Double servo             |                                  | -               | ✓               | ✓               | ✓              | -                         | ✓              |
| Applicable derailleur hanger | SHIMANO MTB type         | Direct attachment (conventional) | ✓               | ✓               | ✓               | ✓              | -                         | ✓              |
|                              |                          | Direct mount                     | -               | -               | -               | -              | -                         | -              |
|                              | SHIMANO ROAD type        | Direct attachment (conventional) | -               | -               | -               | -              | ✓                         | -              |
|                              |                          | Direct mount                     | -               | -               | -               | -              | -                         | -              |
|                              | UDH standard             |                                  | -               | -               | -               | -              | -                         | -              |
|                              | Riveted adapter          | ROAD type                        | -               | -               | -               | -              | ✓                         | ✓              |
|                              |                          | BMX-track type                   | -               | -               | -               | -              | -                         | ✓              |
|                              | Mode converter           |                                  |                 | -               | -               | -              | -                         | -              |
| Cable adjuster               |                          |                                  | ✓               | ✓               | ✓               | ✓              | ✓                         |                |
| Max. front difference        |                          |                                  | 0T              | 20T             | 20T             | 20T            | 20T                       | 20T            |
| Total capacity               |                          |                                  | 34T             | 45T             | 43T             | 43T            | 37T                       | 43T            |
| Low sprocket                 | Max.                     | 45T                              | 40T             | 34T             | 34T             | 28T            | 28T                       | 34T            |
|                              | Min.                     | 45T                              | 30T             | 28T             | 28T             | 28T            | 28T                       | 28T            |
| Top sprocket                 | Max.                     | 11T                              | 12T             | 14T             | 14T             | 14T            | 14T                       | 14T            |
|                              | Min.                     | 11T                              | 11T             | 11T             | 11T             | 11T            | 11T                       | 11T            |
| Fluoric coated link bushings |                          |                                  | -               | 1               | -               | -              | -                         | -              |
| Pulley                       | Guide pulley bearing     |                                  | -               | -               | -               | -              | -                         | -              |
|                              | Tension pulley bearing   |                                  | -               | -               | -               | -              | -                         | -              |
|                              | Teeth                    |                                  | 11/11T          | 11T             | 13/15T          | 13/13T         | 11/13T                    | 13/13T         |
|                              | Screws material          |                                  | Steel           | Steel           | Steel           | Steel          | Steel                     | Steel          |
|                              | Sunken type pulley screw |                                  | ✓               | ✓               | -               | -              | -                         | -              |
| Bracket                      | Material                 |                                  | -               | -               | -               | -              | -                         | -              |
|                              | Finish                   |                                  | -               | -               | -               | -              | -                         | -              |
| B-axle                       | Hollow axle              |                                  | -               | -               | -               | -              | -                         | -              |
|                              | Material                 | Stainless steel                  | Stainless steel | Stainless steel | Stainless steel | Steel          | Steel                     |                |
|                              | Finish                   | -                                | -               | -               | -               | MnPO4          | Zinc plated               |                |
| B-axle 2                     | Hollow axle              |                                  | -               | -               | -               | -              | -                         | -              |
|                              | Material                 | -                                | -               | -               | -               | -              | -                         |                |
|                              | Finish                   | -                                | -               | -               | -               | -              | -                         |                |
| Bracket body                 | Material                 | Aluminum                         | Aluminum        | Aluminum        | Resin           | Resin          | Resin                     |                |
|                              | Finish                   | Painted                          | Painted         | Painted         | Painted         | -              | -                         |                |
| P-axle                       | Material                 | Steel                            | Steel           | Steel           | Steel           | Steel          | Steel                     |                |
|                              | Finish                   | Zinc plated                      | Zinc plated     | Zinc plated     | Zinc plated     | Plated         | Zinc plated               |                |
| Plate body                   | Material                 | PA+GF                            | PA+GF           | Resin           | Resin           | Resin          | Resin                     |                |
|                              | Finish                   | -                                | -               | -               | -               | -              | -                         |                |
| Outer link                   | Material                 | PA+GF                            | Steel           | Steel           | Steel           | Steel          | Steel                     |                |
|                              | Finish                   | -                                | Painted         | Painted         | Painted         | Painted        | Painted                   |                |
| Inner link                   | Material                 | PA+GF                            | Steel           | Steel           | Steel           | Steel          | Resin                     |                |
|                              | Finish                   | -                                | Zinc plated     | Zinc plated     | Zinc plated     | Zinc plated    | -                         |                |
| Outer plate                  | Material                 | Steel                            | Steel           | Steel           | Steel           | Steel          | Steel                     |                |
|                              | Finish                   | Painted                          | Painted         | Painted         | Painted         | Painted        | Painted                   |                |
| Inner plate                  | Material                 | Steel                            | Steel           | Steel           | Steel           | Steel          | Steel                     |                |
|                              | Finish                   | Painted                          | Painted         | Zinc plated     | Zinc plated     | Painted        | Painted                   |                |
| Cable fixing screw           | Material                 | Stainless Steel                  | Steel           | Steel           | Steel           | Steel          | Steel                     |                |
|                              | Finish                   | -                                | Zinc plated     | Zinc plated     | Zinc plated     | Zinc Plated    | Zinc plated               |                |
| Stroke adjusting screw       | Material                 | Steel                            | Steel           | Steel           | Steel           | Steel          | Steel                     |                |
|                              | Finish                   | Plated                           | Zinc plated     | Zinc plated     | Zinc plated     | Zinc Plated    | Zinc plated               |                |
| Average weight (g)           |                          |                                  | -               | -               | -               | -              | -                         |                |
| Note                         |                          |                                  | -               | -               | -               | -              | w/ Wheel type cable guide |                |

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# Rear Derailleur

| Series                       |                          |                                  | TOURNEY        | TOURNEY            | TOURNEY        | TOURNEY            | TOURNEY                               | TOURNEY                               |
|------------------------------|--------------------------|----------------------------------|----------------|--------------------|----------------|--------------------|---------------------------------------|---------------------------------------|
| Model no.                    |                          |                                  | RD-TY300-SGS   | RD-TY200-SS        | RD-TY200-GS    | RD-FT35-A-SS       | RD-TY21-B-SS                          | RD-TY21-B-GS                          |
| Color                        | 1                        |                                  | Series color   | Black              | Black          | Black              | Black                                 | Black                                 |
|                              | 2                        |                                  | -              | -                  | -              | -                  | Silver                                | Silver                                |
| Rear speeds                  |                          |                                  | 7/6            | 7/6 (Front single) | 7/6            | 7/6 (Front single) | 6                                     | 6                                     |
| Compatible chain             |                          |                                  | HG 8/7/6-speed | HG 8/7/6-speed     | HG 8/7/6-speed | HG 8/7/6-speed     | HG 8/7/6-speed                        | HG 8/7/6-speed                        |
| RD construction              | SHIMANO SHADOW RD        |                                  | -              | -                  | -              | -                  | -                                     | -                                     |
|                              | SHIMANO SHADOW RD+       |                                  | -              | -                  | -              | -                  | -                                     | -                                     |
|                              | Double servo             |                                  | ✓              | -                  | -              | -                  | -                                     | -                                     |
| Applicable derailleur hanger | SHIMANO MTB type         | Direct attachment (conventional) | ✓              | ✓                  | ✓              | ✓                  | ✓                                     | ✓                                     |
|                              |                          | Direct mount                     | -              | -                  | -              | -                  | -                                     | -                                     |
|                              | SHIMANO ROAD type        | Direct attachment (conventional) | -              | -                  | -              | -                  | -                                     | -                                     |
|                              |                          | Direct mount                     | -              | -                  | -              | -                  | -                                     | -                                     |
|                              | UDH standard             |                                  | -              | -                  | -              | -                  | -                                     | -                                     |
|                              | Riveted adapter          | ROAD type                        | ✓              | ✓                  | ✓              | ✓                  | ✓                                     | ✓                                     |
|                              |                          | BMX-track type                   | ✓              | ✓                  | -              | ✓                  | -                                     | -                                     |
|                              | Mode converter           |                                  |                | -                  | -              | -                  | -                                     | -                                     |
| Cable adjuster               |                          |                                  | ✓              | ✓                  | ✓              | ✓                  | ✓                                     |                                       |
| Max. front difference        |                          |                                  | 20T            | 0T                 | 20T            | 0T                 | 13T                                   | 20T                                   |
| Total capacity               |                          |                                  | 43T            | 20T                | 34T            | 17T                | 28T                                   | 34T                                   |
| Low sprocket                 | Max.                     |                                  | 34T            | 34T                | 28T            | 28T                | 28T                                   | 28T                                   |
|                              | Min.                     |                                  | 28T            | 28T                | 28T            | 28T                | 28T                                   | 28T                                   |
| Top sprocket                 | Max.                     |                                  | 14T            | 14T                | 14T            | 14T                | 14T                                   | 14T                                   |
|                              | Min.                     |                                  | 11T            | 12T                | 14T            | 11T                | 14T                                   | 14T                                   |
| Fluoric coated link bushings |                          |                                  | -              | -                  | -              | -                  | -                                     | -                                     |
| Pulley                       | Guide pulley bearing     |                                  | -              | -                  | -              | -                  | -                                     | -                                     |
|                              | Tension pulley bearing   |                                  | -              | -                  | -              | -                  | -                                     | -                                     |
|                              | Teeth                    |                                  | 13/13T         | 11/11T             | 11/11T         | 11/11T             | 11/11T                                | 11/11T                                |
|                              | Screws material          |                                  | Steel          | Steel              | Steel          | Steel              | Steel                                 | Steel                                 |
|                              | Sunken type pulley screw |                                  | -              | -                  | -              | -                  | -                                     | -                                     |
| Bracket                      | Material                 |                                  | -              | -                  | -              | -                  | -                                     | -                                     |
|                              | Finish                   |                                  | -              | -                  | -              | -                  | -                                     | -                                     |
| B-axle                       | Hollow axle              |                                  | -              | -                  | -              | -                  | -                                     | -                                     |
|                              | Material                 |                                  | Steel          | Steel              | Steel          | Steel              | Steel                                 | Steel                                 |
|                              | Finish                   |                                  | Zinc plated    | Black              | Black          | Black              | Black                                 | Black                                 |
| B-axle 2                     | Hollow axle              |                                  | -              | -                  | -              | -                  | -                                     | -                                     |
|                              | Material                 |                                  | -              | -                  | -              | -                  | -                                     | -                                     |
|                              | Finish                   |                                  | -              | -                  | -              | -                  | -                                     | -                                     |
| Bracket body                 | Material                 |                                  | Resin          | Resin              | Resin          | Resin              | Resin                                 | Resin                                 |
|                              | Finish                   |                                  | -              | -                  | -              | -                  | -                                     | -                                     |
| P-axle                       | Material                 |                                  | Steel          | Steel              | Steel          | Steel              | Steel                                 | Steel                                 |
|                              | Finish                   |                                  | Zinc plated    | Zinc plated        | Zinc plated    | Zinc plated        | Zinc plated                           | Zinc plated                           |
| Plate body                   | Material                 |                                  | Resin          | Resin              | Resin          | Resin              | Resin                                 | Resin                                 |
|                              | Finish                   |                                  | -              | -                  | -              | -                  | -                                     | -                                     |
| Outer link                   | Material                 |                                  | Steel          | Steel              | Steel          | Steel              | Steel                                 | Steel                                 |
|                              | Finish                   |                                  | Painted        | Painted            | Painted        | Painted            | Painted (black), Zinc plated (silver) | Painted (black), Zinc plated (silver) |
| Inner link                   | Material                 |                                  | Steel          | Resin              | Resin          | Steel              | Steel                                 | Steel                                 |
|                              | Finish                   |                                  | Zinc plated    | Painted            | Painted        | Zinc plated        | Painted (black), Zinc plated (silver) | Painted (black), Zinc plated (silver) |
| Outer plate                  | Material                 |                                  | Steel          | Steel              | Steel          | Steel              | Steel                                 | Steel                                 |
|                              | Finish                   |                                  | Painted        | Painted            | Painted        | Painted            | Painted (black), Zinc plated (silver) | Painted (black), Zinc plated (silver) |
| Inner plate                  | Material                 |                                  | Steel          | Steel              | Steel          | Steel              | Steel                                 | Steel                                 |
|                              | Finish                   |                                  | Painted        | Painted            | Painted        | Painted            | Painted (black), Zinc plated (silver) | Painted (black), Zinc plated (silver) |
| Cable fixing screw           | Material                 |                                  | Steel          | Steel              | Steel          | Steel              | Steel                                 | Steel                                 |
|                              | Finish                   |                                  | Zinc plated    | Zinc Plated        | Zinc Plated    | Zinc plated        | Zinc plated                           | Zinc plated                           |
| Stroke adjusting screw       | Material                 |                                  | Steel          | Steel              | Steel          | Steel              | Steel                                 | Steel                                 |
|                              | Finish                   |                                  | Zinc plated    | Zinc Plated        | Zinc Plated    | Zinc plated        | Zinc plated                           | Zinc plated                           |
| Average weight (g)           |                          |                                  | -              | -                  | -              | -                  | -                                     | -                                     |
| Note                         |                          |                                  |                |                    |                |                    |                                       |                                       |

# Rear Derailleur

| Series                       |                          |                                  | TOURNEY TZ     |
|------------------------------|--------------------------|----------------------------------|----------------|
| Model no.                    |                          |                                  | RD-TZ500-GS    |
| Color                        | 1                        |                                  | Series color   |
|                              | 2                        |                                  | -              |
| Rear speeds                  |                          |                                  | 6              |
| Compatible chain             |                          |                                  | HG 8/7/6-speed |
| RD construction              | SHIMANO SHADOW RD        |                                  | -              |
|                              | SHIMANO SHADOW RD+       |                                  | -              |
|                              | Double servo             |                                  | -              |
| Applicable derailleur hanger | SHIMANO MTB type         | Direct attachment (conventional) | ✓              |
|                              |                          | Direct mount                     | -              |
|                              | SHIMANO ROAD type        | Direct attachment (conventional) | -              |
|                              |                          | Direct mount                     | -              |
|                              | UDH standard             |                                  | -              |
|                              | Riveted adapter          | ROAD type                        | ✓              |
|                              |                          | BMX-track type                   | -              |
|                              | Mode converter           |                                  |                |
| Cable adjuster               |                          |                                  | ✓              |
| Max. front difference        |                          |                                  | 20T            |
| Total capacity               |                          |                                  | 34T            |
| Low sprocket                 | Max.                     |                                  | 28T            |
|                              | Min.                     |                                  | 28T            |
| Top sprocket                 | Max.                     |                                  | 14T            |
|                              | Min.                     |                                  | 14T            |
| Fluoric coated link bushings |                          |                                  | -              |
| Pulley                       | Guide pulley bearing     |                                  | -              |
|                              | Tension pulley bearing   |                                  | -              |
|                              | Teeth                    |                                  | 11/11T         |
|                              | Screws material          |                                  | Steel          |
|                              | Sunken type pulley screw |                                  | -              |
| Bracket                      | Material                 |                                  | -              |
|                              | Finish                   |                                  | -              |
| B-axle                       | Hollow axle              |                                  | -              |
|                              | Material                 |                                  | Steel          |
| B-axle 2                     | Finish                   |                                  | Black          |
|                              | Hollow axle              |                                  | -              |
|                              | Material                 |                                  | -              |
| Bracket body                 | Finish                   |                                  | -              |
|                              | Material                 |                                  | Steel          |
|                              | Finish                   |                                  | Painted        |
| P-axle                       | Material                 |                                  | Steel          |
|                              | Finish                   |                                  | Zinc plated    |
| Plate body                   | Material                 |                                  | Resin          |
|                              | Finish                   |                                  | -              |
| Outer link                   | Material                 |                                  | Steel          |
|                              | Finish                   |                                  | Painted        |
| Inner link                   | Material                 |                                  | Steel          |
|                              | Finish                   |                                  | Zinc plated    |
| Outer plate                  | Material                 |                                  | Steel          |
|                              | Finish                   |                                  | Painted        |
| Inner plate                  | Material                 |                                  | Steel          |
|                              | Finish                   |                                  | Painted        |
| Cable fixing screw           | Material                 |                                  | Steel          |
|                              | Finish                   |                                  | Zinc plated    |
| Stroke adjusting screw       | Material                 |                                  | Steel          |
|                              | Finish                   |                                  | Zinc plated    |
| Average weight (g)           |                          |                                  | -              |
| Note                         |                          |                                  |                |

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# Front Derailleur

| Series   |                     | CUES                         | CUES                   | CUES                   | CUES                   | CUES                                    | CUES                   |
|--|---------------------|------------------------------|------------------------|------------------------|------------------------|---|------------------------|
| Model no.  |                     | FD-U8010-L                   | FD-U6000-D             | FD-U6000-E             | FD-U6000-M             | FD-U6010-L                              | FD-U6030-F             |
| Color  | 1                   | Series color                 | Series color           | Series color           | Series color           | Series color                            | Series color           |
|  | 2                   | -                            | -                      | -                      | -                      | -                                       | -                      |
| Front speeds   |                     | 2                            | 2                      | 2                      | 2                      | 2                                       | 2                      |
| Rear speeds  |                     | 11/10                        | 11/10                  | 11/10                  | 11/10                  | 11/10                                   | 10/9                   |
| Compatible chain   |                     | LINKGLIDE, HG 11-speed       | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed                  | LINKGLIDE, HG 11-speed |
| Action   | TOP SWING           |                              | ✓                      | -                      | -                      | -                                       | ✓                      |
|  | Down swing          |                              | -                      | -                      | -                      | -                                       | ✓                      |
|  | SIDE SWING          |                              | -                      | ✓                      | ✓                      | ✓                                       | -                      |
| Mount  | Clamp band (mm)     | 28.6                         | -                      | -                      | -                      | ✓ (w/ S size adapter)                   | -                      |
|  |                     | 31.8                         | ✓ (w/ M size adapter)  | -                      | -                      | ✓ (w/ M size adapter)                   | -                      |
|  |                     | 34.9                         | ✓                      | -                      | -                      | ✓                                       | -                      |
|  | E-type              | With bottom bracket plate    | -                      | -                      | -                      | -                                       | -                      |
|  |                     | Without bottom bracket plate | -                      | -                      | ✓                      | -                                       | -                      |
|  | Direct mount        |                              | -                      | ✓                      | -                      | -                                       | -                      |
|  | Brazed-on           |                              | -                      | -                      | -                      | -                                       | ✓                      |
| Cable adjust   |                     | -                            | -                      | -                      | -                      | -                                       | ✓                      |
| Cable route type   | Dual-pull           |                              | ✓                      | -                      | -                      | -                                       | ✓                      |
|  | Top-pull exclusive  |                              | -                      | -                      | -                      | -                                       | -                      |
|  | Down-pull exclusive |                              | -                      | -                      | -                      | -                                       | ✓                      |
|  | Front-pull          |                              | -                      | ✓                      | ✓                      | ✓                                       | -                      |
| Chain line (mm)  |                     | 48.8                         | 48.8/51.8              | 48.8/51.8              | 48.8/51.8              | 48.8                                    | 47                     |
| Chainstay angle (deg.)                                       |                     | 63-68                        | 64-69                  | 64-69                  | 64-69                  | 63-68                                   | 62-66                  |
| Top gear teeth   |                     | 46T                          | 36T, 40T               | 36T, 40T               | 36T, 40T               | 40T (2x11-speed), 46T (2x11/2x10-speed) | 46T, 50T               |
| Total capacity   |                     | 16T                          | 14T                    | 14T                    | 14T                    | 16T                                     | 16T                    |
| Applicable top-mid tooth difference                          |                     | -                            | -                      | -                      | -                      | -                                       | -                      |
| Multi access cable fixing screw                              |                     | -                            | -                      | -                      | -                      | -                                       | -                      |
| Angled stroke adjust screw                                   |                     | ✓                            | ✓                      | ✓                      | ✓                      | ✓                                       | -                      |
| Angled clamp band design                                     |                     | ✓                            | -                      | -                      | ✓                      | ✓                                       | -                      |
| Multi-bearing construction                                   |                     | -                            | -                      | -                      | -                      | -                                       | -                      |
| Link bushings  |                     | 4                            | 4                      | 4                      | 4                      | 4                                       | 7                      |
| Front clamp band   | Material            | Aluminum                     | -                      | -                      | Steel                  | Aluminum                                | -                      |
|  | Finish              | Painted                      | -                      | -                      | Painted                | Painted                                 | -                      |
| Rear clamp band, base bracket                                | Material            | Aluminum                     | Aluminum               | Aluminum               | Aluminum               | Aluminum                                | Aluminum               |
|  | Finish              | Painted                      | Painted                | Painted                | Painted                | Painted                                 | Painted                |
| Clamp screw  | Material            | Stainless steel              | -                      | -                      | Stainless steel        | Stainless steel                         | Stainless steel        |
|  | Finish              | -                            | -                      | -                      | -                      | -                                       | -                      |
| Bottom bracket plate   | Material            | -                            | -                      | -                      | -                      | -                                       | -                      |
|  | Finish              | -                            | -                      | -                      | -                      | -                                       | -                      |
| Outer link   | Material            | Steel                        | Steel                  | Steel                  | Steel                  | Steel                                   | GFRP                   |
|  | Finish              | Painted                      | Painted                | Painted                | Painted                | Painted                                 | Painted                |
| Inner link   | Material            | Aluminum                     | Aluminum               | Aluminum               | Aluminum               | Aluminum                                | Steel                  |
|  | Finish              | Painted                      | Painted                | Painted                | Painted                | Painted                                 | Plated                 |
| Chain guide  | Material            | Steel                        | Steel                  | Steel                  | Steel                  | Steel                                   | Steel                  |
|  | Finish              | Chrome plated                | Chrome plated          | Chrome plated          | Chrome plated          | Chrome plated                           | Chrome plated          |
| Cable fixing screw   | Material            | Stainless steel              | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel                         | Stainless steel        |
|  | Finish              | -                            | -                      | -                      | -                      | -                                       | -                      |
| Stroke adjusting screw                                       | Material            | Stainless steel              | Steel                  | Steel                  | Steel                  | Stainless steel                         | Steel                  |
|  | Finish              | -                            | Phosphate coated       | Phosphate coated       | Phosphate coated       | -                                       | Phosphate coated       |
| Average weight (g) (band type: L size, direct type w/ screw) |                     | -                            | -                      | -                      | -                      | -                                       | -                      |
| Note   |                     |                              |                        |                        |                        |   |                        |

# Front Derailleur

| Series   |                     | CUES                         | CUES                   | CUES                   | CUES                   | CUES                   | CUES                   |
|--|---------------------|------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Model no.  |                     | FD-U6030-B                   | FD-U4000-D             | FD-U4000-E             | FD-U4000-M             | FD-U4000-L             | FD-U4010-L             |
| Color  | 1                   | Series color                 | Series color           | Series color           | Series color           | Series color           | Series color           |
|  | 2                   | -                            | -                      | -                      | -                      | -                      | -                      |
| Front speeds   |                     | 2                            | 2                      | 2                      | 2                      | 2                      | 2                      |
| Rear speeds  |                     | 10/9                         | 10/9                   | 10/9                   | 10/9                   | 10/9                   | 9                      |
| Compatible chain   |                     | LINKGLIDE, HG 11-speed       | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed |
| Action   | TOP SWING           |                              | -                      | -                      | -                      | ✓                      | ✓                      |
|  | Down swing          |                              | ✓                      | -                      | -                      | -                      | -                      |
|  | SIDE SWING          |                              | -                      | ✓                      | ✓                      | -                      | -                      |
| Mount  | Clamp band (mm)     | 28.6                         | ✓ (w/ S size adapter)  | -                      | -                      | -                      | -                      |
|  |                     | 31.8                         | ✓ (w/ M size adapter)  | -                      | -                      | ✓ (w/ M size adapter)  | ✓ (w/ M size adapter)  |
|  |                     | 34.9                         | ✓                      | -                      | -                      | ✓                      | ✓                      |
|  | E-type              | With bottom bracket plate    | -                      | -                      | -                      | -                      | -                      |
|  |                     | Without bottom bracket plate | -                      | -                      | ✓                      | -                      | -                      |
|  | Direct mount        |                              | -                      | ✓                      | -                      | -                      | -                      |
|  | Brazed-on           |                              | -                      | -                      | -                      | -                      | -                      |
| Cable adjust   |                     | ✓                            | -                      | -                      | -                      | -                      | -                      |
| Cable route type   | Dual-pull           |                              | -                      | -                      | -                      | ✓                      | ✓                      |
|  | Top-pull exclusive  |                              | -                      | -                      | -                      | -                      | -                      |
|  | Down-pull exclusive |                              | ✓                      | -                      | -                      | -                      | -                      |
|  | Front-pull          |                              | -                      | ✓                      | ✓                      | ✓                      | -                      |
| Chain line (mm)  |                     | 47                           | 48.8/51.8              | 48.8/51.8              | 48.8/51.8              | 48.8/51.8              | 48.8                   |
| Chainstay angle (deg.)                                       |                     | 62-66                        | 64-69                  | 64-69                  | 64-69                  | 64-69                  | 63-68                  |
| Top gear teeth   |                     | 46T, 50T                     | 36T, 40T               | 36T, 40T               | 36T, 40T               | 36T, 40T               | 46T                    |
| Total capacity   |                     | 16T                          | 14T                    | 14T                    | 14T                    | 14T                    | 16T                    |
| Applicable top-mid tooth difference                          |                     | -                            | -                      | -                      | -                      | -                      | -                      |
| Multi access cable fixing screw                              |                     | -                            | -                      | -                      | -                      | -                      | -                      |
| Angled stroke adjust screw                                   |                     | -                            | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
| Angled clamp band design                                     |                     | -                            | -                      | -                      | ✓                      | ✓                      | ✓                      |
| Multi-bearing construction                                   |                     | -                            | -                      | -                      | -                      | -                      | -                      |
| Link bushings  |                     | 7                            | 4                      | 4                      | 4                      | -                      | -                      |
| Front clamp band   | Material            | Aluminum                     | -                      | -                      | Steel                  | Steel                  | Steel                  |
|  | Finish              | Painted                      | -                      | -                      | Painted                | Painted                | Painted                |
| Rear clamp band, base bracket                                | Material            | Aluminum                     | Aluminum               | Aluminum               | Aluminum               | Steel                  | Steel                  |
|  | Finish              | Painted                      | Painted                | Painted                | Painted                | Painted                | Painted                |
| Clamp screw  | Material            | Stainless steel              | -                      | -                      | Steel                  | Steel                  | Stainless steel        |
|  | Finish              | -                            | -                      | -                      | -                      | Nickel plated          | -                      |
| Bottom bracket plate   | Material            | -                            | -                      | -                      | -                      | -                      | -                      |
|  | Finish              | -                            | -                      | -                      | -                      | -                      | -                      |
| Outer link   | Material            | GFRP                         | Steel                  | Steel                  | Steel                  | Steel                  | Steel                  |
|  | Finish              | Painted                      | Painted                | Painted                | Painted                | Plated                 | Plated                 |
| Inner link   | Material            | Steel                        | Aluminum               | Aluminum               | Aluminum               | Steel                  | Steel                  |
|  | Finish              | Plated                       | Painted                | Painted                | Painted                | Painted                | Painted                |
| Chain guide  | Material            | Steel                        | Steel                  | Steel                  | Steel                  | Steel                  | Steel                  |
|  | Finish              | Chrome plated                | Plated                 | Plated                 | Plated                 | Plated                 | Plated                 |
| Cable fixing screw   | Material            | Stainless steel              | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        | Stainless steel        |
|  | Finish              | -                            | -                      | -                      | -                      | -                      | -                      |
| Stroke adjusting screw                                       | Material            | Steel                        | Steel                  | Steel                  | Steel                  | Steel                  | Stainless steel        |
|  | Finish              | Phosphate coated             | Phosphate coated       | Phosphate coated       | Phosphate coated       | Zinc plated            | -                      |
| Average weight (g) (band type: L size, direct type w/ screw) |                     | -                            | -                      | -                      | -                      | -                      | -                      |
| Note   |                     | -                            | -                      | -                      | -                      | -                      | -                      |

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# Front Derailleur

| Series   |                     | SHIMANO ALIVIO               | SHIMANO ALIVIO        | SHIMANO ALIVIO        | SHIMANO ALIVIO  | SHIMANO ALIVIO  | SHIMANO ALIVIO        |
|--|---------------------|------------------------------|-----------------------|-----------------------|-----------------|-----------------|-----------------------|
| Model no.  |                     | FD-M4020-M                   | FD-M3100-M            | FD-M3120-D            | FD-M3120-E      | FD-M3120-M      | FD-M3120-M-B          |
| Color  | 1                   | Series color                 | Series color          | Series color          | Series color    | Series color    | Series color          |
|  | 2                   | -                            | -                     | -                     | -               | -               | -                     |
| Front speeds   |                     | 2                            | 3                     | 2                     | 2               | 2               | 2                     |
| Rear speeds  |                     | 9                            | 9                     | 9                     | 9               | 9               | 9                     |
| Compatible chain   |                     | HG 9-speed                   | HG 9-speed            | HG 9-speed            | HG 9-speed      | HG 9-speed      | HG 9-speed            |
| Action   | TOP SWING           | -                            | -                     | -                     | -               | -               | -                     |
|  | Down swing          | -                            | -                     | -                     | -               | -               | -                     |
|  | SIDE SWING          | ✓                            | ✓                     | ✓                     | ✓               | ✓               | ✓                     |
| Mount  | Clamp band (mm)     | 28.6                         | ✓ (w/ S size adapter) | ✓ (w/ S size adapter) | -               | -               | ✓ (w/ S size adapter) |
|  |                     | 31.8                         | ✓ (w/ M size adapter) | ✓ (w/ M size adapter) | -               | -               | ✓ (w/ M size adapter) |
|  |                     | 34.9                         | ✓                     | ✓                     | -               | -               | ✓                     |
|  | E-type              | With bottom bracket plate    | -                     | -                     | -               | -               | -                     |
|  |                     | Without bottom bracket plate | -                     | -                     | ✓               | -               | -                     |
|  | Direct mount        |                              | -                     | -                     | ✓               | -               | -                     |
|  | Brazed-on           |                              | -                     | -                     | -               | -               | -                     |
| Cable adjust   |                     | -                            | -                     | -                     | -               | -               | -                     |
| Cable route type   | Dual-pull           | -                            | -                     | -                     | -               | -               | -                     |
|  | Top-pull exclusive  | -                            | -                     | -                     | -               | -               | -                     |
|  | Down-pull exclusive | -                            | -                     | -                     | -               | -               | -                     |
|  | Front-pull          | ✓                            | ✓                     | ✓                     | ✓               | ✓               | ✓                     |
| Chain line (mm)  |                     | 48.8                         | 50                    | 48.8/51.8             | 48.8/51.8       | 48.8            | 51.8                  |
| Chainstay angle (deg.)                                       |                     | 64-69                        | 66-69                 | 64-69                 | 64-69           | 64-69           | 64-69                 |
| Top gear teeth   |                     | 36T                          | 40T                   | 36T                   | 36T             | 36T             | 36T                   |
| Total capacity   |                     | 14T                          | 18T                   | 14T                   | 14T             | 14T             | 14T                   |
| Applicable top-mid tooth difference                          |                     | -                            | 10T                   | -                     | -               | -               | -                     |
| Multi access cable fixing screw                              |                     | -                            | -                     | -                     | -               | -               | -                     |
| Angled stroke adjust screw                                   |                     | ✓                            | ✓                     | ✓                     | ✓               | ✓               | ✓                     |
| Angled clamp band design                                     |                     | -                            | ✓                     | ✓                     | ✓               | ✓               | ✓                     |
| Multi-bearing construction                                   |                     | -                            | -                     | -                     | -               | -               | -                     |
| Link bushings  |                     | 4                            | 4                     | 4                     | 4               | 4               | 4                     |
| Front clamp band   | Material            | Steel                        | Steel                 | -                     | -               | Steel           | Steel                 |
|  | Finish              | Painted                      | Painted               | -                     | -               | Painted         | Painted               |
| Rear clamp band, base bracket                                | Material            | Aluminum                     | Aluminum              | Aluminum              | Aluminum        | Aluminum        | Aluminum              |
|  | Finish              | Painted                      | Painted               | Painted               | Painted         | Painted         | Painted               |
| Clamp screw  | Material            | Stainless steel              | Steel                 | Steel                 | Steel           | Steel           | Steel                 |
|  | Finish              | -                            | -                     | -                     | -               | -               | -                     |
| Bottom bracket plate   | Material            | -                            | -                     | -                     | -               | -               | -                     |
|  | Finish              | -                            | -                     | -                     | -               | -               | -                     |
| Outer link   | Material            | Steel                        | Steel                 | Steel                 | Steel           | Steel           | Steel                 |
|  | Finish              | Painted                      | Painted               | Painted               | Painted         | Painted         | Painted               |
| Inner link   | Material            | Aluminum                     | Aluminum              | Aluminum              | Aluminum        | Aluminum        | Aluminum              |
|  | Finish              | Painted                      | Painted               | Painted               | Painted         | Painted         | Painted               |
| Chain guide  | Material            | Steel                        | Steel                 | Steel                 | Steel           | Steel           | Steel                 |
|  | Finish              | Chrome plated                | Chrome Plated         | Chrome Plated         | Chrome Plated   | Chrome Plated   | Chrome Plated         |
| Cable fixing screw   | Material            | Stainless steel              | Stainless steel       | Stainless steel       | Stainless steel | Stainless steel | Stainless steel       |
|  | Finish              | -                            | -                     | -                     | -               | -               | -                     |
| Stroke adjusting screw                                       | Material            | Stainless steel              | -                     | -                     | -               | -               | -                     |
|  | Finish              | -                            | -                     | -                     | -               | -               | -                     |
| Average weight (g) (band type: L size, direct type w/ screw) |                     | -                            | -                     | -                     | -               | -               | -                     |
| Note   |                     | -                            | -                     | -                     | -               | -               | -                     |

# Front Derailleur

| Series   |                     |                              | ACERA                 | SHIMANO ALTUS         | SHIMANO ALTUS         | SHIMANO ALTUS         | SHIMANO ALTUS         | SHIMANO ALTUS         |
|--|---------------------|------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Model no.  |                     |                              | FD-M3000-TS6          | FD-M2020-TS           | FD-M2000-TS3          | FD-M2000-TS6          | FD-M2000-DS3          | FD-M2000-DS6          |
| Color  | 1                   | Black                        | Series color          | Black                 | Series color          | Black                 | Series color          |                       |
|  | 2                   | -                            | -                     | -                     | -                     | -                     | -                     |                       |
| Front speeds   |                     |                              | 3                     | 2                     | 3                     | 3                     | 3                     |                       |
| Rear speeds  |                     |                              | 9                     | 9                     | 9                     | 9                     | 9                     |                       |
| Compatible chain   |                     |                              | HG 9-speed            | HG 9-speed            | HG 9-speed            | HG 9-speed            | HG 9-speed            |                       |
| Action   | TOP SWING           |                              | ✓                     | ✓                     | ✓                     | ✓                     | -                     | -                     |
|  | Down swing          |                              | -                     | -                     | -                     | -                     | ✓                     | ✓                     |
|  | SIDE SWING          |                              | -                     | -                     | -                     | -                     | -                     | -                     |
| Mount  | Clamp band (mm)     | 28.6                         | ✓ (w/ S size adapter) | ✓ (w/ S size adapter) | ✓ (w/ S size adapter) | ✓ (w/ S size adapter) | ✓ (w/ S size adapter) | ✓ (w/ S size adapter) |
|  |                     | 31.8                         | ✓ (w/ M size adapter) | ✓ (w/ M size adapter) | ✓ (w/ M size adapter) | ✓ (w/ M size adapter) | ✓ (w/ M size adapter) | ✓ (w/ M size adapter) |
|  |                     | 34.9                         | ✓                     | ✓                     | ✓                     | ✓                     | ✓                     | ✓                     |
|  | E-type              | With bottom bracket plate    | -                     | -                     | -                     | -                     | -                     | -                     |
|  |                     | Without bottom bracket plate | -                     | -                     | -                     | -                     | -                     | -                     |
|  | Direct mount        |                              | -                     | -                     | -                     | -                     | -                     | -                     |
|  | Brazed-on           |                              | -                     | -                     | -                     | -                     | -                     | -                     |
|  | Cable adjust        |                              |                       | -                     | -                     | -                     | -                     | -                     |
| Cable route type   | Dual-pull           |                              | ✓                     | ✓                     | ✓                     | ✓                     | ✓                     | ✓                     |
|  | Top-pull exclusive  |                              | -                     | -                     | -                     | -                     | -                     | -                     |
|  | Down-pull exclusive |                              | -                     | -                     | -                     | -                     | -                     | -                     |
|  | Front-pull          |                              | -                     | -                     | -                     | -                     | -                     | -                     |
| Chain line (mm)  |                     |                              | 50                    | 48.8/51.8 *           | 50                    | 50                    | 50                    | 50                    |
| Chainstay angle (deg.)                                       |                     |                              | 66-69                 | 64-69                 | 63-66                 | 66-69                 | 63-66                 | 66-69                 |
| Top gear teeth   |                     |                              | 40T                   | 36T                   | 40T                   | 40T                   | 40T                   | 40T                   |
| Total capacity   |                     |                              | 18T                   | 14T                   | 18T                   | 18T                   | 18T                   | 18T                   |
| Applicable top-mid tooth difference                          |                     |                              | 10T                   | -                     | 10T                   | 10T                   | 10T                   | 10T                   |
| Multi access cable fixing screw                              |                     |                              | -                     | -                     | -                     | -                     | -                     | -                     |
| Angled stroke adjust screw                                   |                     |                              | ✓                     | ✓                     | ✓                     | ✓                     | ✓                     | ✓                     |
| Angled clamp band design                                     |                     |                              | ✓                     | ✓                     | ✓                     | ✓                     | ✓                     | ✓                     |
| Multi-bearing construction                                   |                     |                              | -                     | -                     | -                     | -                     | -                     | -                     |
| Link bushings  |                     |                              | -                     | -                     | -                     | -                     | -                     | -                     |
| Front clamp band   | Material            | Steel                        | Steel                 | Steel                 | Steel                 | Steel                 | Steel                 |                       |
|  | Finish              | Painted                      | Painted               | Painted               | Painted               | Painted               | Painted               |                       |
| Rear clamp band, base bracket                                | Material            | Steel                        | Steel                 | Steel                 | Steel                 | Aluminum              | Aluminum              |                       |
|  | Finish              | Painted                      | Painted               | Painted               | Painted               | Painted               | Painted               |                       |
| Clamp screw  | Material            | Stainless steel              | Steel                 | Steel                 | Steel                 | Steel                 | Steel                 |                       |
|  | Finish              | -                            | Nickel plated         | Nickel plated         | Nickel plated         | Nickel plated         | Nickel plated         |                       |
| Bottom bracket plate   | Material            | -                            | -                     | -                     | -                     | -                     | -                     |                       |
|  | Finish              | -                            | -                     | -                     | -                     | -                     | -                     |                       |
| Outer link   | Material            | Steel                        | Steel                 | Steel                 | Steel                 | Steel                 | Steel                 |                       |
|  | Finish              | Painted                      | Zinc plated           | Zinc plated           | Zinc plated           | Painted               | Painted               |                       |
| Inner link   | Material            | Steel                        | Steel                 | Steel                 | Steel                 | Steel                 | Steel                 |                       |
|  | Finish              | Painted                      | Painted               | Painted               | Painted               | Painted/Zinc plated   | Painted/Zinc plated   |                       |
| Chain guide  | Material            | Steel                        | Steel                 | Steel                 | Steel                 | Steel                 | Steel                 |                       |
|  | Finish              | Chrome plated                | Chrome plated         | Chrome plated         | Chrome plated         | Chrome plated         | Chrome plated         |                       |
| Cable fixing screw   | Material            | Stainless steel              | Stainless steel       | Stainless steel       | Stainless steel       | Stainless steel       | Stainless steel       |                       |
|  | Finish              | -                            | -                     | -                     | -                     | -                     | -                     |                       |
| Stroke adjusting screw                                       | Material            | Steel                        | Steel                 | Steel                 | Steel                 | Steel                 | Steel                 |                       |
|  | Finish              | Zinc plated                  | Zinc plated           | Zinc plated           | Zinc plated           | Zinc plated           | Zinc plated           |                       |
| Average weight (g) (band type: L size, direct type w/ screw) |                     |                              | -                     | -                     | -                     | -                     | -                     |                       |
| Note   |                     |                              |                       | * Boost spec.         |                       |                       |                       |                       |

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# Front Derailleur

| Series   |                     | SHIMANO ALTUS                | SHIMANO ALTUS         | SHIMANO ALTUS         | SHIMANO ALTUS         | SHIMANO ALTUS         | SHIMANO ALTUS         |
|--|---------------------|------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Model no.  |                     | FD-M370-3                    | FD-M370-6             | FD-M371-3             | FD-M371-6             | FD-M315-TS            | FD-M313-3             |
| Color  | 1                   | Series color                 | Series color          | Series color          | Series color          | Series color          | Series color          |
|  | 2                   | -                            | -                     | -                     | -                     | -                     | -                     |
| Front speeds   |                     | 3                            | 3                     | 3                     | 3                     | 2                     | 3                     |
| Rear speeds  |                     | 9                            | 9                     | 9                     | 9                     | 8/7                   | 8/7                   |
| Compatible chain   |                     | HG 9-speed                   | HG 9-speed            | HG 9-speed            | HG 9-speed            | HG 8/7/6-speed        | HG 8/7/6-speed        |
| Action   | TOP SWING           | ✓                            | ✓                     | -                     | -                     | ✓                     | -                     |
|  | Down swing          | -                            | -                     | ✓                     | ✓                     | -                     | ✓                     |
|  | SIDE SWING          | -                            | -                     | -                     | -                     | -                     | -                     |
| Mount  | Clamp band (mm)     | 28.6                         | ✓ (w/ S size adapter) | ✓ (w/ S size adapter) | ✓ (w/ S size adapter) | ✓ (w/ S size adapter) | ✓ (w/ S size adapter) |
|  |                     | 31.8                         | ✓ (w/ M size adapter) | ✓ (w/ M size adapter) | ✓ (w/ M size adapter) | ✓ (w/ M size adapter) | ✓ (w/ M size adapter) |
|  |                     | 34.9                         | ✓                     | ✓                     | ✓                     | ✓                     | ✓                     |
|  | E-type              | With bottom bracket plate    | -                     | -                     | -                     | -                     | -                     |
|  |                     | Without bottom bracket plate | -                     | -                     | -                     | -                     | -                     |
|  | Direct mount        |                              | -                     | -                     | -                     | -                     | -                     |
|  | Brazed-on           |                              | -                     | -                     | -                     | -                     | -                     |
| Cable adjust   |                     | -                            | -                     | -                     | -                     | -                     | -                     |
| Cable route type   | Dual-pull           | ✓                            | ✓                     | ✓                     | ✓                     | ✓                     | ✓                     |
|  | Top-pull exclusive  | -                            | -                     | -                     | -                     | -                     | -                     |
|  | Down-pull exclusive | -                            | -                     | -                     | -                     | -                     | -                     |
|  | Front-pull          | -                            | -                     | -                     | -                     | -                     | -                     |
| Chain line (mm)  |                     | 50                           | 50                    | 50                    | 50                    | 48.8/51.8 *           | 47.5/50               |
| Chainstay angle (deg.)                                       |                     | 63-66                        | 66-69                 | 63-66                 | 66-69                 | 64-69                 | 63-66                 |
| Top gear teeth   |                     | 44T, 48T                     | 44T, 48T              | 44T, 48T              | 44T, 48T              | 36T                   | 42T, 48T              |
| Total capacity   |                     | 22T                          | 22T                   | 22T                   | 22T                   | 14T                   | 20T                   |
| Applicable top-mid tooth difference                          |                     | 12T                          | 12T                   | 12T                   | 12T                   | -                     | 10T                   |
| Multi access cable fixing screw                              |                     | -                            | -                     | -                     | -                     | -                     | -                     |
| Angled stroke adjust screw                                   |                     | -                            | -                     | -                     | -                     | ✓                     | -                     |
| Angled clamp band design                                     |                     | ✓                            | ✓                     | ✓                     | ✓                     | ✓                     | ✓                     |
| Multi-bearing construction                                   |                     | -                            | -                     | -                     | -                     | -                     | -                     |
| Link bushings  |                     | -                            | -                     | -                     | -                     | -                     | -                     |
| Front clamp band   | Material            | Steel                        | Steel                 | Steel                 | Steel                 | Steel                 | Steel                 |
|  | Finish              | Painted                      | Painted               | Painted               | Painted               | Painted               | Painted               |
| Rear clamp band, base bracket                                | Material            | Steel                        | Steel                 | Aluminum              | Aluminum              | Steel                 | Aluminum              |
|  | Finish              | Painted                      | Painted               | Painted               | Painted               | Painted               | Painted               |
| Clamp screw  | Material            | Steel                        | Steel                 | Steel                 | Steel                 | Steel                 | Steel                 |
|  | Finish              | Nickel plated                | Nickel plated         | Nickel plated         | Nickel plated         | Nickel plated         | Nickel plated         |
| Bottom bracket plate   | Material            | -                            | -                     | -                     | -                     | -                     | -                     |
|  | Finish              | -                            | -                     | -                     | -                     | -                     | -                     |
| Outer link   | Material            | Steel                        | Steel                 | Steel                 | Steel                 | Steel                 | Steel                 |
|  | Finish              | Painted                      | Painted               | Painted               | Painted               | Painted               | Painted               |
| Inner link   | Material            | Steel                        | Steel                 | Steel                 | Steel                 | Zinc plated           | Steel                 |
|  | Finish              | Painted                      | Painted               | Painted               | Painted               | Painted               | Painted               |
| Chain guide  | Material            | Steel                        | Steel                 | Steel                 | Steel                 | Steel                 | Steel                 |
|  | Finish              | Chrome plated                | Chrome plated         | Chrome plated         | Chrome plated         | Chrome plated         | Chrome plated         |
| Cable fixing screw   | Material            | Steel                        | Steel                 | Steel                 | Steel                 | Steel                 | Steel                 |
|  | Finish              | Nickel plated                | Nickel plated         | Nickel plated         | Nickel plated         | Nickel plated         | Nickel plated         |
| Stroke adjusting screw                                       | Material            | Steel                        | Steel                 | Steel                 | Steel                 | Steel                 | Steel                 |
|  | Finish              | Zinc plated                  | Zinc plated           | Zinc plated           | Zinc plated           | Zinc plated           | Zinc plated           |
| Average weight (g) (band type: L size, direct type w/ screw) |                     | -                            | -                     | -                     | -                     | -                     | -                     |
| Note   |                     |                              |                       |                       |                       | * Boost spec.         |                       |

# Front Derailleur

| Series   |                     |                              | SHIMANO ALTUS         | SHIMANO ALTUS         | SHIMANO ALTUS         | TOURNEY TX            | TOURNEY TX            | TOURNEY                   |
|--|---------------------|------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|---------------------------|
| Model no.  |                     |                              | FD-M313-6             | FD-M310-3             | FD-M310-6             | FD-TX800-TS3          | FD-TX800-TS6          | FD-TY600-L6               |
| Color  | 1                   |                              | Series color          | Series color          | Series color          | Black                 | Series color          | Series color              |
|  | 2                   |                              | -                     | -                     | -                     | -                     | -                     | -                         |
| Front speeds   |                     |                              | 3                     | 3                     | 3                     | 3                     | 3                     | 3                         |
| Rear speeds  |                     |                              | 8/7                   | 8/7                   | 8/7                   | 8/7                   | 8/7                   | 8/7/6                     |
| Compatible chain   |                     |                              | HG 8/7/6-speed        | HG 8/7/6-speed        | HG 8/7/6-speed        | HG 8/7/6-speed        | HG 8/7/6-speed        | HG 8/7/6-speed            |
| Action   | TOP SWING           |                              | -                     | ✓                     | ✓                     | ✓                     | ✓                     | ✓                         |
|  | Down swing          |                              | ✓                     | -                     | -                     | -                     | -                     | -                         |
|  | SIDE SWING          |                              | -                     | -                     | -                     | -                     | -                     | -                         |
| Mount  | Clamp band (mm)     | 28.6                         | ✓ (w/ S size adapter) | ✓ (w/ S size adapter) | ✓ (w/ S size adapter) | ✓ (w/ S size adapter) | ✓ (w/ S size adapter) | -                         |
|  |                     | 31.8                         | ✓ (w/ M size adapter) | ✓ (w/ M size adapter) | ✓ (w/ M size adapter) | ✓ (w/ M size adapter) | ✓ (w/ M size adapter) | ✓                         |
|  |                     | 34.9                         | ✓                     | ✓                     | ✓                     | ✓                     | ✓                     | ✓                         |
|  | E-type              | With bottom bracket plate    | -                     | -                     | -                     | -                     | -                     | -                         |
|  |                     | Without bottom bracket plate | -                     | -                     | -                     | -                     | -                     | -                         |
|  | Direct mount        |                              | -                     | -                     | -                     | -                     | -                     | -                         |
|  | Brazed-on           |                              | -                     | -                     | -                     | -                     | -                     | -                         |
| Cable adjust   |                     |                              | -                     | -                     | -                     | -                     | -                     | -                         |
| Cable route type   | Dual-pull           |                              | ✓                     | ✓                     | ✓                     | ✓                     | ✓                     | ✓                         |
|  | Top-pull exclusive  |                              | -                     | -                     | -                     | -                     | -                     | -                         |
|  | Down-pull exclusive |                              | -                     | -                     | -                     | -                     | -                     | -                         |
|  | Front-pull          |                              | -                     | -                     | -                     | -                     | -                     | -                         |
| Chain line (mm)  |                     |                              | 47.5/50               | 47.5/50               | 47.5/50               | 47.5/50               | 47.5/50               | 47.5/50                   |
| Chainstay angle (deg.)                                       |                     |                              | 66-69                 | 63-66                 | 66-69                 | 63-66                 | 66-69                 | 66-69                     |
| Top gear teeth   |                     |                              | 42T, 48T              | 42T, 48T              | 42T, 48T              | 42T, 48T              | 42T, 48T              | 42T                       |
| Total capacity   |                     |                              | 20T                   | 20T                   | 20T                   | 20T                   | 20T                   | 18T                       |
| Applicable top-mid tooth difference                          |                     |                              | 10T                   | 10T                   | 10T                   | 10T                   | 10T                   | 8T                        |
| Multi access cable fixing screw                              |                     |                              | -                     | -                     | -                     | -                     | -                     | -                         |
| Angled stroke adjust screw                                   |                     |                              | -                     | -                     | -                     | -                     | -                     | -                         |
| Angled clamp band design                                     |                     |                              | ✓                     | ✓                     | ✓                     | ✓                     | ✓                     | ✓                         |
| Multi-bearing construction                                   |                     |                              | -                     | -                     | -                     | -                     | -                     | -                         |
| Link bushings  |                     |                              | -                     | -                     | -                     | -                     | -                     | -                         |
| Front clamp band   | Material            |                              | Steel                 | Steel                 | Steel                 | Steel                 | Steel                 | Steel                     |
|  | Finish              |                              | Painted               | Painted               | Painted               | Painted               | Painted               | Zinc plated               |
| Rear clamp band, base bracket                                | Material            |                              | Aluminum              | Steel                 | Steel                 | Steel                 | Steel                 | Steel                     |
|  | Finish              |                              | Painted               | Painted               | Painted               | Painted               | Painted               | Zinc plated               |
| Clamp screw  | Material            |                              | Steel                 | Steel                 | Steel                 | Steel                 | Steel                 | Steel                     |
|  | Finish              |                              | Nickel plated         | Nickel plated         | Nickel plated         | Nickel plated         | Nickel plated         | Nickel plated             |
| Bottom bracket plate   | Material            |                              | -                     | -                     | -                     | -                     | -                     | -                         |
|  | Finish              |                              | -                     | -                     | -                     | -                     | -                     | -                         |
| Outer link   | Material            |                              | Steel                 | Steel                 | Steel                 | Steel                 | Steel                 | Steel                     |
|  | Finish              |                              | Painted               | Painted               | Painted               | Zinc plated           | Zinc plated           | Zinc plated               |
| Inner link   | Material            |                              | Steel                 | Steel                 | Steel                 | Steel                 | Steel                 | Steel                     |
|  | Finish              |                              | Painted               | Painted               | Painted               | Painted               | Painted               | Painted                   |
| Chain guide  | Material            |                              | Steel                 | Steel                 | Steel                 | Steel                 | Steel                 | Steel                     |
|  | Finish              |                              | Chrome plated         | Chrome plated         | Chrome plated         | Chrome plated         | Chrome plated         | Chrome plated/<br>Painted |
| Cable fixing screw   | Material            |                              | Steel                 | Steel                 | Steel                 | Steel                 | Steel                 | Steel                     |
|  | Finish              |                              | Nickel plated         | Nickel plated         | Nickel plated         | Nickel plated         | Nickel plated         | Nickel plated             |
| Stroke adjusting screw                                       | Material            |                              | Steel                 | Steel                 | Steel                 | Steel                 | Steel                 | Steel                     |
|  | Finish              |                              | Zinc plated           | Zinc plated           | Zinc plated           | Zinc plated           | Zinc plated           | Zinc plated               |
| Average weight (g) (band type: L size, direct type w/ screw) |                     |                              | -                     | -                     | -                     | -                     | -                     | -                         |
| Note   |                     |                              |                       |                       |                       |                       |                       | -                         |

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# Front Derailleur

| Series   |                     | TOURNEY                      | TOURNEY                | TOURNEY                | TOURNEY        | TOURNEY           | TOURNEY          |
|--|---------------------|------------------------------|------------------------|------------------------|----------------|-------------------|------------------|
| Model no.  |                     | FD-TY600-L3                  | FD-TY601-L6            | FD-TY601-L3            | FD-TY606-L     | FD-TY300-DS6(475) | FD-TY300-DS6(50) |
| Color  | 1                   | Series color                 | Series color           | Series color           | Series color   | Series color      | Series color     |
|  | 2                   | -                            | -                      | -                      | -              | -                 | -                |
| Front speeds   |                     | 3                            | 3                      | 3                      | 2              | 3                 | 3                |
| Rear speeds  |                     | 8/7/6                        | 8/7/6                  | 8/7/6                  | 8/7/6          | 7/6               | 7/6              |
| Compatible chain   |                     | HG 8/7/6-speed               | HG 8/7/6-speed         | HG 8/7/6-speed         | HG 8/7/6-speed | HG 8/7/6-speed    | HG 8/7/6-speed   |
| Action   | TOP SWING           |                              | ✓                      | ✓                      | ✓              | ✓                 | -                |
|  | Down swing          |                              | -                      | -                      | -              | ✓                 | ✓                |
|  | SIDE SWING          |                              | -                      | -                      | -              | -                 | -                |
| Mount  | Clamp band (mm)     | 28.6                         | -                      | -                      | -              | ✓                 | -                |
|  |                     | 31.8                         | ✓                      | ✓                      | ✓              | ✓                 | -                |
|  |                     | 34.9                         | ✓                      | ✓                      | ✓              | -                 | ✓                |
|  | E-type              | With bottom bracket plate    | -                      | -                      | -              | -                 | -                |
|  |                     | Without bottom bracket plate | -                      | -                      | -              | -                 | -                |
|  | Direct mount        |                              | -                      | -                      | -              | -                 | -                |
|  | Brazed-on           |                              | -                      | -                      | -              | -                 | -                |
| Cable adjust   |                     | -                            | -                      | -                      | -              | -                 | -                |
| Cable route type   | Dual-pull           |                              | ✓                      | ✓                      | ✓              | ✓                 | -                |
|  | Top-pull exclusive  |                              | -                      | -                      | -              | -                 | ✓                |
|  | Down-pull exclusive |                              | -                      | -                      | -              | ✓                 | ✓                |
|  | Front-pull          |                              | -                      | -                      | -              | -                 | -                |
| Chain line (mm)  |                     | 47.5/50                      | 47.5/50                | 47.5/50                | 48.8           | 47.5              | 50               |
| Chainstay angle (deg.)                                       |                     | 63-66                        | 66-69                  | 63-66                  | 63-68          | 66-69             | 66-69            |
| Top gear teeth   |                     | 42T                          | 48T                    | 48T                    | 46T            | 42T               | 42T              |
| Total capacity   |                     | 18T                          | 20T                    | 20T                    | 16T            | 18T               | 18T              |
| Applicable top-mid tooth difference                          |                     | 8T                           | 10T                    | 10T                    | -              | 8T                | 8T               |
| Multi access cable fixing screw                              |                     | -                            | -                      | -                      | -              | -                 | -                |
| Angled stroke adjust screw                                   |                     | -                            | -                      | -                      | -              | -                 | -                |
| Angled clamp band design                                     |                     | ✓                            | ✓                      | ✓                      | ✓              | -                 | -                |
| Multi-bearing construction                                   |                     | -                            | -                      | -                      | -              | -                 | -                |
| Link bushings  |                     | -                            | -                      | -                      | -              | -                 | -                |
| Front clamp band   | Material            | Steel                        | Steel                  | Steel                  | Steel          | Steel             | Steel            |
|  | Finish              | Zinc plated                  | Zinc plated            | Zinc plated            | Painted        | Painted           | Painted          |
| Rear clamp band, base bracket                                | Material            | Steel                        | Steel                  | Steel                  | Steel          | Steel             | Steel            |
|  | Finish              | Zinc plated                  | Zinc plated            | Zinc plated            | Painted        | Painted           | Painted          |
| Clamp screw  | Material            | Steel                        | Steel                  | Steel                  | Steel          | Steel             | Steel            |
|  | Finish              | Nickel plated                | Nickel plated          | Nickel plated          | Nickel plated  | Nickel plated     | Nickel plated    |
| Bottom bracket plate   | Material            | -                            | -                      | -                      | -              | -                 | -                |
|  | Finish              | -                            | -                      | -                      | -              | -                 | -                |
| Outer link   | Material            | Steel                        | Steel                  | Steel                  | Steel          | Steel+Resin       | Steel+Resin      |
|  | Finish              | Zinc plated                  | Zinc plated            | Zinc plated            | Zinc plated    | Painted           | Painted          |
| Inner link   | Material            | Steel                        | Steel                  | Steel                  | Steel          | Steel             | Steel            |
|  | Finish              | Painted                      | Painted                | Painted                | Painted        | Zinc plated       | Zinc plated      |
| Chain guide  | Material            | Steel                        | Steel                  | Steel                  | Steel          | Steel             | Steel            |
|  | Finish              | Chrome plated/ Painted       | Chrome plated/ Painted | Chrome plated/ Painted | Chrome plated  | Zinc plated       | Zinc plated      |
| Cable fixing screw   | Material            | Steel                        | Steel                  | Steel                  | Steel          | Steel             | Steel            |
|  | Finish              | Nickel plated                | Nickel plated          | Nickel plated          | Nickel plated  | Nickel plated     | Nickel plated    |
| Stroke adjusting screw                                       | Material            | Steel                        | Steel                  | Steel                  | Steel          | Steel             | Steel            |
|  | Finish              | Zinc plated                  | Zinc plated            | Zinc plated            | Zinc plated    | Zinc plated       | Zinc plated      |
| Average weight (g) (band type: L size, direct type w/ screw) |                     | -                            | -                      | -                      | -              | -                 | -                |
| Note   |                     | -                            | -                      | -                      | -              | -                 | -                |

# Front Derailleur

| Series   |                     |                              | TOURNEY TZ     | TOURNEY TZ     | TOURNEY               | TOURNEY               |
|--|---------------------|------------------------------|----------------|----------------|-----------------------|-----------------------|
| Model no.  |                     |                              | FD-TZ500-DS6   | FD-TZ510-DS6   | FD-A070-A             | FD-A073               |
| Color  | 1                   |                              | Series color   | Series color   | Series color          | Series color          |
|  | 2                   |                              | -              | -              | -                     | -                     |
| Front speeds   |                     |                              | 3 (friction)   | 3 (friction)   | 2                     | 3                     |
| Rear speeds  |                     |                              | 7/6            | 7/6            | 7                     | 7                     |
| Compatible chain   |                     |                              | HG 8/7/6-speed | HG 8/7/6-speed | HG 8/7/6-speed        | HG 8/7/6-speed        |
| Action   | TOP SWING           |                              | -              | -              | -                     | -                     |
|  | Down swing          |                              | ✓              | ✓              | ✓                     | ✓                     |
|  | SIDE SWING          |                              | -              | -              | -                     | -                     |
| Mount  | Clamp band (mm)     | 28.6                         | ✓              | ✓              | ✓ (w/ S size adapter) | ✓ (w/ S size adapter) |
|  |                     | 31.8                         | ✓              | ✓              | ✓ (w/ M size adapter) | ✓ (w/ M size adapter) |
|  |                     | 34.9                         | -              | -              | ✓                     | ✓                     |
|  | E-type              | With bottom bracket plate    | -              | -              | -                     | -                     |
|  |                     | Without bottom bracket plate | -              | -              | -                     | -                     |
|  | Direct mount        |                              | -              | -              | -                     | -                     |
|  | Brazed-on           |                              | -              | -              | -                     | -                     |
| Cable adjust   |                     |                              | -              | -              | -                     | -                     |
| Cable route type   | Dual-pull           |                              | -              | -              | -                     | -                     |
|  | Top-pull exclusive  |                              | ✓              | ✓              | -                     | -                     |
|  | Down-pull exclusive |                              | ✓              | ✓              | -                     | -                     |
|  | Front-pull          |                              | -              | -              | -                     | -                     |
| Chain line (mm)  |                     |                              | 47.5           | 47.5           | 43.5                  | 45                    |
| Chainstay angle (deg.)                                       |                     |                              | 66-69          | 66-69          | 61-66                 | 63-66                 |
| Top gear teeth   |                     |                              | 42T            | 48T            | 50T                   | 50T                   |
| Total capacity   |                     |                              | 18T            | 20T            | 16T                   | 20T                   |
| Applicable top-mid tooth difference                          |                     |                              | 8T             | 10T            | -                     | 11T                   |
| Multi access cable fixing screw                              |                     |                              | -              | -              | -                     | -                     |
| Angled stroke adjust screw                                   |                     |                              | -              | -              | -                     | -                     |
| Angled clamp band design                                     |                     |                              | -              | -              | ✓                     | ✓                     |
| Multi-bearing construction                                   |                     |                              | -              | -              | -                     | -                     |
| Link bushings  |                     |                              | -              | -              | -                     | -                     |
| Front clamp band   | Material            |                              | Steel          | Steel          | Steel                 | Steel                 |
|  | Finish              |                              | Painted        | Painted        | Painted               | Painted               |
| Rear clamp band, base bracket                                | Material            |                              | Steel          | Steel          | Aluminum              | Aluminum              |
|  | Finish              |                              | Painted        | Painted        | Painted               | Painted               |
| Clamp screw  | Material            |                              | Steel          | Steel          | -                     | -                     |
|  | Finish              |                              | Zinc plated    | Zinc plated    | -                     | -                     |
| Bottom bracket plate   | Material            |                              | -              | -              | -                     | -                     |
|  | Finish              |                              | -              | -              | -                     | -                     |
| Outer link   | Material            |                              | Steel+Resin    | Steel+Resin    | Steel                 | Steel                 |
|  | Finish              |                              | Painted        | Painted        | Painted               | Painted               |
| Inner link   | Material            |                              | Steel          | Steel          | Steel                 | Steel                 |
|  | Finish              |                              | Painted        | Painted        | Painted               | Painted               |
| Chain guide  | Material            |                              | Steel          | Steel          | Steel                 | Steel                 |
|  | Finish              |                              | Painted        | Painted        | Painted               | Painted               |
| Cable fixing screw   | Material            |                              | Steel          | Steel          | Steel                 | Steel                 |
|  | Finish              |                              | Zinc plated    | Zinc plated    | Nickel plated         | Nickel plated         |
| Stroke adjusting screw                                       | Material            |                              | Steel          | Steel          | Steel                 | Steel                 |
|  | Finish              |                              | Zinc plated    | Zinc plated    | Zinc plated           | Zinc plated           |
| Average weight (g) (band type: L size, direct type w/ screw) |                     |                              | -              | -              | -                     | -                     |
| Note   |                     |                              |                |                |                       |                       |

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# Brake (Hydraulic Disc Brake)

| Series   |                    | CUES                    | CUES  | CUES                    | CUES                    | CUES                    | SHIMANO                          |
|--|--------------------|-------------------------|---|-------------------------|-------------------------|-------------------------|----------------------------------|
| Model no.  |                    | BR-U8000                | BR-U8010  | BR-U8020                | BR-U6030-F              | BR-U6030-R              | BR-UR300                         |
| Color  | 1                  | Series color            | Series color  | Series color            | Series color            | Series color            | Black                            |
|  | 2                  | -                       | -   | -                       | Polished silver (NEW)   | Polished silver (NEW)   | -                                |
|  | 3                  | -                       | -   | -                       | -                       | -                       | -                                |
| Brake type   |                    | Hydraulic disc brake    | Hydraulic disc brake  | Hydraulic disc brake    | Hydraulic disc brake    | Hydraulic disc brake    | Hydraulic disc brake             |
| Brake hose (kit)   |                    | SM-BH90-SBM             | SM-BH90-SS  | SM-BH90-SBM             | SM-BH59-JK-SSR          | SM-BH59-JK-SSR          | SM-BH59-JK-SS                    |
| J-Kit spec (for OEM)   |                    | ✓                       | ✓   | ✓                       | ✓                       | ✓                       | ✓                                |
| Hose joint   |                    | Banjo                   | Straight  | Banjo                   | Straight                | Straight                | Straight                         |
| Brake hose color (kit)   | 1                  | Black                   | Black   | Black                   | Black                   | Black                   | Black                            |
|  | 2                  | -                       | -   | -                       | -                       | -                       | -                                |
| ICE TECHNOLOGIES pad compatible caliper  |                    | ✓                       | ✓   | ✓                       | -                       | -                       | -                                |
| Pad  | Standard 1         | G05A-RX Resin (w/o fin) | K05S-RX Resin (w/o fin) *   | N03A-RF Resin (w/ fin)  | B05S-RX Resin (w/o fin) | B05S-RX Resin (w/o fin) | B05S-RX Resin (w/o fin)          |
|  | Standard 2         | -                       | L05A-RF Resin (w/ fin) **   | D03S-RX Resin (w/o fin) | -                       | -                       | -                                |
|  | Option 1           | G04S-MX Metal (w/o fin) | -   | N04C-MF Metal (w/ fin)  | -                       | -                       | -                                |
|  | Option 2           | J05A-RF Resin (w/ fin)  | -   | D02S-MX Metal (w/o fin) | -                       | -                       | -                                |
| Fixing screw spec for rear mount   | 10 mm mount        | -                       | ✓   | -                       | ✓                       | ✓                       | ✓                                |
|  | 15 mm mount        | -                       | ✓   | -                       | ✓                       | ✓                       | ✓                                |
|  | 20 mm mount        | -                       | ✓   | -                       | ✓                       | ✓                       | ✓                                |
|  | 25 mm mount        | -                       | ✓   | -                       | ✓                       | ✓                       | ✓                                |
|  | 30 mm mount        | -                       | ✓   | -                       | ✓                       | ✓                       | ✓                                |
|  | 35 mm mount        | -                       | ✓   | -                       | ✓                       | ✓                       | ✓                                |
|  | 15.2 mm            | -                       | -   | -                       | -                       | -                       | -                                |
|  | 18.7 mm            | ✓                       | -   | ✓                       | -                       | -                       | -                                |
| Recommended brake lever  |                    | BL-U8000                | BL-U8000  | BL-U8000                | ST-U6030<br>BL-U6030-L  | ST-U6030<br>BL-U6030-L  | BL-MT201<br>BL-MT200             |
| Recommended disc brake rotor   |                    | RT-MT800                | RT-MT800  | RT-MT800                | SM-RT54<br>SM-RT30      | SM-RT54<br>SM-RT30      | SM-RT10 *<br>SM-RT26             |
| Compatible rotor size  | 140 mm (SS)        | ✓                       | ✓   | ✓                       | -                       | -                       | -                                |
|  | 160 mm (S)         | ✓                       | ✓   | ✓                       | ✓                       | ✓                       | ✓                                |
|  | 180 mm (M)         | ✓                       | ✓   | ✓                       | ✓                       | ✓                       | ✓                                |
|  | 203 mm (L)         | ✓                       | -   | ✓                       | -                       | -                       | -                                |
|  | 220 mm (LL)        | ✓                       | -   | ✓                       | -                       | -                       | -                                |
| Oil  |                    | SHIMANO mineral         | SHIMANO mineral   | SHIMANO mineral         | SHIMANO mineral         | SHIMANO mineral         | SHIMANO mineral                  |
| ONE WAY BLEEDING   |                    | ✓                       | ✓   | -                       | ✓                       | ✓                       | ✓                                |
| Mount type   |                    | Post type               | Flat mount  | Post type               | Flat mount              | Flat mount              | Flat mount                       |
| Piston   |                    | 2                       | 2   | 4                       | 2                       | 2                       | 2                                |
| Piston material  |                    | Ceramic                 | Resin   | Ceramic                 | Resin                   | Resin                   | Resin                            |
| Caliper  | MONO-BODY          | -                       | -   | -                       | -                       | -                       | -                                |
|  | Material           | Aluminum                | Aluminum  | Aluminum                | Aluminum                | Aluminum                | Aluminum                         |
|  | Finish             | Painted                 | Painted   | Painted                 | Painted                 | Painted                 | Painted                          |
| Caliper fixing screw   | Material           | Steel                   | Steel   | Steel                   | Steel                   | Steel                   | Steel                            |
|  | Tool size          | 5 mm                    | 4mm   | 5 mm                    | 4 mm                    | 4 mm                    | 5 mm                             |
|  | Anti loosen method | Snap ring               | Screw fix pin+Snap ring   | Snap ring               | Screw fix pin+Snap ring | Screw fix pin+Snap ring | Screw fix pin+Snap ring          |
| Pad mount  |                    | Pad axle                | Pad axle  | Pad axle                | Split pin               | Split pin               | Split pin                        |
| Average weight (g)   |                    | 107                     |   | 117                     | -                       | -                       | -                                |
| Average weight (g) (kit for front 800 mm, w/ pad (Standard 1), w/o adapter, w/ 2 screws) |                    | -                       | 146 (Front)<br>137 (Rear)   | -                       | -                       | -                       | -                                |
| Note   |                    |                         | * Available in OEM package only<br>** Available in OTC package only |                         |                         |                         | * Only compatible with resin pad |

# Brake (Mechanical Disc Brake)

|   |                    |                             |
|---|--------------------|-----------------------------|
| Series                                  |                    | TOURNEY TX                  |
| Model no.                               |                    | BR-TX805                    |
| Color                                   | 1                  | Black                       |
|   | 2                  | -                           |
|   | 3                  | -                           |
| Brake type                              |                    | Mechanical disc brake       |
| ICE TECHNOLOGIES pad compatible caliper |                    | -                           |
| Pad                                     | Standard 1         | B05S-RX Resin (w/o fin)     |
|   | Standard 2         | -                           |
|   | Option 1           | -                           |
|   | Option 2           | -                           |
| Recommended brake lever                 |                    | V-BRAKE BL (1.5-2.5 finger) |
| Recommended disc brake rotor            |                    | SM-RT10, SM-RT26            |
| Mount type                              |                    | Post type                   |
| Piston                                  |                    | 1                           |
| Piston material                         |                    | -                           |
| Caliper                                 | MONO-BODY          | -                           |
|   | Material           | Aluminum                    |
|   | Finish             | Painted                     |
| Caliper fixing screw                    | Material           | Steel                       |
|   | Tool size          | 5 mm                        |
|   | Anti loosen method | Snap ring                   |
| Pad mount                               |                    | Split pin                   |
| Average weight (g)                      |                    | -                           |
| Note                                    |                    |                             |

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# Crankset

| Series  |                          | CUES                   | CUES                   | CUES                            | CUES                   | CUES                   | CUES  |
|---|--------------------------|------------------------|------------------------|---------------------------------|------------------------|------------------------|---|
| Model no.                                       |                          | FC-U8000-2             | FC-U8000-1             | FC-U6000-2                      | FC-U6000-2B            | FC-U6010-2             | FC-U6000-1                                  |
| Color   | 1                        | Series color           | Series color           | Series color                    | Series color           | Series color           | Series color                                |
|   | 2                        | -                      | -                      | -                               | -                      | -                      | -   |
| Rear speeds                                     |                          | 11                     | 11/10/9                | 11/10/9 (36-22T), 10/9 (46-30T) | 11/10/9                | 11                     | 11/10/9                                     |
| Compatible chain                                |                          | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed          | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed                      |
| Chain line (mm)                                 |                          | 48.8                   | 50                     | 48.8                            | 51.8                   | 48.8                   | 55 (30T, 32T), 52 (30T, 32T), 50 (40T, 42T) |
| O.L.D.  | Thru (mm)                | 142                    | 142                    | 142                             | 148                    | 142                    | *148, 142 (30T, 32T), 142 (40T, 42T)        |
|   | QR/Nut (mm)              | 135                    | 135                    | 135                             | 141                    | 135                    | *141, 135 (30T, 32T), 135 (40T, 42T)        |
| P.C.D. (mm)                                     |                          | 96                     | 96                     | 96 (36-22T), 110 (46-30T)       | 96                     | 110                    | 96 (30T, 32T), 110 (40T, 42T)               |
| Spider/gear arms                                |                          | 4                      | 4                      | 4                               | 4                      | 4                      | 4   |
| Chaining combination                            |                          | 46-32T                 | 40T, 42T               | 36-22T, 46-30T                  | 36-22T                 | 46-32T                 | 30T, 32T, 40T, 42T                          |
| Q-factor (mm)                                   |                          | 180                    | 180                    | 180                             | 180                    | 180                    | 180   |
| Crank arm length (mm)                           | 160                      | -                      | -                      | -                               | -                      | -                      | -   |
|   | 165                      | -                      | -                      | -                               | -                      | -                      | ✓ (chain line 55mm)                         |
|   | 167.5                    | -                      | -                      | -                               | -                      | -                      | -   |
|   | 170                      | ✓                      | ✓                      | ✓                               | ✓                      | ✓                      | ✓   |
|   | 172.5                    | -                      | -                      | -                               | -                      | -                      | -   |
|   | 175                      | ✓                      | ✓                      | ✓                               | ✓                      | ✓                      | ✓   |
|   | 177.5                    | -                      | -                      | -                               | -                      | -                      | -   |
|   | 180                      | -                      | -                      | -                               | -                      | -                      | -   |
| Optional chain guard                            | With bash guard          | -                      | -                      | -                               | -                      | -                      | -   |
|   | With chain guard         | ✓                      | ✓                      | ✓ (46-30T)                      | -                      | ✓                      | ✓ (40T, 42T)                                |
|   | Without chain/bash guard | ✓                      | ✓                      | ✓                               | ✓                      | ✓                      | ✓   |
| HOLLOWTECH II                                   |                          | ✓                      | ✓                      | -                               | -                      | ✓                      | -   |
| 2-PIECE CRANKSET                                |                          | -                      | -                      | ✓                               | ✓                      | -                      | ✓   |
| HOLLOWTECH crank arm                            |                          | -                      | -                      | -                               | -                      | -                      | -   |
| OCTALINK  |                          | -                      | -                      | -                               | -                      | -                      | -   |
| HOLLOWGLIDE                                     |                          | -                      | -                      | -                               | -                      | -                      | -   |
| Compatible bottom bracket type                  | Outboard                 | ✓                      | ✓                      | ✓                               | ✓                      | ✓                      | ✓   |
|   | OCTALINK                 | -                      | -                      | -                               | -                      | -                      | -   |
|   | Square                   | -                      | -                      | -                               | -                      | -                      | -   |
| Recommended bottom bracket                      | Threaded (normal)        | BB-MT801               | BB-MT801               | BB-MT501                        | BB-MT501               | BB-MT501               | BB-MT501                                    |
|   | Threaded (E-type)        | -                      | -                      | -                               | -                      | -                      | -   |
|   | Threaded (chain case)    | -                      | -                      | BB-MT501                        | -                      | BB-MT501               | BB-MT501                                    |
|   | Press-Fit                | BB-MT800-PA            | BB-MT800-PA            | BB-MT500-PA                     | BB-MT500-PA            | BB-MT500-PA            | BB-MT500-PA                                 |
| Axle length of BB-UN/ES (mm)                    |                          | -                      | -                      | -                               | -                      | -                      | -   |
| Threaded bottom bracket shell width (mm)        | 68                       | ✓                      | ✓                      | ✓                               | ✓                      | ✓                      | ✓   |
|   | 70                       | -                      | -                      | -                               | -                      | -                      | -   |
|   | 73                       | ✓                      | ✓                      | ✓                               | ✓                      | ✓                      | ✓   |
|   | 83                       | -                      | -                      | -                               | -                      | -                      | -   |
| Chain case compatible                           |                          | ✓                      | ✓                      | ✓ (46-30T)                      | -                      | ✓                      | ✓ (40T, 42T)                                |
| Crank arm                                       | Material                 | Aluminum               | Aluminum               | Aluminum                        | Aluminum               | Aluminum               | Aluminum                                    |
|   | Finish                   | Anodized               | Anodized               | Painted                         | Painted                | Painted                | Painted                                     |
| Crank axle                                      | Material                 | Steel                  | Steel                  | Steel                           | Steel                  | Steel                  | Steel                                       |
|   | Finish                   | Plated                 | Plated                 | Plated                          | Plated                 | Plated                 | Plated                                      |
| Spider arm                                      | Material                 | Aluminum               | Aluminum               | Aluminum                        | Aluminum               | Aluminum               | Aluminum                                    |
|   | Finish                   | Anodized               | Anodized               | Painted                         | Painted                | Painted                | Painted                                     |
| Spider arm cover                                | Material                 | -                      | -                      | -                               | -                      | -                      | -   |
|   | Finish                   | -                      | -                      | -                               | -                      | -                      | -   |
| Outer ring                                      | Material                 | Aluminum               | Aluminum               | Steel                           | Steel                  | Aluminum               | Steel                                       |
|   | Finish                   | Anodized               | Anodized               | Painted                         | Painted                | Anodized               | Painted                                     |
| Middle ring                                     | Material                 | -                      | -                      | -                               | -                      | -                      | -   |
|   | Finish                   | -                      | -                      | -                               | -                      | -                      | -   |
| Inner ring                                      | Material                 | Aluminum               | -                      | Steel                           | Steel                  | Steel                  | -   |
|   | Finish                   | Anodized               | -                      | Painted                         | Painted                | Painted                | -   |
| Outer/middle ring fixing bolt                   | Material                 | Aluminum               | Aluminum               | Stainless steel                 | Stainless steel        | Stainless steel        | Stainless steel                             |
|   | Finish                   | Anodized               | Anodized               | -                               | -                      | -                      | -   |
| Inner ring fixing screw                         | Material                 | -                      | -                      | Stainless steel                 | Stainless steel        | Stainless steel        | -   |
|   | Finish                   | -                      | -                      | -                               | -                      | -                      | -   |
| Stainless chain guard fixing screw              |                          | ✓                      | ✓                      | -                               | -                      | ✓                      | ✓   |
| Crank fixing screw included                     |                          | ✓                      | ✓                      | ✓                               | ✓                      | ✓                      | ✓   |
| Average weight (g) (170 mm, w/o bottom bracket) |                          | -                      | -                      | -                               | -                      | -                      | -   |
| Note  |                          |                        |                        |                                 |                        |                        |   |

\* Chain line 55 mm spec. is for rear O.L.D. 148(Thru)/141(QR) only

# Crankset

| Series  |                          | CUES                   | CUES                   | CUES  | CUES                   | CUES                   | CUES                   |
|---|--------------------------|------------------------|------------------------|---|------------------------|------------------------|------------------------|
| Model no.                                       |                          | FC-U6030-2             | FC-U6040-2             | FC-U6030-1  | FC-U6040-1             | FC-U4000-2             | FC-U4000-2B            |
| Color   | 1                        | Series color           | Series color           | Series color  | Series color           | Series color           | Series color           |
|   | 2                        | -                      | -                      | Polished silver * (NEW)                             | -                      | -                      | -                      |
| Rear speeds                                     |                          | 10/9                   | 10/9                   | 11/10/9   | 11/10/9                | 11/10/9                | 11/10/9                |
| Compatible chain                                |                          | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed                              | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed |
| Chain line (mm)                                 |                          | 47                     | 47                     | 50  | 50                     | 48.8                   | 51.8                   |
| O.L.D.  | Thru (mm)                | 142                    | 142                    | 142   | 142                    | 142                    | 148                    |
|   | QR/Nut (mm)              | 135                    | 135                    | 135   | 135                    | 135                    | 141                    |
| P.C.D. (mm)                                     |                          | 110                    | 110                    | 110   | 110                    | Riveted                | Riveted                |
| Spider/gear arms                                |                          | 4                      | 4                      | 4   | 4                      | 4                      | 4                      |
| Chaining combination                            |                          | 46-32T, 50-34T         | 46-32T, 50-34T         | 40T, 42T  | 40T, 42T               | 36-22T, 40-26T         | 36-22T                 |
| Q-factor (mm)                                   |                          | 152                    | 152                    | 152   | 152                    | 178                    | 178                    |
| Crank arm length (mm)                           | 160                      | -                      | -                      | -   | -                      | -                      | -                      |
|   | 165                      | ✓                      | -                      | ✓   | -                      | -                      | -                      |
|   | 167.5                    | -                      | -                      | -   | -                      | -                      | -                      |
|   | 170                      | ✓                      | ✓                      | ✓   | ✓                      | ✓                      | ✓                      |
|   | 172.5                    | ✓                      | ✓                      | ✓   | ✓                      | -                      | -                      |
|   | 175                      | ✓                      | ✓                      | ✓   | ✓                      | ✓                      | ✓                      |
|   | 177.5                    | -                      | -                      | -   | -                      | -                      | -                      |
|   | 180                      | -                      | -                      | -   | -                      | -                      | -                      |
| Optional chain guard                            | With bash guard          | -                      | -                      | -   | -                      | -                      | -                      |
|   | With chain guard         | -                      | -                      | ✓ (40T, Polished silver only)                       | -                      | ✓ (40-26T)             | -                      |
|   | Without chain/bash guard | ✓                      | ✓                      | ✓   | ✓                      | ✓                      | ✓                      |
| HOLLOWTECH II                                   |                          | -                      | ✓                      | -   | ✓                      | -                      | -                      |
| 2-PIECE CRANKSET                                |                          | ✓                      | -                      | ✓   | -                      | -                      | -                      |
| HOLLOWTECH crank arm                            |                          | -                      | -                      | -   | -                      | -                      | -                      |
| OCTALINK  |                          | -                      | -                      | -   | -                      | -                      | -                      |
| HOLLOWGLIDE                                     |                          | -                      | -                      | -   | -                      | -                      | -                      |
| Compatible bottom bracket type                  | Outboard                 | ✓                      | ✓                      | ✓   | ✓                      | -                      | -                      |
|   | OCTALINK                 | -                      | -                      | -   | -                      | -                      | -                      |
|   | Square                   | -                      | -                      | -   | -                      | ✓                      | ✓                      |
| Recommended bottom bracket                      | Threaded (normal)        | BB-RS501               | BB-RS501               | BB-RS501  | BB-RS501               | BB-UN101               | BB-UN101               |
|   | Threaded (E-type)        | -                      | -                      | -   | -                      | -                      | -                      |
|   | Threaded (chain case)    | -                      | -                      | -   | -                      | -                      | -                      |
|   | Press-Fit                | BB-RS500-PB            | BB-RS500-PB            | BB-RS500-PB   | BB-RS500-PB            | -                      | -                      |
| Axle length of BB-UN/ES (mm)                    |                          | -                      | -                      | -   | -                      | LL123                  | LL123                  |
| Threaded bottom bracket shell width (mm)        | 68                       | ✓                      | ✓                      | ✓   | ✓                      | ✓                      | ✓                      |
|   | 70                       | ✓                      | ✓                      | ✓   | ✓                      | -                      | -                      |
|   | 73                       | -                      | -                      | -   | -                      | ✓                      | ✓                      |
|   | 83                       | -                      | -                      | -   | -                      | -                      | -                      |
| Chain case compatible                           |                          | -                      | -                      | -   | -                      | -                      | -                      |
| Crank arm                                       | Material                 | Aluminum               | Aluminum               | Aluminum  | Aluminum               | Aluminum               | Aluminum               |
|   | Finish                   | Painted                | Painted                | Painted   | Painted                | Painted                | Painted                |
| Crank axle                                      | Material                 | Steel                  | Steel                  | Steel   | Steel                  | Steel                  | Steel                  |
|   | Finish                   | Plated                 | Plated                 | Plated  | Plated                 | Plated                 | Plated                 |
| Spider arm                                      | Material                 | Aluminum               | Aluminum               | Aluminum  | Aluminum               | -                      | -                      |
|   | Finish                   | Painted                | Painted                | Painted   | Painted                | -                      | -                      |
| Spider arm cover                                | Material                 | -                      | -                      | -   | -                      | -                      | -                      |
|   | Finish                   | -                      | -                      | -   | -                      | -                      | -                      |
| Outer ring                                      | Material                 | Aluminum               | Aluminum               | Steel   | Steel                  | Steel                  | Steel                  |
|   | Finish                   | Anodized               | Anodized               | Painted   | Painted                | Painted                | Painted                |
| Middle ring                                     | Material                 | -                      | -                      | -   | -                      | -                      | -                      |
|   | Finish                   | -                      | -                      | -   | -                      | -                      | -                      |
| Inner ring                                      | Material                 | Steel                  | Steel                  | -   | -                      | Steel                  | Steel                  |
|   | Finish                   | Painted                | Painted                | -   | -                      | Painted                | Painted                |
| Outer/middle ring fixing bolt                   | Material                 | Stainless steel        | Stainless steel        | Stainless steel                                     | Stainless steel        | -                      | -                      |
|   | Finish                   | -                      | -                      | -   | -                      | -                      | -                      |
| Inner ring fixing screw                         | Material                 | Stainless steel        | Stainless steel        | -   | -                      | -                      | -                      |
|   | Finish                   | -                      | -                      | -   | -                      | -                      | -                      |
| Stainless chain guard fixing screw              |                          | -                      | -                      | -   | -                      | -                      | -                      |
| Crank fixing screw included                     |                          | -                      | -                      | -   | -                      | ✓                      | ✓                      |
| Average weight (g) (170 mm, w/o bottom bracket) |                          | -                      | -                      | -   | -                      | -                      | -                      |
| Note  |                          |                        |                        | * Only available for crank arm length 170 mm/175 mm |                        |                        |                        |

SL

BL

BL

BL

ST

ST

ST

ST

RD

FD

BR

BL

FC

BB

BB

CS

MF

HB

HB

FH

FH

SW

RD

FH

# Crankset

| Series  |                          | CUES                                    | CUES                   | CUES                                | SHIMANO                | SHIMANO ESSA             | SHIMANO ESSA   |
|---|--------------------------|---|------------------------|-------------------------------------|------------------------|--------------------------|----------------|
| Model no.                                       |                          | FC-U4010-2                              | FC-U4010-2B            | FC-U4000-1                          | FC-UT400-1             | FC-U2000-1               | FC-U2001-1     |
| Color   | 1                        | Series color                            | Series color           | Series color                        | Black                  | Series color             | Series color   |
|   | 2                        | -                                       | -                      | -                                   | -                      | -                        | -              |
| Rear speeds                                     |                          | 11/10/9 (36-22T, 40-26T), 10/9 (46-30T) | 11/10/9                | 11/10/9                             | 11/10/9                | 8                        | 8              |
| Compatible chain                                |                          | LINKGLIDE, HG 11-speed                  | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed              | LINKGLIDE, HG 11-speed | HG 8/7/6-speed           | HG 8/7/6-speed |
| Chain line (mm)                                 |                          | 48.8                                    | 51.8                   | 52 (30T, 32T), 50 (40T, 42T)        | 52, 55                 | 52 (32T), 50 (40T)       | 50             |
| O.L.D.  | Thru (mm)                | 142                                     | 148                    | 148, 142 (30T, 32T), 142 (40T, 42T) | 148, 142               | 148/142 (32T), 142 (40T) | 142            |
|   | QR/Nut (mm)              | 135                                     | 141                    | 141, 135 (30T, 32T), 135 (40T, 42T) | 141, 135               | 141/135 (32T), 135 (40T) | 135            |
| P.C.D. (mm)                                     |                          | Riveted                                 | Riveted                | Riveted                             | Riveted                | Riveted                  | Riveted        |
| Spider/gear arms                                |                          | 4                                       | 4                      | 4                                   | 4                      | 4                        | -              |
| Chaining combination                            |                          | 36-22T, 40-26T, 46-30T                  | 36-22T                 | 30T, 32T, 40T, 42T                  | 32T                    | 32T, 40T                 | 40T            |
| Q-factor (mm)                                   |                          | 180                                     | 180                    | 178                                 | 178                    | 178                      | 178            |
| Crank arm length (mm)                           | 160                      | -                                       | -                      | -                                   | -                      | -                        | -              |
|   | 165                      | -                                       | -                      | -                                   | ✓                      | -                        | -              |
|   | 167.5                    | -                                       | -                      | -                                   | -                      | -                        | -              |
|   | 170                      | ✓                                       | ✓                      | ✓                                   | ✓                      | ✓                        | ✓              |
|   | 172.5                    | -                                       | -                      | -                                   | -                      | -                        | -              |
|   | 175                      | ✓                                       | ✓                      | ✓                                   | ✓                      | ✓                        | ✓              |
|   | 177.5                    | -                                       | -                      | -                                   | -                      | -                        | -              |
|   | 180                      | -                                       | -                      | -                                   | -                      | -                        | -              |
| Optional chain guard                            | With bash guard          | -                                       | -                      | -                                   | -                      | -                        | -              |
|   | With chain guard         | ✓ (40-26T, 46-30T)                      | -                      | ✓ (40T, 42T)                        | -                      | - (32T), ✓ (40T)         | ✓              |
|   | Without chain/bash guard | ✓                                       | ✓                      | ✓                                   | ✓                      | ✓                        | ✓              |
| HOLLOWTECH II                                   |                          | -                                       | -                      | -                                   | -                      | -                        | -              |
| 2-PIECE CRANKSET                                |                          | ✓                                       | ✓                      | -                                   | -                      | -                        | -              |
| HOLLOWTECH crank arm                            |                          | -                                       | -                      | -                                   | -                      | -                        | -              |
| OCTALINK  |                          | -                                       | -                      | -                                   | -                      | -                        | -              |
| HOLLOWGLIDE                                     |                          | -                                       | -                      | -                                   | -                      | -                        | -              |
| Compatible bottom bracket type                  | Outboard                 | ✓                                       | ✓                      | -                                   | -                      | -                        | -              |
|   | OCTALINK                 | -                                       | -                      | -                                   | -                      | -                        | -              |
|   | Square                   | -                                       | -                      | ✓                                   | ✓                      | ✓                        | ✓              |
| Recommended bottom bracket                      | Threaded (normal)        | BB-MT501                                | BB-MT501               | BB-UN101                            | BB-UN101               | BB-UN101                 | BB-UN101       |
|   | Threaded (E-type)        | -                                       | -                      | -                                   | -                      | -                        | -              |
|   | Threaded (chain case)    | BB-MT501                                | -                      | BB-UN101-K                          | -                      | BB-UN101-K               | BB-UN101-K     |
|   | Press-Fit                | BB-MT500-PA                             | BB-MT500-PA            | -                                   | -                      | -                        | -              |
| Axle length of BB-UN/ES (mm)                    |                          | -                                       | -                      | LL123                               | LL123                  | LL123                    | LL123          |
| Threaded bottom bracket shell width (mm)        | 68                       | ✓                                       | ✓                      | ✓                                   | ✓                      | ✓                        | ✓              |
|   | 70                       | -                                       | -                      | -                                   | -                      | -                        | -              |
|   | 73                       | ✓                                       | ✓                      | ✓                                   | ✓                      | ✓                        | ✓              |
|   | 83                       | -                                       | -                      | -                                   | -                      | -                        | -              |
| Chain case compatible                           |                          | ✓ (46-30T)                              | -                      | ✓ (40T, 42T)                        | -                      | -                        | ✓              |
| Crank arm                                       | Material                 | Aluminum                                | Aluminum               | Aluminum                            | Aluminum               | Aluminum                 | Aluminum       |
|   | Finish                   | Painted                                 | Painted                | Painted                             | Painted                | Painted                  | Painted        |
| Crank axle                                      | Material                 | Steel                                   | Steel                  | Steel                               | Steel                  | -                        | -              |
|   | Finish                   | Plated                                  | Plated                 | Plated                              | Plated                 | -                        | -              |
| Spider arm                                      | Material                 | -                                       | -                      | Aluminum                            | -                      | -                        | -              |
|   | Finish                   | -                                       | -                      | Painted                             | -                      | -                        | -              |
| Spider arm cover                                | Material                 | -                                       | -                      | -                                   | -                      | -                        | -              |
|   | Finish                   | -                                       | -                      | -                                   | -                      | -                        | -              |
| Outer ring                                      | Material                 | Steel                                   | Steel                  | Steel                               | Steel                  | Steel                    | Steel          |
|   | Finish                   | Painted                                 | Painted                | Painted                             | Painted                | Painted                  | Painted        |
| Middle ring                                     | Material                 | -                                       | -                      | -                                   | -                      | -                        | -              |
|   | Finish                   | -                                       | -                      | -                                   | -                      | -                        | -              |
| Inner ring                                      | Material                 | Steel                                   | Steel                  | -                                   | -                      | -                        | -              |
|   | Finish                   | Painted                                 | Painted                | -                                   | -                      | -                        | -              |
| Outer/middle ring fixing bolt                   | Material                 | -                                       | -                      | Stainless steel                     | -                      | -                        | -              |
|   | Finish                   | -                                       | -                      | -                                   | -                      | -                        | -              |
| Inner ring fixing screw                         | Material                 | -                                       | -                      | -                                   | -                      | -                        | -              |
|   | Finish                   | -                                       | -                      | -                                   | -                      | -                        | -              |
| Stainless chain guard fixing screw              |                          | -                                       | -                      | ✓                                   | -                      | ✓                        | ✓              |
| Crank fixing screw included                     |                          | ✓                                       | ✓                      | ✓                                   | ✓                      | ✓                        | ✓              |
| Average weight (g) (170 mm, w/o bottom bracket) |                          | -                                       | -                      | -                                   | -                      | -                        | -              |
| Note  |                          |   |                        |                                     |                        |                          |                |

# Crankset

| Series  |                          | TOURNEY TX           | SHIMANO        | SHIMANO                                     | SHIMANO  | TOURNEY A070   | TOURNEY        |
|---|--------------------------|----------------------|----------------|---|--|----------------|----------------|
| Model no.                                       |                          | FC-TX801             | FC-TY501-2     | FC-TY501                                    | FC-TY301   | FC-A070        | FC-A073        |
| Color   | 1                        | Black                | Black          | Black                                       | Black  | Series color   | Series color   |
|   | 2                        | Silver               | -              | Silver                                      | -  | -              | -              |
| Rear speeds                                     |                          | 8/7/6                | 8/7            | 8/7/6                                       | 8/7/6  | 8/7            | 8/7            |
| Compatible chain                                |                          | HG 8/7/6-speed       | HG 8/7/6-speed | HG 8/7/6-speed                              | HG 8/7/6-speed   | HG 8/7/6-speed | HG 8/7/6-speed |
| Chain line (mm)                                 |                          | 50                   | 48.8           | 47.5/47.5 + t/50                            | 47.5/47.5 + t/50   | 43.5           | 45             |
| O.L.D.  | Thru (mm)                | 142                  | 142            | 142   | 142  | 142            | 142            |
|   | QR/Nut (mm)              | 135                  | 135            | 135   | 135  | 135            | 135            |
| P.C.D. (mm)                                     |                          | Riveted              | Riveted        | Riveted                                     | Riveted  | Riveted        | Riveted        |
| Spider/gear arms                                |                          | 4                    | 4              | 4   | 4  | 5              | 5              |
| Chainring combination                           |                          | 42-32-22T, 48-38-28T | 46-30T         | 42-34-24T, 48-38-28T                        | 42-34-24T, 48-38-28T   | 50-34T         | 50-39-30T      |
| Q-factor (mm)                                   |                          | 187.9                | 185.5          | 185.5                                       | 181.5  | 169            | 171.5          |
| Crank arm length (mm)                           | 160                      | -                    | -              | -   | -  | -              | -              |
|   | 165                      | ✓                    | -              | ✓   | -  | ✓              | ✓              |
|   | 167.5                    | -                    | -              | -   | -  | -              | -              |
|   | 170                      | ✓                    | ✓              | ✓   | ✓  | ✓              | ✓              |
|   | 172.5                    | -                    | -              | -   | -  | -              | -              |
|   | 175                      | ✓                    | ✓              | ✓   | ✓  | -              | -              |
|   | 177.5                    | -                    | -              | -   | -  | -              | -              |
| Optional chain guard                            | 180                      | -                    | -              | -   | -  | -              | -              |
|   | With bash guard          | -                    | -              | -   | -  | -              | -              |
|   | With chain guard         | ✓                    | ✓              | ✓ (integrated type)                         | ✓ (integrated type)  | ✓              | ✓              |
|   | Without chain/bash guard | ✓                    | ✓              | ✓   | ✓  | ✓              | ✓              |
| HOLLOWTECH II                                   |                          | -                    | -              | -   | -  | -              | -              |
| 2-PIECE CRANKSET                                |                          | -                    | -              | -   | -  | -              | -              |
| HOLLOWTECH crank arm                            |                          | -                    | -              | -   | -  | -              | -              |
| OCTALINK  |                          | -                    | -              | -   | -  | -              | -              |
| HOLLOWGLIDE                                     |                          | -                    | -              | -   | -  | -              | -              |
| Compatible bottom bracket type                  | Outboard                 | -                    | -              | -   | -  | -              | -              |
|   | OCTALINK                 | -                    | -              | -   | -  | -              | -              |
|   | Square                   | ✓                    | ✓              | ✓   | ✓  | ✓              | ✓              |
| Recommended bottom bracket                      | Threaded (normal)        | BB-UN101             | BB-UN101       | BB-UN101, BB-UN300                          | BB-UN101, BB-UN300   | BB-UN300       | BB-UN300       |
|   | Threaded (E-type)        | -                    | -              | -   | -  | -              | -              |
|   | Threaded (chain case)    | BB-UN101-K           | -              | BB-UN101-K, BB-UN300K                       | BB-UN101-K, BB-UN300K  | -              | -              |
|   | Press-Fit                | -                    | -              | -   | -  | -              | -              |
| Axle length of BB-UN/ES (mm)                    |                          | LL123                | LL123          | D-NL, *D-EL                                 | D-NL, *D-EL  | MM110          | LL113          |
| Threaded bottom bracket shell width (mm)        | 68                       | ✓                    | ✓              | ✓   | ✓  | ✓              | ✓              |
|   | 70                       | -                    | -              | -   | -  | ✓              | ✓              |
|   | 73                       | ✓                    | ✓              | ✓   | ✓  | -              | -              |
|   | 83                       | -                    | -              | -   | -  | -              | -              |
| Chain case compatible                           |                          | ✓                    | -              | ✓   | ✓  | -              | -              |
| Crank arm                                       | Material                 | Aluminum             | Aluminum       | Aluminum                                    | Aluminum   | Aluminum       | Aluminum       |
|   | Finish                   | Painted              | Painted        | Painted                                     | Painted  | Painted        | Painted        |
| Crank axle                                      | Material                 | -                    | -              | -   | -  | -              | -              |
|   | Finish                   | -                    | -              | -   | -  | -              | -              |
| Spider arm                                      | Material                 | -                    | -              | -   | -  | -              | -              |
|   | Finish                   | -                    | -              | -   | -  | -              | -              |
| Spider arm cover                                | Material                 | Resin                | Resin          | Resin                                       | Resin  | -              | -              |
|   | Finish                   | Resin                | Resin          | - (black), Painted (silver)                 | -  | -              | -              |
| Outer ring                                      | Material                 | Steel                | Steel          | Steel                                       | Steel  | Steel          | Steel          |
|   | Finish                   | Painted              | Painted        | Painted                                     | Painted  | Painted        | Painted        |
| Middle ring                                     | Material                 | Steel                | -              | Steel                                       | Steel  | -              | Steel          |
|   | Finish                   | Painted              | -              | Painted                                     | Painted  | -              | Painted        |
| Inner ring                                      | Material                 | Steel                | Steel          | Steel                                       | Steel  | Steel          | Steel          |
|   | Finish                   | Painted              | Painted        | Painted                                     | Painted  | Painted        | Painted        |
| Outer/middle ring fixing bolt                   | Material                 | -                    | -              | -   | -  | -              | -              |
|   | Finish                   | -                    | -              | -   | -  | -              | -              |
| Inner ring fixing screw                         | Material                 | -                    | -              | -   | -  | -              | -              |
|   | Finish                   | -                    | -              | -   | -  | -              | -              |
| Stainless chain guard fixing screw              |                          | -                    | -              | -   | -  | -              | -              |
| Crank fixing screw included                     |                          | ✓                    | ✓              | ✓ (Option)                                  | -  | -              | -              |
| Average weight (g) (170 mm, w/o bottom bracket) |                          | -                    | -              | -   | -  | -              | -              |
| Note  |                          |                      |                | * Bottom bracket spec. for chain line 50 mm | 150 mm spec. available for 42-34-22T (Black)<br>* Bottom bracket Spec for Chain line 50 mm |                |                |

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## Bottom Bracket (HOLLOWTECH II)

|   |                              |  |
|---|------------------------------|--|
| Series                                    |                              | SHIMANO                                    |
| Model no.                                 |                              | BB-UR400                                   |
| HOLLOWTECH II bottom bracket              | Threaded bottom bracket type | ✓  |
|   | Press-Fit type               | -  |
| Threaded bottom bracket shell width (mm)  | 68                           | ✓  |
|   | 73                           | -  |
|   | 83                           | -  |
| Press-Fit bottom bracket shell width (mm) | 84.5                         | -  |
|   | 89.5                         | -  |
|   | 92                           | -  |
|   | 104.5                        | -  |
|   | 107                          | -  |
| Small ball bearing                        |                              | -  |
| Adapter                                   | Material                     | Aluminum                                   |
|   | Finish                       | Painted                                    |
| Spacer                                    | Material                     | Resin                                      |
|   | Finish                       | -  |
| Average weight (g)                        |                              | -  |
| Note                                      |                              | Not compatible for E-type FD with BB plate |

# Bottom Bracket

| Series                       |                   |             | SHIMANO          | SHIMANO          | SHIMANO            | SHIMANO        | SHIMANO       | SHIMANO         |                 |
|------------------------------|-------------------|-------------|------------------|------------------|--------------------|----------------|---------------|-----------------|-----------------|
| Model no.                    |                   |             | BB-ES300         | BB-ES300-E       | BB-ES300-K         | BB-ES51        | BB-ES51-E     | BB-ES51-K       |                 |
| Structure                    | Standard          |             | ✓                | -                | -                  | ✓              | -             | -               |                 |
|                              | E-type            |             | -                | ✓                | -                  | -              | ✓             | -               |                 |
|                              | For chain case    |             | -                | -                | ✓                  | -              | -             | ✓               |                 |
| Spindle                      | Hollow pipe       |             | ✓                | ✓                | ✓                  | ✓              | ✓             | ✓               |                 |
|                              | OCTALINK          |             | ✓                | ✓                | ✓                  | ✓              | ✓             | ✓               |                 |
|                              | Square type       |             | -                | -                | -                  | -              | -             | -               |                 |
| Axle length/shell width (mm) | 107               | 68 (BC1.37) | -                | -                | -                  | -              | -             | -               |                 |
|                              |                   | 70 (M36)    | -                | -                | -                  | -              | -             | -               |                 |
|                              |                   | 73 (BC1.37) | -                | -                | -                  | -              | -             | -               |                 |
|                              | MM110             | 68 (BC1.37) | -                | -                | -                  | -              | -             | -               |                 |
|                              |                   | 70 (M36)    | -                | -                | -                  | -              | -             | -               |                 |
|                              |                   | 73 (BC1.37) | -                | -                | -                  | -              | -             | -               |                 |
|                              | LL113             | 68 (BC1.37) | -                | -                | -                  | -              | -             | -               |                 |
|                              |                   | 70 (M36)    | -                | -                | -                  | -              | -             | -               |                 |
|                              |                   | 73 (BC1.37) | -                | -                | -                  | -              | -             | -               |                 |
|                              | 113               | 68 (BC1.37) | ✓                | ✓                | -                  | ✓ (for double) | -             | -               |                 |
|                              |                   | 70 (M36)    | ✓                | -                | -                  | ✓ (for double) | -             | -               |                 |
|                              |                   | 73 (BC1.37) | ✓                | -                | -                  | ✓              | -             | -               |                 |
|                              | D-H               | 68 (BC1.37) | -                | -                | -                  | -              | -             | -               |                 |
|                              |                   | 70 (M36)    | -                | -                | -                  | -              | -             | -               |                 |
|                              | YL117             | 68 (BC1.37) | -                | -                | -                  | -              | -             | -               |                 |
|                              | 117.5             | 68 (BC1.37) | -                | -                | -                  | -              | -             | -               |                 |
|                              | 118               | 68 (BC1.37) | ✓                | ✓                | -                  | ✓              | -             | -               |                 |
|                              |                   | 70 (M36)    | ✓                | -                | -                  | -              | -             | -               |                 |
|                              |                   | 73 (BC1.37) | ✓                | -                | -                  | ✓              | -             | -               |                 |
|                              | XL118             | 68 (BC1.37) | -                | -                | -                  | -              | -             | -               |                 |
|                              |                   | 70 (M36)    | -                | -                | -                  | -              | -             | -               |                 |
|                              |                   | 73 mm       | -                | -                | -                  | -              | -             | -               |                 |
|                              | 121               | 68 (BC1.37) | ✓                | ✓                | ✓                  | ✓ (for triple) | -             | -               |                 |
|                              |                   | 70 (M36)    | -                | -                | -                  | ✓              | -             | -               |                 |
|                              |                   | 73 (BC1.37) | ✓                | ✓                | -                  | -              | -             | -               |                 |
|                              | 126               | 68 (BC1.37) | ✓                | ✓                | ✓*                 | ✓              | -             | -               |                 |
|                              |                   | 70 (M36)    | -                | -                | -                  | -              | -             | -               |                 |
|                              |                   | 73 (BC1.37) | ✓                | ✓                | -                  | -              | -             | -               |                 |
|                              | D-NL 122          | 68 (BC1.37) | -                | -                | -                  | -              | -             | -               |                 |
|                              |                   | 70 (M36)    | -                | -                | -                  | -              | -             | -               |                 |
|                              |                   | 73 (BC1.37) | -                | -                | -                  | -              | -             | -               |                 |
|                              | D-EL 127          | 68 (BC1.37) | -                | -                | -                  | -              | -             | -               |                 |
|                              |                   | 70 (M36)    | -                | -                | -                  | -              | -             | -               |                 |
|                              |                   | 73 (BC1.37) | -                | -                | -                  | -              | -             | -               |                 |
|                              | LL123             | 68 (BC1.37) | -                | -                | -                  | -              | -             | -               |                 |
|                              |                   | 70 (M36)    | -                | -                | -                  | -              | -             | -               |                 |
|                              |                   | 73 (BC1.37) | -                | -                | -                  | -              | -             | -               |                 |
|                              | 123SP             | 68 (BC1.37) | -                | -                | -                  | -              | -             | -               |                 |
|                              | 130               | 68 (BC1.37) | -                | -                | -                  | -              | -             | -               |                 |
|                              | Spindle           | Material    |                  | Steel            | Steel              | Steel          | Steel         | Steel           | Steel           |
|                              |                   | Finish      |                  | Bonderlube       | Bonderlube         | Bonderlube     | Plated        | Painted (black) | Painted (black) |
|                              | Left hand adapter | Material    |                  | Resin            | Resin              | Resin          | Resin         | Resin           | Resin           |
| Finish                       |                   | -           | -                | -                | -                  | -              | -             |                 |                 |
| Right hand adapter/ shell    | Material          |             | Steel            | Steel            | Steel              | Steel          | Steel         | Steel           |                 |
|                              | Finish            |             | Phosphate coated | Phosphate coated | Phosphate coated   | Nickel Chrome  | Nickel Chrome | Nickel Chrome   |                 |
| Note                         |                   |             |                  |                  | * w/ 0.7 mm spacer |                |               |                 |                 |

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# Bottom Bracket

| Series                       |                | SHIMANO          | SHIMANO   | SHIMANO  | SHIMANO        | SHIMANO   | SHIMANO  |
|------------------------------|----------------|------------------|---|--|----------------|---|--|
| Model no.                    |                | BB-E551-AK       | BB-UN300  | BB-UN300-K   | BB-UN300-E     | BB-UN101  | BB-UN101-K   |
| Structure                    | Standard       | -                | ✓   | -  | -              | ✓   | -  |
|                              | E-type         | -                | -   | -  | ✓              | -   | -  |
|                              | For chain case | ✓                | -   | ✓  | -              | -   | ✓  |
| Spindle                      | Hollow pipe    | ✓                | -   | -  | -              | -   | -  |
|                              | OCTALINK       | ✓                | -   | -  | -              | -   | -  |
|                              | Square type    | -                | ✓   | ✓  | ✓              | ✓   | ✓  |
| Axle length/shell width (mm) | 107            | 68 (BC1.37)      | -   | ✓  | -              | -   | -  |
|                              |                | 70 (M36)         | -   | -  | -              | -   | -  |
|                              |                | 73 (BC1.37)      | -   | -  | -              | -   | -  |
|                              | MM110          | 68 (BC1.37)      | -   | ✓ **   | ✓              | -   | -  |
|                              |                | 70 (M36)         | -   | -  | -              | -   | -  |
|                              |                | 73 (BC1.37)      | -   | -  | -              | -   | -  |
|                              | LL113          | 68 (BC1.37)      | -   | ✓ **   | -              | -   | -  |
|                              |                | 70 (M36)         | -   | -  | -              | -   | -  |
|                              |                | 73 (BC1.37)      | -   | ✓  | -              | -   | -  |
|                              | 113            | 68 (BC1.37)      | -   | -  | -              | -   | -  |
|                              |                | 70 (M36)         | -   | -  | -              | -   | -  |
|                              |                | 73 (BC1.37)      | -   | -  | -              | -   | -  |
|                              | D-H            | 68 (BC1.37)      | -   | ✓ *  | -              | -   | -  |
|                              |                | 70 (M36)         | -   | -  | -              | -   | -  |
|                              | YL117          | 68 (BC1.37)      | -   | -  | -              | -   | -  |
|                              | 117.5          | 68 (BC1.37)      | -   | ✓ **   | ✓              | -   | -  |
|                              | 118            | 68 (BC1.37)      | -   | -  | -              | -   | -  |
|                              |                | 70 (M36)         | -   | -  | -              | -   | -  |
|                              |                | 73 (BC1.37)      | -   | -  | -              | -   | -  |
|                              | XL118          | 68 (BC1.37)      | -   | ✓ **   | ✓ *            | -   | -  |
|                              |                | 70 (M36)         | -   | -  | -              | -   | -  |
|                              |                | 73 mm            | -   | ✓  | -              | -   | -  |
|                              | 121            | 68 (BC1.37)      | -   | -  | -              | -   | -  |
|                              |                | 70 (M36)         | -   | -  | -              | -   | -  |
|                              |                | 73 (BC1.37)      | -   | -  | -              | -   | -  |
|                              | 126            | 68 (BC1.37)      | -   | -  | -              | -   | -  |
|                              |                | 70 (M36)         | -   | -  | -              | -   | -  |
|                              |                | 73 (BC1.37)      | -   | -  | -              | -   | -  |
|                              | D-NL 122       | 68 (BC1.37)      | -   | ✓ **   | ✓ **           | -   | ✓ *  |
|                              |                | 70 (M36)         | -   | -  | -              | -   | -  |
|                              |                | 73 (BC1.37)      | -   | ✓ *  | -              | -   | -  |
|                              | D-EL 127       | 68 (BC1.37)      | -   | ✓ *  | ✓              | -   | -  |
|                              |                | 70 (M36)         | -   | -  | -              | -   | -  |
|                              |                | 73 (BC1.37)      | -   | -  | -              | -   | -  |
|                              | LL123          | 68 (BC1.37)      | -   | ✓  | ✓ ***          | ✓   | ✓ **   |
|                              |                | 70 (M36)         | -   | -  | -              | -   | -  |
|                              |                | 73 (BC1.37)      | -   | ✓  | -              | ✓   | -  |
|                              | 123SP          | 68 (BC1.37)      | -   | -  | -              | -   | -  |
|                              | 130            | 68 (BC1.37)      | -   | -  | -              | -   | -  |
| Spindle                      | Material       | Steel            | Steel   | Steel  | Steel          | Steel   | Steel  |
|                              | Finish         | Painted (black)  | Bonderlube  | Bonderlube   | Bonderlube     | -   | -  |
| Left hand adapter            | Material       | Resin            | Aluminum  | Aluminum   | Aluminum       | Resin   | Resin  |
|                              | Finish         | -                | -   | -  | -              | -   | -  |
| Right hand adapter/shell     | Material       | Steel            | Aluminum/Steel  | Aluminum/Steel   | Aluminum/Steel | Resin/Steel                                     | Resin/Steel  |
|                              | Finish         | Nickel Chrome    | -   | -  | -              | -   | -  |
| Note                         |                | For FC-M521 only | * w/ Crank arm fixing screws spec. only<br>** w/ Crank arm fixing screws spec. is available | * w/ Crank arm fixing screws spec. only<br>** w/ Crank arm fixing screws spec. is available<br>*** w/ 0.7mm spacer | -              | * w/ Crank arm fixing screws spec. is available | * w/ Crank arm fixing screws spec. is available<br>** w/ 0.7 mm spacer |

# Cassette

LIFESTYLE  
Active

| Series                         | SHIMANO  | SHIMANO                           | SHIMANO  |
|--------------------------------|--|-----------------------------------|--|
| Model no.                      | CS-LG700-11  | CS-LG400-11                       | CS-LG400-10  |
| Type                           | LINKGLIDE  | LINKGLIDE                         | LINKGLIDE  |
| Rear speeds                    | 11   | 11                                | 10   |
| Compatible chain               | LINKGLIDE, HG 11-speed   | LINKGLIDE, HG 11-speed            | LINKGLIDE, HG 11-speed   |
| Combination name (Group name)  | 11-45T, 11-50T   | 11-45T, 11-50T                    | 11-39T, 11-43T, 11-48T**   |
| Combination *<br>Titanium gear | 1  | 11-13-15-17-20-23-26-30-34-39-45T | 11-13-15-17-20-23-26-30-34-39T                                     |
|                                | 2  | 11-13-15-17-20-23-26-30-36-43-50T | 11-13-15-17-20-23-26-30-36-43T                                     |
|                                | 3  | -                                 | 11-13-15-17-20-23-28-34-41-48T                                     |
|                                | 4  | -                                 | -  |
|                                | 5  | -                                 | -  |
|                                | 6  | -                                 | -  |
|                                | 7  | -                                 | -  |
| Spline type                    | MICRO SPLINE   | -                                 | -  |
|                                | HG spline I2 (ROAD 12-speed dedicated)                           | -                                 | -  |
|                                | HG spline L (ROAD 12/11-speed)                                   | -                                 | -  |
|                                | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | ✓ *                               | ✓ *  |
|                                | HG spline S (7-speed)  | -                                 | -  |
| Carbon spider arm              | QTY (pcs)  | -                                 | -  |
|                                | Finish   | -                                 | -  |
| Aluminum spider arm            | QTY (pcs)  | 1                                 | -  |
|                                | Finish   | Painted                           | -  |
| Steel spider arm               | QTY (pcs)  | -                                 | -  |
|                                | Finish   | -                                 | -  |
| Titanium gear                  | QTY (pcs)  | -                                 | -  |
|                                | Finish   | -                                 | -  |
| Aluminum gear                  | QTY (pcs)  | -                                 | -  |
|                                | Finish   | -                                 | -  |
| Steel gear                     | QTY (pcs)  | 11                                | 10   |
|                                | Finish   | Plated                            | Plated   |
| Lock ring                      | Material   | Aluminum                          | Steel  |
|                                | Finish   | Anodized                          | Plated   |
| Average weight (g)             | 609 (11-50T)   | -                                 | -  |
| Note                           | * Follow compatibility chart                                     | * Follow compatibility chart      | * Follow compatibility chart<br>** Silver color is available (NEW) |

| Series                         | SHIMANO  | SHIMANO                        | SHIMANO                      |
|--------------------------------|--|--------------------------------|------------------------------|
| Model no.                      | CS-LG300-10  | CS-LG400-9                     | CS-LG300-9                   |
| Type                           | LINKGLIDE  | LINKGLIDE                      | LINKGLIDE                    |
| Rear speeds                    | 10   | 9                              | 9                            |
| Compatible chain               | LINKGLIDE, HG 11-speed   | LINKGLIDE, HG 11-speed         | LINKGLIDE, HG 11-speed       |
| Combination name (Group name)  | 11-39T, 11-48T   | 11-36T, 11-41T, 11-46T         | 11-36T, 11-41T, 11-46T       |
| Combination *<br>Titanium gear | 1  | 11-13-15-17-20-23-26-30-34-39T | 11-13-15-17-20-23-26-30-36T  |
|                                | 2  | 11-13-15-17-20-23-28-34-41-48T | 11-13-15-17-20-23-28-34-41T  |
|                                | 3  | -                              | 11-13-15-17-20-23-28-36-46T  |
|                                | 4  | -                              | -                            |
|                                | 5  | -                              | -                            |
|                                | 6  | -                              | -                            |
|                                | 7  | -                              | -                            |
| Spline type                    | MICRO SPLINE   | -                              | -                            |
|                                | HG spline I2 (ROAD 12-speed dedicated)                           | -                              | -                            |
|                                | HG spline L (ROAD 12/11-speed)                                   | -                              | -                            |
|                                | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | ✓ *                            | ✓ *                          |
|                                | HG spline S (7-speed)  | -                              | -                            |
| Carbon spider arm              | QTY (pcs)  | -                              | -                            |
|                                | Finish   | -                              | -                            |
| Aluminum spider arm            | QTY (pcs)  | -                              | -                            |
|                                | Finish   | -                              | -                            |
| Steel spider arm               | QTY (pcs)  | -                              | -                            |
|                                | Finish   | -                              | -                            |
| Titanium gear                  | QTY (pcs)  | -                              | -                            |
|                                | Finish   | -                              | -                            |
| Aluminum gear                  | QTY (pcs)  | -                              | -                            |
|                                | Finish   | -                              | -                            |
| Steel gear                     | QTY (pcs)  | 10                             | 9                            |
|                                | Finish   | MnPO4                          | MnPO4                        |
| Lock ring                      | Material   | Steel                          | Steel                        |
|                                | Finish   | MnPO4                          | MnPO4                        |
| Average weight (g)             | -  | -                              | -                            |
| Note                           | * Follow compatibility chart                                     | * Follow compatibility chart   | * Follow compatibility chart |

# Cassette

| Series                         |  | SHIMANO   | SHIMANO                               | SHIMANO  |
|--------------------------------|--|---|---------------------------------------|--|
| Model no.                      |  | CS-HG400-9  | CS-HG51-8                             | CS-HG50-8  |
| Type                           |  | HG  | HG                                    | HG   |
| Rear speeds                    |  | 9   | 8                                     | 8  |
| Compatible chain               |  | HG 9-speed  | IG, HG 8/7/6-speed                    | HG 8/7/6-speed   |
| Combination name (Group name)  |  | 11-25T (G), 11-28T (bg), 11-32T (ar), 11-34T (au), 11-36T (cb), 12-36T (bh) | 11-28T (bf), 11-30T (an), 11-32T (aw) | 11-28T (bf), 11-30T (an), 11-32T (aw), 11-34T (Ca), 12-23T (U), 12-25T (W), 13-26T (V) |
| Combination *<br>Titanium gear | 1  | 11-12-13-15-17-19-21-23-25T (G)   | 11-13-15-17-19-21-24-28T (bf)         | 11-13-15-17-19-21-24-28T (bf)  |
|                                | 2  | 11-12-13-14-16-18-21-24-28T (bg)  | 11-13-15-17-20-23-26-30T (an)         | 11-13-15-17-20-23-26-30T (an)  |
|                                | 3  | 11-12-14-16-18-21-24-28-32T (ar)  | 11-13-15-18-21-24-28-32T (aw)         | 11-13-15-18-21-24-28-32T (aw)  |
|                                | 4  | 11-13-15-17-20-23-26-30-34T (au)  | -                                     | 11-13-15-18-21-24-28-34T (Ca)  |
|                                | 5  | 11-13-15-17-20-23-26-30-36T (cb)  | -                                     | 12-13-14-15-17-19-21-23T (U)   |
|                                | 6  | 12-14-16-18-21-24-28-32-36T (bh)  | -                                     | 12-13-15-17-19-21-23-25T (W)   |
|                                | 7  | -   | -                                     | 13-14-15-17-19-21-23-26T (V)   |
| Spline type                    | MICRO SPLINE   | -   | -                                     | -  |
|                                | HG spline L2 (ROAD 12-speed dedicated)                           | -   | -                                     | -  |
|                                | HG spline L (ROAD 12/11-speed)                                   | -   | -                                     | -  |
|                                | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | ✓   | ✓                                     | ✓  |
|                                | HG spline S (7-speed)  | -   | -                                     | -  |
| Carbon spider arm              | QTY (pcs)  | -   | -                                     | -  |
|                                | Finish   | -   | -                                     | -  |
| Aluminum spider arm            | QTY (pcs)  | -   | -                                     | -  |
|                                | Finish   | -   | -                                     | -  |
| Steel spider arm               | QTY (pcs)  | -   | -                                     | -  |
|                                | Finish   | -   | -                                     | -  |
| Titanium gear                  | QTY (pcs)  | 0   | -                                     | -  |
|                                | Finish   | -   | -                                     | -  |
| Aluminum gear                  | QTY (pcs)  | 0   | -                                     | -  |
|                                | Finish   | -   | -                                     | -  |
| Steel gear                     | QTY (pcs)  | 9   | 8                                     | 8  |
|                                | Finish   | Ni-Ni plated  | Chrome plated                         | Nickel plated  |
| Lock ring                      | Material   | Steel   | Steel                                 | Steel  |
|                                | Finish   | Nickel plated   | Chrome plated                         | Nickel plated  |
| Average weight (g)             |  | -   | -                                     | -  |
| Note                           |  |   |                                       |  |

| Series                         |  | SHIMANO                  | SHIMANO                               | SHIMANO                               |
|--------------------------------|--|--------------------------|---------------------------------------|---------------------------------------|
| Model no.                      |  | CS-HG400-8               | CS-HG41-8                             | CS-HG31-8                             |
| Type                           |  | HG                       | HG                                    | HG                                    |
| Rear speeds                    |  | 8                        | 8                                     | 8                                     |
| Compatible chain               |  | IG, HG 8/7/6-speed       | IG, HG 8/7/6-speed                    | IG, HG 8/7/6-speed                    |
| Combination name (Group name)  |  | 11-40T, 11-45T           | 11-30T (an), 11-32T (aw), 11-34T (ao) | 11-30T (an), 11-32T (aw), 11-34T (ao) |
| Combination *<br>Titanium gear | 1  | 11-13-15-18-22-27-33-40T | 11-13-15-17-20-23-26-30T (an)         | 11-13-15-17-20-23-26-30T (an)         |
|                                | 2  | 11-13-15-18-22-27-35-45T | 11-13-15-18-21-24-28-32T (aw)         | 11-13-15-18-21-24-28-32T (aw)         |
|                                | 3  | -                        | 11-13-15-17-20-23-26-34T (ao)         | 11-13-15-17-20-23-26-34T (ao)         |
|                                | 4  | -                        | -                                     | -                                     |
|                                | 5  | -                        | -                                     | -                                     |
|                                | 6  | -                        | -                                     | -                                     |
|                                | 7  | -                        | -                                     | -                                     |
| Spline type                    | MICRO SPLINE   | -                        | -                                     | -                                     |
|                                | HG spline L2 (ROAD 12-speed dedicated)                           | -                        | -                                     | -                                     |
|                                | HG spline L (ROAD 12/11-speed)                                   | -                        | -                                     | -                                     |
|                                | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | ✓                        | ✓                                     | ✓                                     |
|                                | HG spline S (7-speed)  | -                        | -                                     | -                                     |
| Carbon spider arm              | QTY (pcs)  | -                        | -                                     | -                                     |
|                                | Finish   | -                        | -                                     | -                                     |
| Aluminum spider arm            | QTY (pcs)  | -                        | -                                     | -                                     |
|                                | Finish   | -                        | -                                     | -                                     |
| Steel spider arm               | QTY (pcs)  | -                        | -                                     | -                                     |
|                                | Finish   | -                        | -                                     | -                                     |
| Titanium gear                  | QTY (pcs)  | -                        | -                                     | -                                     |
|                                | Finish   | -                        | -                                     | -                                     |
| Aluminum gear                  | QTY (pcs)  | -                        | -                                     | -                                     |
|                                | Finish   | -                        | -                                     | -                                     |
| Steel gear                     | QTY (pcs)  | 8                        | 8                                     | 8                                     |
|                                | Finish   | Nickel plated            | Nickel plated                         | Phosphate coated                      |
| Lock ring                      | Material   | Steel                    | Steel                                 | Steel                                 |
|                                | Finish   | Phosphate coated         | Phosphate coated                      | Phosphate coated                      |
| Average weight (g)             |  | -                        | -                                     | -                                     |
| Note                           |  |                          |                                       |                                       |

# Cassette

| Series                         | SHIMANO  | SHIMANO                       | SHIMANO                    |
|--------------------------------|--|-------------------------------|----------------------------|
| Model no.                      | CS-HG200-8   | CS-HG300-8                    | CS-HG400-7                 |
| Type                           | HG   | HG                            | HG                         |
| Rear speeds                    | 8  | 8                             | 7                          |
| Compatible chain               | HG 8/7/6-speed   | HG 8/7/6-speed                | IG, HG 8/7/6-speed         |
| Combination name (Group name)  | 12-32T (br)  | 11-45T                        | 11-28T (ac)                |
| Combination *<br>Titanium gear | 1  | 12-14-16-18-21-24-28-32T (br) | 11-13-15-18-21-24-28T (ac) |
|                                | 2  | -                             | -                          |
|                                | 3  | -                             | -                          |
|                                | 4  | -                             | -                          |
|                                | 5  | -                             | -                          |
|                                | 6  | -                             | -                          |
|                                | 7  | -                             | -                          |
| Spline type                    | MICRO SPLINE   | -                             | -                          |
|                                | HG spline J2 (ROAD 12-speed dedicated)                           | -                             | -                          |
|                                | HG spline L (ROAD 12/11-speed)                                   | -                             | -                          |
|                                | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | ✓                             | ✓                          |
|                                | HG spline S (7-speed)  | -                             | -                          |
| Carbon spider arm              | QTY (pcs)  | -                             | -                          |
|                                | Finish   | -                             | -                          |
| Aluminum spider arm            | QTY (pcs)  | -                             | -                          |
|                                | Finish   | -                             | -                          |
| Steel spider arm               | QTY (pcs)  | -                             | -                          |
|                                | Finish   | -                             | -                          |
| Titanium gear                  | QTY (pcs)  | -                             | -                          |
|                                | Finish   | -                             | -                          |
| Aluminum gear                  | QTY (pcs)  | -                             | -                          |
|                                | Finish   | -                             | -                          |
| Steel gear                     | QTY (pcs)  | 8                             | 7                          |
|                                | Finish   | Painted                       | Nickel plated              |
| Lock ring                      | Material   | Steel                         | Steel                      |
|                                | Finish   | Phosphate coated              | Phosphate coated           |
| Average weight (g)             | -  | -                             | -                          |
| Note                           |  |                               |                            |

| Series                         | SHIMANO  | SHIMANO                    | SHIMANO                    |
|--------------------------------|--|----------------------------|----------------------------|
| Model no.                      | CS-HG41-7  | CS-HG20-7                  | CS-HG210-7                 |
| Type                           | HG   | HG                         | HG                         |
| Rear speeds                    | 7  | 7                          | 7                          |
| Compatible chain               | IG, HG 8/7/6-speed   | IG, HG 8/7/6-speed         | IG, HG 8/7/6-speed         |
| Combination name (Group name)  | 11-28T (ac)  | 12-28T (E)                 | 12-28T (bm), 12-32T (bp)   |
| Combination *<br>Titanium gear | 1  | 11-13-15-18-21-24-28T (ac) | 12-14-16-18-21-24-28T (bm) |
|                                | 2  | -                          | 12-14-16-18-21-26-32T (bp) |
|                                | 3  | -                          | -                          |
|                                | 4  | -                          | -                          |
|                                | 5  | -                          | -                          |
|                                | 6  | -                          | -                          |
|                                | 7  | -                          | -                          |
| Spline type                    | MICRO SPLINE   | -                          | -                          |
|                                | HG spline J2 (ROAD 12-speed dedicated)                           | -                          | -                          |
|                                | HG spline L (ROAD 12/11-speed)                                   | -                          | -                          |
|                                | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | -                          | ✓                          |
|                                | HG spline S (7-speed)  | ✓                          | -                          |
| Carbon spider arm              | QTY (pcs)  | -                          | -                          |
|                                | Finish   | -                          | -                          |
| Aluminum spider arm            | QTY (pcs)  | -                          | -                          |
|                                | Finish   | -                          | -                          |
| Steel spider arm               | QTY (pcs)  | -                          | -                          |
|                                | Finish   | -                          | -                          |
| Titanium gear                  | QTY (pcs)  | -                          | -                          |
|                                | Finish   | -                          | -                          |
| Aluminum gear                  | QTY (pcs)  | -                          | -                          |
|                                | Finish   | -                          | -                          |
| Steel gear                     | QTY (pcs)  | 7                          | 7                          |
|                                | Finish   | Nickel plated              | Painted                    |
| Lock ring                      | Material   | Steel                      | Steel                      |
|                                | Finish   | Phosphate coated           | Painted                    |
| Average weight (g)             | -  | -                          | -                          |
| Note                           |  |                            |                            |

# Cassette

| Series                         |  | SHIMANO                    |
|--------------------------------|--|----------------------------|
| Model no.                      |  | CS-HG200-7                 |
| Type                           |  | HG                         |
| Rear speeds                    |  | 7                          |
| Compatible chain               |  | IG, HG 8/7/6-speed         |
| Combination name (Group name)  |  | 12-28T (bm), 12-32T (bp)   |
| Combination *<br>Titanium gear | 1  | 12-14-16-18-21-24-28T (bm) |
|                                | 2  | 12-14-16-18-21-26-32T (bp) |
|                                | 3  | -                          |
|                                | 4  | -                          |
|                                | 5  | -                          |
|                                | 6  | -                          |
|                                | 7  | -                          |
| Spline type                    | MICRO SPLINE   | -                          |
|                                | HG spline I2 (ROAD 12-speed dedicated)                           | -                          |
|                                | HG spline L (ROAD 12/11-speed)                                   | -                          |
|                                | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | -                          |
|                                | HG spline S (7-speed)  | ✓                          |
| Carbon spider arm              | QTY (pcs)  | -                          |
|                                | Finish   | -                          |
| Aluminum spider arm            | QTY (pcs)  | -                          |
|                                | Finish   | -                          |
| Steel spider arm               | QTY (pcs)  | -                          |
|                                | Finish   | -                          |
| Titanium gear                  | QTY (pcs)  | -                          |
|                                | Finish   | -                          |
| Aluminum gear                  | QTY (pcs)  | -                          |
|                                | Finish   | -                          |
| Steel gear                     | QTY (pcs)  | 7                          |
|                                | Finish   | Painted                    |
| Lock ring                      | Material   | Steel                      |
|                                | Finish   | Painted                    |
| Average weight (g)             |  | -                          |
| Note                           |  |                            |

# Multiple Freewheel

| Series                         |                     | SHIMANO               | SHIMANO                   | SHIMANO            | SHIMANO                   |
|--------------------------------|---------------------|-----------------------|---------------------------|--------------------|---------------------------|
| Model no.                      |                     | MF-TZ500-7            | MF-TZ510-7                | MF-TZ500-6         | MF-TZ510-6                |
| Type                           |                     | HG/UG                 | HG/UG                     | HG/UG              | HG/UG                     |
| Rear speeds                    |                     | 7                     | 7                         | 6                  | 6                         |
| Compatible chain               |                     | HG 8/7/6-speed        | HG 8/7/6-speed            | HG 8/7/6-speed     | HG 8/7/6-speed            |
| Combination name (Group name)  |                     | 14-28T, 14-34T        | 14-28T, 14-34T            | 14-28T             | 14-28T                    |
| Combination *<br>Titanium gear | 1                   | 14-16-18-20-22-24-28T | 14-16-18-20-22-24-28T     | 14-16-18-21-24-28T | 14-16-18-21-24-28T        |
|                                | 2                   | 14-16-18-20-22-24-34T | 14-16-18-20-22-24-34T     | -                  | -                         |
|                                | 3                   | -                     | -                         | -                  | -                         |
|                                | 4                   | -                     | -                         | -                  | -                         |
|                                | 5                   | -                     | -                         | -                  | -                         |
| Spider arm                     | QTY (pcs)           | -                     | -                         | -                  | -                         |
| Spoke protector                | w/ Spoke protector  | ✓                     | ✓                         | ✓                  | ✓                         |
|                                | w/o Spoke protector | ✓                     | ✓                         | ✓                  | ✓                         |
| Aluminum lock ring             |                     | -                     | -                         | -                  | -                         |
| Finish                         |                     | Brown+Black           | Zinc plating+Black coated | Brown+Black        | Zinc plating+Black coated |
| Note                           |                     |                       |                           |                    |                           |

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## Front Hub (Disc Brake)

| Series  |                 | SHIMANO           | SHIMANO                | SHIMANO                    | SHIMANO                | SHIMANO                | SHIMANO                |
|---|-----------------|-------------------|------------------------|----------------------------|------------------------|------------------------|------------------------|
| Model no.                                     |                 | HB-QB400          | HB-QC400               | HB-QC300                   | HB-TC500-12            | HB-TC500-15            | HB-TC500-15-B          |
| Color   | 1 Hub shell     | Black             | Black                  | Black                      | Black                  | Black                  | Black                  |
|   | 1 Quick release | Black             | Black                  | Black                      | -                      | -                      | -                      |
|   | 2 Hub shell     | -                 | Silver                 | -                          | -                      | -                      | -                      |
|   | 2 Quick release | -                 | Black                  | -                          | -                      | -                      | -                      |
| Brake type                                    |                 | 6-bolt disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake     | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake |
| O.L.D. (mm)                                   |                 | 100               | 100                    | 100                        | 100                    | 100                    | 110                    |
| Spoke hole                                    | 28H             | -                 | -                      | ✓                          | ✓                      | ✓                      | ✓                      |
|   | 32H             | ✓                 | ✓                      | ✓                          | ✓                      | ✓                      | ✓                      |
|   | 36H             | ✓                 | ✓                      | ✓                          | ✓                      | ✓                      | ✓                      |
| External serration disc brake rotor lock ring | With            | -                 | -                      | -                          | -                      | -                      | -                      |
|   | Without         | -                 | ✓                      | ✓                          | ✓                      | ✓                      | ✓                      |
| CENTER LOCK mount cover option                |                 | ✓                 | ✓                      | ✓                          | -                      | -                      | -                      |
| Axle fixing method                            |                 | Quick release     | Quick release          | Quick release              | 12 mm E-THRU           | 15 mm E-THRU           | 15 mm E-THRU           |
| Quick release skewer length (mm)              | 129             | -                 | -                      | ✓                          | -                      | -                      | -                      |
|   | 133             | ✓                 | ✓                      | ✓                          | -                      | -                      | -                      |
| Thru axle (length x inner diameter ; mm)      | 100 x 12        | -                 | -                      | -                          | ✓                      | -                      | -                      |
|   | 100 x 15        | -                 | -                      | -                          | -                      | ✓                      | -                      |
|   | 110 x 15        | -                 | -                      | -                          | -                      | -                      | ✓                      |
|   | 110 x 20        | -                 | -                      | -                          | -                      | -                      | -                      |
| Flange distance (mm)                          |                 | 58.1              | 60.2                   | 60.2                       | 60.2                   | 60.2                   | 70.2                   |
| Offset (mm)                                   |                 | 5.3               | 5.3                    | 5.3                        | 5.3                    | 5.3                    | 5.3                    |
| P.C.D. left / right (mm)                      |                 | 61/61             | 44/44                  | 44/44                      | 44/44                  | 44/44                  | 44/44                  |
| Flange diameter left / right (mm)             |                 | 70.6              | 52.8                   | 52.8 (32H/36H), 53.8 (28H) | 52.8                   | 52.8                   | 52.8                   |
| Seal  |                 | Contact           | Contact                | Contact                    | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      |
| Internal grease sleeve                        |                 | -                 | -                      | -                          | -                      | -                      | -                      |
| Bearing                                       | Stainless ball  | -                 | -                      | -                          | -                      | -                      | -                      |
|   | Cup             | -                 | -                      | -                          | -                      | -                      | -                      |
|   | Cone            | -                 | -                      | -                          | -                      | -                      | -                      |
|   | Cartridge       | ✓                 | ✓                      | -                          | ✓                      | ✓                      | ✓                      |
| Hub shell                                     | Material        | Aluminum          | Aluminum               | Aluminum                   | Aluminum               | Aluminum               | Aluminum               |
|   | Finish          | Painted           | Painted                | Painted                    | Anodized               | Anodized               | Anodized               |
| Axle  | Material        | Steel             | Steel                  | Steel                      | -                      | -                      | -                      |
|   | Finish          | -                 | -                      | -                          | -                      | -                      | -                      |
| Quick release lever                           | Material        | Aluminum          | Aluminum               | Steel                      | -                      | -                      | -                      |
|   | Finish          | Plated            | Plated                 | Plated                     | -                      | -                      | -                      |
| Quick release housing                         | Material        | Steel             | Steel                  | Steel                      | -                      | -                      | -                      |
|   | Finish          | Plated            | Plated                 | Plated                     | -                      | -                      | -                      |
| Quick release nut                             | Material        | Steel+Resin       | Steel+Resin            | Steel+Resin                | -                      | -                      | -                      |
|   | Finish          | -                 | -                      | -                          | -                      | -                      | -                      |
| Disc brake rotor lock ring                    | Material        | -                 | -                      | -                          | -                      | -                      | -                      |
|   | Finish          | -                 | -                      | -                          | -                      | -                      | -                      |
| Note  |                 |                   |                        |                            |                        |                        |                        |

# Front Hub (Disc Brake)

| Series  |                 | SHIMANO                    | SHIMANO           | SHIMANO                |
|---|-----------------|----------------------------|-------------------|------------------------|
| Model no.                                     |                 | HB-TX505                   | HB-TX506          | HB-RM35                |
| Color   | 1 Hub shell     | Black                      | Black             | Black                  |
|   | 1 Quick release | Black                      | Black             | Black                  |
|   | 2 Hub shell     | -                          | -                 | -                      |
|   | 2 Quick release | -                          | -                 | -                      |
| Brake type                                    |                 | CENTER LOCK disc brake     | 6-bolt disc brake | CENTER LOCK disc brake |
| O.L.D. (mm)                                   |                 | 100                        | 100               | 100                    |
| Spoke hole                                    | 28H             | ✓                          | -                 | ✓                      |
|   | 32H             | ✓                          | ✓                 | ✓                      |
|   | 36H             | ✓                          | ✓                 | ✓                      |
| External serration disc brake rotor lock ring | With            | -                          | -                 | -                      |
|   | Without         | ✓                          | -                 | ✓                      |
| CENTER LOCK mount cover option                |                 | -                          | -                 | -                      |
| Axle fixing method                            |                 | Quick release              | Quick release     | Quick release          |
| Quick release skewer length (mm)              | 129             | ✓                          | -                 | -                      |
|   | 133             | ✓                          | ✓                 | ✓                      |
| Thru axle (length x inner diameter ; mm)      | 100 x 12        | -                          | -                 | -                      |
|   | 100 x 15        | -                          | -                 | -                      |
|   | 110 x 15        | -                          | -                 | -                      |
|   | 110 x 20        | -                          | -                 | -                      |
| Flange distance (mm)                          |                 | 60.2                       | 58.1              | 60.2                   |
| Offset (mm)                                   |                 | 5.3                        | 5.3               | 5.5                    |
| P.C.D. left / right (mm)                      |                 | 44/44                      | 61/61             | 44/44                  |
| Flange diameter left / right (mm)             |                 | 52.8 (32H/36H), 53.8 (28H) | 70.6              | 52.8                   |
| Seal  |                 | Contact                    | Contact           | Contact                |
| Internal grease sleeve                        |                 | -                          | -                 | -                      |
| Bearing                                       | Stainless ball  | -                          | -                 | -                      |
|   | Cup             | -                          | -                 | -                      |
|   | Cone            | -                          | -                 | -                      |
|   | Cartridge       | -                          | -                 | -                      |
| Hub shell                                     | Material        | Aluminum                   | Aluminum          | Aluminum               |
|   | Finish          | Painted                    | Painted           | Painted                |
| Axle  | Material        | Steel                      | Steel             | Steel                  |
|   | Finish          | -                          | -                 | -                      |
| Quick release lever                           | Material        | Steel                      | Steel             | Steel                  |
|   | Finish          | Plated                     | Plated            | Plated                 |
| Quick release housing                         | Material        | Steel                      | Steel             | Steel                  |
|   | Finish          | Plated                     | Plated            | Plated                 |
| Quick release nut                             | Material        | Steel+Resin                | Steel+Resin       | Steel+Resin            |
|   | Finish          | -                          | -                 | -                      |
| Disc brake rotor lock ring                    | Material        | -                          | -                 | -                      |
|   | Finish          | -                          | -                 | -                      |
| Note  |                 | -                          | -                 | -                      |

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## Front Hub (Rim Brake)

| Series  |                 | SHIMANO   | SHIMANO               | SHIMANO               | TOURNEY A070  |
|---|-----------------|-----------|-----------------------|-----------------------|---------------|
| Model no.                                     |                 | HB-NN300  | HB-TX500-QR           | HB-TX500-NT           | HB-RM40       |
| Color   | 1 Hub shell     | Black     | Black                 | Black                 | Black         |
|   | 1 Quick release | -         | Black                 | Black                 | Black         |
|   | 2 Hub shell     | -         | Silver                | Silver                | Silver        |
|   | 2 Quick release | -         | Black                 | Black                 | Black         |
| Brake type                                    |                 | Rim brake | Rim brake             | Rim brake             | Rim brake     |
| O.L.D. (mm)                                   |                 | 100       | 100                   | 100                   | 100           |
| Spoke hole                                    | 28H             | -         | -                     | -                     | -             |
|   | 32H             | ✓         | ✓                     | ✓                     | ✓             |
|   | 36H             | ✓         | ✓                     | ✓                     | ✓             |
| External serration disc brake rotor lock ring | With            | -         | -                     | -                     | -             |
|   | Without         | ✓         | ✓                     | ✓                     | ✓             |
| CENTER LOCK mount cover option                |                 | -         | -                     | -                     | -             |
| Axle fixing method                            |                 | Nut       | Quick release         | Nut                   | Quick release |
| Quick release skewer length (mm)              | 129             | -         | ✓                     | -                     | ✓             |
|   | 133             | -         | ✓                     | -                     | ✓             |
| Thru axle (length x inner diameter ; mm)      | 100 x 15        | -         | -                     | -                     | -             |
|   | 110 x 15        | -         | -                     | -                     | -             |
|   | 110 x 20        | -         | -                     | -                     | -             |
| Flange distance (mm)                          |                 | 71.6      | 71.6                  | 71.6                  | 71.6          |
| Offset (mm)                                   |                 | 0         | 0                     | 0                     | 0             |
| P.C.D. left / right (mm)                      |                 | 38        | 38/38                 | 38/38                 | 38            |
| Flange diameter (mm)                          |                 | 46        | 46                    | 46                    | 46            |
| Seal  |                 | Contact   | -                     | -                     | -             |
| Internal grease sleeve                        |                 | -         | -                     | -                     | -             |
| Bearing                                       | Stainless ball  | -         | -                     | -                     | -             |
|   | Cup             | -         | -                     | -                     | -             |
|   | Cone            | -         | -                     | -                     | -             |
| Hub shell                                     | Material        | Aluminum  | Aluminum              | Aluminum              | Aluminum      |
|   | Finish          | Painted   | Painted (black)/Clear | Painted (black)/Clear | Anodized      |
| Axle  | Material        | Steel     | Steel                 | Steel                 | Steel         |
|   | Finish          | -         | -                     | -                     | -             |
| Quick release lever                           | Material        | -         | Steel                 | -                     | Steel         |
|   | Finish          | -         | Plated                | -                     | Plated        |
| Quick release housing                         | Material        | -         | Steel                 | -                     | Steel         |
|   | Finish          | -         | Plated                | -                     | Plated        |
| Quick release nut                             | Material        | -         | Steel+Resin           | -                     | Resin         |
|   | Finish          | -         | -                     | -                     | Black         |
| Note  |                 |           |                       |                       |               |

# FREEHUB (Disc Brake)

| Series  |  | SHIMANO                | SHIMANO                | SHIMANO           | SHIMANO                | SHIMANO                | SHIMANO                |
|---|--|------------------------|------------------------|-------------------|------------------------|------------------------|------------------------|
| Model no.                                     |  | FH-QC500-MS            | FH-QC500-MS-B          | FH-QB400-HM       | FH-QC400-HM            | FH-QC400-HM-B          | FH-QC300-HM            |
| Color   | 1 Hub shell  | Black                  | Black                  | Black             | Black                  | Black                  | Black                  |
|   | 1 Quick release  | Black                  | Black                  | Black             | Black                  | Black                  | Black                  |
|   | 2 Hub shell  | -                      | -                      | -                 | Silver (NEW)           | -                      | -                      |
|   | 2 Quick release  | -                      | -                      | -                 | -                      | -                      | -                      |
| Brake type                                    |  | CENTER LOCK disc brake | CENTER LOCK disc brake | 6-bolt disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake |
| Rear speeds                                   |  | 12                     | 12                     | 11/10/9/8/7       | 11/10/9/8/7            | 11/10/9/8/7            | 11/10/9/8/7            |
| O.L.D. (mm)                                   |  | 135                    | 141                    | 135               | 135                    | 141                    | 135                    |
| Spoke hole                                    | 24H  | -                      | -                      | -                 | -                      | -                      | -                      |
|   | 28H  | ✓                      | ✓                      | -                 | -                      | -                      | -                      |
|   | 32H  | ✓                      | ✓                      | ✓                 | ✓                      | ✓                      | ✓                      |
|   | 36H  | ✓                      | ✓                      | ✓                 | ✓                      | ✓                      | ✓                      |
| 10 tooth cog compatible                       |  | ✓                      | ✓                      | -                 | -                      | -                      | -                      |
| External serration disc brake rotor lock ring | With   | -                      | -                      | -                 | -                      | -                      | -                      |
|   | Without  | ✓                      | ✓                      | ✓                 | ✓                      | ✓                      | ✓                      |
| Internal serration disc brake rotor lock ring | With   | -                      | -                      | -                 | -                      | -                      | -                      |
|   | Without  | ✓                      | ✓                      | ✓                 | ✓                      | ✓                      | ✓                      |
| CENTER LOCK mount cover option                |  | -                      | -                      | -                 | ✓                      | -                      | ✓                      |
| Axle fixing method                            |  | Quick release          | Quick release          | Quick release     | Quick release          | Quick release          | Quick release          |
| Quick release skewer length (mm)              | 166  | -                      | -                      | -                 | -                      | -                      | ✓                      |
|   | 168  | ✓                      | -                      | ✓                 | ✓                      | -                      | -                      |
|   | 170  | -                      | -                      | -                 | -                      | -                      | ✓                      |
|   | 172  | -                      | -                      | -                 | -                      | -                      | -                      |
|   | 173  | ✓                      | -                      | ✓                 | ✓                      | -                      | -                      |
|   | 174  | -                      | ✓                      | -                 | -                      | ✓                      | -                      |
|   | 176  | -                      | -                      | -                 | -                      | -                      | -                      |
|   | 178  | -                      | ✓                      | -                 | -                      | ✓                      | -                      |
| Thru axle (length x inner diameter ; mm)      | 135 x 10   | -                      | -                      | -                 | -                      | -                      | -                      |
|   | 135 x 12   | -                      | -                      | -                 | -                      | -                      | -                      |
|   | 142 x 12   | -                      | -                      | -                 | -                      | -                      | -                      |
|   | 148 x 12   | -                      | -                      | -                 | -                      | -                      | -                      |
|   | 150 x 12   | -                      | -                      | -                 | -                      | -                      | -                      |
|   | 157 x 12   | -                      | -                      | -                 | -                      | -                      | -                      |
| Flange distance (mm)                          |  | 55.45                  | 61.45                  | 54.5              | 55.45                  | 61.45                  | 55.45                  |
| Offset (mm)                                   |  | 7.6                    | 7.6                    | 6.1               | 7.6                    | 7.6                    | 7.6                    |
| P.C.D. left / right (mm)                      |  | 50.5/51.5              | 50.5/51.5              | 61.7/61.7         | 45/45                  | 45                     | 45/45                  |
| Flange diameter left / right (mm)             |  | 59.3/60.3              | 59.3/60.3              | 70.6/70.6         | 53.8/53.8              | 53.8                   | 53.8                   |
| Spline type                                   | MICRO SPLINE   | ✓                      | ✓                      | -                 | -                      | -                      | -                      |
|   | HG spline L2 (ROAD 12-speed dedicated)                           | -                      | -                      | -                 | -                      | -                      | -                      |
|   | HG spline L (ROAD 12/11-speed)                                   | -                      | -                      | -                 | -                      | -                      | -                      |
|   | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | -                      | -                      | ✓                 | ✓                      | ✓                      | ✓                      |
|   | HG spline S (7-speed)  | -                      | -                      | -                 | -                      | -                      | -                      |
| Engagement type                               |  | Pawl ratchet           | Pawl ratchet           | Pawl ratchet      | Pawl ratchet           | Pawl ratchet           | Pawl ratchet           |
| Quick engagement                              |  | -                      | -                      | -                 | -                      | -                      | -                      |
| Seal  | Hub  | Labyrinth+Contact      | Labyrinth+Contact      | Contact           | Contact                | Contact                | Contact                |
|   | FREEHUB body   | Contact                | Contact                | -                 | -                      | -                      | -                      |
| Internal grease sleeve                        |  | -                      | -                      | -                 | -                      | -                      | -                      |
| Digital adjustment system                     |  | -                      | -                      | -                 | -                      | -                      | -                      |
| Bearing                                       | Stainless ball   | -                      | -                      | -                 | -                      | -                      | -                      |
|   | Cup  | -                      | -                      | -                 | -                      | -                      | -                      |
|   | Cone   | -                      | -                      | -                 | -                      | -                      | -                      |
|   | Cartridge  | ✓                      | ✓                      | ✓                 | ✓                      | ✓                      | -                      |
| FREEHUB body                                  | Material   | Steel                  | Steel                  | Steel             | Steel                  | Steel                  | Steel                  |
|   | Finish   | -                      | -                      | -                 | -                      | -                      | -                      |
| Hub shell                                     | Material   | Aluminum               | Aluminum               | Aluminum          | Aluminum               | Aluminum               | Aluminum               |
|   | Finish   | Anodized               | Anodized               | Painted           | Painted                | Painted                | Painted                |
| Axle  | Material   | Steel                  | Steel                  | Steel             | Steel                  | Steel                  | Steel                  |
|   | Finish   | -                      | -                      | -                 | -                      | -                      | -                      |
| Quick release lever                           | Material   | Aluminum               | Aluminum               | Aluminum          | Aluminum               | Aluminum               | Steel                  |
|   | Finish   | Painted                | Painted                | Plated            | Plated                 | Plated                 | Plated                 |
|   | Color  | Black                  | Black                  | Black             | Black                  | Black                  | Black                  |
| Quick release housing                         | Material   | Steel                  | Steel                  | Steel             | Steel                  | Steel                  | Steel                  |
|   | Finish   | Painted                | Painted                | Painted           | Plated                 | Painted                | Plated                 |
| Quick release nut                             | Material   | Steel+Resin            | Steel+Resin            | Steel+Resin       | Steel+Resin            | Steel+Resin            | Steel+Resin            |
|   | Finish   | -                      | -                      | -                 | -                      | -                      | -                      |
| Disc brake rotor lock ring                    | Material   | -                      | -                      | -                 | -                      | -                      | -                      |
|   | Finish   | -                      | -                      | -                 | -                      | -                      | -                      |
| Note  |  |                        |                        |                   |                        |                        |                        |

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# FREEHUB (Disc Brake)

| Series  |  | SHIMANO                | SHIMANO                | SHIMANO                | SHIMANO                | SHIMANO                | SHIMANO                |
|---|--|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Model no.                                     |  | FH-TC600-HM-B          | FH-TC600-MS-B          | FH-TC500-HL            | FH-TC500-HM            | FH-TC500-HM-B          | FH-TC500-MS            |
| Color   | 1 Hub shell  | Black                  | Black                  | Black                  | Black                  | Black                  | Black                  |
|   | 1 Quick release  | -                      | -                      | -                      | -                      | -                      | -                      |
|   | 2 Hub shell  | -                      | -                      | -                      | -                      | -                      | -                      |
|   | 2 Quick release  | -                      | -                      | -                      | -                      | -                      | -                      |
| Brake type                                    |  | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake | CENTER LOCK disc brake |
| Rear speeds                                   |  | 11/10/9/8/7            | 12                     | 12/11                  | 11/10/9/8/7            | 11/10/9/8/7            | 12                     |
| O.L.D. (mm)                                   |  | 148                    | 148                    | 142                    | 142                    | 148                    | 142                    |
| Spoke hole                                    | 24H  | -                      | -                      | -                      | -                      | -                      | -                      |
|   | 28H  | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
|   | 32H  | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
|   | 36H  | ✓                      | ✓                      | -                      | ✓                      | ✓                      | ✓                      |
| 10 tooth cog compatible                       |  | -                      | ✓                      | -                      | -                      | -                      | ✓                      |
| External serration disc brake rotor lock ring | With   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | Without  | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
| Internal serration disc brake rotor lock ring | With   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | Without  | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
| CENTER LOCK mount cover option                |  | -                      | -                      | -                      | -                      | -                      | -                      |
| Axle fixing method                            |  | 12 mm E-THRU           | 12 mm E-THRU           | 12 mm E-THRU           | 12 mm E-THRU           | 12 mm E-THRU           | 12 mm E-THRU           |
| Quick release skewer length (mm)              | 166  | -                      | -                      | -                      | -                      | -                      | -                      |
|   | 168  | -                      | -                      | -                      | -                      | -                      | -                      |
|   | 170  | -                      | -                      | -                      | -                      | -                      | -                      |
|   | 172  | -                      | -                      | -                      | -                      | -                      | -                      |
|   | 173  | -                      | -                      | -                      | -                      | -                      | -                      |
|   | 174  | -                      | -                      | -                      | -                      | -                      | -                      |
|   | 176  | -                      | -                      | -                      | -                      | -                      | -                      |
|   | 178  | -                      | -                      | -                      | -                      | -                      | -                      |
| Thru axle (length x inner diameter ; mm)      | 135 x 10   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | 135 x 12   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | 142 x 12   | -                      | -                      | ✓                      | ✓                      | -                      | ✓                      |
|   | 148 x 12   | ✓                      | ✓                      | -                      | -                      | ✓                      | -                      |
|   | 150 x 12   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | 157 x 12   | -                      | -                      | -                      | -                      | -                      | -                      |
| Flange distance (mm)                          |  | 61.1                   | 61.1                   | 55.45                  | 55.45                  | 61.45                  | 55.45                  |
| Offset (mm)                                   |  | 7.19                   | 7.19                   | 7.6                    | 7.6                    | 7.6                    | 7.6                    |
| P.C.D. left / right (mm)                      |  | 60/61                  | 60/61                  | 50.5/51.5              | 50.5/51.5              | 50.5/51.5              | 50.5/51.5              |
| Flange diameter left / right (mm)             |  | 68.8/69.8              | 68.8/69.8              | 59.3/60.3              | 59.3/60.3              | 59.3/60.3              | 59.3/60.3              |
| Spline type                                   | MICRO SPLINE   | -                      | ✓                      | -                      | -                      | -                      | ✓                      |
|   | HG spline L2 (ROAD 12-speed dedicated)                           | -                      | -                      | -                      | -                      | -                      | -                      |
|   | HG spline L (ROAD 12/11-speed)                                   | -                      | -                      | ✓                      | -                      | -                      | -                      |
|   | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | ✓                      | -                      | -                      | ✓                      | ✓                      | -                      |
|   | HG spline S (7-speed)  | -                      | -                      | -                      | -                      | -                      | -                      |
| Engagement type                               |  | Pawl ratchet           | Pawl ratchet           | Pawl ratchet           | Pawl ratchet           | Pawl ratchet           | Pawl ratchet           |
| Quick engagement                              |  | ✓ (36 times/360 deg.)  | ✓ (36 times/360 deg.)  | -                      | -                      | -                      | -                      |
| Seal  | Hub  | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth & Contact    | Labyrinth+Contact      | Labyrinth+Contact      | Labyrinth+Contact      |
|   | FREEHUB body   | Contact                | Contact                | Contact                | Contact                | Contact                | Contact                |
| Internal grease sleeve                        |  | -                      | -                      | -                      | -                      | -                      | -                      |
| Digital adjustment system                     |  | -                      | -                      | -                      | -                      | -                      | -                      |
| Bearing                                       | Stainless ball   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | Cup  | -                      | -                      | -                      | -                      | -                      | -                      |
|   | Cone   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | Cartridge  | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      | ✓                      |
| FREEHUB body                                  | Material   | Steel                  | Steel                  | Steel                  | Steel                  | Steel                  | Steel                  |
|   | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
| Hub shell                                     | Material   | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               | Aluminum               |
|   | Finish   | Anodized               | Anodized               | Anodized               | Anodized               | Anodized               | Anodized               |
| Axle  | Material   | Aluminum               | Aluminum               | Aluminum               | Steel                  | Steel                  | Steel                  |
|   | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
| Quick release lever                           | Material   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | Color  | -                      | -                      | -                      | -                      | -                      | -                      |
| Quick release housing                         | Material   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
| Quick release nut                             | Material   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
| Disc brake rotor lock ring                    | Material   | -                      | -                      | -                      | -                      | -                      | -                      |
|   | Finish   | -                      | -                      | -                      | -                      | -                      | -                      |
| Note  |  |                        |                        |                        |                        |                        |                        |

# FREEHUB (Disc Brake)

| Series  |  | SHIMANO                | SHIMANO                           | SHIMANO                      | SHIMANO                | SHIMANO           | SHIMANO                |
|---|--|------------------------|-----------------------------------|------------------------------|------------------------|-------------------|------------------------|
| Model no.                                     |  | FH-TC500-MS-B          | FH-UR600                          | FH-RM35                      | FH-TX505-8             | FH-TX506          | FH-TY505-7             |
| Color   | 1 Hub shell  | Black                  | Black                             | Black                        | Black                  | Black             | Black                  |
|   | 1 Quick release  | -                      | Black                             | Black                        | Black                  | Black             | Black                  |
|   | 2 Hub shell  | -                      | -                                 | -                            | -                      | -                 | -                      |
|   | 2 Quick release  | -                      | -                                 | -                            | -                      | -                 | -                      |
| Brake type                                    |  | CENTER LOCK disc brake | CENTER LOCK disc brake            | CENTER LOCK disc brake       | CENTER LOCK disc brake | 6-bolt disc brake | CENTER LOCK disc brake |
| Rear speeds                                   |  | 12                     | 11/10 *                           | 11/10/9/8/7                  | 11/10/9/8/7            | 11/10/9/8/7       | 7                      |
| O.L.D. (mm)                                   |  | 148                    | 135                               | 135                          | 135                    | 135               | 135                    |
| Spoke hole                                    | 24H  | -                      | -                                 | -                            | -                      | -                 | -                      |
|   | 28H  | ✓                      | -                                 | ✓*                           | -                      | -                 | -                      |
|   | 32H  | ✓                      | ✓                                 | ✓                            | ✓                      | ✓                 | ✓                      |
|   | 36H  | ✓                      | ✓                                 | ✓                            | ✓                      | ✓                 | ✓                      |
| 10 tooth cog compatible                       |  | ✓                      | -                                 | -                            | -                      | -                 | -                      |
| External serration disc brake rotor lock ring | With   | -                      | -                                 | -                            | -                      | -                 | -                      |
|   | Without  | ✓                      | ✓                                 | ✓                            | ✓                      | -                 | ✓                      |
| Internal serration disc brake rotor lock ring | With   | -                      | -                                 | -                            | -                      | -                 | -                      |
|   | Without  | ✓                      | ✓                                 | ✓                            | ✓                      | -                 | ✓                      |
| CENTER LOCK mount cover option                |  | -                      | ✓                                 | -                            | -                      | -                 | -                      |
| Axle fixing method                            |  | 12 mm E-THRU           | Quick release                     | Quick release                | Quick release          | Quick release     | Quick release          |
| Quick release skewer length (mm)              | 166  | -                      | -                                 | ✓                            | ✓                      | ✓                 | ✓                      |
|   | 168  | -                      | ✓                                 | -                            | -                      | -                 | -                      |
|   | 170  | -                      | -                                 | ✓                            | ✓                      | ✓                 | ✓                      |
|   | 172  | -                      | -                                 | -                            | -                      | -                 | -                      |
|   | 173  | -                      | ✓                                 | -                            | -                      | -                 | -                      |
|   | 174  | -                      | -                                 | -                            | -                      | -                 | -                      |
|   | 176  | -                      | -                                 | -                            | -                      | -                 | -                      |
|   | 178  | -                      | -                                 | -                            | -                      | -                 | -                      |
| Thru axle (length x inner diameter, mm)       | 135 x 10   | -                      | -                                 | -                            | -                      | -                 | -                      |
|   | 135 x 12   | -                      | -                                 | -                            | -                      | -                 | -                      |
|   | 142 x 12   | -                      | -                                 | -                            | -                      | -                 | -                      |
|   | 148 x 12   | ✓                      | -                                 | -                            | -                      | -                 | -                      |
|   | 150 x 12   | -                      | -                                 | -                            | -                      | -                 | -                      |
|   | 157 x 12   | -                      | -                                 | -                            | -                      | -                 | -                      |
| Flange distance (mm)                          |  | 61.45                  | 55.7                              | 57.4                         | 57.4                   | 56                | 59.5                   |
| Offset (mm)                                   |  | 7.6                    | 7.45                              | 6.6                          | 6.6                    | 6.1               | 5.6                    |
| P.C.D. left / right (mm)                      |  | 50.5/51.5              | 44.6/44.6                         | 45/45                        | 45/45                  | 61/61             | 45/45                  |
| Flange diameter left / right (mm)             |  | 59.3/60.3              | 53.5/53.8                         | 53.8                         | 53.8                   | 70.6              | 53.8                   |
| Spline type                                   | MICRO SPLINE   | ✓                      | -                                 | -                            | -                      | -                 | -                      |
|   | HG spline L2 (ROAD 12-speed dedicated)                           | -                      | -                                 | -                            | -                      | -                 | -                      |
|   | HG spline L (ROAD 12/11-speed)                                   | -                      | ✓                                 | -                            | -                      | -                 | -                      |
|   | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | -                      | -                                 | ✓                            | ✓                      | ✓                 | -                      |
|   | HG spline S (7-speed)  | -                      | -                                 | -                            | -                      | -                 | ✓                      |
| Engagement type                               |  | Pawl ratchet           | Pawl ratchet                      | Pawl ratchet                 | Pawl ratchet           | Pawl ratchet      | Pawl ratchet           |
| Quick engagement                              |  | -                      | -                                 | -                            | -                      | -                 | -                      |
| Seal  | Hub  | Labyrinth+Contact      | Contact                           | Contact                      | Contact                | Contact           | -                      |
|   | FREEHUB body   | Contact                | Contact                           | -                            | -                      | -                 | -                      |
| Internal grease sleeve                        |  | -                      | ✓                                 | -                            | -                      | -                 | -                      |
| Digital adjustment system                     |  | -                      | -                                 | -                            | -                      | -                 | -                      |
| Bearing                                       | Stainless ball   | -                      | -                                 | -                            | -                      | -                 | -                      |
|   | Cup  | -                      | Polish                            | -                            | -                      | -                 | -                      |
|   | Cone   | -                      | CBN                               | -                            | -                      | -                 | -                      |
|   | Cartridge  | ✓                      | -                                 | -                            | -                      | -                 | -                      |
| FREEHUB body                                  | Material   | Steel                  | Steel                             | Steel                        | Steel                  | Steel             | Steel                  |
|   | Finish   | -                      | -                                 | -                            | -                      | -                 | -                      |
| Hub shell                                     | Material   | Aluminum               | Aluminum                          | Aluminum                     | Aluminum               | Aluminum          | Aluminum               |
|   | Finish   | Anodized               | Anodized                          | Painted                      | Painted                | Painted           | Painted                |
| Axle  | Material   | Steel                  | Steel                             | Steel                        | Steel                  | Steel             | Steel                  |
|   | Finish   | -                      | -                                 | -                            | -                      | -                 | -                      |
| Quick release lever                           | Material   | -                      | Aluminum                          | Steel                        | Steel                  | Steel             | Steel                  |
|   | Finish   | -                      | Anodized                          | Plated                       | Plated                 | Plated            | Plated                 |
|   | Color  | -                      | -                                 | -                            | -                      | -                 | -                      |
| Quick release housing                         | Material   | -                      | Aluminum                          | Steel                        | Steel                  | Steel             | Steel                  |
|   | Finish   | -                      | Anodized                          | Plated                       | Plated                 | Plated            | Plated                 |
| Quick release nut                             | Material   | -                      | Steel+Resin                       | Steel+Resin                  | Steel+Resin            | Steel+Resin       | Steel+Resin            |
|   | Finish   | -                      | Black                             | -                            | -                      | -                 | -                      |
| Disc brake rotor lock ring                    | Material   | -                      | -                                 | -                            | -                      | -                 | -                      |
|   | Finish   | -                      | -                                 | -                            | -                      | -                 | -                      |
| Note  |  |                        | * Used with an additional spacer. | * 166 mm Quick release spec. |                        |                   |                        |

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# FREEHUB (Rim Brake)

| Series  |  | SHIMANO     | SHIMANO               | SHIMANO               | SHIMANO                 | SHIMANO                 | SHIMANO                 |
|---|--|-------------|-----------------------|-----------------------|-------------------------|-------------------------|-------------------------|
| Model no.                                     |  | FH-NN300-HM | FH-TX500-8-QR         | FH-TX500-8-NT         | FH-TY500-7-QR(135)      | FH-TY500-7-QR(130)      | FH-TY500-7-NT(135)      |
| Color   | 1 Hub shell  | Black       | Black                 | Black                 | Black                   | Black                   | Black                   |
|   | 1 Quick release  | -           | Black                 | Black                 | Black                   | Black                   | -                       |
|   | 2 Hub shell  | -           | Silver                | Silver                | -                       | -                       | -                       |
|   | 2 Quick release  | -           | Black                 | Black                 | -                       | -                       | -                       |
| Brake type                                    |  | Rim brake   | Rim brake             | Rim brake             | Rim brake               | Rim brake               | Rim brake               |
| Rear speeds                                   |  | 11/10/9/8/7 | 11/10/9/8/7           | 11/10/9/8/7           | 7                       | 7                       | 7                       |
| O.L.D. (mm)                                   |  | 135         | 135                   | 135                   | 135                     | 130                     | 135                     |
| Spoke hole                                    | 28H  | -           | -                     | -                     | -                       | -                       | -                       |
|   | 32H  | ✓           | ✓                     | ✓                     | ✓                       | ✓                       | ✓                       |
|   | 36H  | ✓           | ✓                     | ✓                     | ✓                       | ✓                       | ✓                       |
| 10 tooth cog compatible                       |  | -           | -                     | -                     | -                       | -                       | -                       |
| External serration disc brake rotor lock ring | With   | -           | -                     | -                     | -                       | -                       | -                       |
|   | Without  | ✓           | ✓                     | ✓                     | ✓                       | ✓                       | ✓                       |
| Internal serration disc brake rotor lock ring | With   | -           | -                     | -                     | -                       | -                       | -                       |
|   | Without  | ✓           | ✓                     | ✓                     | ✓                       | ✓                       | ✓                       |
| CENTER LOCK mount cover option                |  | -           | -                     | -                     | -                       | -                       | -                       |
| Axle fixing method                            |  | Nut         | Quick release         | Nut                   | Quick release           | Quick release           | Nut                     |
| Quick release skewer length (mm)              | 161  | -           | -                     | -                     | -                       | ✓                       | -                       |
|   | 166  | -           | ✓                     | -                     | ✓                       | -                       | -                       |
|   | 168  | -           | -                     | -                     | -                       | -                       | -                       |
|   | 170  | -           | ✓                     | -                     | ✓                       | -                       | -                       |
|   | 173  | -           | -                     | -                     | -                       | -                       | -                       |
| Thru axle (length x inner diameter ; mm)      | 135 x 10   | -           | -                     | -                     | -                       | -                       | -                       |
|   | 135 x 12   | -           | -                     | -                     | -                       | -                       | -                       |
|   | 142 x 12   | -           | -                     | -                     | -                       | -                       | -                       |
|   | 148 x 12   | -           | -                     | -                     | -                       | -                       | -                       |
|   | 150 x 12   | -           | -                     | -                     | -                       | -                       | -                       |
| Flange distance (mm)                          |  | 55.45       | 57.4                  | 57.4                  | 57.4                    | 57.4                    | 57.4                    |
| Offset (mm)                                   |  | 7.6         | 6.8                   | 6.8                   | 4.6                     | 7.1                     | 4.6                     |
| P.C.D. left / right (mm)                      |  | 45          | 45                    | 45                    | 45                      | 45                      | 45                      |
| Flange diameter left / right (mm)             |  | 53.8        | 53.8                  | 53.8                  | 53.8                    | 53.8                    | 53.8                    |
| Spline type                                   | MICRO SPLINE   | -           | -                     | -                     | -                       | -                       | -                       |
|   | HG spline L2 (ROAD 12-speed dedicated)                           | -           | -                     | -                     | -                       | -                       | -                       |
|   | HG spline L (ROAD 12/11-speed)                                   | -           | -                     | -                     | -                       | -                       | -                       |
|   | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | ✓           | ✓                     | ✓                     | -                       | -                       | -                       |
|   | HG spline S (7-speed)  | -           | -                     | -                     | ✓                       | ✓                       | ✓                       |
| Quick engagement                              |  | -           | -                     | -                     | -                       | -                       | -                       |
| Seal  | Hub  | Contact     | -                     | -                     | -                       | -                       | -                       |
|   | FREEHUB body   | -           | -                     | -                     | -                       | -                       | -                       |
| Internal grease sleeve                        |  | -           | -                     | -                     | -                       | -                       | -                       |
| Bearing                                       | Stainless ball   | -           | -                     | -                     | -                       | -                       | -                       |
|   | Cup  | -           | -                     | -                     | -                       | -                       | -                       |
|   | Cone   | -           | -                     | -                     | -                       | -                       | -                       |
| FREEHUB body                                  | Material   | Steel       | Steel                 | Steel                 | Steel                   | Steel                   | Steel                   |
|   | Finish   | -           | -                     | -                     | -                       | -                       | -                       |
| Hub shell                                     | Material   | Aluminum    | Aluminum              | Aluminum              | Aluminum                | Aluminum                | Aluminum                |
|   | Finish   | Painted     | Painted (black)/Clear | Painted (black)/Clear | Painted (black)         | Painted (black)         | Painted (black)         |
| Axle  | Material   | Steel       | Steel                 | Steel                 | Steel                   | Steel                   | Steel                   |
|   | Finish   | -           | -                     | -                     | -                       | -                       | -                       |
| Quick release lever                           | Material   | -           | Steel                 | -                     | Steel                   | Steel                   | -                       |
|   | Finish   | -           | Plated                | -                     | Plated                  | Plated                  | -                       |
| Quick release housing                         | Material   | -           | Steel                 | -                     | Steel                   | Steel                   | -                       |
|   | Finish   | -           | Plated                | -                     | Painted                 | Painted                 | -                       |
| Quick release nut                             | Material   | -           | Steel+Resin           | -                     | Steel+Resin             | Steel+Resin             | -                       |
|   | Finish   | -           | -                     | -                     | -                       | -                       | -                       |
| Disc brake rotor lock ring                    | Material   | -           | -                     | -                     | -                       | -                       | -                       |
|   | Finish   | -           | -                     | -                     | -                       | -                       | -                       |
| Note  |  |             |                       |                       | O.L.D. 130 mm available | O.L.D. 135 mm available | O.L.D. 130 mm available |

# FREEHUB (Rim Brake)

| Series  |  | SHIMANO                 |
|---|--|-------------------------|
| Model no.                                     |  | FH-TY500-7-NT(130)      |
| Color   | 1 Hub shell  | Black                   |
|   | 1 Quick release  | -                       |
|   | 2 Hub shell  | -                       |
|   | 2 Quick release  | -                       |
| Brake type                                    |  | Rim brake               |
| Rear speeds                                   |  | 7                       |
| O.L.D. (mm)                                   |  | 130                     |
| Spoke hole                                    | 28H  | -                       |
|   | 32H  | ✓                       |
|   | 36H  | ✓                       |
| 10 tooth cog compatible                       |  |                         |
| External serration disc brake rotor lock ring | With   | -                       |
|   | Without  | ✓                       |
| Internal serration disc brake rotor lock ring | With   | -                       |
|   | Without  | ✓                       |
| CENTER LOCK mount cover option                |  | -                       |
| Axle fixing method                            |  | Nut                     |
| Quick release skewer length (mm)              | 161  | -                       |
|   | 166  | -                       |
|   | 168  | -                       |
|   | 170  | -                       |
|   | 173  | -                       |
| Thru axle (length x inner diameter ; mm)      | 135 x 10   | -                       |
|   | 135 x 12   | -                       |
|   | 142 x 12   | -                       |
|   | 148 x 12   | -                       |
|   | 150 x 12   | -                       |
| Flange distance (mm)                          |  | 57.4                    |
| Offset (mm)                                   |  | 7.1                     |
| P.C.D. left / right (mm)                      |  | 45                      |
| Flange diameter left / right (mm)             |  | 53.8                    |
| Spline type                                   | MICRO SPLINE   | -                       |
|   | HG spline L2 (ROAD 12-speed dedicated)                           | -                       |
|   | HG spline L (ROAD 12/11-speed)                                   | -                       |
|   | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | -                       |
|   | HG spline S (7-speed)  | ✓                       |
| Quick engagement                              |  |                         |
| Seal  | Hub  | -                       |
|   | FREEHUB body   | -                       |
| Internal grease sleeve                        |  | -                       |
| Bearing                                       | Stainless ball   | -                       |
|   | Cup  | -                       |
|   | Cone   | -                       |
| FREEHUB body                                  | Material   | Steel                   |
|   | Finish   | -                       |
| Hub shell                                     | Material   | Aluminum                |
|   | Finish   | Painted (black)         |
| Axle  | Material   | Steel                   |
|   | Finish   | -                       |
| Quick release lever                           | Material   | -                       |
|   | Finish   | -                       |
| Quick release housing                         | Material   | -                       |
|   | Finish   | -                       |
| Quick release nut                             | Material   | -                       |
|   | Finish   | -                       |
| Disc brake rotor lock ring                    | Material   | -                       |
|   | Finish   | -                       |
| Note  |  | O.L.D. 135 mm available |

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# Shift Switch

|                                   |                           |        |                       |
|-----------------------------------|---------------------------|--------|-----------------------|
| Series                            |                           |        | SHIMANO               |
| Model no.                         |                           |        | SW-EN605-R            |
| Switch type                       |                           |        | Fixed button position |
| Position                          |                           |        | Clamp band            |
| Di2 connectivity wired            | Di2 shifting              |        | -                     |
| Di2 connectivity wireless         | Di2 shifting              |        | ✓                     |
| Button numbers (pcs)              |                           |        | 3                     |
| Master unit                       |                           |        | -                     |
| Firmware update by E-TUBE PROJECT |                           |        | -                     |
| SD50 port (pcs)                   |                           |        | 0                     |
| SD300 port (pcs)                  |                           |        | 0                     |
| SD50 connector (pcs)              |                           |        | 0                     |
| SD300 connector (pcs)             |                           |        | 0                     |
| Switch1                           | Default function          |        | RD outward            |
|                                   | Multiple input            | 2 step | -                     |
|                                   |                           | Hold   | ✓                     |
|                                   | Adjustable lever position |        | -                     |
| Switch2                           | Default function          |        | RD inward             |
|                                   | Multiple input            | 2 step | -                     |
|                                   |                           | Hold   | ✓                     |
|                                   | Adjustable lever position |        | -                     |
| Switch3                           | Default function          |        | Shifting mode         |
|                                   | Multiple input            | 2 step | -                     |
|                                   |                           | Hold   | ✓                     |
|                                   | Suspension switch         |        |                       |
| Battery                           |                           |        | CR1632 x 2            |
| LED                               | Shimano system status     |        | ✓                     |
| Average weight (g)                |                           |        |                       |
| Note                              |                           |        | -                     |

# Rear Derailleur

| Series  |                          |   | CUES                                    | CUES                        | CUES            | CUES            |   |
|---|--------------------------|---|---|-----------------------------|-----------------|-----------------|---|
| Model no.   |                          |   | RD-U8050-SGS                            | RD-U8050-GS                 | RD-U6070        | RD-U6050        |   |
| Color   | 1                        |   | Series color                            | Series color                | Series color    | Series color    |   |
|   | 2                        |   | -                                       | -                           | -               | -               |   |
| Rear speeds   |                          |   | 11/10                                   | 10                          | 11              | 10              |   |
| RD construction   | SHIMANO SHADOW RD        |   | ✓                                       | ✓                           | ✓               | ✓               |   |
|   | SHIMANO SHADOW RD+       |   | -                                       | -                           | -               | -               |   |
|   | Double servo             |   | -                                       | -                           | -               | -               |   |
|   | SHADOW ES                |   | -                                       | -                           | -               | -               |   |
| Applicable derailleur hanger  | SHIMANO MTB type         | Direct attachment (conventional)        | ✓                                       | ✓                           | ✓               | ✓               |   |
|   |                          | Direct mount                            | -                                       | -                           | -               | -               |   |
|   | SHIMANO ROAD type        | Direct attachment (conventional)        | -                                       | -                           | -               | -               |   |
|   |                          | Direct mount                            | -                                       | -                           | -               | -               |   |
|   | UDH standard             |   | ✓                                       | ✓                           | ✓               | ✓               |   |
|   | Max. front difference    |   | Single                                  | Single                      | Single          | Single          |   |
| Total capacity  |                          | 39T                                     | 32T                                     | 39T                         | 32T             |                 |   |
| Low sprocket  | Max.                     | 50T                                     | 43T                                     | 50T                         | 43T             |                 |   |
|   | Min.                     | 45T                                     | 43T                                     | 50T                         | 43T             |                 |   |
| Top sprocket  | Max.                     | 11T                                     | 11T                                     | 11T                         | 11T             |                 |   |
|   | Min.                     | 11T                                     | 11T                                     | 11T                         | 11T             |                 |   |
| Fluoroc coated link bushings  |                          |   | 2                                       | 2                           | 2               | 2               |   |
| Pulley  | Guide pulley bearing     |   | -                                       | -                           | -               | -               |   |
|   | Tension pulley bearing   |   | -                                       | -                           | -               | -               |   |
|   | Teeth                    |   | 11T                                     | 11T                         | 11T             | 11T             |   |
|   | Screws material          |   | Stainless steel                         | Stainless steel             | Stainless steel | Stainless steel |   |
| Bracket   | Sunken type pulley screw |   | ✓                                       | ✓                           | ✓               | ✓               |   |
|   | Material                 |   | Steel                                   | Steel                       | Steel           | Steel           |   |
| B-axle  | Finish                   |   | Painted                                 | Painted                     | Painted         | Painted         |   |
|   | Hollow axle              |   | ✓                                       | ✓                           | ✓               | ✓               |   |
| B-axle 2  | Material                 |   | Stainless steel                         | Stainless steel             | Stainless steel | Stainless steel |   |
|   | Finish                   |   | Painted                                 | Painted                     | Painted         | Painted         |   |
| Bracket body  | Material                 |   | Aluminum                                | Aluminum                    | Aluminum        | Aluminum        |   |
|   | Finish                   |   | Anodized                                | Anodized                    | Painted         | Painted         |   |
| P-axle  | Material                 |   | Aluminum                                | Aluminum                    | Aluminum        | Aluminum        |   |
|   | Finish                   |   | Painted                                 | Painted                     | Painted         | Painted         |   |
| Plate body  | Material                 |   | Steel                                   | Steel                       | Steel           | Steel           |   |
|   | Finish                   |   | Plated                                  | Plated                      | Plated          | Plated          |   |
| Outer link  | Material                 |   | PA+GF                                   | PA+GF                       | PA+GF           | PA+GF           |   |
|   | Finish                   |   | Painted                                 | Painted                     | Painted         | Painted         |   |
| Inner link  | Material                 |   | Steel                                   | Steel                       | Steel           | Steel           |   |
|   | Finish                   |   | Painted                                 | Painted                     | Painted         | Painted         |   |
| Outer plate   | Material                 |   | Aluminum                                | Aluminum                    | Steel           | Steel           |   |
|   | Finish                   |   | Painted                                 | Painted                     | Painted         | Painted         |   |
| Inner plate   | Material                 |   | Aluminum                                | Aluminum                    | Steel           | Steel           |   |
|   | Finish                   |   | Painted                                 | Painted                     | Painted         | Painted         |   |
| Stroke adjusting screw  | Material                 |   | Steel                                   | Steel                       | Steel           | Steel           |   |
| Di2 connectivity  | Finish                   |   | Plated                                  | Plated                      | Plated          | Plated          |   |
|   | wired                    | Di2 shifting                            |   | ✓                           | ✓               | ✓               | ✓ |
|   | wireless                 | Di2 shifting                            |   | ✓                           | ✓               | -               | - |
|   |                          | Bluetooth® LE                           | Cycling power                           | -                           | -               | -               | - |
|   |                          |   | ANT+                                    | Bicycle power               | -               | -               | - |
|   |                          | Bluetooth® LE custom (*1)               | Adjust mode information                 | ✓                           | ✓               | -               | - |
|   |                          |   | Di2 battery level                       | ✓                           | ✓               | -               | - |
|   |                          |   |   | Gear position               | ✓               | ✓               | - |
|   |                          |   | SHIMANO E-BIKE SYSTEM S data items (*3) | -                           | -               | -               | - |
|   |                          |   |   | Compatible with E-TUBE RIDE | ✓               | ✓               | - |
|   |                          |   | Compatible with E-TUBE PROJECT          | ✓                           | ✓               | -               | - |
|   |                          | Adjust mode information                 |   | ✓                           | ✓               | -               | - |
| ANT private (*2)  | Di2 battery level        | ✓                                       | ✓                                       | -                           | -               |                 |   |
|   |                          | Gear position                           | ✓                                       | ✓                           | -               | -               |   |
|   |                          | SHIMANO E-BIKE SYSTEM S data items (*3) | -                                       | -                           | -               | -               |   |
| Firmware update by E-TUBE PROJECT   |                          |   | ✓                                       | ✓                           | ✓               | ✓               |   |
| SD50 port (pcs)   |                          |   | 0                                       | 0                           | 0               | 0               |   |
| SD300 port (pcs)  |                          |   | 1 *                                     | 1 *                         | 1               | 1               |   |
| SD50 connector (pcs)  |                          |   | 0                                       | 0                           | 0               | 0               |   |
| SD300 connector (pcs)   |                          |   | 0                                       | 0                           | 0               | 0               |   |
| LED for system status   |                          |   | ✓                                       | ✓                           | ✓               | ✓               |   |
| Power supply  | Built-in battery         |   | -                                       | -                           | -               | -               |   |
|   | Wired                    |   | ✓                                       | ✓                           | ✓               | ✓               |   |
| Charging port   |                          |   | -                                       | -                           | -               | -               |   |
| Charging cable  |                          |   | -                                       | -                           | -               | -               |   |
| Average weight (g)  |                          |   | -                                       | -                           | 454             | 449             |   |
| Note *1 Compatible with a Bluetooth LE cycle computer and smartphone/tablet but not freely open profile. *2 Compatible with ANT+ cycle computer but not freely open profile. *3 Will be shown only when connected to SHIMANO E-BIKE SYSTEMS bike. |                          |   | * Compatible with EW-PS300              | * Compatible with EW-PS300  |                 |                 |   |

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# AUTO SHIFT Dynamo FREEHUB

| Series   |  | CUES                          |
|--|--|-------------------------------|
| Model no.  |  | FH-U6060                      |
| Color  | 1 Hub shell  | Series color                  |
|  | 1 Quick release  | -                             |
|  | 2 Hub shell  | -                             |
|  | 2 Quick release  | -                             |
| Brake type   |  | CENTER LOCK disc brake        |
| Rear speeds  |  | 11/10                         |
| O.L.D. (mm)  |  | 142                           |
| Spoke hole   | 24H  | -                             |
|  | 28H  | ✓                             |
|  | 32H  | ✓                             |
|  | 36H  | ✓                             |
| 10 tooth cog compatible                                    |  | -                             |
| External serration disc brake rotor lock ring              | With   | -                             |
|  | Without  | -                             |
| Internal serration disc brake rotor lock ring              | With   | -                             |
|  | Without  | -                             |
| CENTER LOCK mount cover option                             |  | -                             |
| Axle fixing method   |  | 12 mm E-THRU                  |
| Quick release skewer length (mm)                           | 166  | -                             |
|  | 168  | -                             |
|  | 170  | -                             |
|  | 172  | -                             |
|  | 173  | -                             |
|  | 174  | -                             |
|  | 176  | -                             |
|  | 178  | -                             |
| Thru axle (length x inner diameter ; mm)                   | 135 x 10   | -                             |
|  | 135 x 12   | -                             |
|  | 142 x 12   | ✓                             |
|  | 148 x 12   | -                             |
|  | 150 x 12   | -                             |
|  | 157 x 12   | -                             |
| Flange distance (mm)                                       |  | 52.5                          |
| Offset (mm)  |  | 7.7                           |
| P.C.D. left / right (mm)                                   |  | 71.6/71.6                     |
| Flange diameter left / right (mm)                          |  | 80.3/80.3                     |
| Spline type  | MICRO SPLINE   | -                             |
|  | HG spline J2 (ROAD 12-speed dedicated)                           | -                             |
|  | HG spline L (ROAD 12/11-speed)                                   | -                             |
|  | HG spline M (10/9/8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) | ✓                             |
|  | HG spline S (7-speed)  | -                             |
| Engagement type  |  | Pawl ratchet                  |
| Quick engagement   |  | -                             |
| Seal   | Hub  | Contact                       |
|  | FREEHUB body   | Contact                       |
| Internal grease sleeve                                     |  | -                             |
| Digital adjustment system                                  |  | -                             |
| Bearing  | Stainless ball   | -                             |
|  | Cup  | -                             |
|  | Cone   | -                             |
|  | Cartridge  | ✓                             |
| FREEHUB body   | Material   | Steel                         |
|  | Finish   | -                             |
| Hub shell  | Material   | Aluminum                      |
|  | Finish   | Painted                       |
| Axle   | Material   | Steel                         |
|  | Finish   | -                             |
| Quick release lever  | Material   | -                             |
|  | Finish   | -                             |
|  | Color  | -                             |
| Quick release housing                                      | Material   | -                             |
|  | Finish   | -                             |
| Quick release nut  | Material   | -                             |
|  | Finish   | -                             |
| Disc brake rotor lock ring                                 | Material   | -                             |
|  | Finish   | -                             |
| Average weight (g) (w/o axle, quick release not lock ring) |  | -                             |
| Note   |  | Use EW-SD300 compatible cable |

# LIFESTYLE Comfort

<Mechanical spec.>

|   | Page       |           |
|---|------------|-----------|
| <b>Internal Geared Hub</b>                | <b>250</b> | <b>SG</b> |
| <b>Chain Tensioner</b>                    | <b>255</b> | <b>CT</b> |
| <b>Sprocket</b>                           | <b>256</b> | <b>CS</b> |
| <b>Shifter</b>                            | <b>257</b> | <b>SL</b> |
| <b>Brake Lever</b> (Hydraulic Disc Brake) | <b>261</b> | <b>BL</b> |
| <b>Brake Lever</b>                        | <b>262</b> | <b>BL</b> |
| <b>Brake</b> (Hydraulic Disc Brake)       | <b>263</b> | <b>BR</b> |
| <b>Brake</b> (Roller Brake)               | <b>264</b> | <b>RB</b> |
| <b>Crankset</b>                           | <b>266</b> | <b>FC</b> |
| <b>Front Hub</b> (Roller Brake)           | <b>267</b> | <b>HB</b> |
| <b>FREEHUB</b> (Roller Brake)             | <b>268</b> | <b>FH</b> |
| <b>FREEHUB</b> (Band Brake)               | <b>269</b> | <b>FH</b> |
| <b>Head Parts</b>                         | <b>269</b> | <b>HP</b> |

<Di2 spec.>

|                            |            |           |
|----------------------------|------------|-----------|
| <b>Internal Geared Hub</b> | <b>270</b> | <b>SG</b> |
| <b>Motor Unit</b>          | <b>271</b> | <b>MU</b> |

# Internal Geared Hub

| Series                        |                   | ALFINE                 | ALFINE                 | NEXUS  | NEXUS       | NEXUS                        | NEXUS         |
|-------------------------------|-------------------|------------------------|------------------------|--|-------------|------------------------------|---------------|
| Model no.                     |                   | SG-S7001-11            | SG-S7001-8             | SG-C7002-5CD   | SG-C7000-5V | SG-C7000-5R                  | SG-C7000-5C   |
| Function name                 |                   | INTER-11               | INTER-8                | INTER-5E   | INTER-5E    | INTER-5E                     | INTER-5E      |
| Color                         | 1                 | Silver                 | Silver                 | Silver   | Silver      | Silver                       | Silver        |
|                               | 2                 | Black                  | Black                  | Black  | Black       | Black                        | Black         |
|                               | 3                 | -                      | -                      | -  | -           | -                            | -             |
| Brake type                    | Mount type        | CENTER LOCK disc brake | CENTER LOCK disc brake | Coaster brake, Special disc brake mount for SM-RTC60 | V-BRAKE     | INTER-M                      | Coaster brake |
|                               | Recommended model | -                      | BR-S7000               | BR-M6100, BR-MT420                                   | -           | BR-C6000, BR-C3010, BR-C3000 | -             |
| Rear speeds                   |                   | 11                     | 8                      | 5  | 5           | 5                            | 5             |
| Gear ratio                    | Total             | 409%                   | 307%                   | 263%   | 263%        | 263%                         | 263%          |
|                               | 1                 | 0.527                  | 0.527                  | 1  | 1           | 1                            | 1             |
|                               | 2                 | 0.681                  | 0.644                  | 1.277  | 1.277       | 1.277                        | 1.277         |
|                               | 3                 | 0.770                  | 0.748                  | 1.622  | 1.622       | 1.622                        | 1.622         |
|                               | 4                 | 0.878                  | 0.851                  | 2.07   | 2.07        | 2.07                         | 2.07          |
|                               | 5                 | 0.995                  | 1                      | 2.63   | 2.63        | 2.63                         | 2.63          |
|                               | 6                 | 1.134                  | 1.223                  | -  | -           | -                            | -             |
|                               | 7                 | 1.292                  | 1.419                  | -  | -           | -                            | -             |
|                               | 8                 | 1.462                  | 1.615                  | -  | -           | -                            | -             |
|                               | 9                 | 1.667                  | -                      | -  | -           | -                            | -             |
|                               | 10                | 1.888                  | -                      | -  | -           | -                            | -             |
|                               | 11                | 2.153                  | -                      | -  | -           | -                            | -             |
| Shifting structure            |                   | Top-normal             | Top-normal             | Top-normal   | Top-normal  | Top-normal                   | Top-normal    |
| Silent clutch                 |                   | ✓                      | ✓                      | ✓  | ✓           | ✓                            | ✓             |
| Gear change support mechanism |                   | ✓                      | ✓                      | ✓  | ✓           | ✓                            | ✓             |
| Shifting POWER MODULATOR      |                   | ✓                      | ✓                      | ✓  | ✓           | ✓                            | ✓             |
| Driving efficiency            |                   | High                   | High                   | HIGH   | High        | High                         | High          |
| w/ Left hand dust cap         |                   | -                      | -                      | -  | ✓           | -                            | -             |
| O.L.D. (mm)                   |                   | 135                    | 135                    | 135  | 135         | 135                          | 135           |
| Spoke size                    |                   | #13/#14                | #13/#14                | #13/#14  | #13/#14     | #13/#14                      | #13/#14       |
| Spoke hole                    | 28H               | -                      | -                      | -  | -           | -                            | -             |
|                               | 32H               | ✓                      | ✓                      | ✓  | ✓           | ✓                            | ✓             |
|                               | 36H               | ✓                      | ✓                      | ✓  | ✓           | ✓                            | ✓             |
|                               | Others            | -                      | -                      | -  | -           | -                            | -             |
| Axle length (mm)              | 182               | -                      | -                      | -  | -           | -                            | -             |
|                               | 184               | -                      | -                      | -  | -           | -                            | -             |
|                               | 187               | ✓                      | ✓                      | ✓  | ✓           | ✓                            | ✓             |
|                               | 193               | -                      | -                      | -  | -           | -                            | -             |
|                               | Others            | -                      | -                      | -  | -           | -                            | -             |
| Flange distance (mm)          |                   | 57.3                   | 57.3                   | 58.3   | 58.3        | 58.3                         | 58.3          |
| Flange diameter (mm)          |                   | 104.3                  | 104.3                  | 105.2  | 105.2       | 105.2                        | 105.2         |
| Flange width (mm)             | Right             | 3.2                    | 3.2                    | 3.2  | 3.2         | 3.2                          | 3.2           |
|                               | Left              | 3.2                    | 3.2                    | 3.2  | 3.2         | 3.2                          | 3.2           |
| Offset (mm)                   |                   | 3.2                    | 3.2                    | 3.7  | 3.2         | 3.2                          | 3.7           |
| P.C.D. left / right (mm)      |                   | 92.6                   | 92.6                   | 92.6   | 92.6        | 92.6                         | 92.6          |
| Hub shell                     | Material          | Aluminum               | Aluminum               | Aluminum   | Aluminum    | Aluminum                     | Aluminum      |
|                               | Finish            | Anodized               | Anodized               | Painted  | Painted     | Painted                      | Painted       |
| Average weight (g)            |                   | 1665                   | 1670                   | 2010   | 1670        | 1670                         | 1970          |
| Note                          |                   | -                      | -                      | -  | -           | -                            | -             |

# Internal Geared Hub

| Series                        |                   | NEXUS                  | NEXUS       | NEXUS                        | NEXUS       | NEXUS                        | NEXUS         |
|-------------------------------|-------------------|------------------------|-------------|------------------------------|-------------|------------------------------|---------------|
| Model no.                     |                   | SG-C7000-5D            | SG-C6011-8V | SG-C6011-8R                  | SG-C6001-8V | SG-C6001-8R                  | SG-C6001-8C   |
| Function name                 |                   | INTER-5E               | INTER-8     | INTER-8                      | INTER-8     | INTER-8                      | INTER-8       |
| Color                         | 1                 | Silver                 | Silver      | Silver                       | Silver      | Silver                       | Silver        |
|                               | 2                 | Black                  | Black       | Black                        | Black       | Black                        | Black         |
|                               | 3                 | -                      | -           | -                            | -           | -                            | -             |
| Brake type                    | Mount type        | CENTER LOCK disc brake | V-BRAKE     | INTER-M                      | V-BRAKE     | INTER-M                      | Coaster brake |
|                               | Recommended model | -                      | -           | BR-C6000, BR-C3010, BR-C3000 | -           | BR-C6000, BR-C3010, BR-C3000 | -             |
| Rear speeds                   |                   | 5                      | 8           | 8                            | 8           | 8                            | 8             |
| Gear ratio                    | Total             | 263%                   | 307%        | 307%                         | 307%        | 307%                         | 307%          |
|                               | 1                 | 1                      | 0.527       | 0.527                        | 0.527       | 0.527                        | 0.527         |
|                               | 2                 | 1.277                  | 0.644       | 0.644                        | 0.644       | 0.644                        | 0.644         |
|                               | 3                 | 1.622                  | 0.748       | 0.748                        | 0.748       | 0.748                        | 0.748         |
|                               | 4                 | 2.07                   | 0.851       | 0.851                        | 0.851       | 0.851                        | 0.851         |
|                               | 5                 | 2.63                   | 1           | 1                            | 1           | 1                            | 1             |
|                               | 6                 | -                      | 1.223       | 1.223                        | 1.223       | 1.223                        | 1.223         |
|                               | 7                 | -                      | 1.419       | 1.419                        | 1.419       | 1.419                        | 1.419         |
|                               | 8                 | -                      | 1.615       | 1.615                        | 1.615       | 1.615                        | 1.615         |
|                               | 9                 | -                      | -           | -                            | -           | -                            | -             |
|                               | 10                | -                      | -           | -                            | -           | -                            | -             |
|                               | 11                | -                      | -           | -                            | -           | -                            | -             |
| Shifting structure            |                   | Top-normal             | Low-normal  | Low-normal                   | Low-normal  | Low-normal                   | Low-normal    |
| Silent clutch                 |                   | ✓                      | ✓           | ✓                            | ✓           | ✓                            | ✓             |
| Gear change support mechanism |                   | ✓                      | ✓           | ✓                            | ✓           | ✓                            | ✓             |
| Shifting POWER MODULATOR      |                   | ✓                      | ✓           | ✓                            | ✓           | ✓                            | ✓             |
| Driving efficiency            |                   | High                   | High        | High                         | Standard    | Standard                     | Standard      |
| w/ Left hand dust cap         |                   | -                      | ✓           | -                            | ✓           | -                            | -             |
| O.L.D. (mm)                   |                   | 135                    | 132         | 132                          | 132         | 132                          | 132           |
| Spoke size                    |                   | #13/#14                | #13/#14     | #13/#14                      | #13/#14     | #13/#14                      | #13/#14       |
| Spoke hole                    | 28H               | -                      | -           | -                            | -           | -                            | -             |
|                               | 32H               | ✓                      | ✓           | ✓                            | ✓           | ✓                            | ✓             |
|                               | 36H               | ✓                      | ✓           | ✓                            | ✓           | ✓                            | ✓             |
|                               | Others            | -                      | -           | 40H                          | -           | 40H                          | -             |
| Axle length (mm)              | 182               | -                      | -           | -                            | -           | -                            | -             |
|                               | 184               | -                      | ✓           | ✓                            | ✓           | ✓                            | ✓             |
|                               | 187               | ✓                      | -           | -                            | -           | -                            | -             |
|                               | 193               | -                      | -           | -                            | -           | -                            | -             |
|                               | Others            | -                      | -           | -                            | 203         | 203                          | -             |
| Flange distance (mm)          |                   | 57.3                   | 58.3        | 58.3                         | 58.3        | 58.3                         | 58.3          |
| Flange diameter (mm)          |                   | 105.2                  | 105.2       | 105.2                        | 105.2       | 105.2                        | 105.2         |
| Flange width (mm)             | Right             | 3.2                    | 3.2         | 3.2                          | 3.2         | 3.2                          | 3.2           |
|                               | Left              | 3.2                    | 3.2         | 3.2                          | 3.2         | 3.2                          | 3.2           |
| Offset (mm)                   |                   | 3.2                    | 2.7         | 2.7                          | 2.7         | 2.7                          | 2.55          |
| P.C.D. left / right (mm)      |                   | 92.6                   | 92.6        | 92.6                         | 92.6        | 92.6                         | 92.6          |
| Hub shell                     | Material          | Aluminum               | Aluminum    | Aluminum                     | Aluminum    | Aluminum                     | Aluminum      |
|                               | Finish            | Painted                | Painted     | Painted                      | Painted     | Painted                      | Painted       |
| Average weight (g)            |                   | 1650                   | 1685        | 1660                         | 1735        | 1710                         | 2040          |
| Note                          |                   | -                      | -           | -                            | -           | -                            | -             |

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# Internal Geared Hub

| Series                        |                   | NEXUS                  | NEXUS  | NEXUS                 | NEXUS                 | NEXUS                  | NEXUS                  |
|-------------------------------|-------------------|------------------------|--|-----------------------|-----------------------|------------------------|------------------------|
| Model no.                     |                   | SG-C6001-8D            | SG-C6001-8CD   | SG-C3001-7R           | SG-C3001-7C           | SG-C3001-7C-DX         | SG-C3001-7D            |
| Function name                 |                   | INTER-8                | INTER-8  | INTER-7               | INTER-7               | INTER-7                | INTER-7                |
| Color                         | 1                 | Silver                 | Silver   | Silver                | Silver                | Silver                 | Silver                 |
|                               | 2                 | Black                  | Black  | Black                 | Black                 | Black                  | Black                  |
|                               | 3                 | -                      | -  | -                     | -                     | -                      | -                      |
| Brake type                    | Mount type        | CENTER LOCK disc brake | Coaster brake, Special disc brake mount for SM-RTC60 | INTER-M               | Coaster brake         | Coaster brake          | CENTER LOCK disc brake |
|                               | Recommended model | -                      | -  | BR-C3010, BR-C3000    | -                     | -                      | -                      |
| Rear speeds                   |                   | 8                      | 8  | 7                     | 7                     | 7                      | 7                      |
| Gear ratio                    | Total             | 307%                   | 307%   | 244%                  | 244%                  | 244%                   | 244%                   |
|                               | 1                 | 0.527                  | 0.527  | 0.632                 | 0.632                 | 0.632                  | 0.632                  |
|                               | 2                 | 0.644                  | 0.644  | 0.741                 | 0.741                 | 0.741                  | 0.741                  |
|                               | 3                 | 0.748                  | 0.748  | 0.843                 | 0.843                 | 0.843                  | 0.843                  |
|                               | 4                 | 0.851                  | 0.851  | 0.989                 | 0.989                 | 0.989                  | 0.989                  |
|                               | 5                 | 1                      | 1  | 1.145                 | 1.145                 | 1.145                  | 1.145                  |
|                               | 6                 | 1.223                  | 1.223  | 1.335                 | 1.335                 | 1.335                  | 1.335                  |
|                               | 7                 | 1.419                  | 1.419  | 1.545                 | 1.545                 | 1.545                  | 1.545                  |
|                               | 8                 | 1.615                  | 1.615  | -                     | -                     | -                      | -                      |
|                               | 9                 | -                      | -  | -                     | -                     | -                      | -                      |
|                               | 10                | -                      | -  | -                     | -                     | -                      | -                      |
|                               | 11                | -                      | -  | -                     | -                     | -                      | -                      |
| Shifting structure            |                   | Low-normal             | Low-normal   | Low-normal            | Low-normal            | Low-normal             | Low-normal             |
| Silent clutch                 |                   | ✓                      | ✓  | -                     | -                     | -                      | -                      |
| Gear change support mechanism |                   | ✓                      | ✓  | -                     | -                     | -                      | -                      |
| Shifting POWER MODULATOR      |                   | ✓                      | ✓  | -                     | -                     | -                      | -                      |
| Driving efficiency            |                   | Standard               | Standard   | Standard              | Standard              | Standard               | Standard               |
| w/ Left hand dust cap         |                   | -                      | -  | -                     | -                     | -                      | -                      |
| O.L.D. (mm)                   |                   | 135                    | 135  | 130                   | 127                   | 127                    | 135                    |
| Spoke size                    |                   | #13/#14                | #13/#14  | #13/#14               | #13/#14               | #13/#14                | #13/#14                |
| Spoke hole                    | 28H               | -                      | -  | -                     | -                     | -                      | -                      |
|                               | 32H               | ✓                      | ✓  | ✓                     | ✓                     | ✓                      | ✓                      |
|                               | 36H               | ✓                      | ✓  | ✓                     | ✓                     | ✓                      | ✓                      |
|                               | Others            | -                      | -  | -                     | -                     | -                      | -                      |
| Axle length (mm)              | 182               | -                      | -  | ✓                     | -                     | -                      | -                      |
|                               | 184               | -                      | -  | -                     | -                     | ✓                      | -                      |
|                               | 187               | ✓                      | ✓  | -                     | -                     | -                      | ✓                      |
|                               | 193               | -                      | -  | -                     | -                     | -                      | -                      |
|                               | Others            | -                      | -  | 201                   | 176                   | 176                    | -                      |
| Flange distance (mm)          |                   | 57.3                   | 58.3   | 54.6                  | 56.2                  | 56.2                   | 54.6                   |
| Flange diameter (mm)          |                   | 105.2                  | 105.2  | 99.6                  | 92.5                  | 92.5                   | 99.6                   |
| Flange width (mm)             | Right             | 3.2                    | 3.2  | 3.2                   | 2.3                   | 2.3                    | 3.2                    |
|                               | Left              | 3.2                    | 3.2  | 3.2                   | 2.7                   | 2.7                    | 3.2                    |
| Offset (mm)                   |                   | 3.1                    | 4  | 3.85                  | 4.6                   | 4.6                    | 2.5                    |
| P.C.D. left / right (mm)      |                   | 92.6                   | 92.6   | 87                    | 83.5                  | 83.5                   | 87                     |
| Hub shell                     | Material          | Aluminum               | Aluminum   | Aluminum              | Steel                 | Steel                  | Aluminum               |
|                               | Finish            | Painted                | Painted  | Painted               | Plated                | Plated+Painted(clear ) | Painted                |
| Average weight (g)            |                   | 1730                   | 2090   | 1495                  | 1915                  | 1915                   | 1470                   |
| Note                          |                   | -                      | -  | *European market only | *European market only | -                      | *European market only  |

# Internal Geared Hub

| Series                        |                   | NEXUS              | NEXUS              | NEXUS              | NEXUS              | NEXUS                | NEXUS                          |
|-------------------------------|-------------------|--------------------|--------------------|--------------------|--------------------|----------------------|--------------------------------|
| Model no.                     |                   | SG-5R30            | SG-5R30-VS         | SG-5R35-VS         | SG-3R75-B          | SG-3R40              | SG-3R42                        |
| Function name                 |                   | INTER-5            | INTER-5            | INTER-5            | INTER-3            | INTER-3              | INTER-3                        |
| Color                         | 1                 | Silver             | Silver             | Silver             | Silver             | Silver               | Silver                         |
|                               | 2                 | -                  | -                  | Black              | -                  | -                    | -                              |
|                               | 3                 | -                  | -                  | -                  | -                  | -                    | -                              |
| Brake type                    | Mount type        | INTER-M            | V-BRAKE            | V-BRAKE            | INTER-M            | INTER-M              | INTER-M                        |
|                               | Recommended model | BR-C3010, BR-C3000 | -                  | -                  | BR-C3010, BR-C3000 | BR-C3010, BR-C3000   | BR-C3010, BR-C3000             |
| Rear speeds                   |                   | 5                  | 5                  | 5                  | 3                  | 3                    | 3                              |
| Gear ratio                    | Total             | 206%               | 206%               | 206%               | 158%               | 186%                 | 186%                           |
|                               | 1                 | 0.750              | 0.750              | 0.750              | 0.632              | 0.733                | 0.733                          |
|                               | 2                 | 1.001              | 1.001              | 1.001              | 0.741              | 1.000                | 1.000                          |
|                               | 3                 | 1.159              | 1.159              | 1.159              | 1.000              | 1.364                | 1.364                          |
|                               | 4                 | 1.335              | 1.335              | 1.335              | -                  | -                    | -                              |
|                               | 5                 | 1.545              | 1.545              | 1.545              | -                  | -                    | -                              |
|                               | 6                 | -                  | -                  | -                  | -                  | -                    | -                              |
|                               | 7                 | -                  | -                  | -                  | -                  | -                    | -                              |
|                               | 8                 | -                  | -                  | -                  | -                  | -                    | -                              |
|                               | 9                 | -                  | -                  | -                  | -                  | -                    | -                              |
|                               | 10                | -                  | -                  | -                  | -                  | -                    | -                              |
|                               | 11                | -                  | -                  | -                  | -                  | -                    | -                              |
| Shifting structure            |                   | Low-normal         | Low-normal         | Low-normal         | Low-normal         | Low-normal           | Low-normal                     |
| Silent clutch                 |                   | ✓                  | ✓                  | ✓                  | ✓                  | -                    | -                              |
| Gear change support mechanism |                   | -                  | -                  | -                  | -                  | ✓                    | ✓                              |
| Shifting POWER MODULATOR      |                   | -                  | -                  | -                  | -                  | ✓                    | ✓                              |
| Driving efficiency            |                   | Standard           | Standard           | Standard           | HIGH               | Standard             | Standard                       |
| w/ Left hand dust cap         |                   | -                  | ✓                  | ✓                  | -                  | -                    | -                              |
| O.L.D. (mm)                   |                   | 132                | 132                | 132                | 122                | 120/127              | 120                            |
| Spoke size                    |                   | #13/#14            | #13/#14            | #13/#14            | #13/#14            | #13/#14              | #13/#14                        |
| Spoke hole                    | 28H               | -                  | -                  | -                  | -                  | ✓                    | ✓                              |
|                               | 32H               | ✓                  | ✓                  | ✓                  | -                  | ✓                    | -                              |
|                               | 36H               | ✓                  | ✓                  | ✓                  | ✓                  | ✓                    | ✓                              |
|                               | Others            | -                  | -                  | -                  | -                  | -                    | -                              |
| Axle length (mm)              | 182               | -                  | -                  | -                  | -                  | ✓                    | ✓                              |
|                               | 184               | ✓                  | ✓                  | ✓                  | -                  | ✓                    | -                              |
|                               | 187               | -                  | -                  | -                  | -                  | -                    | -                              |
|                               | 193               | -                  | -                  | -                  | ✓                  | -                    | -                              |
|                               | Others            | 210                | 210                | -                  | 174/198/200        | 170/177/189/192      | 192                            |
| Flange distance (mm)          |                   | 54.6               | 54.6               | 54.6               | 51.1               | 53.5                 | 53                             |
| Flange diameter (mm)          |                   | 86                 | 86                 | 86                 | 92.5               | 84                   | 70                             |
| Flange width (mm)             | Right             | 2.3                | 2.3                | 2.3                | 2.3                | 2.3                  | 3.0                            |
|                               | Left              | 2.5                | 2.5                | 2.5                | 2.7                | 2.3                  | 3.0                            |
| Offset (mm)                   |                   | 0.3                | 0.3                | 0.3                | 3.6                | 0.8 (120mm axle)/2.5 | 0.8                            |
| P.C.D. left / right (mm)      |                   | 76                 | 76                 | 76                 | 83.5               | 74                   | 60                             |
| Hub shell                     | Material          | Steel              | Steel              | Aluminum           | Steel              | Steel                | Steel                          |
|                               | Finish            | Plated             | Plated             | Painted            | Plated             | Plated               | Plated                         |
| Average weight (g)            |                   | 1305               | 1330               | 1255               | 1315               | 885                  | 872                            |
| Note                          |                   | *Japan market only | *Japan market only | *Japan market only | -                  | -                    | Specification for Japan market |

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# Internal Geared Hub

| Series                        |                   | NEXUS                | NEXUS                  |
|-------------------------------|-------------------|----------------------|------------------------|
| Model no.                     |                   | SG-3C41              | SG-3D55                |
| Function name                 |                   | INTER-3              | INTER-3                |
| Color                         | 1                 | Silver               | Black                  |
|                               | 2                 | -                    | -                      |
|                               | 3                 | -                    | -                      |
| Brake type                    | Mount type        | Coaster brake        | CENTER LOCK disc brake |
|                               | Recommended model | -                    | -                      |
| Rear speeds                   |                   | 3                    | 3                      |
| Gear ratio                    | Total             | 186%                 | 186%                   |
|                               | 1                 | 0.733                | 0.733                  |
|                               | 2                 | 1.000                | 1.000                  |
|                               | 3                 | 1.364                | 1.364                  |
|                               | 4                 | -                    | -                      |
|                               | 5                 | -                    | -                      |
|                               | 6                 | -                    | -                      |
|                               | 7                 | -                    | -                      |
|                               | 8                 | -                    | -                      |
|                               | 9                 | -                    | -                      |
|                               | 10                | -                    | -                      |
|                               | 11                | -                    | -                      |
| Shifting structure            |                   | Low-normal           | Low-normal             |
| Silent clutch                 |                   | -                    | ✓                      |
| Gear change support mechanism |                   | ✓                    | ✓                      |
| Shifting POWER MODULATOR      |                   | ✓                    | ✓                      |
| Driving efficiency            |                   | Standard             | Standard               |
| w/ Left hand dust cap         |                   | -                    | -                      |
| O.L.D. (mm)                   |                   | 120/127              | 135                    |
| Spoke size                    |                   | #13/#14              | #13/#14                |
| Spoke hole                    | 28H               | ✓                    | -                      |
|                               | 32H               | -                    | ✓                      |
|                               | 36H               | ✓                    | ✓                      |
|                               | Others            | -                    | -                      |
| Axle length (mm)              | 182               | -                    | -                      |
|                               | 184               | -                    | -                      |
|                               | 187               | -                    | -                      |
|                               | 193               | -                    | ✓                      |
|                               | Others            | 168/175/178          | -                      |
| Flange distance (mm)          |                   | 57.5                 | 53.5                   |
| Flange diameter (mm)          |                   | 67.5                 | 77.6                   |
| Flange width (mm)             | Right             | 2.3                  | 3.2                    |
|                               | Left              | 2.3                  | 3.2                    |
| Offset (mm)                   |                   | 1.2/2.7 (175mm axle) | 1.7                    |
| P.C.D. left / right (mm)      |                   | 59                   | 65                     |
| Hub shell                     | Material          | Steel                | Aluminum               |
|                               | Finish            | Plated               | Painted                |
| Average weight (g)            |                   | 1120                 | 945                    |
| Note                          |                   | -                    | -                      |

# Chain Tensioner

| Series                |          | ALFINE                 | ALFINE   |
|-----------------------|----------|------------------------|--|
| Model no.             |          | CT-S500                | CT-S510  |
| Color                 | 1        | Silver                 | -  |
|                       | 2        | Black                  | -  |
|                       | 3        | -                      | Silver+Black                                   |
| Rear speeds           |          | Single                 | Single   |
| Compatible chain      |          | HG 9-speed             | HG 9-speed (CS-S500), HG 8/7/6-speed (SM-GEAR) |
| Compatible sprocket   |          | CS-S500                | CS-S500, SM-GEAR                               |
| Max. front difference |          | 16T                    | -  |
| Max. rear sprocket    |          | 20T                    | 20T (CS-S500), 23T (SM-GEAR)                   |
| Min. rear sprocket    |          | 18T                    | 16T (SM-GEAR), 18T (CS-S500)                   |
| Dropout               |          | Vertical drop end type | Vertical drop end type                         |
| Mount                 |          | Derailleur hanger      | Hub axle                                       |
| Structure             |          | Double pulley          | Single pulley                                  |
| Tensioner arm         | Material | Aluminum               | Aluminum                                       |
|                       | Finish   | Painted                | Painted  |
| Note                  |          |                        |  |

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# Sprocket

| Series              |                                   | ALFINE               | NEXUS                      | NEXUS                                      |
|---------------------|-----------------------------------|----------------------|----------------------------|--|
| Model no.           |                                   | CS-S500              | CS-C7000                   | SM-GEAR                                    |
| Chain guard         | With                              | ✓                    | -                          | -  |
|                     | Without                           | ✓                    | ✓                          | ✓  |
| Gear teeth          | 14T                               | -                    | -                          | - (2.3 mm), ✓ (3.0 mm)                     |
|                     | 16T                               | -                    | -                          | ✓ (2.3 mm), ✓ (3.0 mm)                     |
|                     | 18T                               | ✓ (w/ and w/o guard) | -                          | ✓ (2.3 mm), ✓ (3.0 mm)                     |
|                     | 19T                               | -                    | -                          | ✓ (2.3 mm), - (3.0 mm)                     |
|                     | 20T                               | ✓ (w/ and w/o guard) | -                          | ✓ (2.3 mm), ✓ (3.0 mm)                     |
|                     | 21T                               | -                    | -                          | ✓ (2.3 mm), ✓ (3.0 mm)                     |
|                     | 22T                               | -                    | -                          | ✓ (2.3 mm), ✓ (3.0 mm)                     |
|                     | 23T                               | -                    | -                          | ✓ (2.3 mm), - (3.0 mm)                     |
|                     | 24T                               | -                    | ✓                          | -  |
|                     | 27T                               | -                    | ✓                          | -  |
|                     | 30T                               | -                    | ✓                          | -  |
| Gear thickness (mm) |                                   | 2.0                  | 2.3                        | 2.3/3.0                                    |
| Recommended chain   | Super Narrow HG 9-speed           | ✓                    | -                          | -  |
|                     | HG 8-speed (1/2 inch x 3/32 inch) | -                    | ✓                          | ✓ (2.3 mm)                                 |
|                     | 1/2 inch x 1/8 inch               | -                    | -                          | ✓ (3.0 mm)                                 |
| Gear                | Material                          | Steel                | Steel                      | Steel                                      |
|                     | Finish                            | Chrome plated        | Manganese phosphate coated | Chrome plated, Manganese, phosphate coated |
| Note                |                                   |                      |                            |  |

# Shifter

LIFESTYLE  
Comfort

| Series  |                  |                      | ALFINE          | ALFINE                 | ALFINE                 | NEXUS               | NEXUS         | NEXUS                 |
|---|------------------|----------------------|-----------------|------------------------|------------------------|---------------------|---------------|-----------------------|
| Model no.   |                  |                      | SL-S700         | SL-S7000-8             | SL-S503                | SL-C6001-8          | SL-C6000-8    | SL-7S50               |
| Color   | 1                |                      | Silver          | Silver                 | Silver                 | Black               | Silver        | Silver                |
|   | 2                |                      | Black           | Black                  | Black                  | Silver              | Black         | Black                 |
|   | 3                |                      | -               | -                      | -                      | -                   | -             | -                     |
| Shifter type  |                  |                      | RAPIDFIRE PLUS  | RAPIDFIRE PLUS         | RAPIDFIRE PLUS         | REVOSHIFT           | REVOSHIFT     | RAPIDFIRE PLUS        |
| Top-normal  |                  |                      | ✓               | ✓                      | -                      | -                   | -             | -                     |
| Front speeds  |                  |                      | -               | -                      | -                      | -                   | -             | -                     |
| Rear speeds   |                  |                      | 11              | 8                      | 8                      | 8                   | 8             | 7                     |
| Compatible rear derailleur/internal geared hub type |                  |                      | SG-S7001-11     | SG-S7000-8, SG-S7001-8 | SG-S501, NEXUS INTER-8 | NEXUS INTER-8       | NEXUS INTER-8 | NEXUS INTER-7         |
| Compatible front derailleur type                    |                  |                      | -               | -                      | -                      | -                   | -             | -                     |
| Shift lever position adjust                         |                  |                      | -               | -                      | -                      | -                   | -             | -                     |
| Shift lever cable adjust                            |                  |                      | ✓               | ✓                      | ✓                      | ✓                   | ✓             | ✓                     |
| Max. multiple shifts (main lever/rear)              |                  |                      | 2               | 1                      | 1                      | 7                   | 7             | 1                     |
| Release function                                    | MULTI RELEASE    |                      | ✓               | -                      | -                      | -                   | -             | -                     |
|   | INSTANT RELEASE  |                      | -               | -                      | -                      | -                   | -             | -                     |
|   | 2-WAY RELEASE    |                      | ✓               | ✓                      | ✓                      | -                   | -             | ✓                     |
| OPTICAL GEAR DISPLAY                                | With             |                      | Above handlebar | Above handlebar        | Above handlebar        | Window              | Window        | Window                |
|   | With (removable) |                      | -               | -                      | -                      | -                   | -             | -                     |
|   | Without          |                      | -               | -                      | -                      | -                   | -             | -                     |
| Multi-bearing construction                          |                  |                      | -               | -                      | -                      | -                   | -             | -                     |
| Shift lever bracket                                 | Material         |                      | Aluminum        | Aluminum               | Aluminum               | Resin               | Resin         | Aluminum              |
|   | Finish           |                      | Painted         | Painted                | Painted                | Resin/Paint(Silver) | Resin         | Painted               |
| Main lever body                                     | Material         |                      | Steel+Resin     | Steel+Resin            | Steel+Resin            | -                   | -             | Steel+Resin           |
|   | Finish           |                      | -               | -                      | -                      | -                   | -             | -                     |
| Release lever body                                  | Material         |                      | Steel+Resin     | Steel+Resin            | Steel+Resin            | -                   | -             | Steel+Resin           |
|   | Finish           |                      | -               | -                      | -                      | -                   | -             | -                     |
| Base cover  | Material         |                      | Resin           | Resin                  | Resin                  | Resin               | Resin         | Resin                 |
|   | Finish           |                      | -               | -                      | -                      | Resin/Paint(Silver) | -             | -                     |
| Shift lever cable                                   | Inner cable      | Polymer-coated cable | -               | -                      | -                      | -                   | -             | -                     |
|   |                  | OPTISLICK            | -               | -                      | -                      | -                   | -             | -                     |
|   |                  | SIL-TEC              | -               | -                      | -                      | -                   | -             | -                     |
|   |                  | Stainless            | ✓               | ✓                      | ✓                      | ✓                   | ✓             | ✓                     |
|   |                  | Steel                | -               | -                      | -                      | -                   | -             | -                     |
| Recommended shift lever outer casing                |                  |                      | OT-SP41         | OT-SP41                | OT-SP41                | OT-SP41             | OT-SP41       | OT-SP41               |
| Clamping diameter (mm)                              |                  |                      | 22.2            | 22.2                   | 22.2                   | 22.2                | 22.2          | 22.2                  |
| Average weight (g)                                  |                  |                      | -               | -                      | -                      | -                   | -             | -                     |
| Note  |                  |                      |                 |                        |                        |                     |               | *European market only |

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# Shifter

| Series  |                  |                      | NEXUS               | NEXUS                 | NEXUS                                | NEXUS              | NEXUS              | NEXUS              |
|---|------------------|----------------------|---------------------|-----------------------|--------------------------------------|--------------------|--------------------|--------------------|
| Model no.   |                  |                      | SL-C3001-7          | SL-C3000-7            | SL-C7000-5                           | SL-5550            | SL-5530            | SL-5530-A          |
| Color   | 1                |                      | Black               | Silver                | Silver                               | Silver             | Silver             | Silver             |
|   | 2                |                      | Silver              | Black                 | Black                                | Black              | Black              | Black              |
|   | 3                |                      | -                   | -                     | -                                    | -                  | White              | White              |
| Shifter type  |                  |                      | REVOSHIFT           | REVOSHIFT             | REVOSHIFT                            | RAPIDFIRE PLUS     | REVOSHIFT          | REVOSHIFT          |
| Top-normal  |                  |                      | -                   | -                     | ✓                                    | -                  | -                  | -                  |
| Front speeds  |                  |                      | -                   | -                     | -                                    | -                  | -                  | -                  |
| Rear speeds   |                  |                      | 7                   | 7                     | 5                                    | 5                  | 5                  | 5                  |
| Compatible rear derailleur/internal geared hub type |                  |                      | NEXUS INTER-7       | NEXUS INTER-7         | NEXUS INTER-5E                       | NEXUS INTER-5      | NEXUS INTER-5      | NEXUS INTER-5      |
| Compatible front derailleur type                    |                  |                      | -                   | -                     | -                                    | -                  | -                  | -                  |
| Shift lever position adjust                         |                  |                      | -                   | -                     | -                                    | -                  | -                  | -                  |
| Shift lever cable adjust                            |                  |                      | ✓                   | ✓                     | ✓                                    | ✓                  | ✓                  | ✓                  |
| Max. multiple shifts (main lever/rear)              |                  |                      | 6                   | 6                     | 4                                    | 1                  | 4                  | 4                  |
| Release function                                    | MULTI RELEASE    |                      | -                   | -                     | -                                    | -                  | -                  | -                  |
|   | INSTANT RELEASE  |                      | -                   | -                     | -                                    | -                  | -                  | -                  |
|   | 2-WAY RELEASE    |                      | -                   | -                     | -                                    | -                  | -                  | -                  |
| OPTICAL GEAR DISPLAY                                | With             |                      | Window              | Window                | Window                               | Window             | Window             | Window             |
|   | With (removable) |                      | -                   | -                     | -                                    | -                  | -                  | -                  |
|   | Without          |                      | -                   | -                     | -                                    | -                  | -                  | -                  |
| Multi-bearing construction                          |                  |                      | -                   | -                     | -                                    | -                  | -                  | -                  |
| Shift lever bracket                                 | Material         |                      | Resin               | Resin                 | Resin                                | Aluminum           | Resin              | Resin              |
|   | Finish           |                      | Resin/Paint(Silver) | Resin                 | Resin                                | Painted            | Resin              | Resin              |
| Main lever body                                     | Material         |                      | -                   | -                     | -                                    | -                  | -                  | -                  |
|   | Finish           |                      | -                   | -                     | -                                    | -                  | -                  | -                  |
| Release lever body                                  | Material         |                      | -                   | -                     | -                                    | -                  | -                  | -                  |
|   | Finish           |                      | -                   | -                     | -                                    | -                  | -                  | -                  |
| Base cover  | Material         |                      | Resin               | Resin                 | Resin                                | Resin              | Resin              | Resin              |
|   | Finish           |                      | Resin/Paint(Silver) | -                     | -                                    | -                  | -                  | -                  |
| Shift lever cable                                   | Inner cable      | Polymer-coated cable | -                   | -                     | -                                    | -                  | -                  | -                  |
|   |                  | OPTISLIC K           | -                   | -                     | -                                    | -                  | -                  | -                  |
|   |                  | SIL-TEC              | -                   | -                     | -                                    | -                  | -                  | -                  |
|   |                  | Stainless            | ✓                   | ✓                     | ✓                                    | ✓                  | ✓                  | ✓                  |
|   |                  | Steel                | -                   | -                     | -                                    | -                  | -                  | -                  |
| Recommended shift lever outer casing                |                  |                      | OT-SP41             | OT-SP41               | OT-SP41                              | OT-SP41            | OT-SP41            | OT-SP41            |
| Clamping diameter (mm)                              |                  |                      | 22.2                | 22.2                  | 22.2                                 | 22.2               | 22.2               | 22.2               |
| Average weight (g)                                  |                  |                      | -                   | -                     | -                                    | -                  | -                  | -                  |
| Note  |                  |                      |                     | *European market only | w/ Rubber bellows spec. is available | *Japan market only | *Japan market only | *Japan market only |

# Shifter

| Series  |                  |                      | NEXUS         | NEXUS            | NEXUS         | NEXUS         | NEXUS         | NEXUS         |
|---|------------------|----------------------|---------------|------------------|---------------|---------------|---------------|---------------|
| Model no.   |                  |                      | SL-3S42E      | SL-C2010-3       | SL-3S41E      | SL-3S35E      | SL-3S58       | SL-3S42       |
| Color   | 1                |                      | -             | Black            | -             | -             | Silver        | Silver        |
|   | 2                |                      | Black         | -                | Black         | Black         | Black         | Black         |
|   | 3                |                      | -             | -                | -             | -             | White         | -             |
| Shifter type  |                  |                      | REVOSHIFT     | RAPIDFIRE PLUS   | REVOSHIFT     | REVOSHIFT     | REVOSHIFT     | REVOSHIFT     |
| Top-normal  |                  |                      | -             | -                | -             | -             | -             | -             |
| Front speeds  |                  |                      | -             | -                | -             | -             | -             | -             |
| Rear speeds   |                  |                      | 3             | 3                | 3             | 3             | 3             | 3             |
| Compatible rear derailleur/internal geared hub type |                  |                      | NEXUS INTER-3 | NEXUS INTER-3    | NEXUS INTER-3 | NEXUS INTER-3 | NEXUS INTER-3 | NEXUS INTER-3 |
| Compatible front derailleur type                    |                  |                      | -             | -                | -             | -             | -             | -             |
| Shift lever position adjust                         |                  |                      | -             | -                | -             | -             | -             | -             |
| Shift lever cable adjust                            |                  |                      | -             | ✓                | -             | -             | -             | -             |
| Max. multiple shifts (main lever/rear)              |                  |                      | 2             | 1                | 2             | 2             | 2             | 2             |
| Release function                                    | MULTI RELEASE    |                      | -             | -                | -             | -             | -             | -             |
|   | INSTANT RELEASE  |                      | -             | -                | -             | -             | -             | -             |
|   | 2-WAY RELEASE    |                      | -             | -                | -             | -             | -             | -             |
| OPTICAL GEAR DISPLAY                                | With             |                      | Window        | Below handlebar  | Window        | Dial          | Window        | Window        |
|   | With (removable) |                      | -             | -                | -             | -             | -             | -             |
|   | Without          |                      | -             | -                | -             | -             | -             | -             |
| Multi-bearing construction                          |                  |                      | -             | -                | -             | -             | -             | -             |
| Shift lever bracket                                 | Material         |                      | Resin         | Aluminum         | Resin         | Aluminum      | Resin         | Resin         |
|   | Finish           |                      | Resin         | Painted          | Resin         | Painted       | Resin         | Resin         |
| Main lever body                                     | Material         |                      | -             | Steel+Resin      | -             | -             | -             | -             |
|   | Finish           |                      | -             | -                | -             | -             | -             | -             |
| Release lever body                                  | Material         |                      | -             | Steel+Resin      | -             | -             | -             | -             |
|   | Finish           |                      | -             | -                | -             | -             | -             | -             |
| Base cover  | Material         |                      | Resin         | -                | Resin         | Resin         | Resin         | Resin         |
|   | Finish           |                      | -             | -                | -             | -             | -             | -             |
| Shift lever cable                                   | Inner cable      | Polymer-coated cable | -             | -                | -             | -             | -             | -             |
|   |                  | OPTISLIC K           | -             | -                | -             | -             | -             | -             |
|   |                  | SIL-TEC              | -             | -                | -             | -             | -             | -             |
|   |                  | Stainless            | ✓             | -                | ✓             | ✓             | -             | -             |
|   |                  | Steel                | -             | ✓                | -             | -             | ✓             | ✓             |
| Recommended shift lever outer casing                |                  |                      | OT-SP40       | SP outer for IHG | OT-SP40       | OT-SP40       | OT-SP40       | OT-SP40       |
| Clamping diameter (mm)                              |                  |                      | 22.2          | 22.2             | 22.2          | 22.2          | 22.2          | 22.2          |
| Average weight (g)                                  |                  |                      | -             | -                | -             | -             | -             | -             |
| Note  |                  |                      |               |                  |               |               |               |               |

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# Shifter

| Series  |                  |                      | NEXUS            | NEXUS            | NEXUS            |
|---|------------------|----------------------|------------------|------------------|------------------|
| Model no.   |                  |                      | SL-3S43          | SL-3S90          | SL-3S91J         |
| Color   | 1                |                      | Silver           | Gray             | -                |
|   | 2                |                      | Black            | Black            | -                |
|   | 3                |                      | White            | -                | White            |
| Shifter type  |                  |                      | REVOSHIFT        | Piano-touch      | Piano-touch      |
| Top-normal  |                  |                      | -                | -                | -                |
| Front speeds  |                  |                      | -                | -                | -                |
| Rear speeds   |                  |                      | 3                | 3                | 3                |
| Compatible rear derailleur/internal geared hub type |                  |                      | NEXUS INTER-3    | NEXUS INTER-3    | NEXUS INTER-3    |
| Compatible front derailleur type                    |                  |                      | -                | -                | -                |
| Shift lever position adjust                         |                  |                      | -                | -                | -                |
| Shift lever cable adjust                            |                  |                      | -                | -                | -                |
| Max. multiple shifts (main lever/rear)              |                  |                      | 2                | 2                | 2                |
| Release function                                    | MULTI RELEASE    |                      | -                | -                | -                |
|   | INSTANT RELEASE  |                      | -                | -                | -                |
|   | 2-WAY RELEASE    |                      | -                | -                | -                |
| OPTICAL GEAR DISPLAY                                | With             |                      | Window           | Dial             | Dial             |
|   | With (removable) |                      | -                | -                | -                |
|   | Without          |                      | -                | -                | -                |
| Multi-bearing construction                          |                  |                      | -                | -                | -                |
| Shift lever bracket                                 | Material         |                      | Resin            | Steel            | Steel            |
|   | Finish           |                      | Resin            | Painted          | Painted          |
| Main lever body                                     | Material         |                      | -                | Steel+Resin      | Steel+Resin      |
|   | Finish           |                      | -                | -                | -                |
| Release lever body                                  | Material         |                      | -                | Steel+Resin      | Steel+Resin      |
|   | Finish           |                      | -                | -                | -                |
| Base cover  | Material         |                      | Resin            | Resin            | Resin            |
|   | Finish           |                      | -                | -                | -                |
| Shift lever cable                                   | Inner cable      | Polymer-coated cable | -                | -                | -                |
|   |                  | OPTISLIC K           | -                | -                | -                |
|   |                  | SIL-TEC              | -                | -                | -                |
|   |                  | Stainless            | -                | -                | -                |
|   |                  | Steel                | ✓                | ✓                | ✓                |
| Recommended shift lever outer casing                |                  |                      | SP outer for IHG | SP outer for IHG | SP outer for IHG |
| Clamping diameter (mm)                              |                  |                      | 22.2             | 22.2             | 22.2             |
| Average weight (g)                                  |                  |                      | -                | -                | -                |
| Note  |                  |                      |                  |                  |                  |

# Brake Lever (Hydraulic Disc Brake)

|   |            |                      |
|---|------------|----------------------|
| Series  |            | ALFINE               |
| Model no.   |            | BL-S7000             |
| Brake type  |            | Hydraulic disc brake |
| Lever size (finger)                                   |            | 3                    |
| Color   | 1          | Series black         |
|   | 2          | Series silver        |
|   | 3          | -                    |
| Brake hose (kit)                                      |            | SM-BH59-JK-SS        |
| Hose joint  |            | Straight             |
| Brake hose color (kit)                                | 1          | Black                |
|   | 2          | -                    |
| J-Kit spec (for OEM)                                  |            | ✓                    |
| SERVO WAVE  |            | -                    |
| Reach adjust  | Toolless   | -                    |
|   | Tool       | ✓                    |
| Free stroke adjust                                    |            | -                    |
| Compatible shifter mount                              | Clamp band | ✓                    |
|   | I-SPEC B   | -                    |
|   | I-SPEC II  | ✓                    |
|   | I-SPEC EV  | -                    |
| Shifter rotation angle adjust range (I-SPEC EV; deg.) |            | -                    |
| Clamp band  | Open clamp | ✓                    |
| Recommended brake caliper                             |            | BR-S7000             |
| Oil   |            | SHIMANO mineral      |
| Funnel bleeding                                       |            | ✓                    |
| Clamp screw   | Material   | Stainless steel      |
|   | Finish     | -                    |
| Brake lever   | Material   | Aluminum             |
|   | Finish     | Anodized             |
| Master cylinder                                       | Material   | Aluminum             |
|   | Finish     | Painted              |
| Average weight (g)                                    |            | -                    |
| Note  |            |                      |

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# Brake Lever

| Series                      |                              | NEXUS  | NEXUS    |
|-----------------------------|------------------------------|--|----------|
| Model no.                   |                              | BL-C6010   | BL-C6000 |
| Color                       | 1                            | Silver   | Silver   |
|                             | 2                            | Black  | Black    |
|                             | 3                            | -  | -        |
| Compatible brake type       | V-BRAKE                      | ✓  | ✓        |
|                             | Mechanical disc brake (MTB)  | -  | -        |
|                             | Mechanical disc brake (Road) | -  | -        |
|                             | Caliper (NEW SUPER SLR)      | -  | -        |
|                             | Caliper (SUPER SLR)          | -  | -        |
|                             | Cantilever brake             | -  | -        |
|                             | Roller brake                 | ✓  | ✓        |
| Recommended POWER MODULATOR | V-BRAKE                      | SM-PM40  | SM-PM40  |
|                             | Mechanical disc brake (MTB)  | -  | -        |
| Clamp band                  | Open clamp band              | -  | -        |
|                             | I-SPEC                       | -  | -        |
|                             | Diameter (mm)                | 22.2   | 22.2     |
| Internal bumper stop        |                              | ✓  | ✓        |
| Lever size (finger)         |                              | 4  | 4        |
| Brake cable type            |                              | T-type   | T-type   |
| Power adjuster              |                              | -  | -        |
| SERVO WAVE                  |                              | -  | -        |
| Reach adjust                |                              | ✓  | ✓        |
| Cable adjust                |                              | ✓  | ✓        |
| Cable adjust type           |                              | Two hand   | Two hand |
| Brake lever                 | Material                     | Aluminum   | Aluminum |
|                             | Finish                       | Anodized   | Anodized |
| Brake bracket               | Material                     | Aluminum   | Aluminum |
|                             | Finish                       | Painted  | Painted  |
| Note                        |                              | * Brake lever ratio is different from BL-C6000 for better performance with BR-C6000, C3000 series. |          |

# Brake (Hydraulic Disc Brake)

|   |                    |                             |
|---|--------------------|-----------------------------|
| Series                                  |                    | ALFINE                      |
| Model no.                               |                    | BR-S7000                    |
| Color                                   | 1                  | Series black                |
|   | 2                  | Series silver               |
|   | 3                  | -                           |
| Brake type                              |                    | Hydraulic disc brake        |
| Brake hose (kit)                        |                    | SM-BH59-JK-SS               |
| Hose joint                              |                    | Straight                    |
| Brake hose color (kit)                  | 1                  | Black                       |
|   | 2                  | -                           |
| J-Kit spec (for OEM)                    |                    | ✓                           |
| ICE TECHNOLOGIES pad compatible caliper |                    | -                           |
| Pad                                     | Standard 1         | G05S-RX Resin (w/o fin)     |
|   | Standard 2         | -                           |
|   | Option 1           | -                           |
|   | Option 2           | -                           |
| Fixing screw spec for rear mount        | 10 mm mount        | -                           |
|   | 15 mm mount        | -                           |
|   | 20 mm mount        | -                           |
|   | 25 mm mount        | -                           |
|   | 30 mm mount        | -                           |
|   | 35 mm mount        | -                           |
| Recommended brake lever                 |                    | BL-S7000                    |
| Recommended disc brake rotor            |                    | SM-RT64<br>SM-RT66          |
| Compatible rotor size                   | 140 mm (SS)        | ✓                           |
|   | 160 mm (S)         | ✓                           |
|   | 180 mm (M)         | ✓                           |
|   | 203 mm (L)         | ✓                           |
|   | 220 mm (LL)        | -                           |
| Oil                                     |                    | SHIMANO mineral             |
| ONE WAY BLEEDING                        |                    | ✓                           |
| Mount type                              |                    | Post type                   |
| Piston                                  |                    | 2                           |
| Piston material                         |                    | Resin                       |
| Caliper                                 | MONO-BODY          | -                           |
|   | Material           | Aluminum                    |
|   | Finish             | Painted                     |
| Caliper fixing screw                    | Material           | Steel                       |
|   | Tool size          | 5 mm                        |
|   | Anti loosen method | Snap ring                   |
| Pad mount                               |                    | Split pin (stainless steel) |
| Average weight (g)                      |                    | -                           |
| Note                                    |                    |                             |

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# Brake (Roller Brake)

| Series   |   | NEXUS                        | NEXUS               | NEXUS                        | NEXUS               | NEXUS      | NEXUS      |
|--|---|------------------------------|---------------------|------------------------------|---------------------|------------|------------|
| Model no.  |   | BR-C6061-F                   | BR-C6060-F          | BR-C6051-F                   | BR-C6050-F          | BR-C6001-F | BR-C6001-R |
| Color  | 1   | Silver                       | Silver              | Silver                       | Silver              | Silver     | Silver     |
|  | 2   | -                            | -                   | -                            | -                   | -          | -          |
| Front  |   | ✓                            | ✓                   | ✓                            | ✓                   | ✓          | -          |
| Rear   |   | -                            | -                   | -                            | -                   | -          | ✓          |
| Structure type   |   | Hyper                        | Hyper               | Hyper                        | Hyper               | Hyper      | Hyper      |
| Braking power ( *1 )   |   | 1.5                          | 1.5                 | 1.5                          | 1.5                 | 1.5        | 1.2        |
| Cooling fin diameter (mm)  |   | 138                          | 138                 | 138                          | 138                 | 150        | 150        |
| Heat dissipation ( *1 )  |   | 1.4                          | 1.4                 | 1.4                          | 1.4                 | 1.4        | 1.4        |
| Without cooling fin  |   | -                            | -                   | -                            | -                   | -          | -          |
| With POWER MODULATOR function  |   | ✓                            | ✓                   | ✓                            | ✓                   | -          | -          |
| Wheel size (inch)/Outer diameter of tire (mm)  | 26-28 inch  | -                            | -                   | -                            | -                   | ✓          | ✓          |
|  | 660-712 mm  | ✓                            | ✓                   | ✓                            | ✓                   | -          | -          |
|  | 20-28 inch  | -                            | -                   | -                            | -                   | -          | -          |
|  | 16-28 inch  | -                            | -                   | -                            | -                   | -          | -          |
|  | 24-28 inch  | -                            | -                   | -                            | -                   | -          | -          |
|  | 20-24 inch  | -                            | -                   | -                            | -                   | -          | -          |
|  | 16-20 inch  | -                            | -                   | -                            | -                   | -          | -          |
| Roller brake modulator grade   | More than 26 inch high  | -                            | -                   | -                            | -                   | ✓          | -          |
|  | More than 26 inch standard  | -                            | -                   | -                            | -                   | -          | -          |
|  | 20-24 inch  | -                            | -                   | -                            | -                   | -          | -          |
|  | Range of overall allowable mass for modulator (kg) * mass = bicycle + rider + luggage | 100-130                      | 100-130             | 70-100                       | 70-100              | -          | -          |
| Inner cable quick release  |   | ✓                            | ✓                   | ✓                            | ✓                   | ✓          | ✓          |
| Note*1 Performance index rating uses BR-C3000-R brake unit as a reference value of 1. Testing condition. |   | SUS CAP, Except Japan market | Except Japan market | SUS CAP, Except Japan market | Except Japan market | SUS CAP    | SUS CAP    |

| Series   |   | NEXUS      | NEXUS         | NEXUS      | NEXUS         | NEXUS      | NEXUS      |
|--|---|------------|---------------|------------|---------------|------------|------------|
| Model no.  |   | BR-C6000-F | BR-C6000-F-DX | BR-C6000-R | BR-C6000-R-DX | BR-C3011-F | BR-C3011-R |
| Color  | 1   | Silver     | Silver        | Silver     | Silver        | Silver     | Silver     |
|  | 2   | -          | -             | -          | -             | -          | -          |
| Front  |   | ✓          | ✓             | -          | -             | ✓          | -          |
| Rear   |   | -          | -             | ✓          | ✓             | -          | ✓          |
| Structure type   |   | Hyper      | Hyper         | Hyper      | Hyper         | Normal     | Normal     |
| Braking power ( *1 )   |   | 1.5        | 1.5           | 1.2        | 1.2           | 1.3        | 1          |
| Cooling fin diameter (mm)  |   | 150        | 150           | 150        | 150           | 140        | 140        |
| Heat dissipation ( *1 )  |   | 1.4        | 1.4           | 1.4        | 1.4           | 1.2        | 1.2        |
| Without cooling fin  |   | -          | -             | -          | -             | -          | -          |
| With POWER MODULATOR function  |   | -          | -             | -          | -             | -          | -          |
| Wheel size (inch)/Outer diameter of tire (mm)  | 26-28 inch  | ✓          | ✓             | ✓          | ✓             | ✓          | ✓          |
|  | 660-712 mm  | -          | -             | -          | -             | -          | -          |
|  | 20-28 inch  | -          | -             | -          | -             | -          | -          |
|  | 16-28 inch  | -          | -             | -          | -             | -          | -          |
|  | 24-28 inch  | -          | -             | -          | -             | -          | -          |
|  | 20-24 inch  | -          | -             | -          | -             | -          | -          |
|  | 16-20 inch  | -          | -             | -          | -             | -          | -          |
| Roller brake modulator grade   | More than 26 inch high  | ✓          | ✓             | -          | -             | -          | -          |
|  | More than 26 inch standard  | -          | -             | -          | -             | ✓          | -          |
|  | 20-24 inch  | -          | -             | -          | -             | -          | -          |
|  | Range of overall allowable mass for modulator (kg) * mass = bicycle + rider + luggage | -          | -             | -          | -             | -          | -          |
| Inner cable quick release  |   | ✓          | ✓             | ✓          | ✓             | ✓          | ✓          |
| Note*1 Performance index rating uses BR-C3000-R brake unit as a reference value of 1. Testing condition. |   |            |               |            |               | SUS CAP    | SUS CAP    |

# Brake (Roller Brake)

| Series   |   | NEXUS      | NEXUS      | NEXUS      | NEXUS      | NEXUS      | NEXUS         |
|--|---|------------|------------|------------|------------|------------|---------------|
| Model no.  |   | BR-C3010-F | BR-C3010-R | BR-C3001-F | BR-C3001-R | BR-C3000-F | BR-C3000-F-DX |
| Color  | 1   | Silver     | Silver     | Silver     | Silver     | Silver     | Silver        |
|  | 2   | -          | -          | Black      | Black      | Black      | -             |
| Front  |   | ✓          | -          | ✓          | -          | ✓          | ✓             |
| Rear   |   | -          | ✓          | -          | ✓          | -          | -             |
| Structure type   |   | Normal     | Normal     | Normal     | Normal     | Normal     | Normal        |
| Braking power ( *1 )   |   | 1.3        | 1.0        | 1.3        | 1          | 1.3        | 1.3           |
| Cooling fin diameter (mm)  |   | 140        | 140        | 122        | 122        | 122        | 122           |
| Heat dissipation ( *1 )  |   | 1.2        | 1.2        | 1          | 1          | 1.0        | 1.0           |
| Without cooling fin  |   | -          | -          | -          | -          | -          | -             |
| With POWER MODULATOR function  |   | -          | -          | -          | -          | -          | -             |
| Wheel size (inch)/Outer diameter of tire (mm)  | 26-28 inch  | ✓          | ✓          | ✓          | ✓          | ✓          | ✓             |
|  | 660-712 mm  | -          | -          | -          | -          | -          | -             |
|  | 20-28 inch  | -          | -          | -          | -          | -          | -             |
|  | 16-28 inch  | -          | -          | -          | -          | -          | -             |
|  | 24-28 inch  | -          | -          | -          | -          | -          | -             |
|  | 20-24 inch  | -          | -          | -          | -          | -          | -             |
|  | 16-20 inch  | -          | -          | -          | -          | -          | -             |
| Roller brake modulator grade   | More than 26 inch high  | -          | -          | -          | -          | -          | -             |
|  | More than 26 inch standard  | ✓          | -          | ✓          | -          | ✓          | ✓             |
|  | 20-24 inch  | -          | -          | -          | -          | -          | -             |
|  | Range of overall allowable mass for modulator (kg) * mass = bicycle + rider + luggage | -          | -          | -          | -          | -          | -             |
| Inner cable quick release  |   | ✓          | ✓          | ✓          | ✓          | ✓          | ✓             |
| Note*1 Performance index rating uses BR-C3000-R brake unit as a reference value of 1. Testing condition. |   |            |            | SUS CAP    | SUS CAP    |            |               |

| Series   |   | NEXUS      | NEXUS         | NEXUS       |
|--|---|------------|---------------|-------------|
| Model no.  |   | BR-C3000-R | BR-C3000-R-DX | BR-IM31-R   |
| Color  | 1   | Silver     | Silver        | Silver      |
|  | 2   | Black      | -             | -           |
| Front  |   | -          | -             | -           |
| Rear   |   | ✓          | ✓             | ✓           |
| Structure type   |   | Normal     | Normal        | Normal      |
| Braking power ( *1 )   |   | 1.0        | 1.0           | 0.9         |
| Cooling fin diameter (mm)  |   | 122        | 122           | 90          |
| Heat dissipation ( *1 )  |   | 1.0        | 1.0           | Less than 1 |
| Without cooling fin  |   | -          | -             | Available   |
| With POWER MODULATOR function  |   | -          | -             | -           |
| Wheel size (inch)/Outer diameter of tire (mm)  | 26-28 inch  | ✓          | ✓             | ✓           |
|  | 660-712 mm  | -          | -             | -           |
|  | 20-28 inch  | -          | -             | -           |
|  | 16-28 inch  | -          | -             | -           |
|  | 24-28 inch  | -          | -             | -           |
|  | 20-24 inch  | -          | -             | -           |
|  | 16-20 inch  | -          | -             | -           |
| Roller brake modulator grade   | More than 26 inch high  | -          | -             | -           |
|  | More than 26 inch standard  | -          | -             | -           |
|  | 20-24 inch  | -          | -             | -           |
|  | Range of overall allowable mass for modulator (kg) * mass = bicycle + rider + luggage | -          | -             | -           |
| Inner cable quick release  |   | ✓          | ✓             | -           |
| Note*1 Performance index rating uses BR-C3000-R brake unit as a reference value of 1. Testing condition. |   |            |               |             |

# Crankset

| Series  |                                   | ALFINE   | NEXUS   |
|---|-----------------------------------|--|---|
| Model no.                                       |                                   | FC-S501  | FC-C6000  |
| Color   | 1                                 | Silver   | Silver  |
|   | 2                                 | Black  | Black   |
| Rear speeds                                     |                                   | (Internal geared hub)                                | (Internal geared hub)   |
| Compatible chain                                | Super Narrow HG for 11-speed      | -  | -   |
|   | Super Narrow HG for 9-speed       | ✓ (CN-HG93, CN-HG53)                                 | -   |
|   | HG 8-speed (1/2 inch x 3/32 inch) | -  | ✓ (CN-HG71)   |
|   | 1/2 inch x 1/8 inch               | -  | ✓ (CN-NX10)   |
|   | LG                                | -  | -   |
| Chain line (mm)                                 |                                   | 49.2 (double chain guard), 42.7 (single chain guard) | 44  |
| P.C.D. left / right (mm)                        |                                   | 130  | -   |
| Spider/gear arms                                |                                   | 5  | -   |
| Chaining combination                            |                                   | 39T, 42T, 45T  | 33T, 38T  |
| Q-factor (mm)                                   |                                   | -  | -   |
| Crank arm length (mm)                           | 165                               | -  | -   |
|   | 167.5                             | -  | -   |
|   | 170                               | ✓  | ✓   |
|   | 172.5                             | -  | -   |
|   | 175                               | -  | -   |
|   | 177.5                             | -  | -   |
|   | 180                               | -  | -   |
| Optional chain guard                            | With bash guard                   | -  | -   |
|   | With chain guard                  | ✓ (double)   | -   |
|   | Without chain/bash guard          | -  | ✓   |
| HOLLOWTECH II                                   |                                   | -  | -   |
| 2-PIECE CRANKSET                                |                                   | ✓  | -   |
| HOLLOWTECH crank arm                            |                                   | -  | -   |
| OCTALINK  |                                   | -  | -   |
| HOLLOWGLIDE                                     |                                   | -  | -   |
| Compatible bottom bracket type                  | Outboard                          | ✓  | -   |
|   | OCTALINK                          | -  | -   |
|   | Square                            | -  | ✓   |
| Recommended bottom bracket                      | Threaded (normal)                 | BB-RS501   | -   |
|   | Threaded (E-type)                 | -  | -   |
|   | Threaded (chain case)             | -  | BB-UN300-K  |
|   | Press-Fit                         | -  | -   |
| Axle length of BB-UN/ES (mm)                    |                                   | -  | -   |
| Threaded bottom bracket shell width (mm)        | 68                                | ✓  | ✓   |
|   | 70                                | -  | -   |
|   | 83                                | -  | -   |
| Chain case compatible                           |                                   | -  | ✓   |
| Crank arm                                       | Material                          | Aluminum   | Aluminum  |
|   | Finish                            | Anodized/Painted                                     | Painted   |
| Crank axle                                      | Material                          | -  | -   |
|   | Finish                            | -  | -   |
| Spider arm                                      | Material                          | -  | -   |
|   | Finish                            | -  | -   |
| Spider arm cover                                | Material                          | -  | -   |
|   | Finish                            | -  | -   |
| Outer ring                                      | Material                          | Aluminum   | Steel   |
|   | Finish                            | Anodized   | Black   |
| Middle ring                                     | Material                          | -  | -   |
|   | Finish                            | -  | -   |
| Inner ring                                      | Material                          | -  | -   |
|   | Finish                            | -  | -   |
| Outer/middle ring fixing bolt                   | Material                          | -  | -   |
|   | Finish                            | -  | -   |
| Inner ring fixing screw                         | Material                          | -  | -   |
|   | Finish                            | -  | -   |
| Chain guard 1                                   | Material                          | Aluminum   | Resin   |
|   | Finish                            | Anodized   | Painted   |
|   | Diameter (mm) 45T                 | 200  | -   |
|   | Diameter (mm) 42T                 | 190  | -   |
|   | Diameter (mm) 39T                 | 174  | -   |
|   | Diameter (mm) 33T                 | -  | 95.4  |
| Chain guard 2                                   | Material                          | Resin  | -   |
|   | Finish                            | -  | -   |
|   | Diameter (mm) 45T                 | 200  | -   |
|   | Diameter (mm) 42T                 | 190  | -   |
|   | Diameter (mm) 39T                 | 174  | -   |
|   | Diameter (mm) 33T                 | -  | 95.4  |
| Crank fixing screw included                     |                                   | ✓  | ✓   |
| Average weight (g) (170 mm, w/o bottom bracket) |                                   |  |   |
| Note  |                                   |  | t : Chain case thickness<br>* Both of spec with screw and spec w/o screw are available. |

# Front Hub (Roller Brake)

| Series   |                               | NEXAVE               | NEXUS                |
|--|-------------------------------|----------------------|----------------------|
| Model no.  |                               | HB-IM70-NT           | HB-IM40              |
| Color  | 1 Hub shell                   | Silver               | Silver               |
|  | 1 Quick release               | Silver               | -                    |
|  | 2 Hub shell                   | -                    | -                    |
|  | 2 Quick release               | -                    | -                    |
| Type   |                               | For hub roller brake | For hub roller brake |
| Spoke holes  | 28H                           | -                    | -                    |
|  | 32H                           | -                    | -                    |
|  | 36H                           | ✓                    | ✓                    |
|  | Others                        | -                    | -                    |
| P.C.D. (mm)  |                               | 70                   | 52                   |
| O.L.D. (mm)  |                               | 100/105              | 100                  |
| Flange distance (mm)                                   |                               | 56.8                 | 61.5                 |
| Offset (mm)  |                               | 3.7/6                | 4.3                  |
| Wheel size<br>(inch)/Outer<br>diameter of tire<br>(mm) | 26-28 inch                    | ✓                    | ✓                    |
|  | 660-712 mm                    | -                    | -                    |
|  | 20-28 inch                    | -                    | -                    |
|  | 16-28 inch                    | -                    | -                    |
|  | 24-28 inch                    | -                    | -                    |
|  | 20-24 inch                    | -                    | -                    |
|  | 16-20 inch                    | -                    | -                    |
| Roller brake<br>modulator grade                        | More than 26 inch<br>high     | ✓                    | -                    |
|  | More than 26 inch<br>standard | -                    | ✓                    |
|  | 20-24 inch                    | -                    | -                    |
| Axle fixing method                                     |                               | Nut                  | Nut                  |
| Axle (nut type)  | Axle length 140 mm            | ✓ (M9)               | ✓ (M9)               |
|  | Axle length 145 mm            | ✓ (M9)               | -                    |
|  | Material                      | Steel                | Steel                |
| Seal   |                               | ✓                    | ✓                    |
| Hub shell  | Material                      | Aluminum             | Aluminum             |
|  | Finish                        | Clear Painted        | Machined             |
| Structure (braking power)                              |                               | Hyper                | Normal               |
| Note   |                               |                      |                      |

SG

CT

CS

SL

BL

BL

BR

RB

FC

HB

FH

FH

HP

SG

MU

## FREEHUB (Roller Brake)

| Series                    |                             | NEXAVE        | SHIMANO       | SHIMANO                             | SHIMANO                             |
|---------------------------|-----------------------------|---------------|---------------|-------------------------------------|-------------------------------------|
| Model no.                 |                             | FH-IM70       | FH-IM20       | RH-IM10                             | RH-IM11                             |
| Color                     | Hub shell                   | Silver        | Silver        | Silver/Black                        | Silver                              |
|                           | Quick release               | -             | -             | -                                   | -                                   |
| Spoke holes               | 28H                         | -             | ✓             | ✓                                   | ✓                                   |
|                           | 32H                         | ✓             | -             | ✓                                   | ✓                                   |
|                           | 36H                         | ✓             | ✓             | ✓                                   | ✓                                   |
|                           | Others                      | -             | -             | -                                   | -                                   |
|                           | P.C.D. (mm)                 | 45            | 45            | 45                                  | 74                                  |
| FREEHUB body              | Speeds                      | 8/9           | 7             | -                                   | -                                   |
|                           | 11T compatible              | ✓             | ✓             | -                                   | -                                   |
|                           | Roller clutch               | Roller Clutch | -             | -                                   | -                                   |
|                           | Material                    | Steel         | Steel         | Steel                               | Steel                               |
| O.L.D. (mm)               |                             | 135           | 134.7         | 129.5 (6-speed),<br>130.0 (7-speed) | 132.7 (6-speed),<br>134.7 (7-speed) |
| Flange diameter (mm)      |                             | 53.8          | 54            | 54                                  | 84                                  |
| Flange distance (mm)      |                             | 60            | 61.2          | 54.1                                | 57.1                                |
| Dish (mm)                 |                             | 6.8           | 5.85          | 5.35 (6-speed), 7.1<br>(7-speed)    | 6.9 (6-speed), 7.9<br>(7-speed)     |
| Axle fixing method        |                             | Nut           | Nut           | Nut                                 | Nut                                 |
| Axle (quick release type) | Quick release skewer length | -             | -             | -                                   | -                                   |
|                           | Length (mm)                 | -             | -             | -                                   | -                                   |
|                           | Material                    | -             | -             | -                                   | -                                   |
| Axle (nut type)           | Length left / right (mm)    | 185           | 194/202       | 180/200                             | 180/185/192/200/204                 |
|                           | Material                    | Steel         | Steel         | Steel                               | Steel                               |
| Seal                      | Hub                         | ✓             | -             | -                                   | -                                   |
|                           | Freewheel                   | ✓             | -             | -                                   | -                                   |
| Hub shell                 | Material                    | Aluminum      | Steel         | Steel                               | Steel                               |
|                           | Finish                      | Anodized      | Chrome plated | Plated                              | Plated                              |
| Note                      |                             |               |               | For 6/7-speed multiple free wheel   | For 6/7-speed multiple free wheel   |

## FREEHUB (Band Brake)

| Series                    |                             | SHIMANO                 |
|---------------------------|-----------------------------|-------------------------|
| Model no.                 |                             | FH-S028                 |
| Color                     | Hub shell                   | Black                   |
|                           | Quick release               | -                       |
| Spoke holes               | 28H                         | ✓                       |
|                           | 32H                         | -                       |
|                           | 36H                         | ✓                       |
|                           | Others                      | -                       |
|                           | P.C.D. (mm)                 | 45                      |
| FREEHUB body              | Speeds                      | Single speed            |
|                           | 11T compatible              | -                       |
|                           | Roller clutch               | -                       |
|                           | Material                    | Steel                   |
| O.L.D. (mm)               |                             | 115/120                 |
| Flange diameter (mm)      |                             | 55                      |
| Flange distance (mm)      |                             | 51.5                    |
| Dish (mm)                 |                             | 1.8                     |
| Axle fixing method        |                             | Nut                     |
| Axle (quick release type) | Quick release skewer length | -                       |
|                           | Length (mm)                 | -                       |
|                           | Material                    | -                       |
| Axle (nut type)           | Length left / right (mm)    | 165, 170, 180, 185, 192 |
|                           | Material                    | Steel                   |
| Seal                      | Hub                         | -                       |
|                           | Freewheel                   | -                       |
| Hub shell                 | Material                    | Steel                   |
|                           | Finish                      | Plated                  |
| Note                      |                             | for band brake          |

## Head Parts

| Series                      |   | NEXUS                 |
|-----------------------------|---|-----------------------|
| Model no.                   |   | HP-NX10               |
| Color                       | 1 | Black                 |
|                             | 2 | -                     |
| A (mm)                      |   | ø30.01 - ø30.2        |
| B (mm)                      |   | 30.5 - 31.5           |
| Front fork stem thread size |   | BC 1 inch x 24 T.P.I. |
| C (mm)                      |   | Max. ø38              |
| D (mm)                      |   | 21.7                  |
| Head tube material          |   | Steel                 |
| Note                        |   |                       |



# Internal Geared Hub

| Series                        |                   | ALFINE                 | ALFINE                 | NEXUS       | NEXUS                  | NEXUS       | NEXUS                  |
|-------------------------------|-------------------|------------------------|------------------------|-------------|------------------------|-------------|------------------------|
| Model no.                     |                   | SG-S7051-11            | SG-S7051-8             | SG-C6061-8V | SG-C6061-8D            | SG-C7050-5V | SG-C7050-5D            |
| Function name                 |                   | INTER-11               | INTER-8                | INTER-8     | INTER-8                | INTER-5E    | INTER-5E               |
| Color                         | 1                 | Silver                 | Silver                 | Silver      | Silver                 | Silver      | Silver                 |
|                               | 2                 | Black                  | Black                  | Black       | Black                  | Black       | Black                  |
|                               | 3                 | -                      | -                      | -           | -                      | -           | -                      |
| Brake type                    | Mount type        | CENTER LOCK disc brake | CENTER LOCK disc brake | V-BRAKE     | CENTER LOCK disc brake | V-BRAKE     | CENTER LOCK disc brake |
|                               | Recommended model | -                      | -                      | -           | -                      | -           | -                      |
| Rear speeds                   |                   | 11                     | 8                      | 8           | 8                      | 5           | 5                      |
| Gear ratio                    | Total             | 409%                   | 307%                   | 307%        | 307%                   | 263%        | 263%                   |
|                               | 1                 | 0.527                  | 0.527                  | 0.527       | 0.527                  | 1           | 1                      |
|                               | 2                 | 0.681                  | 0.644                  | 0.644       | 0.644                  | 1.277       | 1.277                  |
|                               | 3                 | 0.770                  | 0.748                  | 0.748       | 0.748                  | 1.622       | 1.622                  |
|                               | 4                 | 0.878                  | 0.851                  | 0.851       | 0.851                  | 2.07        | 2.07                   |
|                               | 5                 | 0.995                  | 1                      | 1           | 1                      | 2.63        | 2.63                   |
|                               | 6                 | 1.134                  | 1.223                  | 1.223       | 1.223                  | -           | -                      |
|                               | 7                 | 1.292                  | 1.419                  | 1.419       | 1.419                  | -           | -                      |
|                               | 8                 | 1.462                  | 1.615                  | 1.615       | 1.615                  | -           | -                      |
|                               | 9                 | 1.667                  | -                      | -           | -                      | -           | -                      |
|                               | 10                | 1.888                  | -                      | -           | -                      | -           | -                      |
|                               | 11                | 2.153                  | -                      | -           | -                      | -           | -                      |
| Shifting structure            |                   | Di2                    | Di2                    | Di2         | Di2                    | Di2         | Di2                    |
| Silent clutch                 |                   | ✓                      | ✓                      | ✓           | ✓                      | ✓           | ✓                      |
| Gear change support mechanism |                   | ✓                      | ✓                      | ✓           | ✓                      | ✓           | ✓                      |
| Shifting POWER MODULATOR      |                   | ✓                      | ✓                      | ✓           | ✓                      | ✓           | ✓                      |
| Driving efficiency            |                   | HIGH                   | High                   | High        | High                   | High        | High                   |
| w/ Left hand dust cap         |                   | -                      | -                      | ✓           | -                      | ✓           | -                      |
| O.L.D. (mm)                   |                   | 135                    | 135                    | 135         | 135                    | 135         | 135                    |
| Spoke size                    |                   | #13/#14                | #13/#14                | #13/#14     | #13/#14                | #13/#14     | #13/#14                |
| Spoke hole                    | 28H               | ✓                      | -                      | -           | -                      | -           | -                      |
|                               | 32H               | ✓                      | ✓                      | -           | ✓                      | -           | ✓                      |
|                               | 36H               | ✓                      | ✓                      | ✓           | ✓                      | ✓           | ✓                      |
|                               | Others            | -                      | -                      | -           | -                      | -           | -                      |
| Axle length (mm)              | 182               | -                      | -                      | -           | -                      | -           | -                      |
|                               | 184               | -                      | -                      | -           | -                      | -           | -                      |
|                               | 187               | ✓                      | ✓                      | ✓           | ✓                      | ✓           | ✓                      |
|                               | 193               | -                      | -                      | -           | -                      | -           | -                      |
|                               | Others            | -                      | -                      | -           | -                      | -           | -                      |
| Flange distance (mm)          |                   | 57.3                   | 57.3                   | 58.3        | 57.3                   | 58.3        | 57.3                   |
| Flange diameter (mm)          |                   | 104.3                  | 104.3                  | 105.2       | 105.2                  | 105.2       | 105.2                  |
| Flange width (mm)             | Right             | 3.2                    | 3.2                    | 3.2         | 3.2                    | 3.2         | 3.2                    |
|                               | Left              | 3.2                    | 3.2                    | 3.2         | 3.2                    | 3.2         | 3.2                    |
| Offset (mm)                   |                   | 3.15                   | 3.15                   | 3.1         | 3.4                    | 3.7         | 3.2                    |
| P.C.D. left / right (mm)      |                   | 92.6                   | 92.6                   | 92.6        | 92.6                   | 92.6        | 92.6                   |
| Hub shell                     | Material          | Aluminum               | Aluminum               | Aluminum    | Aluminum               | Aluminum    | Aluminum               |
|                               | Finish            | Anodized               | Anodized               | Painted     | Painted                | Painted     | Painted                |
| Average weight (g)            |                   | 1665                   | 1670                   | 1685        | 1680                   | 1670        | 1670                   |
| Note                          |                   |                        |                        |             |                        |             |                        |

# Motor Unit

| Series                            |   | SHIMANO                                   | SHIMANO                                   | SHIMANO                                   |
|-----------------------------------|---|---|---|---|
| Model no.                         |   | MU-UR520                                  | MU-UR510                                  | MU-UR500                                  |
| Color                             | 1 | Black                                     | Black                                     | Black                                     |
|                                   | 2 | -   | -   | -   |
|                                   | 3 | -   | -   | -   |
| Compatible internal geared hub    |   | SG-S7051-11SG-S7051-8SG-C6061-8SG-C7050-5 | SG-S7051-11SG-S7051-8SG-C6061-8SG-C7050-5 | SG-S7051-11SG-S7051-8SG-C6061-8SG-C7050-5 |
| Compatible speed                  |   | 11/8/5-speed                              | 11/8/5-speed                              | 11/8/5-speed                              |
| Master unit                       |   | -   | -   | -   |
| Firmware update by E-TUBE PROJECT |   | ✓   | ✓   | ✓   |
| SD50 port (pcs)                   |   | 0   | 0   | 1   |
| SD300 port (pcs)                  |   | 1 *                                       | 1   | 0   |
| SD50 connector (pcs)              |   | 0   | 0   | 0   |
| SD300 connector (pcs)             |   | 0   | 0   | 0   |
| Charging port (pcs)               |   | 0   | 0   | 0   |
| Note                              |   | * Compatible with EW-PS300                | -   | -   |

SG

CT

CS

SL

BL

BL

BR

RB

FC

HB

FH

FH

HP

SG

MU



# GENERAL

|                    | Page   |                                       |
|--------------------|--|---------------------------------------|
| <Mechanical spec.> | <b>Chain</b>   | <b>274</b> <b>CN</b>                  |
|                    | <b>QUICK-LINK</b>                                    | <b>275</b> <b>SMCN</b>                |
|                    | <b>Disc Brake Rotor</b>                              | <b>276</b> <b>RT</b>                  |
|                    | <b>Disc Brake Hose</b>                               | <b>278</b> <b>BH</b>                  |
|                    | <b>Disc Brake Rotor Adapter</b>                      | <b>279</b> <b>RTAD</b>                |
|                    | <b>Outer Casing</b>                                  | <b>279</b> <b>OT</b>                  |
|                    | <b>Cable Adjuster</b>                                | <b>280</b> <b>SMCB</b><br><b>SMCA</b> |
|                    | <b>POWER MODULATOR</b>                               | <b>280</b> <b>RM</b>                  |
|                    | <b>Hub Dynamo</b>                                    | <b>281</b> <b>DH</b>                  |
|                    | <b>Light</b>   | <b>286</b> <b>LP</b>                  |
|                    | <b>E-THRU Axle (AX)</b>                              | <b>288</b> <b>SMAX</b>                |
|                    |  |                                       |
| <Di2 spec.>        | <b>Electric Wire</b>                                 | <b>290</b> <b>EW</b>                  |
|                    | <b>Cord Cover</b>                                    | <b>290</b> <b>EWC</b>                 |
|                    | <b>Grommet</b>                                       | <b>290</b> <b>GM</b>                  |
|                    | <b>Wireless Unit</b>                                 | <b>291</b> <b>WU</b>                  |
|                    | <b>Junction [A]</b>                                  | <b>291</b> <b>JC</b>                  |
|                    | <b>Junction [B]</b>                                  | <b>292</b> <b>JC</b>                  |
|                    | <b>Battery</b>                                       | <b>292</b> <b>BT</b>                  |
|                    | <b>Battery Mount</b>                                 | <b>293</b> <b>BM</b>                  |
|                    | <b>Battery Case</b>                                  | <b>293</b> <b>SMBT</b>                |
|                    | <b>Battery Charger</b>                               | <b>293</b> <b>SMBC</b>                |
|                    | <b>Charger Cord</b>                                  | <b>294</b> <b>BCC</b>                 |
|                    | <b>Charging Cable</b>                                | <b>294</b> <b>EWEC</b>                |
|                    | <b>PC Linkage Device</b>                             | <b>295</b> <b>SMPCE</b>               |
|                    | <b>Cord Band</b>                                     | <b>295</b> <b>SMCB</b>                |
|                    | <b>Cord Clip</b>                                     | <b>295</b> <b>SMCC</b>                |
|                    | <b>CAN Adapter</b>                                   | <b>296</b> <b>EWEX</b>                |
|                    | <b>Electric Cable for Non SHIMANO E-BIKE SYSTEMS</b> | <b>296</b> <b>EWPS</b>                |
|                    |  |                                       |
| <Pedal>            | <b>Pedal (SPD)</b>                                   | <b>297</b> <b>PD</b>                  |
|                    | <b>Pedal (CLICK'R)</b>                               | <b>301</b> <b>PD</b>                  |
|                    | <b>Pedal (Flat Pedal)</b>                            | <b>302</b> <b>PD</b>                  |
|                    | <b>Pedal (SPD-SL)</b>                                | <b>304</b> <b>PD</b>                  |

# Chain

| Series                                   | SHIMANO     | SHIMANO     | SHIMANO     | SHIMANO     | SHIMANO                     | SHIMANO                |
|--|-------------|-------------|-------------|-------------|-----------------------------|------------------------|
| Model no.                                | CN-M9100    | CN-M8100    | CN-M7100    | CN-M6100    | CN-E8000-11                 | CN-HG901-11            |
| Type                                     | HG 12-speed | HG 12-speed | HG 12-speed | HG 12-speed | LINKGLIDE, HG 11-speed      | LINKGLIDE, HG 11-speed |
| E-BIKE rear derailleur system compatible | ✓           | ✓           | ✓           | ✓           | ✓                           | ✓                      |
| Pin link plate                           | SIL-TEC     | Gray        | Gray        | Gray        | SIL-TEC                     | SIL-TEC                |
| Roller link plate                        | Chromizing  | Chromizing  | SIL-TEC     | Brown       | Chromizing                  | SIL-TEC                |
| Roller                                   | SIL-TEC     | -           | -           | -           | -                           | SIL-TEC                |
| Chromizing treatment roller link pin     | ✓           | ✓           | ✓           | ✓           | ✓                           | ✓                      |
| Hollow pin                               | ✓           | -           | -           | -           | -                           | ✓                      |
| Average weight (g) (114 links)           | 242         | 252         | 252         | 252         | 257                         | 247                    |
| Note                                     | QUICK-LINK  | QUICK-LINK  | QUICK-LINK  | QUICK-LINK  | Used only with front single |                        |

| Series                                   | SHIMANO                | SHIMANO                | SHIMANO                | SHIMANO                     | SHIMANO       | SHIMANO       |
|--|------------------------|------------------------|------------------------|-----------------------------|---------------|---------------|
| Model no.                                | CN-HG701-11            | CN-HG601-11            | CN-LG500               | CN-E6090-10                 | CN-HG95       | CN-HG54       |
| Type                                     | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed | LINKGLIDE, HG 11-speed | HG-X 10-speed               | HG-X 10-speed | HG-X 10-speed |
| E-BIKE rear derailleur system compatible | ✓                      | ✓                      | ✓                      | ✓                           | -             | -             |
| Pin link plate                           | SIL-TEC                | Gray                   | Gray                   | SIL-TEC                     | SIL-TEC       | Gray          |
| Roller link plate                        | SIL-TEC                | SIL-TEC                | Gray                   | SIL-TEC                     | SIL-TEC       | Brown         |
| Roller                                   | -                      | -                      | -                      | -                           | -             | -             |
| Chromizing treatment roller link pin     | ✓                      | ✓                      | ✓                      | ✓                           | ✓             | ✓             |
| Hollow pin                               | -                      | -                      | -                      | -                           | -             | -             |
| Average weight (g) (114 links)           | 257                    | 257                    | 257                    | 276                         | 273           | 273           |
| Note                                     |                        |                        |                        | Used only with front single |               |               |

| Series                                   | ULTEGRA                 | ULTEGRA                 | SHIMANO                 | SHIMANO           | SHIMANO                     | SHIMANO    |
|--|-------------------------|-------------------------|-------------------------|-------------------|-----------------------------|------------|
| Model no.                                | CN-6701                 | CN-6600                 | CN-4601                 | CN-HG93           | CN-E6070-9                  | CN-HG53    |
| Type                                     | HG 10-speed (for 2x10s) | HG 10-speed (for 3x10s) | HG 10-speed (for 2x10s) | HG 9-speed        | HG 9-speed                  | HG 9-speed |
| E-BIKE rear derailleur system compatible | -                       | -                       | -                       | -                 | ✓                           | -          |
| Pin link plate                           | Zinc-alloy plated       | Zinc-alloy plated       | Gray                    | Zinc-alloy plated | Gray                        | Gray       |
| Roller link plate                        | Gray                    | Gray                    | Brown                   | Gray              | Gray                        | Brown      |
| Roller                                   | -                       | -                       | -                       | -                 | -                           | -          |
| Chromizing treatment roller link pin     | ✓                       | ✓                       | ✓                       | ✓                 | ✓                           | ✓          |
| Hollow pin                               | -                       | -                       | -                       | -                 | -                           | -          |
| Average weight (g) (114 links)           | 267                     | 273                     | -                       | 299               | 276                         | 299        |
| Note                                     |                         | For triple              |                         |                   | Used only with front single |            |

| Series                                   | SHIMANO        | SHIMANO        | NEXUS                       |
|--|----------------|----------------|-----------------------------|
| Model no.                                | CN-HG71        | CN-HG40        | CN-NX10                     |
| Type                                     | HG 8/7/6-speed | HG 8/7/6-speed | Single speed 1/2 x 1/8 inch |
| E-BIKE rear derailleur system compatible | -              | -              | -                           |
| Pin link plate                           | Silver         | Gray           | -                           |
| Roller link plate                        | Gray           | Brown          | -                           |
| Roller                                   | -              | -              | -                           |
| Chromizing treatment roller link pin     | ✓              | -              | -                           |
| Hollow pin                               | -              | -              | -                           |
| Average weight (g) (114 links)           | 324            | 324            | -                           |
| Note                                     |                |                |                             |

# QUICK-LINK

## GENERAL

| Series                                   | SHIMANO                          | SHIMANO   | SHIMANO                             |
|--|----------------------------------|---|-------------------------------------|
| Model no.                                | SM-CN910-12                      | SM-CN900-11                                       | SM-UG51                             |
| E-BIKE rear derailleur system compatible | ✓                                | ✓   | ✓                                   |
| Compatible chain                         | HG 12-speed                      | LINKGLIDE, HG 11-speed                            | HG 8/7/6-speed                      |
| Pin link plate                           | Nickel plated                    | Nickel plated                                     | -                                   |
| Roller link plate                        | -                                | -   | -                                   |
| Roller                                   | -                                | -   | -                                   |
| Chromizing treatment link pin            | ✓                                | ✓   | -                                   |
| Hollow pin                               | -                                | -   | -                                   |
| Note                                     | QUICK-LINK for HG 12-speed chain | QUICK-LINK for HG 11-speed chain, LINKGLIDE chain | QUICK-LINK for HG 8/7/6-speed chain |

CN

SMCN

RT

BH

RTAD

OT

SMCB  
SMCA

RM

DH

LP

SMAX

EW

EWEC

GM

WU

JC

JC

BT

BM

SMBT

SMBC

BCC

EWEC

SMPCE

SMCB  
SMCA

SMCC

EWEX

EWPS

PD

PD

PD

PD

# Disc Brake Rotor

| Series  |  |          | SHIMANO   | SHIMANO   | SHIMANO  | SHIMANO         | SHIMANO   | SHIMANO                                    |
|---|--|----------|---|---|--|-----------------|---|--|
| Model no.   |  |          | RT-CL900  | RT-CL800  | RT-CL700   | RT-CL300        | RT-MT900  | RT-MT905                                   |
| CENTER LOCK                                       |  |          | ✓   | ✓   | ✓  | ✓               | ✓   | -  |
| 6-bolt (P.C.D. 44 mm)                             |  |          | -   | -   | -  | -               | -   | ✓  |
| ICE TECHNOLOGIES                                  |  |          | ✓   | ✓   | ✓  | -               | ✓   | ✓  |
| ICE TECHNOLOGIES FREEZA                           |  |          | ✓   | ✓   | -  | -               | ✓   | ✓  |
| ICE TECHNOLOGIES FREEZA w/ heat dissipation paint |  |          | ✓   | -   | -  | -               | ✓   | ✓  |
| Outside diameter (mm)                             | 220                                    |          | -   | -   | -  | -               | -   | -  |
|   | 203                                    |          | ✓   | ✓   | ✓  | ✓               | ✓   | ✓  |
|   | 180                                    |          | ✓   | ✓   | ✓  | ✓               | ✓   | ✓  |
|   | 160                                    |          | ✓   | ✓   | ✓  | ✓               | ✓   | -  |
|   | 140                                    |          | ✓   | ✓   | ✓  | -               | ✓   | -  |
| Adapter   | Material                               |          | Aluminum  | Aluminum  | Aluminum   | Stainless steel | Aluminum  | Aluminum                                   |
|   | Finish                                 |          | Painted   | Painted   | Painted  | Painted         | Painted   | Painted                                    |
| Rotor   | Material                               |          | Stainless steel +Aluminum +Stainless steel            | Stainless steel +Aluminum +Stainless steel            | Stainless steel +Aluminum +Stainless steel             | Stainless steel | Stainless steel +Aluminum +Stainless steel            | Stainless steel +Aluminum +Stainless steel |
|   | Finish                                 |          | Polished  | Polished  | Polished   | Polished        | Polished  | Polished                                   |
| Pad material compatibility                        | Metal                                  |          | ✓   | ✓   | ✓  | -               | ✓   | ✓  |
|   | Resin                                  |          | ✓   | ✓   | ✓  | ✓               | ✓   | ✓  |
| Pad lining shape compatibility                    | Narrow                                 |          | ✓   | ✓   | ✓  | ✓               | ✓   | ✓  |
|   | Wide                                   |          | -   | -   | -  | ✓               | -   | -  |
| Lock ring   | Internal type                          | Material | Aluminum  | Aluminum  | Steel  | -               | Aluminum  | -  |
|   |  | Finish   | Anodized  | Anodized  | Painted  | -               | Anodized  | -  |
|   | External type                          | Material | Aluminum  | Aluminum  | Steel  | -               | Aluminum  | -  |
|   |  | Finish   | Anodized  | Anodized  | Painted  | -               | Anodized  | -  |
|   | Internal/external type                 | Material | -   | -   | -  | Steel           | -   | -  |
|   |  | Finish   | -   | -   | -  | Painted         | -   | -  |
|   | Internal type with magnet for EW-S5302 | Material | Aluminum (except 140 mm)                              | Aluminum (except 140 mm)                              | -  | Aluminum        | Aluminum (except 140 mm)                              | -  |
|   |  | Finish   | Anodized (except 140 mm)                              | Anodized (except 140 mm)                              | -  | Anodized        | Anodized (except 140 mm)                              | -  |
| Average weight (g) (w/o lock ring)                |  |          | 97 (140 mm), 114 (160 mm), 139 (180 mm), 169 (203 mm) | 97 (140 mm), 114 (160 mm), 139 (180 mm), 169 (203 mm) | 106 (140 mm), 127 (160 mm), 153 (180 mm), 188 (203 mm) | -               | 88 (140 mm), 108 (160 mm), 132 (180 mm), 150 (203 mm) | 147 (180 mm), 187 (203 mm)                 |
| Note  |  |          |   |   |  |                 |   | With anti loosen tightening plate          |

| Series  |  |          | SHIMANO   | SHIMANO                                    | SHIMANO                                    | SHIMANO                                    | SHIMANO  | SHIMANO                                  |
|---|--|----------|---|--|--|--|--|--|
| Model no.   |  |          | RT-MT800  | SM-RT900                                   | SM-RT800                                   | SM-RT86                                    | SM-RT70  | SM-RT76                                  |
| CENTER LOCK                                       |  |          | ✓   | ✓  | ✓  | -  | ✓  | -  |
| 6-bolt (P.C.D. 44 mm)                             |  |          | -   | -  | -  | ✓  | -  | ✓  |
| ICE TECHNOLOGIES                                  |  |          | ✓   | ✓  | ✓  | ✓  | ✓  | -  |
| ICE TECHNOLOGIES FREEZA                           |  |          | ✓   | ✓  | ✓  | -  | -  | -  |
| ICE TECHNOLOGIES FREEZA w/ heat dissipation paint |  |          | -   | ✓  | -  | -  | -  | -  |
| Outside diameter (mm)                             | 220                                    |          | -   | -  | -  | -  | -  | -  |
|   | 203                                    |          | ✓   | -  | -  | ✓  | ✓  | ✓  |
|   | 180                                    |          | ✓   | -  | -  | ✓  | ✓  | ✓  |
|   | 160                                    |          | ✓   | ✓  | ✓  | ✓  | ✓  | ✓  |
|   | 140                                    |          | ✓   | ✓  | ✓  | -  | ✓  | -  |
| Adapter   | Material                               |          | Aluminum  | Aluminum                                   | Aluminum                                   | Aluminum                                   | Aluminum   | Aluminum                                 |
|   | Finish                                 |          | Painted   | Anodized                                   | Painted                                    | Painted                                    | Painted  | Painted                                  |
| Rotor   | Material                               |          | Stainless steel +Aluminum +Stainless steel            | Stainless steel +Aluminum +Stainless steel | Stainless steel +Aluminum +Stainless steel | Stainless steel +Aluminum +Stainless steel | Stainless steel +Aluminum +Stainless steel             | Stainless steel                          |
|   | Finish                                 |          | Polished  | Polished                                   | Polished                                   | Polished                                   | Polished   | Polished                                 |
| Pad material compatibility                        | Metal                                  |          | ✓   | ✓  | ✓  | ✓  | ✓  | ✓  |
|   | Resin                                  |          | ✓   | ✓  | ✓  | ✓  | ✓  | ✓  |
| Pad lining shape compatibility                    | Narrow                                 |          | ✓   | ✓  | ✓  | ✓  | ✓  | ✓  |
|   | Wide                                   |          | -   | -  | -  | -  | -  | -  |
| Lock ring   | Internal type                          | Material | Aluminum  | Aluminum                                   | Aluminum                                   | -  | Steel  | -  |
|   |  | Finish   | Anodized  | Anodized                                   | Anodized                                   | -  | Plated   | -  |
|   | External type                          | Material | Aluminum  | -  | -  | -  | Steel  | -  |
|   |  | Finish   | Anodized  | -  | -  | -  | Plated   | -  |
|   | Internal/external type                 | Material | -   | -  | -  | -  | -  | -  |
|   |  | Finish   | -   | -  | -  | -  | -  | -  |
|   | Internal type with magnet for EW-S5302 | Material | Aluminum (except 140 mm)                              | -  | -  | -  | Aluminum (203 mm only)                                 | -  |
|   |  | Finish   | Anodized (except 140 mm)                              | -  | -  | -  | Anodized (203 mm only)                                 | -  |
| Average weight (g) (w/o lock ring)                |  |          | 88 (140 mm), 108 (160 mm), 132 (180 mm), 164 (203 mm) | 99 (140 mm), 117 (160 mm)                  | 108 (140 mm), 128 (160 mm)                 | 135 (160 mm), 154 (180 mm), 187 (203 mm)   | 121 (140 mm), 133 (160 mm), 159 (180 mm), 193 (203 mm) | 141 (160 mm), 169 (180 mm), 209 (203 mm) |
| Note  |  |          |   |  |  | With anti loosen tightening plate          | With anti loosen tightening plate                      |  |

# Disc Brake Rotor

GENERAL

| Series  |  |          | SHIMANO                           | SHIMANO         | SHIMANO                           | SHIMANO         | SHIMANO                           | SHIMANO         |
|---|--|----------|-----------------------------------|-----------------|-----------------------------------|-----------------|-----------------------------------|-----------------|
| Model no.   |  |          | SM-RT66                           | SM-RT64         | SM-RT56                           | SM-RT54         | SM-RT30                           | SM-RT26         |
| CENTER LOCK                                       |  |          | -                                 | ✓               | -                                 | ✓               | ✓                                 | -               |
| 6-bolt (P.C.D. 44 mm)                             |  |          | ✓                                 | -               | ✓                                 | -               | -                                 | ✓               |
| ICE TECHNOLOGIES                                  |  |          | -                                 | -               | -                                 | -               | -                                 | -               |
| ICE TECHNOLOGIES FREEZA                           |  |          | -                                 | -               | -                                 | -               | -                                 | -               |
| ICE TECHNOLOGIES FREEZA w/ heat dissipation paint |  |          | -                                 | -               | -                                 | -               | -                                 | -               |
| Outside diameter (mm)                             | 220                                    |          | ✓                                 | ✓               | -                                 | -               | -                                 | -               |
|   | 203                                    |          | ✓                                 | ✓               | -                                 | -               | ✓                                 | -               |
|   | 180                                    |          | ✓                                 | ✓               | ✓                                 | ✓               | ✓                                 | ✓               |
|   | 160                                    |          | ✓                                 | ✓               | ✓                                 | ✓               | ✓                                 | ✓               |
|   | 140                                    |          | -                                 | ✓               | -                                 | -               | -                                 | ✓               |
| Adapter   | Material                               |          | -                                 | Aluminum        | -                                 | Aluminum        | Stainless steel                   | -               |
|   | Finish                                 |          | -                                 | Painted         | -                                 | Painted         | Painted                           | -               |
| Rotor   | Material                               |          | Stainless steel                   | Stainless steel | Stainless steel                   | Stainless steel | Stainless steel                   | Stainless steel |
|   | Finish                                 |          | Polished                          | Polished        | Polished                          | Polished        | Polished                          | Polished        |
| Pad material compatibility                        | Metal                                  |          | ✓                                 | ✓               | -                                 | -               | -                                 | -               |
|   | Resin                                  |          | ✓                                 | ✓               | ✓                                 | ✓               | ✓                                 | ✓               |
| Pad lining shape compatibility                    | Narrow                                 |          | ✓                                 | ✓               | ✓                                 | ✓               | ✓                                 | ✓               |
|   | Wide                                   |          | -                                 | -               | ✓                                 | ✓               | ✓                                 | ✓               |
| Lock ring   | Internal type                          | Material | -                                 | Steel           | -                                 | Steel           | -                                 | -               |
|   |  | Finish   | -                                 | Plated          | -                                 | Plated          | -                                 | -               |
|   | External type                          | Material | -                                 | Steel           | -                                 | Steel           | -                                 | -               |
|   |  | Finish   | -                                 | Plated          | -                                 | Plated          | -                                 | -               |
|   | Internal/external type                 | Material | -                                 | -               | -                                 | -               | Steel                             | -               |
|   |  | Finish   | -                                 | -               | -                                 | -               | Painted                           | -               |
|   | Internal type with magnet for EW-SS302 | Material | -                                 | Aluminum        | -                                 | -               | Aluminum                          | -               |
|   |  | Finish   | -                                 | Anodized        | -                                 | -               | Anodized                          | -               |
| Average weight (g) (w/o lock ring)                |  |          | -                                 | -               | -                                 | -               | -                                 | -               |
| Note  |  |          | With anti loosen tightening plate |                 | With anti loosen tightening plate |                 | With anti loosen tightening plate |                 |

| Series  |  |          | SHIMANO  | SHIMANO         |
|---|--|----------|--|-----------------|
| Model no.   |  |          | SM-RT10  | SM-RTC60        |
| CENTER LOCK                                       |  |          | ✓  | -               |
| 6-bolt (P.C.D. 44 mm)                             |  |          | -  | -               |
| ICE TECHNOLOGIES                                  |  |          | -  | -               |
| ICE TECHNOLOGIES FREEZA                           |  |          | -  | -               |
| ICE TECHNOLOGIES FREEZA w/ heat dissipation paint |  |          | -  | -               |
| Outside diameter (mm)                             | 220                                    |          | -  | -               |
|   | 203                                    |          | -  | -               |
|   | 180                                    |          | ✓  | -               |
|   | 160                                    |          | ✓  | ✓               |
|   | 140                                    |          | -  | -               |
| Adapter   | Material                               |          | Steel  | Steel           |
|   | Finish                                 |          | Painted  | Painted         |
| Rotor   | Material                               |          | Stainless steel  | Stainless steel |
|   | Finish                                 |          | Polished   | Polished        |
| Pad material compatibility                        | Metal                                  |          | -  | ✓               |
|   | Resin                                  |          | ✓  | ✓               |
| Pad lining shape compatibility                    | Narrow                                 |          | ✓  | ✓               |
|   | Wide                                   |          | ✓  | -               |
| Lock ring   | Internal type                          | Material | -  | -               |
|   |  | Finish   | -  | -               |
|   | External type                          | Material | -  | -               |
|   |  | Finish   | -  | -               |
|   | Internal/external type                 | Material | Steel  | -               |
|   |  | Finish   | Painted  | -               |
|   | Internal type with magnet for EW-SS302 | Material | -  | -               |
|   |  | Finish   | -  | -               |
| Average weight (g) (w/o lock ring)                |  |          | -  | -               |
| Note  |  |          | Disc brake rotor is fixed by 5 bolts with 74 mm P.C.D. |                 |

CN

SMCN

RT

BH

RTAD

OT

SMCB  
SMCA

RM

DH

LP

SMAX

EW

EWC

GM

WU

JC

JC

BT

BM

SMBT

SMBC

BCC

EWEC

SMPCE

SMCB  
SMCA

SMCC

EWEX

EWPS

PD

PD

PD

PD



# Disc Brake Hose

| Series     |                      | SHIMANO        | SHIMANO    | SHIMANO      | SHIMANO                                  | SHIMANO     | SHIMANO    |
|------------|----------------------|----------------|------------|--------------|--|-------------|------------|
| Model no.  |                      | SM-BH90-JK-SSR | SM-BH90-SB | SM-BH90-SBLS | SM-BH90-SBM                              | SM-BH90-SBS | SM-BH90-SS |
| Color      | 1                    | Black          | Black      | Black        | Black                                    | Black       | Black      |
|            | 2                    | -              | White      | -            | -  | White       | White      |
|            | 3                    | -              | -          | -            | -  | -           | -          |
| Hose joint | Brake lever          | Straight       | Straight   | Straight     | Straight                                 | Straight    | Straight   |
|            | Brake caliper        | Straight       | Banjo      | Banjo        | Banjo                                    | Banjo       | Straight   |
| Rigidity   |                      | High power     | High power | High power   | High power                               | High power  | High power |
| Banjo      | Material             | -              | Aluminum   | Aluminum     | Aluminum                                 | Aluminum    | -          |
|            | Length               | -              | Standard   | Long         | Standard                                 | Standard    | -          |
|            | Banjo screw length   | -              | Long       | Short        | Long, BR-M9120 spec. *, BR-M8100 spec. * | Short       | -          |
|            | Banjo screw material | -              | Steel      | Steel        | Steel                                    | Steel       | -          |
| Flare nut  | Material             | Steel          | Steel      | Steel        | Steel                                    | Steel       | Steel      |
| Note       |                      |                |            |              | * Banjo screw is not included.           |             |            |

| Series     |                      | SHIMANO       | SHIMANO        | SHIMANO    |
|------------|----------------------|---------------|----------------|------------|
| Model no.  |                      | SM-BH59-JK-SS | SM-BH59-JK-SSR | SM-BH59-SB |
| Color      | 1                    | Black         | Black          | Black      |
|            | 2                    | White         | -              | White      |
|            | 3                    | -             | -              | -          |
| Hose joint | Brake lever          | Straight      | Straight       | Straight   |
|            | Brake caliper        | Straight      | Straight       | Banjo      |
| Rigidity   |                      | Standard      | Standard       | Standard   |
| Banjo      | Material             | -             | -              | Aluminum   |
|            | Length               | -             | -              | Standard   |
|            | Banjo screw length   | -             | -              | -          |
|            | Banjo screw material | -             | -              | -          |
| Flare nut  | Material             | Steel         | Steel          | Steel      |
| Note       |                      |               |                |            |

# Disc Brake Rotor Adapter

| Series                           |                          | SHIMANO  |
|----------------------------------|--------------------------|--|
| Model no.                        |                          | SM-RTAD05  |
| Color                            | 1                        | Black  |
|                                  | 2                        | -  |
|                                  | 3                        | -  |
| Lock ring                        | Type                     | External serration   |
|                                  | Material                 | Steel  |
| Disc brake rotor mount method    |                          | Hexalobular bolts  |
| Compatibility (disc brake rotor) | SM-RT86                  | -  |
|                                  | SM-RT76                  | -  |
|                                  | SM-RT66                  | ✓  |
|                                  | SM-RT56                  | ✓  |
|                                  | SM-RT26                  | ✓  |
| Compatibility (axle)             | Front 20 mm thru         | ✓  |
|                                  | Front 15 mm E-THRU       | ✓  |
|                                  | Front 9 mm quick release | ✓  |
|                                  | Rear 12 mm E-THRU        | ✓  |
|                                  | Rear 12 mm thru          | ✓  |
|                                  | Rear 10 mm thru          | ✓  |
|                                  | Rear 10 mm quick release | ✓  |
| Note                             |                          | Use this disc brake rotor adapter to attach the 6-bolt mount type disc brake rotor to CENTER LOCK mount type hub. Cannot be used with the 6-bolt disc brake rotor that is installed with an aluminum adapter (SM-RT86/RT76). |

## Outer Casing

| Series       |                  | SHIMANO      | SHIMANO      | SHIMANO      | SHIMANO      |
|--------------|------------------|--------------|--------------|--------------|--------------|
| Model no.    |                  | OT-RS900     | OT-SP41      | OT-SP40      | OT-SIS40     |
| Color        | Black            | ✓            | ✓            | ✓            | ✓            |
|              | White            | ✓            | ✓            | ✓            | ✓            |
|              | Yellow           | -            | ✓            | -            | -            |
|              | Red              | ✓            | ✓            | -            | -            |
|              | Blue             | -            | ✓            | -            | -            |
|              | Lime-green       | -            | ✓            | -            | -            |
|              | Orange           | -            | ✓            | -            | -            |
|              | High-tech gray   | ✓            | ✓            | -            | -            |
| Outer        | SP type          | -            | ✓            | ✓            | -            |
|              | Coil type        | ✓            | -            | -            | ✓            |
| Liner        | Material         | Polyethylene | Polyethylene | Polyethylene | Polyethylene |
| Cable grease | Special grease   | ✓            | ✓            | -            | -            |
|              | Premium grease   | -            | -            | ✓            | ✓            |
|              | Entirely greased | ✓            | ✓            | -            | -            |
| Note         |                  |              |              |              |              |

CN

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SMCB  
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## Cable Adjuster

| Series                 |          | SHIMANO         | SHIMANO  | SHIMANO  | SHIMANO  |
|------------------------|----------|-----------------|----------|----------|----------|
| Model no.              |          | SM-CB90         | SM-CB70  | SM-CA70  | SM-CA50  |
| Shifting cable         |          | -               | -        | ✓        | ✓        |
| Brake cable            |          | ✓               | ✓        | -        | -        |
| Quick release function |          | ✓               | -        | -        | -        |
| Outer adjust screw     | Material | Aluminum        | Aluminum | Aluminum | Aluminum |
|                        | Finish   | Anodized        | Anodized | Anodized | Anodized |
| Body                   | Material | Aluminum        | Aluminum | Aluminum | Resin    |
|                        | Finish   | Anodized        | Anodized | Anodized | -        |
| Quick release lever    | Material | Stainless steel | -        | -        | -        |
|                        | Finish   | -               | -        | -        | -        |
| Note                   |          |                 |          |          |          |

## POWER MODULATOR

| Series                    |                              | SHIMANO  | SHIMANO   | SHIMANO  | SHIMANO  |
|---------------------------|------------------------------|--|---|--|--|
| Model no.                 |                              | SM-PM70  | SM-PM60   | SM-PM50  | SM-PM40  |
| Modulator level           |                              | Standard   | High*   | Standard   | Standard   |
| Mount type                |                              | Lead pipe  | Outer casing  | Outer casing   | Lead pipe  |
| Available lead pipe angle | 90 deg.                      | ✓  | -   | -  | ✓  |
|                           | 135 deg.                     | ✓  | -   | -  | ✓  |
| Compatible brake          | V-BRAKE                      | ✓**  | ✓**   | -  | ✓**  |
|                           | Mechanical disc brake (MTB)  | -  | -   | ✓**  | -  |
|                           | Mechanical disc brake (Road) | -  | -   | -  | -  |
|                           | Caliper (NEW SUPER SLR)      | -  | -   | -  | -  |
|                           | Caliper (SUPER SLR)          | -  | -   | -  | -  |
|                           | Cantilever brake             | -  | -   | -  | -  |
|                           | Roller brake                 | -  | -   | -  | -  |
| Compatible brake lever    | V-BRAKE 4-finger             | ✓***   | ✓***  | ✓***   | ✓***   |
|                           | V-BRAKE 3-finger             | ✓***   | ✓***  | ✓***   | ✓***   |
|                           | V-BRAKE 2-finger             | ✓  | ✓   | ✓  | ✓  |
|                           | Road                         | -  | -   | -  | -  |
| Body                      | Material                     | Aluminum   | Aluminum  | Aluminum   | Aluminum   |
|                           | Finish                       | Anodized+Laser marking   | Barrel and Sticker  | Barrel and Printed   | Barrel and Sticker   |
| Lead pipe                 | Material                     | Stainless steel  | -   | -  | Stainless steel  |
| Note                      |                              | ** Except brake integrated POWER MODULATOR<br>*** POWER MODULATOR should be used for front brake | * City use for Japan market<br>** Except brake integrated POWER MODULATOR<br>*** POWER MODULATOR should be used for front brake | ** Except brake integrated POWER MODULATOR<br>*** POWER MODULATOR should be used for front brake | ** Except brake integrated POWER MODULATOR<br>*** POWER MODULATOR should be used for front brake |

# Hub Dynamo

GENERAL

| Series                                   |                            | SHIMANO        | SHIMANO                           | SHIMANO        | SHIMANO ALIVIO           | SHIMANO ALIVIO           | SHIMANO        |
|--|----------------------------|----------------|-----------------------------------|----------------|--------------------------|--------------------------|----------------|
| Model no.                                |                            | DH-UR708-3D    | DH-UR705-3D                       | DH-UR700-3D    | DH-T4050-1D              | DH-T4000-1N              | DH-F703-S      |
| Regulation                               | StVZO                      | ✓              | ✓                                 | ✓              | ✓                        | ✓                        | ✓              |
|  | TPGBi                      | -              | -                                 | -              | -                        | -                        | -              |
|  | JIS                        | -              | -                                 | -              | -                        | -                        | -              |
|  | Others                     | ISO            | -                                 | -              | -                        | -                        | -              |
| Color                                    | 1 Hub shell                | Silver         | Silver                            | Silver         | Black                    | Silver                   | Silver         |
|  | 1 Quick release            | -              | -                                 | Silver         | Black                    | -                        | Black          |
|  | 2 Hub shell                | Black          | Black                             | Black          | -                        | Black                    | -              |
|  | 2 Quick release            | -              | -                                 | Black          | -                        | -                        | Black          |
| Brake type                               |                            | Disc brake     | Disc brake                        | Disc brake     | Disc brake               | Regular                  | Regular        |
| CENTER LOCK mount type                   |                            | ✓              | ✓                                 | ✓              | ✓                        | -                        | -              |
| Voltage (V)                              |                            | 6              | 6                                 | 6              | 6                        | 6                        | 6              |
| Output (W)                               |                            | 3              | 3                                 | 3              | 1.5                      | 1.5                      | 3              |
| Wheel size                               | 26-28 inch                 | ✓              | ✓                                 | ✓              | -                        | -                        | -              |
|  | 20-28 inch                 | -              | -                                 | -              | -                        | -                        | -              |
|  | 18-28 inch                 | -              | -                                 | -              | ✓                        | ✓                        | -              |
|  | 16-28 inch                 | -              | -                                 | -              | -                        | -                        | -              |
|  | 24-28 inch                 | -              | -                                 | -              | -                        | -                        | -              |
|  | 20-24 inch                 | -              | -                                 | -              | -                        | -                        | -              |
|  | 16-20 inch                 | -              | -                                 | -              | -                        | -                        | ✓              |
|  | Compatible wheel size (mm) | (646-716)      | (646-716)                         | (646-716)      | (448 - 716)              | (448 - 716)              | (400 - 536)    |
| Axle fixing method                       |                            | 15 mm E-THRU   | 12 mm E-THRU *                    | Quick release  | Quick release            | Quick release            | Quick release  |
| Quick release type                       |                            | -              | -                                 | ✓              | ✓                        | ✓                        | ✓              |
| Nut type                                 |                            | -              | -                                 | -              | -                        | -                        | -              |
| E-THRU type                              |                            | ✓ *            | ✓ *                               | -              | -                        | -                        | -              |
| Quick release skewer length (mm)         | 129                        | -              | -                                 | -              | -                        | -                        | -              |
|  | 133                        | -              | -                                 | ✓              | ✓                        | ✓                        | ✓              |
| Thru axle (length x inner diameter ; mm) | 100 x 12                   | -              | ✓                                 | -              | -                        | -                        | -              |
|  | 100 x 15                   | ✓              | -                                 | -              | -                        | -                        | -              |
| O.L.D. (mm)                              |                            | 100            | 100                               | 100            | 100                      | 100                      | 74             |
| Flange distance (mm)                     |                            | 52             | 52                                | 52             | 51                       | 56.0                     | 44.6           |
| Offset (mm)                              |                            | 3.5            | 3.5                               | 3.5            | 1.9                      | 0                        | 0              |
| P.C.D. left / right (mm)                 |                            | 62             | 62                                | 62             | 67                       | 67                       | 74             |
| Axle length (mm)                         |                            | 100            | 100                               | 108            | 108                      | 108                      | 82             |
| Spoke size                               |                            | #14            | #14                               | #14            | #14                      | #14                      | #14            |
| Spoke hole                               | 24H                        | -              | -                                 | -              | -                        | -                        | ✓              |
|  | 28H                        | -              | -                                 | -              | -                        | -                        | ✓              |
|  | 32H                        | ✓              | ✓                                 | ✓              | ✓                        | ✓                        | -              |
|  | 36H                        | ✓              | ✓                                 | ✓              | ✓                        | ✓                        | -              |
| Seal                                     |                            | Single contact | Single contact                    | Single contact | Single contact           | Single contact           | Single contact |
| Roller brake modulator grade             | More than 26 inch high     | -              | -                                 | -              | -                        | -                        | -              |
|  | More than 26 inch standard | -              | -                                 | -              | -                        | -                        | -              |
|  | 20-24 inch                 | -              | -                                 | -              | -                        | -                        | -              |
| Electric power output connector          | J1 type                    | -              | -                                 | -              | -                        | -                        | -              |
|  | J2 type                    | -              | -                                 | -              | -                        | -                        | -              |
|  | E2 type                    | ✓              | ✓                                 | ✓              | ✓                        | ✓                        | ✓              |
|  | Others                     | -              | -                                 | -              | -                        | -                        | -              |
| Hub shell                                | Material                   | Aluminum       | Aluminum                          | Aluminum       | Aluminum                 | Aluminum                 | Aluminum       |
|  | Finish                     | Anodized       | Anodized                          | Anodized       | Painted                  | Painted                  | Painted        |
| Axle                                     | Material                   | -              | -                                 | Aluminum       | Steel                    | Steel                    | Steel          |
|  | Finish                     | -              | -                                 | Chromated      | Zinc plated              | Zinc plated              | Zinc plated    |
| Quick release lever                      | Material                   | -              | -                                 | Aluminum       | Aluminum                 | Aluminum                 | Aluminum       |
|  | Finish                     | -              | -                                 | Anodized       | E-coated                 | E-coated                 | Anodized       |
| Quick release housing                    | Material                   | -              | -                                 | Aluminum       | Steel                    | Steel                    | Aluminum       |
|  | Finish                     | -              | -                                 | Anodized       | E-coated                 | E-coated                 | Anodized       |
| Quick release nut                        | Material                   | -              | -                                 | Steel+Resin    | Steel+Resin              | Steel+Resin              | Steel+Resin    |
|  | Finish                     | -              | -                                 | -              | -                        | -                        | -              |
| Average weight (g)                       |                            | 459 (w/o QR)   | 450                               | 476 (w/o QR)   | 565                      | 580                      | 590            |
| Note                                     |                            |                | Recommended E-THRU axle: SM-AX720 |                | * For LED light use only | * For LED light use only |                |

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EWEC

SMPCE

SMCB  
SMCA

SMCC

EWEX

EWPS

PD

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# Hub Dynamo

| Series                                   |                            | SHIMANO                       | SHIMANO        | SHIMANO          | SHIMANO        | SHIMANO          | SHIMANO          |
|--|----------------------------|-------------------------------|----------------|------------------|----------------|------------------|------------------|
| Model no.                                |                            | DH-3D72                       | DH-3D37-QR     | DH-3D37-NT       | DH-3D32-QR     | DH-3D32-NT       | DH-3N72          |
| Regulation                               | StVZO                      | ✓                             | ✓              | ✓                | ✓              | ✓                | ✓                |
|  | TPGBi                      | ✓                             | ✓              | ✓                | ✓              | ✓                | -                |
|  | JIS                        | -                             | -              | -                | -              | -                | -                |
|  | Others                     | -                             | -              | -                | -              | -                | -                |
| Color                                    | 1 Hub shell                | Silver                        | Silver         | Silver           | Clear          | Clear            | Silver           |
|  | 1 Quick release            | Silver                        | -              | -                | -              | -                | Silver           |
|  | 2 Hub shell                | Black                         | Black          | Black            | Black          | Black            | Black            |
|  | 2 Quick release            | Black                         | -              | -                | -              | -                | Silver           |
| Brake type                               |                            | Disc brake                    | Disc brake     | Disc brake       | Disc brake     | Disc brake       | Regular          |
| CENTER LOCK mount type                   |                            | ✓                             | ✓              | ✓                | -              | -                | -                |
| Voltage (V)                              |                            | 6                             | 6              | 6                | 6              | 6                | 6                |
| Output (W)                               |                            | 3                             | 3              | 3                | 3              | 3                | 3                |
| Wheel size                               | 26-28 inch                 | ✓                             | -              | -                | -              | -                | ✓                |
|  | 20-28 inch                 | -                             | -              | -                | -              | -                | -                |
|  | 18-28 inch                 | -                             | -              | -                | -              | -                | -                |
|  | 16-28 inch                 | -                             | ✓              | ✓                | ✓              | ✓                | -                |
|  | 24-28 inch                 | -                             | -              | -                | -              | -                | -                |
|  | 20-24 inch                 | -                             | -              | -                | -              | -                | -                |
|  | 16-20 inch                 | -                             | -              | -                | -              | -                | -                |
|  | Compatible wheel size (mm) | (646-716)                     | (400 - 716)    | (400 - 716)      | (400 - 716)    | (400 - 716)      | (646-716)        |
| Axle fixing method                       |                            | Quick release                 | Quick release  | Nut              | Quick release  | Nut              | Quick release    |
| Quick release type                       |                            | ✓                             | ✓              | -                | ✓              | -                | ✓                |
| Nut type                                 |                            | -                             | -              | ✓                | -              | ✓                | -                |
| E-THRU type                              |                            | -                             | -              | -                | -              | -                | -                |
| Quick release skewer length (mm)         | 129                        | -                             | -              | -                | -              | -                | -                |
|  | 133                        | ✓                             | ✓              | -                | ✓              | -                | ✓                |
| Thru axle (length x inner diameter ; mm) | 100 x 12                   | -                             | -              | -                | -              | -                | -                |
|  | 100 x 15                   | -                             | -              | -                | -              | -                | -                |
| O.L.D. (mm)                              |                            | 100                           | 100            | 100              | 100            | 100              | 100              |
| Flange distance (mm)                     |                            | 52.1                          | 51             | 51               | 51.1           | 51.1             | 60.0             |
| Offset (mm)                              |                            | 3.8                           | 4              | 4                | 4              | 3.6              | 0                |
| P.C.D. left / right (mm)                 |                            | 70                            | 74             | 74               | 74             | 74               | 70               |
| Axle length (mm)                         |                            | 108                           | 108            | 108              | 108            | 140              | 108              |
| Spoke size                               |                            | #14                           | #14            | #14              | #14            | #14              | #14              |
| Spoke hole                               | 24H                        | -                             | -              | -                | -              | -                | -                |
|  | 28H                        | -                             | -              | -                | -              | -                | -                |
|  | 32H                        | ✓                             | ✓              | ✓                | ✓              | ✓                | ✓                |
|  | 36H                        | ✓                             | ✓              | ✓                | ✓              | ✓                | ✓                |
| Seal                                     |                            | Single contact                | Single contact | Single contact   | Single contact | Single contact   | Single contact   |
| Roller brake modulator grade             | More than 26 inch high     | -                             | -              | -                | -              | -                | -                |
|  | More than 26 inch standard | -                             | -              | -                | -              | -                | -                |
|  | 20-24 inch                 | -                             | -              | -                | -              | -                | -                |
| Electric power output connector          | J1 type                    | -                             | -              | -                | -              | -                | -                |
|  | J2 type                    | -                             | -              | -                | -              | -                | -                |
|  | E2 type                    | ✓                             | ✓              | ✓                | ✓              | ✓                | ✓                |
|  | Others                     | -                             | -              | -                | -              | -                | -                |
| Hub shell                                | Material                   | Aluminum                      | Aluminum       | Aluminum         | Aluminum       | Aluminum         | Aluminum         |
|  | Finish                     | Anodized+Painted/<br>Anodized | Painted        | Painted          | Painted        | Painted          | Anodized+Painted |
| Axle                                     | Material                   | Steel                         | Steel          | Steel            | Steel          | Steel            | Steel            |
|  | Finish                     | Zinc plated                   | Zinc plated    | Phosphate coated | Zinc plated    | Phosphate coated | Zinc plated      |
| Quick release lever                      | Material                   | Aluminum                      | Steel          | -                | Steel          | -                | Aluminum         |
|  | Finish                     | Anodized                      | Nickel plated  | -                | Nickel plated  | -                | Anodized         |
| Quick release housing                    | Material                   | Aluminum                      | Steel          | -                | Steel          | -                | Aluminum         |
|  | Finish                     | Anodized                      | Nickel plated  | -                | Nickel plated  | -                | Anodized         |
| Quick release nut                        | Material                   | Steel+Resin                   | Steel+Resin    | -                | Steel+Resin    | -                | Steel+Resin      |
|  | Finish                     | -                             | -              | -                | -              | -                | -                |
| Average weight (g)                       |                            | 559                           | 650            | 680              | 685            | 705              | 560              |
| Note                                     |                            |                               |                |                  |                |                  |                  |

# Hub Dynamo

GENERAL

| Series                                   |                            | ALFINE         | NEXUS            | NEXUS            | NEXUS                    | NEXUS            | NEXUS            |
|--|----------------------------|----------------|------------------|------------------|--------------------------|------------------|------------------|
| Model no.                                |                            | DH-S501        | DH-C6000-3R-NT   | DH-C6000-2R      | DH-C6000-1R              | DH-C3000-3N-QR   | DH-C3000-3N-NT   |
| Regulation                               | StVZO                      | ✓              | ✓                | -                | ✓                        | ✓                | ✓                |
|  | TPGBi                      | -              | ✓                | -                | -                        | ✓                | ✓                |
|  | JIS                        | -              | -                | -                | -                        | -                | -                |
|  | Others                     | -              | -                | -                | -                        | -                | -                |
| Color                                    | 1 Hub shell                | Silver         | Silver           | Silver           | Silver                   | Silver           | Silver           |
|  | 1 Quick release            | Silver         | Black            | -                | -                        | -                | -                |
|  | 2 Hub shell                | Piano black    | -                | Black            | Black                    | Black            | Black            |
|  | 2 Quick release            | Silver         | -                | -                | -                        | -                | -                |
| Brake type                               |                            | Disc brake     | Hub roller brake | Hub roller brake | Hub roller brake         | Regular          | Regular          |
| CENTER LOCK mount type                   |                            | ✓              | -                | -                | -                        | -                | -                |
| Voltage (V)                              |                            | 6              | 6                | 6                | 6                        | 6                | 6                |
| Output (W)                               |                            | 3              | 3                | 2.4              | 1.5                      | 3.0              | 3.0              |
| Wheel size                               | 26-28 inch                 | ✓              | ✓                | ✓                | ✓                        | -                | -                |
|  | 20-28 inch                 | -              | -                | -                | -                        | -                | -                |
|  | 18-28 inch                 | -              | -                | -                | -                        | -                | -                |
|  | 16-28 inch                 | -              | -                | -                | -                        | ✓                | ✓                |
|  | 24-28 inch                 | -              | -                | -                | -                        | -                | -                |
|  | 20-24 inch                 | -              | -                | -                | -                        | -                | -                |
|  | 16-20 inch                 | -              | -                | -                | -                        | -                | -                |
|  | Compatible wheel size (mm) | (646-716)      | (646-716)        | (646-716)        | (646-716)                | (400 - 716)      | (400 - 716)      |
| Axle fixing method                       |                            | Quick release  | Nut              | Nut              | Nut                      | Quick release    | Nut              |
| Quick release type                       |                            | ✓              | -                | -                | -                        | ✓                | -                |
| Nut type                                 |                            | -              | ✓                | ✓                | ✓                        | -                | ✓                |
| E-THRU type                              |                            | -              | -                | -                | -                        | -                | -                |
| Quick release skewer length (mm)         | 129                        | -              | -                | -                | -                        | ✓                | -                |
|  | 133                        | ✓              | -                | -                | -                        | ✓                | -                |
| Thru axle (length x inner diameter ; mm) | 100 x 12                   | -              | -                | -                | -                        | -                | -                |
|  | 100 x 15                   | -              | -                | -                | -                        | -                | -                |
| O.L.D. (mm)                              |                            | 100            | 100              | 100              | 100                      | 100              | 100              |
| Flange distance (mm)                     |                            | 52.1           | 58.1             | 58.1             | 58.1                     | 60.0             | 60.0             |
| Offset (mm)                              |                            | 3.8            | 4.7              | 4.7              | 4.7                      | 0.6              | 1.0              |
| P.C.D. left / right (mm)                 |                            | 70             | 76               | 76               | 76                       | 74               | 74               |
| Axle length (mm)                         |                            | 108            | 140              | 140              | 140                      | 108              | 140              |
| Spoke size                               |                            | #14            | #14              | #14              | #14                      | #14              | #14              |
| Spoke hole                               | 24H                        | -              | -                | -                | -                        | -                | -                |
|  | 28H                        | -              | -                | -                | -                        | -                | ✓                |
|  | 32H                        | ✓              | ✓                | ✓                | ✓                        | ✓                | ✓                |
|  | 36H                        | ✓              | ✓                | ✓                | ✓                        | ✓                | ✓                |
| Seal                                     |                            | Single contact | Single Contact   | Single contact   | Single contact           | Single contact   | Single contact   |
| Roller brake modulator grade             | More than 26 inch high     | -              | ✓                | ✓                | ✓                        | -                | -                |
|  | More than 26 inch standard | -              | ✓                | ✓                | ✓                        | -                | -                |
|  | 20-24 inch                 | -              | -                | -                | -                        | -                | -                |
| Electric power output connector          | J1 type                    | -              | -                | -                | -                        | -                | -                |
|  | J2 type                    | -              | -                | -                | -                        | -                | -                |
|  | E2 type                    | ✓              | ✓                | ✓                | ✓                        | ✓                | ✓                |
|  | Others                     | -              | -                | -                | -                        | -                | -                |
| Hub shell                                | Material                   | Aluminum       | Aluminum         | Aluminum         | Aluminum                 | Aluminum         | Aluminum         |
|  | Finish                     | Anodized       | Painted          | Painted          | Painted                  | Painted          | Painted          |
| Axle                                     | Material                   | Steel          | Steel            | Steel            | Steel                    | Steel            | Steel            |
|  | Finish                     | Zinc plated    | Phosphate coated | Phosphate coated | Phosphate coated         | Phosphate coated | Phosphate coated |
| Quick release lever                      | Material                   | Aluminum       | -                | -                | -                        | Steel            | -                |
|  | Finish                     | Anodized       | -                | -                | -                        | Nickel plated    | -                |
| Quick release housing                    | Material                   | Aluminum       | -                | -                | -                        | Steel            | -                |
|  | Finish                     | Anodized       | -                | -                | -                        | Nickel plated    | -                |
| Quick release nut                        | Material                   | Steel+Resin    | -                | -                | -                        | Steel+Resin      | -                |
|  | Finish                     | -              | -                | -                | -                        | -                | -                |
| Average weight (g)                       |                            | 564            | 960              | 960              | 960                      | 700              | 712              |
| Note                                     |                            |                |                  |                  | * For LED light use only |                  |                  |

CN

SMCN

RT

BH

RTAD

OT

SMCB

SMCA

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DH

LP

SMAX

EW

EWC

GM

WU

JC

JC

BT

BM

SMBT

SMBC

BCC

EWEC

SMPCE

SMCB

SMCA

SMCC

EWEX

EWPS

PD

PD

PD

PD

# Hub Dynamo

| Series                                   |                            | NEXUS            | NEXUS            | NEXUS                    | NEXUS                                | NEXUS                                | NEXUS                                |
|--|----------------------------|------------------|------------------|--------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| Model no.                                |                            | DH-C3000-2N-QR   | DH-C3000-2N-NT   | DH-C3000-1N              | DH-C2100-N                           | DH-C2100-NC                          | DH-C2100-N-QR                        |
| Regulation                               | StVZO                      | -                | -                | ✓                        | -                                    | -                                    | -                                    |
|  | TPGBi                      | -                | -                | -                        | -                                    | -                                    | -                                    |
|  | JIS                        | -                | -                | -                        | -                                    | -                                    | -                                    |
|  | Others                     | -                | -                | -                        | VIA                                  | VIA                                  | VIA                                  |
| Color                                    | 1 Hub shell                | Silver           | Silver           | Silver                   | Silver                               | Silver                               | Silver                               |
|  | 1 Quick release            | -                | -                | -                        | -                                    | -                                    | Silver                               |
|  | 2 Hub shell                | Black            | Black            | Black                    | Black                                | Black                                | Black                                |
|  | 2 Quick release            | -                | -                | -                        | -                                    | -                                    | Black                                |
| Brake type                               |                            | Regular          | Regular          | Regular                  | Regular                              | Regular                              | Regular                              |
| CENTER LOCK mount type                   |                            | -                | -                | -                        | -                                    | -                                    | -                                    |
| Voltage (V)                              |                            | 6                | 6                | 6                        | 6                                    | 6                                    | 6                                    |
| Output (W)                               |                            | 2.4              | 2.4              | 1.5                      | 0.9                                  | 0.9                                  | 0.9                                  |
| Wheel size                               | 26-28 inch                 | -                | -                | -                        | -                                    | -                                    | -                                    |
|  | 20-28 inch                 | -                | -                | ✓                        | -                                    | -                                    | -                                    |
|  | 18-28 inch                 | -                | -                | -                        | -                                    | -                                    | -                                    |
|  | 16-28 inch                 | ✓                | ✓                | -                        | -                                    | -                                    | -                                    |
|  | 24-28 inch                 | -                | -                | -                        | ✓                                    | -                                    | ✓                                    |
|  | 20-24 inch                 | -                | -                | -                        | -                                    | ✓                                    | -                                    |
|  | 16-20 inch                 | -                | -                | -                        | -                                    | -                                    | -                                    |
|  | Compatible wheel size (mm) | (400 - 716)      | (400 - 716)      | (448 - 716)              | -                                    | -                                    | -                                    |
| Axle fixing method                       |                            | Quick release    | Nut              | Nut                      | Nut                                  | Nut                                  | Quick release                        |
| Quick release type                       |                            | ✓                | -                | -                        | -                                    | -                                    | ✓                                    |
| Nut type                                 |                            | -                | ✓                | ✓                        | ✓                                    | ✓                                    | -                                    |
| E-THRU type                              |                            | -                | -                | -                        | -                                    | -                                    | -                                    |
| Quick release skewer length (mm)         | 129                        | ✓                | -                | -                        | -                                    | -                                    | ✓                                    |
|  | 133                        | ✓                | -                | -                        | -                                    | -                                    | ✓                                    |
| Thru axle (length x inner diameter ; mm) | 100 x 12                   | -                | -                | -                        | -                                    | -                                    | -                                    |
|  | 100 x 15                   | -                | -                | -                        | -                                    | -                                    | -                                    |
| O.L.D. (mm)                              |                            | 100              | 100              | 100                      | 93                                   | 93                                   | 100                                  |
| Flange distance (mm)                     |                            | 60.0             | 60.0             | 56.0                     | 58                                   | 58                                   | 58                                   |
| Offset (mm)                              |                            | 0.6              | 1.0              | 0                        | 0.5                                  | 0.5                                  | 0.5                                  |
| P.C.D. left / right (mm)                 |                            | 74               | 74               | 67                       | 60                                   | 60                                   | 60                                   |
| Axle length (mm)                         |                            | 108              | 140              | 140                      | 150/155                              | 150/155                              | 108                                  |
| Spoke size                               |                            | #14              | #14              | #14                      | #13/#14                              | #13/#14                              | #13/#14                              |
| Spoke hole                               | 24H                        | -                | -                | -                        | -                                    | -                                    | -                                    |
|  | 28H                        | -                | -                | -                        | -                                    | ✓                                    | -                                    |
|  | 32H                        | ✓                | ✓                | ✓                        | -                                    | -                                    | ✓                                    |
|  | 36H                        | ✓                | ✓                | ✓                        | ✓                                    | -                                    | ✓                                    |
| Seal                                     |                            | Single contact   | Single contact   | Single contact           | Single contact                       | Single contact                       | Single contact                       |
| Roller brake modulator grade             | More than 26 inch high     | -                | -                | -                        | -                                    | -                                    | -                                    |
|  | More than 26 inch standard | -                | -                | -                        | -                                    | -                                    | -                                    |
|  | 20-24 inch                 | -                | -                | -                        | -                                    | -                                    | -                                    |
| Electric power output connector          | J1 type                    | -                | -                | -                        | -                                    | -                                    | -                                    |
|  | J2 type                    | -                | -                | -                        | -                                    | -                                    | -                                    |
|  | E2 type                    | ✓                | ✓                | ✓                        | -                                    | -                                    | -                                    |
|  | Others                     | -                | -                | -                        | ✓ (J2-A)                             | ✓ (J2-A)                             | ✓ (J2-A)                             |
| Hub shell                                | Material                   | Aluminum         | Aluminum         | Aluminum                 | Aluminum                             | Aluminum                             | Aluminum                             |
|  | Finish                     | Painted          | Painted          | Painted                  | Painted (black)/Passivation (silver) | Painted (black)/Passivation (silver) | Painted (black)/Passivation (silver) |
| Axle                                     | Material                   | Steel            | Steel            | Steel                    | Steel                                | Steel                                | Steel                                |
|  | Finish                     | Phosphate coated | Phosphate coated | Phosphate coated         | Plated                               | Plated                               | Phosphate coated                     |
| Quick release lever                      | Material                   | Steel            | -                | -                        | -                                    | -                                    | Steel                                |
|  | Finish                     | Nickel plated    | -                | -                        | -                                    | -                                    | Plated                               |
| Quick release housing                    | Material                   | Steel            | -                | -                        | -                                    | -                                    | Steel                                |
|  | Finish                     | Nickel plated    | -                | -                        | -                                    | -                                    | Plated                               |
| Quick release nut                        | Material                   | Steel+Resin      | -                | -                        | -                                    | -                                    | Steel+Resin                          |
|  | Finish                     | -                | -                | -                        | -                                    | -                                    | -                                    |
| Average weight (g)                       |                            | 700              | 705              | 600                      | 491                                  | 491                                  | 474                                  |
| Note                                     |                            |                  |                  | * For LED light use only | * Specification for Japan market     | * Specification for Japan market     | * Specification for Japan market     |

# Hub Dynamo

GENERAL

| Series                                   |                            | NEXUS                                | NEXUS                            | NEXUS                            | SHIMANO                          | SHIMANO                          |
|--|----------------------------|--------------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| Model no.                                |                            | DH-C2100-N-QRC                       | DH-2N40-J                        | DH-2N40-JC                       | DH-2N40-JW                       | DH-2N40-JWC                      |
| Regulation                               | StVZO                      | -                                    | -                                | -                                | -                                | -                                |
|  | TPGBi                      | -                                    | -                                | -                                | -                                | -                                |
|  | JIS                        | -                                    | ✓                                | ✓                                | ✓                                | ✓                                |
|  | Others                     | VIA                                  | -                                | -                                | -                                | -                                |
| Color                                    | 1 Hub shell                | Silver                               | Silver                           | Silver                           | Silver                           | Silver                           |
|  | 1 Quick release            | Silver                               | -                                | -                                | -                                | -                                |
|  | 2 Hub shell                | Black                                | Black                            | Black                            | Black                            | Black                            |
|  | 2 Quick release            | Silver                               | -                                | -                                | -                                | -                                |
| Brake type                               |                            | Regular                              | Regular                          | Regular                          | Regular                          | Regular                          |
| CENTER LOCK mount type                   |                            | -                                    | -                                | -                                | -                                | -                                |
| Voltage (V)                              |                            | 6                                    | 6                                | 6                                | 6                                | 6                                |
| Output (W)                               |                            | 0.9                                  | 2.4                              | 2.4                              | 2.4                              | 2.4                              |
| Wheel size                               | 26-28 inch                 | -                                    | -                                | -                                | -                                | -                                |
|  | 20-28 inch                 | -                                    | -                                | -                                | -                                | -                                |
|  | 18-28 inch                 | -                                    | -                                | -                                | -                                | -                                |
|  | 16-28 inch                 | -                                    | -                                | -                                | -                                | -                                |
|  | 24-28 inch                 | -                                    | ✓                                | -                                | ✓                                | -                                |
|  | 20-24 inch                 | ✓                                    | -                                | ✓                                | -                                | ✓                                |
|  | 16-20 inch                 | -                                    | -                                | -                                | -                                | -                                |
|  | Compatible wheel size (mm) | -                                    | -                                | -                                | -                                | -                                |
| Axle fixing method                       |                            | Quick release                        | Nut                              | Nut                              | Nut                              | Nut                              |
| Quick release type                       |                            | ✓                                    | -                                | -                                | -                                | -                                |
| Nut type                                 |                            | -                                    | ✓                                | ✓                                | ✓                                | ✓                                |
| E-THRU type                              |                            | -                                    | -                                | -                                | -                                | -                                |
| Quick release skewer length (mm)         | 129                        | ✓                                    | -                                | -                                | -                                | -                                |
|  | 133                        | ✓                                    | -                                | -                                | -                                | -                                |
| Thru axle (length x inner diameter ; mm) | 100 x 12                   | -                                    | -                                | -                                | -                                | -                                |
|  | 100 x 15                   | -                                    | -                                | -                                | -                                | -                                |
| O.L.D. (mm)                              |                            | 100                                  | 93                               | 93                               | 100                              | 100                              |
| Flange distance (mm)                     |                            | 58                                   | 60                               | 60                               | 60                               | 60                               |
| Offset (mm)                              |                            | 0.5                                  | 0                                | 0                                | 3                                | 3                                |
| P.C.D. left / right (mm)                 |                            | 60                                   | 69                               | 69                               | 69                               | 69                               |
| Axle length (mm)                         |                            | 108                                  | 150/155                          | 150                              | 140                              | 140                              |
| Spoke size                               |                            | #13/#14                              | #13/#14                          | #14                              | #14                              | #14                              |
| Spoke hole                               | 24H                        | -                                    | -                                | -                                | -                                | -                                |
|  | 28H                        | -                                    | -                                | ✓                                | -                                | -                                |
|  | 32H                        | ✓                                    | -                                | -                                | -                                | -                                |
|  | 36H                        | ✓                                    | ✓                                | -                                | ✓                                | ✓                                |
| Seal                                     |                            | Single contact                       | Single contact                   | Single contact                   | Single contact                   | Single contact                   |
| Roller brake modulator grade             | More than 26 inch high     | -                                    | -                                | -                                | -                                | -                                |
|  | More than 26 inch standard | -                                    | -                                | -                                | -                                | -                                |
|  | 20-24 inch                 | -                                    | -                                | -                                | -                                | -                                |
| Electric power output connector          | J1 type                    | -                                    | -                                | -                                | -                                | -                                |
|  | J2 type                    | -                                    | ✓                                | ✓                                | ✓                                | ✓                                |
|  | E2 type                    | -                                    | -                                | -                                | -                                | -                                |
|  | Others                     | ✓ (J2-A)                             | -                                | -                                | -                                | -                                |
| Hub shell                                | Material                   | Aluminum                             | Aluminum+Steel                   | Aluminum+Steel                   | Aluminum+Steel                   | Aluminum+Steel                   |
|  | Finish                     | Painted (black)/Passivation (silver) | Painted/Passivation              | Painted/Passivation              | Painted/Passivation              | Painted/Passivation              |
| Axle                                     | Material                   | Steel                                | Steel                            | Steel                            | Steel                            | Steel                            |
|  | Finish                     | Phosphate coated                     | Zinc plated                      | Zinc plated                      | Zinc plated                      | Zinc plated                      |
| Quick release lever                      | Material                   | Steel                                | -                                | -                                | -                                | -                                |
|  | Finish                     | Plated                               | -                                | -                                | -                                | -                                |
| Quick release housing                    | Material                   | Steel                                | -                                | -                                | -                                | -                                |
|  | Finish                     | Plated                               | -                                | -                                | -                                | -                                |
| Quick release nut                        | Material                   | Steel+Resin                          | -                                | -                                | -                                | -                                |
|  | Finish                     | -                                    | -                                | -                                | -                                | -                                |
| Average weight (g)                       |                            | 474                                  | 630                              | 630                              | 630                              | 630                              |
| Note                                     |                            | * Specification for Japan market     | * Specification for Japan market | * Specification for Japan market | * Specification for Japan market | * Specification for Japan market |

CN

SMCN

RT

BH

RTAD

OT

SMCB  
SMCA

RM

DH

LP

SMAX

EW

EWC

GM

WU

JC

JC

BT

BM

SMBT

SMBC

BCC

EWEC

SMPCE

SMCB  
SMCA

SMCC

EWEX

EWPS

PD

PD

PD

PD



# Light

| Series   |                      | NEXUS                            | NEXUS                            | NEXUS                            | NEXUS                            | NEXUS                            | SHIMANO                          |
|--|----------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| Model no.  |                      | LP-C2200-B                       | LP-C2200-S                       | LP-C2201-B                       | LP-C2201-S                       | LP-C2207-B                       | LP-C2207-C                       |
| Function name                                      |                      | HILMO                            | HILMO                            | HILMO                            | HILMO                            | HILMO                            | HILMO                            |
| Auto light   |                      | -                                | -                                | -                                | -                                | -                                | -                                |
| Type of light                                      | Front                | ✓                                | ✓                                | ✓                                | ✓                                | ✓                                | ✓                                |
|  | Tail (rear)          | -                                | -                                | -                                | -                                | -                                | -                                |
| Hub dynamo output                                  |                      | 0.9 W                            | 0.9 W                            | 0.9 W                            | 0.9 W                            | 0.9 W                            | 0.9 W                            |
| Main light   |                      | High power LED                   | High power LED                   | High power LED                   | High power LED                   | High power LED                   | High power LED                   |
| Brightness (at 5 m distance, JIS standard = 16 lx) |                      | 40 lx                            | 40 lx                            | 40 lx                            | 40 lx                            | 40 lx                            | 40 lx                            |
| Lighting pattern                                   |                      | Wide                             | Wide                             | Wide                             | Wide                             | Wide                             | Wide                             |
| Sub light  |                      | -                                | -                                | -                                | -                                | -                                | -                                |
| Stand light (LED flashing) function                |                      | -                                | -                                | -                                | -                                | -                                | -                                |
| Reflector integration                              |                      | ✓                                | ✓                                | ✓                                | ✓                                | -                                | -                                |
| Electric power input                               | Tab-on type          | -                                | -                                | -                                | -                                | -                                | -                                |
|  | Connector type       | J2-A                             | J2-A                             | J2-A                             | J2-A                             | J2-A                             | J2-A                             |
| Light body material                                |                      | Resin                            | Resin                            | Resin                            | Resin                            | Resin                            | Resin                            |
| Color  | 1                    | CP                               | CP                               | CP                               | CP                               | Silver/Black/Black               | CP/Silver/Black                  |
|  | 2                    | Silver (painted)                 | Silver (painted)                 | Silver (painted)                 | Silver (painted)                 | Black/Gray/Black                 | CP/Silver/White                  |
|  | 3                    | White                            | White                            | White                            | White                            | -                                | -                                |
|  | 4                    | Black                            | Black                            | Black                            | Black                            | -                                | -                                |
|  | 5                    | Gray                             | Gray                             | Gray                             | Gray                             | -                                | -                                |
|  | 6                    | -                                | -                                | -                                | -                                | -                                | -                                |
| Attachment position                                | Light stay           | -                                | ✓                                | -                                | ✓                                | -                                | -                                |
|  | Below basket         | ✓                                | -                                | ✓                                | -                                | ✓                                | -                                |
|  | Fork center          | -                                | -                                | -                                | -                                | -                                | ✓                                |
|  | Handle bar           | -                                | -                                | -                                | -                                | -                                | -                                |
|  | On mud guard         | -                                | -                                | -                                | -                                | -                                | -                                |
|  | Mud guard style stay | -                                | -                                | -                                | -                                | -                                | -                                |
| Compatible seat stay diameter (mm)                 | Seat stay            | -                                | -                                | -                                | -                                | -                                | -                                |
|  | 13                   | -                                | -                                | -                                | -                                | -                                | -                                |
|  | 16                   | -                                | -                                | -                                | -                                | -                                | -                                |
| Compatible handle bar diameter (mm)                | 19                   | -                                | -                                | -                                | -                                | -                                | -                                |
|  | 22.2                 | -                                | -                                | -                                | -                                | -                                | -                                |
|  | 25.4                 | -                                | -                                | -                                | -                                | -                                | -                                |
| Switch   | 31.8                 | -                                | -                                | -                                | -                                | -                                | -                                |
|  | Auto                 | -                                | -                                | -                                | -                                | -                                | -                                |
|  | Manual (on)          | -                                | -                                | -                                | -                                | -                                | -                                |
|  | Manual (off)         | -                                | -                                | -                                | -                                | -                                | -                                |
| Electric wire color                                | Permanent            | ✓                                | ✓                                | ✓                                | ✓                                | ✓                                | ✓                                |
|  | Black                | -                                | -                                | -                                | -                                | -                                | ✓                                |
|  | Gray                 | ✓                                | ✓                                | ✓                                | ✓                                | ✓                                | -                                |
| Electric wire length (mm)                          | Tab-on type          | -                                | -                                | -                                | -                                | -                                | -                                |
|  | Connector type       | 715                              | 405                              | 715                              | 405                              | 710                              | 500                              |
| EZ cable clamp                                     |                      | -                                | -                                | -                                | -                                | -                                | -                                |
| Cord length adjuster                               |                      | -                                | -                                | -                                | -                                | -                                | -                                |
| Compatible wheel size                              |                      | -                                | -                                | -                                | -                                | -                                | -                                |
| Note   |                      | * Specification for Japan market | * Specification for Japan market | * Specification for Japan market | * Specification for Japan market | * Specification for Japan market | * Specification for Japan market |

# Light

| Series   |                      | SHIMANO                          | NEXUS                            | NEXUS                            | NEXUS                            | NEXUS   |
|--|----------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|---|
| Model no.  |                      | LP-C2250-H                       | LP-C2111-S                       | LP-X101                          | LP-X101-H                        | LP-NX60-R   |
| Function name                                      |                      | HILMO                            | HILMO FLASH                      | -                                | -                                | -   |
| Auto light   |                      | -                                | -                                | ✓                                | ✓                                | -   |
| Type of light                                      | Front                | ✓                                | ✓                                | ✓                                | ✓                                | -   |
|  | Tail (rear)          | -                                | -                                | -                                | -                                | ✓   |
| Hub dynamo output                                  |                      | 0.9 W                            | 6 V-0.9 W                        | 6 V-2.4 W                        | 6 V-2.4 W                        | 6 V-2.4 W   |
| Main light   |                      | High power LED                   | High power LED                   | High power LED                   | High power LED                   | Super bright red LED  |
| Brightness (at 5 m distance, JIS standard = 16 lx) |                      | 40 lx                            | 40 lx                            | 80 lx                            | 80 lx                            | -   |
| Lighting pattern                                   |                      | Wide                             | Normal                           | Normal                           | Normal                           | -   |
| Sub light  |                      | -                                | -                                | -                                | -                                | -   |
| Stand light (LED flashing) function                |                      | -                                | ✓                                | -                                | -                                | ✓ (if used with LP-X103)  |
| Reflector integration                              |                      | -                                | ✓                                | -                                | ✓                                | -   |
| Electric power input                               | Tab-on type          | -                                | -                                | ✓                                | ✓                                | -   |
|  | Connector type       | J2-A                             | J2-A                             | ✓                                | ✓                                | ✓   |
| Light body material                                |                      | Resin                            | Resin                            | Resin                            | Resin                            | Resin   |
| Color  | 1                    | Silver/Black                     | CP                               | Silver (painted)                 | Silver (painted)                 | Silver (painted)  |
|  | 2                    | -                                | Silver (painted)                 | White (painted)                  | White (painted)                  | White (painted)   |
|  | 3                    | -                                | White                            | Black                            | Black                            | Black (painted)   |
|  | 4                    | -                                | Black                            | Gray                             | Gray                             | -   |
|  | 5                    | -                                | Gray                             | -                                | -                                | -   |
|  | 6                    | -                                | -                                | -                                | -                                | -   |
| Attachment position                                | Light stay           | -                                | ✓                                | ✓                                | ✓                                | -   |
|  | Below basket         | -                                | -                                | -                                | -                                | -   |
|  | Fork center          | -                                | -                                | -                                | -                                | -   |
|  | Handle bar           | ✓                                | -                                | -                                | -                                | -   |
|  | On mud guard         | -                                | -                                | -                                | -                                | ✓ *   |
|  | Mud guard style stay | -                                | -                                | -                                | -                                | -   |
|  | Seat stay            | -                                | -                                | -                                | -                                | -   |
| Compatible seat stay diameter (mm)                 | 13                   | -                                | -                                | -                                | -                                | -   |
|  | 16                   | -                                | -                                | -                                | -                                | -   |
|  | 19                   | -                                | -                                | -                                | -                                | -   |
| Compatible handle bar diameter (mm)                | 22.2                 | ✓                                | -                                | -                                | -                                | -   |
|  | 25.4                 | ✓                                | -                                | -                                | -                                | -   |
|  | 31.8                 | ✓                                | -                                | -                                | -                                | -   |
| Switch   | Auto                 | -                                | -                                | ✓                                | ✓                                | -   |
|  | Manual (on)          | -                                | -                                | ✓                                | ✓                                | -   |
|  | Manual (off)         | -                                | -                                | -                                | -                                | -   |
|  | Permanent            | ✓                                | ✓                                | -                                | -                                | ✓   |
| Electric wire color                                | Black                | ✓                                | -                                | ✓                                | ✓                                | ✓   |
|  | Gray                 | -                                | ✓                                | -                                | -                                | ✓   |
| Electric wire length (mm)                          | Tab-on type          | -                                | -                                | 400                              | 410                              | -   |
|  | Connector type       | 800                              | 405                              | 120                              | 160                              | Available   |
| EZ cable clamp                                     |                      | ✓                                | -                                | -                                | -                                | -   |
| Cord length adjuster                               |                      | -                                | -                                | -                                | -                                | -   |
| Compatible wheel size                              |                      | -                                | -                                | -                                | -                                | 24-27 inch  |
| Note   |                      | * Specification for Japan market | * Specification for Japan market | * Specification for Japan market | * Specification for Japan market | * Specification for Japan market (attached with special stay. 2 kinds of stays are available. One for internal geared hub, another for FREEHUB) |

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## E-THRU Axle (AX)

| Series                                   |                     | SHIMANO         | SHIMANO         | SHIMANO         | SHIMANO         | SHIMANO         | SHIMANO         |
|--|---------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Model no.                                |                     | SM-AX720-100x12 | SM-AX720-142x12 | AX-MT700-142x12 | AX-MT700-148x12 | AX-MT700-157x12 | AX-MT500-142x12 |
| Thru axle (length x inner diameter ; mm) | 135 x 10            | -               | -               | -               | -               | -               | -               |
|  | 100 x 12            | ✓               | -               | -               | -               | -               | -               |
|  | 135 x 12            | -               | -               | -               | -               | -               | -               |
|  | 142 x 12            | -               | ✓               | ✓               | -               | -               | ✓               |
|  | 148 x 12            | -               | -               | -               | ✓               | ✓               | -               |
|  | 150 x 12            | -               | -               | -               | -               | -               | -               |
|  | 157 x 12            | -               | -               | -               | -               | ✓               | -               |
| Lever position adjustment                | Tool-less type      | -               | -               | -               | -               | -               | -               |
|  | Hexagon wrench type | ✓               | ✓               | ✓               | ✓               | ✓               | ✓               |
| Axle                                     | Thread pitch        | M12 x 1.5       | M12 x 1.5       | M12 x 1.5       | M12 x 1.5       | M12 x 1.5       | M12 x 1.5       |
|  | Length (mm)         | 121             | 163             | 166             | 172             | 181             | 166             |
|  | Hollow axle         | ✓               | ✓               | ✓               | ✓               | ✓               | ✓               |
|  | Material            | Aluminum        | Aluminum        | Aluminum        | Aluminum        | Aluminum        | Aluminum        |
|  | Finish              | Black anodized  | Black anodized  | Black anodized  | Black anodized  | Black anodized  | Silver anodized |
| Lever                                    | Material            | Aluminum        | Aluminum        | Aluminum        | Aluminum        | Aluminum        | Aluminum        |
|  | Finish              | Black anodized  | Black anodized  | Black anodized  | Black anodized  | Black anodized  | Painted (black) |
| Housing                                  | Material            | Aluminum        | Aluminum        | Aluminum        | Aluminum        | Aluminum        | Aluminum        |
|  | Finish              | Black anodized  | Black anodized  | Black anodized  | Black anodized  | Black anodized  | Painted (black) |
| Fixing nut                               | Material            | -               | -               | -               | -               | -               | -               |
|  | Finish              | -               | -               | -               | -               | -               | -               |
| Average weight (g)                       |                     | 65              | 74              | 75              | 76              | 79              | 79              |
| Note                                     |                     |                 |                 |                 |                 |                 |                 |

| Series                                   |                     | SHIMANO         | SHIMANO         | SAINT   | SHIMANO        | SHIMANO        | SHIMANO         |
|--|---------------------|-----------------|-----------------|---|----------------|----------------|-----------------|
| Model no.                                |                     | AX-MT500-148x12 | AX-MT500-157x12 | SM-AX80   | SM-AX78        | SM-AX78-B      | SM-AX58         |
| Thru axle (length x inner diameter ; mm) | 135 x 10            | -               | -               | ✓   | -              | -              | -               |
|  | 100 x 12            | -               | -               | -   | -              | -              | -               |
|  | 135 x 12            | -               | -               | ✓   | -              | -              | -               |
|  | 142 x 12            | -               | -               | -   | ✓              | -              | ✓               |
|  | 148 x 12            | ✓               | -               | -   | -              | ✓              | -               |
|  | 150 x 12            | -               | -               | ✓   | -              | -              | -               |
|  | 157 x 12            | -               | ✓               | -   | -              | -              | -               |
| Lever position adjustment                | Tool-less type      | -               | -               | -   | ✓              | ✓              | ✓               |
|  | Hexagon wrench type | ✓               | ✓               | ✓   | -              | -              | -               |
| Axle                                     | Thread pitch        | M12 x 1.5       | M12 x 1.5       | M10 x 1.00 (10 mm),<br>M12 x 1.75 (12 mm)                   | M12 x 1.5      | M12 x 1.5      | M12 x 1.5       |
|  | Length (mm)         | 172             | 181             | 168/183   | 166            | 172            | 166             |
|  | Hollow axle         | ✓               | ✓               | ✓   | ✓              | ✓              | ✓               |
|  | Material            | Aluminum        | Aluminum        | Chromoly steel  | Aluminum       | Aluminum       | Aluminum        |
|  | Finish              | Silver anodized | Silver anodized | Plated  | Black anodized | Black anodized | Silver anodized |
| Lever                                    | Material            | Aluminum        | Aluminum        | -   | Aluminum       | Aluminum       | Aluminum        |
|  | Finish              | Painted (black) | Painted (black) | -   | Black anodized | Black anodized | Painted (black) |
| Housing                                  | Material            | Aluminum        | Aluminum        | -   | Aluminum       | Aluminum       | Aluminum        |
|  | Finish              | Painted (black) | Painted (black) | -   | Black anodized | Black anodized | Black anodized  |
| Fixing nut                               | Material            | -               | -               | Steel   | -              | -              | -               |
|  | Finish              | -               | -               | Plated  | -              | -              | -               |
| Average weight (g)                       |                     | 80              | 83              | 133 (135 x 10 mm)<br>160 (135 x 12 mm)<br>169 (150 x 12 mm) | 77             | 78             | 81              |
| Note                                     |                     |                 |                 |   |                |                |                 |

# E-THRU Axle (AX)

GENERAL

| Series                                   |                     | SHIMANO         | SHIMANO         | SHIMANO         |
|--|---------------------|-----------------|-----------------|-----------------|
| Model no.                                |                     | SM-AX58-B       | SM-AX56         | SM-AX56-B       |
| Thru axle (length x inner diameter ; mm) | 135 x 10            | -               | -               | -               |
|  | 100 x 12            | -               | -               | -               |
|  | 135 x 12            | -               | -               | -               |
|  | 142 x 12            | -               | ✓               | -               |
|  | 148 x 12            | ✓               | -               | ✓               |
|  | 150 x 12            | -               | -               | -               |
|  | 157 x 12            | -               | -               | -               |
| Lever position adjustment                | Tool-less type      | ✓               | ✓               | ✓               |
|  | Hexagon wrench type | -               | -               | -               |
| Axle                                     | Thread pitch        | M12 x 1.5       | M12 x 1.5       | M12 x 1.5       |
|  | Length (mm)         | 172             | 171             | 177             |
|  | Hollow axle         | ✓               | ✓               | ✓               |
|  | Material            | Aluminum        | Aluminum        | Aluminum        |
|  | Finish              | Silver anodized | Silver anodized | Silver anodized |
| Lever                                    | Material            | Aluminum        | Aluminum        | Aluminum        |
|  | Finish              | Painted (black) | Painted (black) | Painted (black) |
| Housing                                  | Material            | Aluminum        | Aluminum        | Aluminum        |
|  | Finish              | Black anodized  | Painted (black) | Painted (black) |
| Fixing nut                               | Material            | -               | Aluminum        | Aluminum        |
|  | Finish              | -               | Black anodized  | Black anodized  |
| Average weight (g)                       |                     | 82              | 75              | 77              |
| Note                                     |                     |                 |                 |                 |

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## Electric Wire

| Series                | SHIMANO                   | SHIMANO                   | SHIMANO  | SHIMANO  |
|-----------------------|---------------------------|---------------------------|--|--|
| Model no.             | EW-SD300                  | EW-SD300-I                | EW-SD50  | EW-SD50-I  |
| Type                  | For external routing      | For internal routing      | For external routing   | For internal routing   |
| Compatible system     | E-TUBE                    | E-TUBE                    | E-TUBE   | E-TUBE   |
| SD50 port (pcs)       | 0                         | 0                         | 0  | 0  |
| SD300 port (pcs)      | 0                         | 0                         | 0  | 0  |
| SD50 connector (pcs)  | 0                         | 0                         | 2  | 2  |
| SD300 connector (pcs) | 2                         | 2                         | 0  | 0  |
| Cord diameter         | ø2.4                      | ø2.4                      | ø2.8   | ø2.8   |
| Plug diameter         | ø3.45                     | ø3.45                     | ø5.1   | ø5.1   |
| Note                  | Cable length: 150-1600 mm | Cable length: 150-1600 mm | Cable length: 150 - 1,600 mm*<br>* 1,600 mm is for E-BIKE usage only | Cable length: 150 - 1,600 mm*<br>* 1,600 mm is for E-BIKE usage only |

## Cord Cover

| Series                   | SHIMANO                       | SHIMANO  |
|--------------------------|-------------------------------|----------|
| Model no.                | SM-EWC2                       | EW-CC300 |
| Specification            | Long/Short                    | Long     |
| Color                    | 1                             | Black    |
|                          | 2                             | White    |
|                          | 3                             | -        |
| Length                   | Long: 300 mm,<br>Short: 50 mm | 300 mm   |
| Compatible electric wire | EW-SD50                       | EW-SD300 |
| Note                     |                               |          |

## Grommet

| Series                   | SHIMANO     | SHIMANO    | SHIMANO     | SHIMANO  |
|--------------------------|-------------|------------|-------------|----------|
| Model no.                | EW-GM300-S  | EW-GM300-M | SM-GM01     | SM-GM02  |
| Compatible electric wire | EW-SD300    | EW-SD300   | EW-SD50     | EW-SD50  |
| Hole dimension on frame  | 6 mm circle | 7 x 8 mm   | 6 mm circle | 7 x 8 mm |
| Note                     |             |            |             |          |

# Wireless Unit

|                                   |                     |  |
|-----------------------------------|---------------------|--|
| Series                            |                     | SHIMANO  |
| Model no.                         |                     | EW-WU111   |
| Wireless system                   |                     | ANT private *, Bluetooth®LE  |
| Master unit                       |                     | -  |
| Firmware update by E-TUBE PROJECT |                     | ✓  |
| SD50 port (pcs)                   |                     | 2  |
| SD300 port (pcs)                  |                     | 0  |
| SD50 connector (pcs)              |                     | 0  |
| SD300 connector (pcs)             |                     | 0  |
| Compatible system                 |                     | Bluetooth®LE corresponding master unit   |
| Function **                       | Gear position       | ✓  |
|                                   | Di2 Battery level   | ✓  |
|                                   | Adjust mode display | ✓  |
|                                   | Suspension mode     | ✓  |
|                                   | Shift mode          | ✓  |
| Note                              |                     | * ANT private has compatibility with ANT+ cycle computer but not freely open profile<br>** Display function depends on the specification of cycle computer |

# Junction [A]

|   |                     |                            |               |               |
|---|---------------------|----------------------------|---------------|---------------|
| Series                                      |                     | SHIMANO                    | SHIMANO       | SHIMANO       |
| Model no.                                   |                     | EW-RS910                   | SM-EW90-A     | SM-EW90-B     |
| Type  |                     | Built-in type              | External type | External type |
| Position                                    |                     | In side of frame or handle | Under stem    | Under stem    |
| Wireless system                             |                     | -                          | -             | -             |
| Compatible system                           |                     | E-TUBE                     | E-TUBE        | E-TUBE        |
| Compatible electric wire                    |                     | EW-SD50                    | EW-SD50       | EW-SD50       |
| Master unit                                 |                     | -                          | -             | -             |
| Firmware update by E-TUBE PROJECT           |                     | ✓                          | ✓             | ✓             |
| SD50 port (pcs)                             |                     | 2                          | 3             | 5             |
| SD300 port (pcs)                            |                     | 0                          | 0             | 0             |
| SD50 connector (pcs)                        |                     | 0                          | 0             | 0             |
| SD300 connector (pcs)                       |                     | 0                          | 0             | 0             |
| Connector for remote sprinter shifter (QTY) |                     | 0                          | 0             | 0             |
| Port for remote sprinter shifter (QTY)      |                     | 0                          | 0             | 0             |
| Charging port (pcs)                         |                     | 1                          | 1             | 1             |
| Function                                    | Gear position       | ✓                          | ✓             | ✓             |
|   | Di2 Battery level   | ✓                          | ✓             | ✓             |
|   | Adjust mode display | ✓                          | ✓             | ✓             |
|   | E-TUBE connection   | ✓                          | ✓             | ✓             |
| Average weight (g)                          |                     | 11                         | 10            | 13            |
| Note  |                     |                            |               |               |

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## Junction [B]

| Series                            | SHIMANO            | SHIMANO          | SHIMANO          | SHIMANO          | SHIMANO                                   | SHIMANO                                   |
|-----------------------------------|--------------------|------------------|------------------|------------------|---|---|
| Model no.                         | EW-AD305           | EW-JC302         | EW-JC304         | EW-JC200         | EW-JC130-SS                               | EW-JC130-SM                               |
| Type                              | Conversion adaptor | 2 ports junction | 4 ports junction | 2 ports junction | Y-split routing-SS                        | Y-split routing-SM                        |
| Master unit                       | -                  | -                | -                | -                | -   | -   |
| Firmware update by E-TUBE PROJECT | -                  | -                | -                | -                | -   | -   |
| SD50 port (pcs)                   | 1                  | 0                | 0                | 2                | 0   | 0   |
| SD300 port (pcs)                  | 1                  | 2                | 4                | 0                | 0   | 0   |
| SD50 connector (pcs)              | 0                  | 0                | 0                | 0                | 3   | 3   |
| SD300 connector (pcs)             | 0                  | 0                | 0                | 0                | 0   | 0   |
| Average weight (g)                | -                  | -                | -                | -                | -   | -   |
| Note                              |                    |                  |                  |                  | Cable length<br>250 mm<br>350 mm<br>50 mm | Cable length<br>450 mm<br>350 mm<br>50 mm |

| Series                            | SHIMANO                                   | SHIMANO       | SHIMANO       |
|-----------------------------------|---|---------------|---------------|
| Model no.                         | EW-JC130-MM                               | SM-JC41       | SM-JC40       |
| Type                              | Y-split routing-MM                        | Built-in type | External type |
| Master unit                       | -   | -             | -             |
| Firmware update by E-TUBE PROJECT | -   | -             | -             |
| SD50 port (pcs)                   | 0   | 4             | 4             |
| SD300 port (pcs)                  | 0   | 0             | 0             |
| SD50 connector (pcs)              | 3   | 0             | 0             |
| SD300 connector (pcs)             | 0   | 0             | 0             |
| Average weight (g)                | -   | 4.1           | 8.6           |
| Note                              | Cable length<br>550 mm<br>550 mm<br>50 mm |               |               |

## Battery

| Series                            | SHIMANO                                | SHIMANO          | SHIMANO          | SHIMANO          |
|-----------------------------------|--|------------------|------------------|------------------|
| Model no.                         | BT-DN300                               | BT-DN320         | BT-DN110-A       | BT-DN110         |
| Type                              | Internal battery                       | On-board battery | Internal battery | Internal battery |
| Chemistry                         | Li-Ion                                 | Li-Ion           | Li-Ion           | Li-Ion           |
| Rated voltage (V)                 | 7.4                                    | 7.6              | 7.4              | 7.4              |
| Rated capacity (Ah)               | 0.5                                    | 0.305            | 0.5              | 0.5              |
| Rated capacity (Wh)               | 3.7                                    | 2.32             | 3.7              | 3.7              |
| Compatible charger                | RD-R9250, RD-R8150, RD-R7150, RD-RX825 | EC-DN100         | SM-BCR2          | SM-BCR2          |
| Master unit                       | ✓                                      | -                | ✓                | ✓                |
| Firmware update by E-TUBE PROJECT | ✓                                      | -                | ✓                | ✓                |
| SD50 port (pcs)                   | 0                                      | 0                | 1                | 1                |
| SD300 port (pcs)                  | 3                                      | 0                | 0                | 0                |
| SD50 connector (pcs)              | 0                                      | 0                | 0                | 0                |
| SD300 connector (pcs)             | 0                                      | 0                | 0                | 0                |
| Average weight (g)                | 52                                     | 26.5             | 50               | 50               |
| Note                              |  |                  |                  |                  |

## Battery Mount

| Series                            | SHIMANO                  | SHIMANO                 |
|-----------------------------------|--------------------------|-------------------------|
| Model no.                         | BM-DN100-S               | BM-DN100-L              |
| Specification                     | Short size battery mount | Long size battery mount |
| Wire routing                      | External/Internal        | External                |
| Master unit                       | ✓                        | ✓                       |
| Firmware update by E-TUBE PROJECT | ✓                        | ✓                       |
| SD50 port (pcs)                   | 1                        | 1                       |
| SD300 port (pcs)                  | 0                        | 0                       |
| SD50 connector (pcs)              | 0                        | 0                       |
| SD300 connector (pcs)             | 0                        | 0                       |
| Note                              | -                        | -                       |

## Battery Case

| Series        |                          | SHIMANO   |
|---------------|--------------------------|---|
| Model no.     |                          | SM-BTC1   |
| Specification | w/ Junction              | ✓ *   |
|               | w/o Junction             | ✓   |
| Mount         |                          | Screw on bottle cage mounting thread  |
| Junction      | SD50 port (pcs)          | 6 *   |
|               | SD300 port (pcs)         | 0   |
|               | SD50 connector (pcs)     | 0   |
|               | SD300 connector (pcs)    | 0   |
|               | Compatible battery       | BT-DN110, BT-DN110-A  |
|               | Compatible electric wire | EW-SD50   |
|               | Battery charging port    | -   |
| Note          |                          | * w/ Junction spec. include one special cable for connecting battery and junction |

## Battery Charger

| Series             | SHIMANO  | SHIMANO                                 |
|--------------------|----------|---|
| Model no.          | EC-DN100 | SM-BCR2                                 |
| Compatible battery | BT-DN320 | BT-DN110, BT-DN110-A                    |
| Charging cord      | included | Including SM-BCR2                       |
| Note               |          | PC linkage device with limited function |

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## Charger Cord

|                                |           |            |           |                       |           |           |
|--------------------------------|-----------|------------|-----------|-----------------------|-----------|-----------|
| Series                         | SHIMANO   | SHIMANO    | SHIMANO   | SHIMANO               | SHIMANO   | SHIMANO   |
| Model no.                      | SM-BCC1-1 | SM-BCC1-2  | SM-BCC1-3 | SM-BCC1-4             | SM-BCC1-5 | SM-BCC1-6 |
| Plug type                      | Type C    | Type A     | Type A    | Type O                | Type A    | Type BF   |
| Typical example country/region | Europe    | USA/Canada | Japan     | Australia/New Zealand | China     | UK        |
| Rated power input (V)          | 220/230   | 120        | 100       | 240                   | 220       | 230/240   |
| Cable length (m)               | 1         | 2          | 1         | 1                     | 1         | 1         |
| Note                           |           |            |           |                       |           |           |

|                                |           |           |              |            |            |            |
|--------------------------------|-----------|-----------|--------------|------------|------------|------------|
| Series                         | SHIMANO   | SHIMANO   | SHIMANO      | SHIMANO    | SHIMANO    | SHIMANO    |
| Model no.                      | SM-BCC1-7 | SM-BCC1-8 | SM-BCC1-9    | SM-BCC1-10 | SM-BCC1-11 | SM-BCC1-12 |
| Plug type                      | Type C    | Type A    | Type B3L     | Type O     | Type C     | Type C     |
| Typical example country/region | Korea     | Taiwan    | South-Africa | Argentina  | Israel     | Brazil     |
| Rated power input (V)          | 220       | 110       | 220/230      | 220        | 230        | 127/220    |
| Cable length (m)               | 1         | 1         | 1            | 1          | 1          | 1          |
| Note                           |           |           |              |            |            |            |

|                                |            |
|--------------------------------|------------|
| Series                         | SHIMANO    |
| Model no.                      | SM-BCC1-13 |
| Plug type                      | Type C     |
| Typical example country/region | Thailand   |
| Rated power input (V)          | 250        |
| Cable length (m)               | 1          |
| Note                           |            |

## Charging Cable

|                  |          |
|------------------|----------|
| Series           | SHIMANO  |
| Model no.        | EW-EC300 |
| USB connector    | Type-A   |
| Cable length (m) | 1.5      |
| Note             |          |

## PC Linkage Device

|                       |            |
|-----------------------|------------|
| Series                | SHIMANO    |
| Model no.             | SM-PCE02   |
| USB port (pcs)        | Micro-B: 1 |
| SD50 port (pcs)       | 0          |
| SD300 port (pcs)      | 0          |
| SD50 connector (pcs)  | 0          |
| SD300 connector (pcs) | 0          |
| PC link port (pcs)    | 1          |
| LED                   | Green: 1   |
| Note                  |            |

## Cord Band

|                          |             |             |             |
|--------------------------|-------------|-------------|-------------|
| Series                   | SHIMANO     | SHIMANO     | SHIMANO     |
| Model no.                | EW-CB300-S  | EW-CB300-M  | EW-CB300-L  |
| Specification            | Cord Band S | Cord Band M | Cord Band L |
| Compatible electric wire | EW-SD300    | EW-SD300    | EW-SD300    |
| Handle bar diameter      | ø22.2       | ø31.8       | ø35         |
| Color                    | 1           | Black       | Black       |
|                          | 2           | -           | -           |
| Note                     |             |             |             |

## Cord Clip

|                          |                                |                        |
|--------------------------|--------------------------------|------------------------|
| Series                   | SHIMANO                        | SHIMANO                |
| Model no.                | EW-CL300-S                     | EW-CL300-M             |
| Compatible electric wire | EW-SD300                       | EW-SD300               |
| Clamp diameter           | ø2.3/ø4 for shift outer casing | ø2.3/ø5 for brake hose |
| Color                    | 1                              | Black                  |
|                          | 2                              | -                      |
| Note                     |                                |                        |

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## CAN Adapter

| Series                   | SHIMANO   | SHIMANO                                      |
|--------------------------|---|--|
| Model no.                | EW-EX310  | EW-EX010                                     |
| Type                     | CAN Adapter for Di2 (for general E-BIKE system) | CAN adapter for Di2 (for BOSCH ebike system) |
| Master unit              | ✓   | ✓  |
| SD50 port (pcs)          | 0   | 2  |
| SD300 port (pcs)         | 2   | 0  |
| SD50 connector (pcs)     | 0   | 0  |
| SD300 connector (pcs)    | 0   | 0  |
| Compatible electric wire | EW-SD300  | EW-SD50                                      |
| Note                     |   | Di2 adapter B (for BOSCH ebike system)       |

## Electric Cable for Non SHIMANO E-BIKE SYSTEMS

| Series                | SHIMANO  |
|-----------------------|--|
| Model no.             | EW-PS300   |
| Type                  | E-BIKE   |
| Compatible system     | BOSCH Smart System   |
| SD50 port (pcs)       | 0  |
| SD300 port (pcs)      | 0  |
| SD50 connector (pcs)  | 0  |
| SD300 connector (pcs) | 1 **   |
| Cord diameter         | -  |
| Plug diameter         | -  |
| Note                  | * Cable length: 1000mm, 1600mm<br>** Different shaped connector based on SD300 connector |

# Pedal (SPD)

GENERAL

| Series                       |          | XTR   | XTR   | XTR   | XTR                          | DEORE XT                     | GRX  |
|------------------------------|----------|---|---|---|------------------------------|------------------------------|--|
| Model no.                    |          | PD-M9200  | PD-M9220  | PD-M9100  | PD-M9120                     | PD-M8100                     | PD-M8100-UG  |
| Color                        | 1        | Black   | Black   | Black   | Black                        | Black                        | Black  |
|                              | 2        | -   | -   | -   | -                            | -                            | -  |
|                              | 3        | -   | -   | -   | -                            | -                            | -  |
| Type                         |          | SPD   | SPD   | SPD   | SPD                          | SPD                          | SPD  |
| Binding                      |          | Dual Sided  | Dual Sided                                      | Dual sided  | Dual sided                   | Dual sided                   | Dual sided   |
| Pedal axle material          |          | Chromoly Steel  | Chromoly Steel                                  | Chromoly steel  | Chromoly steel               | Chromoly steel               | Chromoly steel   |
| Cartridge axle               |          | ✓   | ✓   | ✓   | ✓                            | ✓                            | ✓  |
| Sealed mechanism             |          | ✓   | ✓   | ✓   | ✓                            | ✓                            | ✓  |
| Cleat retention adjuster     |          | ✓   | ✓   | ✓   | ✓                            | ✓                            | ✓  |
| Pop-up cage                  |          | -   | -   | -   | -                            | -                            | -  |
| Integrated cage              |          | -   | ✓   | -   | ✓                            | -                            | -  |
| Offset binding               |          | ✓   | -   | ✓   | -                            | -                            | -  |
| Oval shape axle body housing |          | -   | -   | -   | -                            | -                            | -  |
| Cleat included               | SM-SH51  | ✓   | -   | ✓   | ✓                            | ✓                            | ✓  |
|                              | SM-SH56  | -   | -   | -   | -                            | -                            | -  |
|                              | CL-MT001 | -   | ✓   | -   | -                            | -                            | -  |
| Optional cleat               | SM-SH51  | -   | ✓   | -   | -                            | -                            | -  |
|                              | SM-SH56  | ✓   | ✓   | ✓   | ✓                            | ✓                            | ✓  |
|                              | CL-MT001 | -   | -   | -   | -                            | -                            | -  |
| Reflector                    |          | SM-PD60<br>SM-PD22 (3 mm shorter axle type)                     | SM-PD60   | SM-PD60<br>SM-PD22 (3 mm shorter axle type)                     | SM-PD60                      | SM-PD60                      | SM-PD60  |
| Pedal body                   | Material | Aluminum  | Aluminum  | Aluminum  | Aluminum                     | Aluminum                     | Aluminum   |
|                              | Finish   | Anodized  | Anodized  | Anodized  | Anodized                     | Anodized                     | Anodized   |
| Cage                         | Material | -   | -   | -   | -                            | -                            | -  |
| Stack height (mm)            |          | 15.1  | 18.2  | 15.1  | 15.4                         | 16.5                         | 16.5   |
| Pedal center (mm)            |          | 52/55   | 55  | 55  | 55                           | 55                           | 55   |
| Average weight (g)           |          | 316 (/pair) (Short axle type)<br>318 (/pair) (Normal axle type) | 439 (/pair)                                     | 316 (/pair) (Short axle type)<br>318 (/pair) (Normal axle type) | 398 (/pair)                  | 342 (/pair)                  | 342 (/pair)  |
| Note                         |          | 3 mm shorter axle available<br>1.0 mm cleat spacer included     | 1.0 mm cleat spacer included<br>4 pins per side | 3 mm shorter axle available<br>1.0 mm cleat spacer included     | 1.0 mm cleat spacer included | 1.0 mm cleat spacer included | United in Gravel limited edition, 1.0 mm cleat spacer included |

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# Pedal (SPD)

| Series                       |          | DEORE XT                     | SHIMANO                            | SHIMANO   | SHIMANO                           | SAINT  | DXR  |
|------------------------------|----------|------------------------------|------------------------------------|---|-----------------------------------|--|--|
| Model no.                    |          | PD-M8120                     | PD-M540                            | PD-M520   | PD-M505                           | PD-M821  | PD-MX70  |
| Color                        | 1        | Black                        | Silver                             | Silver  | Silver                            | Black  | Black  |
|                              | 2        | -                            | Black                              | Black   | Black                             | -  | -  |
|                              | 3        | -                            | -                                  | White   | -                                 | -  | -  |
| Type                         |          | SPD                          | SPD                                | SPD   | SPD                               | SPD  | SPD  |
| Binding                      |          | Dual sided                   | Dual sided                         | Dual sided  | Dual sided                        | Dual sided   | Dual sided   |
| Pedal axle material          |          | Chromoly steel               | Chromoly steel                     | Chromoly steel                                    | Chromoly steel                    | Chromoly steel   | Chromoly steel   |
| Cartridge axle               |          | ✓                            | ✓                                  | ✓   | -                                 | ✓  | ✓  |
| Sealed mechanism             |          | ✓                            | ✓                                  | ✓   | ✓                                 | ✓  | ✓  |
| Cleat retention adjuster     |          | ✓                            | ✓                                  | ✓   | ✓                                 | ✓  | ✓  |
| Pop-up cage                  |          | -                            | -                                  | -   | -                                 | -  | -  |
| Integrated cage              |          | ✓                            | -                                  | -   | -                                 | ✓  | ✓  |
| Offset binding               |          | -                            | -                                  | -   | -                                 | -  | -  |
| Oval shape axle body housing |          | -                            | -                                  | -   | -                                 | -  | -  |
| Cleat included               | SM-SH51  | ✓                            | ✓                                  | ✓   | ✓                                 | ✓  | ✓  |
|                              | SM-SH56  | -                            | -                                  | -   | -                                 | -  | -  |
|                              | CL-MT001 | -                            | -                                  | -   | -                                 | -  | -  |
| Optional cleat               | SM-SH51  | -                            | -                                  | -   | -                                 | -  | -  |
|                              | SM-SH56  | ✓                            | ✓                                  | ✓   | ✓                                 | ✓  | ✓  |
|                              | CL-MT001 | -                            | -                                  | -   | -                                 | -  | -  |
| Reflector                    |          | SM-PD60                      | SM-PD22                            | SM-PD22   | SM-PD22                           | SM-PD60  | SM-PD60  |
| Pedal body                   | Material | Aluminum                     | Aluminum                           | Aluminum  | Aluminum                          | Aluminum   | Aluminum   |
|                              | Finish   | Anodized                     | Anodized (silver)/Painted (bronze) | Polished (silver)/Painted (black)/Painted (white) | Polished (silver)/Painted (black) | Painted  | Anodized   |
| Cage                         | Material | -                            | -                                  | -   | -                                 | -  | -  |
| Stack height (mm)            |          | 16.2                         | 17.0                               | 17.0  | 18.3                              | 16.9   | 16.7   |
| Pedal center (mm)            |          | 55                           | 55                                 | 55  | 55                                | 55   | 55   |
| Average weight (g)           |          | 438 (/pair)                  | 350 (/pair)                        | 373 (/pair)                                       | 443 (/pair)                       | 545 (/pair)  | 413 (/pair)  |
| Note                         |          | 1.0 mm cleat spacer included |                                    |   |                                   | 4 height adjustable pins<br>1.0 mm cleat spacer included | Higher retention force and narrower release angle than normal SPD pedals<br>1.0 mm cleat spacer included |

# Pedal (SPD)

GENERAL

| Series                       |          | SHIMANO        | SHIMANO        | SHIMANO                      | DEORE XT       | SHIMANO                      | SHIMANO        |
|------------------------------|----------|----------------|----------------|------------------------------|----------------|------------------------------|----------------|
| Model no.                    |          | PD-M647        | PD-M324        | PD-ME700                     | PD-T8000       | PD-ES600                     | PD-EH510       |
| Color                        | 1        | Black          | Silver         | Black                        | Black          | Dark gray                    | Black          |
|                              | 2        | -              | -              | -                            | -              | -                            | -              |
|                              | 3        | -              | -              | -                            | -              | -                            | -              |
| Type                         |          | SPD            | SPD/FlatPedal  | SPD                          | SPD/FlatPedal  | SPD                          | SPD/FlatPedal  |
| Binding                      |          | Dual sided     | Single sided   | Dual sided                   | Single sided   | Single sided                 | Single sided   |
| Pedal axle material          |          | Chromoly steel | Chromoly steel | Chromoly steel               | Chromoly steel | Chromoly steel               | Chromoly steel |
| Cartridge axle               |          | ✓              | -              | ✓                            | ✓              | ✓                            | -              |
| Sealed mechanism             |          | ✓              | ✓              | ✓                            | ✓              | ✓                            | ✓              |
| Cleat retention adjuster     |          | ✓              | ✓              | ✓                            | ✓              | ✓                            | ✓              |
| Pop-up cage                  |          | ✓              | -              | -                            | -              | -                            | -              |
| Integrated cage              |          | -              | -              | ✓                            | -              | -                            | -              |
| Offset binding               |          | -              | -              | -                            | -              | -                            | -              |
| Oval shape axle body housing |          | -              | -              | -                            | -              | -                            | -              |
| Cleat included               | SM-SH51  | ✓              | -              | ✓                            | -              | ✓                            | ✓              |
|                              | SM-SH56  | -              | ✓              | -                            | ✓              | -                            | -              |
|                              | CL-MT001 | -              | -              | -                            | -              | -                            | -              |
| Optional cleat               | SM-SH51  | -              | ✓              | -                            | ✓              | -                            | -              |
|                              | SM-SH56  | ✓              | -              | ✓                            | -              | ✓                            | ✓              |
|                              | CL-MT001 | -              | -              | -                            | -              | -                            | -              |
| Reflector                    |          | SM-PD60        | Y41B98010      | SM-PD60                      | Integrated     | SM-PD62                      | SM-PD70B       |
| Pedal body                   | Material | Aluminum       | Aluminum       | Aluminum                     | Aluminum       | Aluminum                     | Resin          |
|                              | Finish   | Painted        | Painted        | Painted                      | Anodized       | Painted                      | -              |
| Cage                         | Material | Resin          | Steel          | -                            | -              | -                            | -              |
| Stack height (mm)            |          | -              | 18             | 16.7                         | 17.0           | 17.2                         | 16.4           |
| Pedal center (mm)            |          | -              | 55             | 55                           | 55             | 55                           | 61             |
| Average weight (g)           |          | 568 (/pair)    | 533 (/pair)    | 485 (/pair)                  | 433 (/pair)    | 279 (/pair)                  | 498 (/pair)    |
| Note                         |          |                |                | 1.0 mm cleat spacer included |                | 1.0 mm cleat spacer included |                |

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## Pedal (SPD)

| Series                       |          | SHIMANO        | SHIMANO             |
|------------------------------|----------|----------------|---------------------|
| Model no.                    |          | PD-EH500       | PD-ED500            |
| Color                        | 1        | Dark gray      | Dark gray           |
|                              | 2        | -              | -                   |
|                              | 3        | -              | -                   |
| Type                         |          | SPD/FlatPedal  | SPD                 |
| Binding                      |          | Single sided   | Dual sided          |
| Pedal axle material          |          | Chromoly steel | Chromoly steel      |
| Cartridge axle               |          | ✓              | ✓                   |
| Sealed mechanism             |          | ✓              | ✓                   |
| Cleat retention adjuster     |          | ✓              | ✓                   |
| Pop-up cage                  |          | -              | -                   |
| Integrated cage              |          | -              | ✓                   |
| Offset binding               |          | -              | -                   |
| Oval shape axle body housing |          | -              | -                   |
| Cleat included               | SM-SH51  | -              | -                   |
|                              | SM-SH56  | ✓              | ✓                   |
|                              | CL-MT001 | -              | -                   |
| Optional cleat               | SM-SH51  | ✓              | ✓                   |
|                              | SM-SH56  | -              | -                   |
|                              | CL-MT001 | -              | -                   |
| Reflector                    |          | SM-PD68        | SM-PD60             |
| Pedal body                   | Material | Aluminum       | Aluminum            |
|                              | Finish   | Painted        | Painted (Dark Gray) |
| Cage                         | Material | -              | -                   |
| Stack height (mm)            |          | 17.4           | 17.5                |
| Pedal center (mm)            |          | 55             | 55                  |
| Average weight (g)           |          | 379 (/pair)    | 443 (/pair)         |
| Note                         |          | Light action   | Light action        |

# Pedal (CLICK'R)

|                              |          |                |
|------------------------------|----------|----------------|
| Series                       |          | SHIMANO        |
| Model no.                    |          | PD-T421        |
| Color                        | 1        | Black          |
|                              | 2        | -              |
|                              | 3        | -              |
| Type                         |          | SPD            |
| Binding                      |          | Single sided   |
| Pedal axle material          |          | Chromoly steel |
| Cartridge axle               |          | ✓              |
| Sealed mechanism             |          | ✓              |
| Cleat retention adjuster     |          | ✓              |
| Pop-up cage                  |          | ✓              |
| Integrated cage              |          | -              |
| Offset binding               |          | -              |
| Oval shape axle body housing |          | -              |
| Cleat included               | SM-SH51  | -              |
|                              | SM-SH56  | ✓              |
|                              | CL-MT001 | -              |
| Optional cleat               | SM-SH51  | ✓              |
|                              | SM-SH56  | -              |
|                              | CL-MT001 | -              |
| Reflector                    |          | Integrated     |
| Pedal body                   | Material | Aluminum       |
|                              | Finish   | Painted        |
| Cage                         | Material | Resin          |
| Stack height (mm)            |          | 19.0           |
| Pedal center (mm)            |          | 55             |
| Average weight (g)           |          | 418 (/pair)    |
| Note                         |          |                |

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## Pedal (Flat Pedal)

| Series                       |          | SAINT                | DEORE XT  | SHIMANO             | SHIMANO             | SHIMANO        | SHIMANO        |
|------------------------------|----------|----------------------|---|---------------------|---------------------|----------------|----------------|
| Model no.                    |          | PD-M828              | PD-M8140  | PD-GR500            | PD-GR400            | PD-EF202       | PD-EF205       |
| Color                        | 1        | Black                | Black   | Black               | Black               | Black          | Black          |
|                              | 2        | -                    | -   | Silver              | Blue                | Silver         | Silver         |
|                              | 3        | -                    | -   | -                   | Red                 | Red            | Red            |
|                              | 4        | -                    | -   | -                   | Orange              | Blue           | Blue           |
|                              | 5        | -                    | -   | -                   | Purple              | Gold           | Gold           |
|                              | 6        | -                    | -   | -                   | Green               | -              | -              |
| Type                         |          | Flat Pedal           | Flat Pedal  | Flat Pedal          | Flat Pedal          | Flat Pedal     | Flat Pedal     |
| Pedal axle material          |          | Chromoly steel       | Chromoly steel  | Chromoly steel      | Chromoly steel      | Chromoly steel | Chromoly steel |
| Cartridge axle               |          | ✓                    | ✓   | ✓                   | -                   | -              | -              |
| Sealed mechanism             |          | ✓                    | ✓   | ✓                   | ✓                   | ✓              | ✓              |
| Cleat retention adjuster     |          | -                    | -   | -                   | -                   | -              | -              |
| Pop-up cage                  |          | -                    | -   | -                   | -                   | -              | -              |
| Integrated cage              |          | -                    | -   | -                   | -                   | -              | -              |
| Offset binding               |          | -                    | -   | -                   | -                   | -              | -              |
| Oval shape axle body housing |          | -                    | -   | -                   | -                   | -              | -              |
| Reflector                    |          | SM-PD64A             | SM-PD67   | SM-PD64A            | SM-PD70             | SM-PD69        | SM-PD69        |
| Pedal body                   | Material | Aluminum             | Aluminum  | Aluminum            | Resin               | Aluminum       | Aluminum       |
|                              | Finish   | Anodized             | Painted   | Painted             | -                   | Painted        | Painted        |
| Cage                         | Material | -                    | -   | -                   | -                   | -              | -              |
| Wide platform                |          | -                    | -   | -                   | -                   | -              | -              |
| Stack height (mm)            |          | 8.2                  | 9.1   | 9.4                 | 8                   | 10.8           | 10.8           |
| Average weight (g)           |          | 553 (/pair)          | 461 (/pair) (SM)<br>505 (/pair) (ML)                      | 533 (/pair)         | 395 (/pair)         | 512 (/pair)    | 612 (/pair)    |
| Note                         |          | 12 pins per platform | 10 pins per platform<br>2 platform size available (SM/ML) | 9 pins per platform | 9 pins per platform |                |                |

# Pedal (Flat Pedal)

|                              |          |                |
|------------------------------|----------|----------------|
| Series                       |          | SHIMANO        |
| Model no.                    |          | PD-EF102       |
| Color                        | 1        | Black          |
|                              | 2        | -              |
|                              | 3        | -              |
|                              | 4        | -              |
|                              | 5        | -              |
|                              | 6        | -              |
| Type                         |          | Flat Pedal     |
| Pedal axle material          |          | Chromoly steel |
| Cartridge axle               |          | -              |
| Sealed mechanism             |          | ✓              |
| Cleat retention adjuster     |          | -              |
| Pop-up cage                  |          | -              |
| Integrated cage              |          | -              |
| Offset binding               |          | -              |
| Oval shape axle body housing |          | -              |
| Reflector                    |          | Integrated     |
| Pedal body                   | Material | Resin          |
|                              | Finish   | -              |
| Cage                         | Material | -              |
| Wide platform                |          | -              |
| Stack height (mm)            |          | 9              |
| Average weight (g)           |          | 401 (/pair)    |
| Note                         |          |                |

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## Pedal (SPD-SL)

| Series                   |          | DURA-ACE  | ULTEGRA   | SHIMANO 105     | SHIMANO                    | SHIMANO         |
|--------------------------|----------|---|---|-----------------|----------------------------|-----------------|
| Model no.                |          | PD-R9100  | PD-R8000  | PD-R7000        | PD-R550                    | PD-RS500        |
| Color                    | 1        | Black   | Black   | Black           | Black                      | Black           |
|                          | 2        | -   | -   | -               | Gray                       | -               |
|                          | 3        | -   | -   | -               | -                          | -               |
| Type                     |          | SPD-SL  | SPD-SL  | SPD-SL          | SPD-SL                     | SPD-SL          |
| Binding                  |          | Single sided  | Single sided  | Single sided    | Single sided               | Single sided    |
| Pedal axle material      |          | Nickel chromoly steel   | Chromoly steel  | Chromoly steel  | Chromoly steel             | Chromoly steel  |
| Cartridge axle           |          | -   | ✓   | ✓               | ✓                          | ✓               |
| Sealed mechanism         |          | ✓   | ✓   | ✓               | ✓                          | ✓               |
| Cleat retention adjuster |          | ✓   | ✓   | ✓               | ✓                          | ✓               |
| Cleat included           | SM-SH11  | -   | ✓   | ✓               | ✓                          | ✓               |
|                          | SM-SH12  | ✓   | -   | -               | -                          | -               |
| Optional cleat           | SM-SH10  | ✓   | ✓   | ✓               | ✓                          | ✓               |
|                          | SM-SH11  | ✓   | -   | -               | -                          | -               |
|                          | SM-SH12  | -   | ✓   | ✓               | ✓                          | ✓               |
| Reflector                |          | SM-PD63   | SM-PD63   | SM-PD65         | SM-PD65                    | SM-PD65         |
| Pedal body               | Material | Carbon  | Carbon  | Carbon          | Resin                      | Resin           |
|                          | Finish   | -   | -   | -               | Painted                    | Painted         |
| Body cover material      |          | Special stainless   | Special stainless   | Stainless steel | Stainless steel            | Stainless steel |
| Wide platform            |          | ✓   | ✓   | ✓               | ✓                          | -               |
| Stack height (mm)        |          | 14.6  | 15.8  | 16.5            | 16.5                       | 16.5            |
| Pedal center (mm)        |          | 52  | 53  | 53              | 53                         | 53              |
| Road clearance (deg.)    |          | 35  | 33  | 31              | 32                         | 30              |
| Average weight (g)       |          | 237 (/pair)<br>(Standard axle type)<br>246 (/pair) (Longer axle type) | 249 (/pair)<br>(Standard axle type)<br>258 (/pair) (Longer axle type) | 265 (/pair)     | 310 (/pair)                | 320 (/pair)     |
| Note                     |          | 4 mm longer axle available, Hollow cleat screws                       | 4 mm longer axle available  | -               | Wider spring tension range | -               |

# E-BIKE

|                                  | Page |       |
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# Cycle Computer

| Series                               | SHIMANO                            | SHIMANO  | SHIMANO   | SHIMANO   | SHIMANO  | SHIMANO   |
|--------------------------------------|------------------------------------|--|---|---|--|---|
| Model no.                            | SC-EM800                           | SC-EN600   | SC-EN610  | SC-EN500  | SC-E8000   | SC-E7000  |
| Color                                | 1                                  | Black  | Black   | Black   | Black  | Black   |
|                                      | 2                                  | -  | -   | -   | -  | -   |
|                                      | 3                                  | -  | -   | -   | -  | -   |
| Battery management system            |                                    | First generation/<br>Second generation   | Second generation   | Second generation   | First generation   | First generation  |
| Mount position                       | Center on handlebar                | -  | -   | ✓   | -  | -   |
|                                      | Right on handlebar                 | ✓  | ✓   | -   | ✓  | ✓   |
|                                      | Others                             | -  | * ✓   | * ✓   | -  | -   |
| Master unit                          |                                    | -  | -   | -   | -  | -   |
| Wireless system                      |                                    | ANT private,<br>Bluetooth®LE   | -   | -   | ANT private,<br>Bluetooth®LE   | ANT private,<br>Bluetooth®LE  |
| Firmware update by E-TUBE PROJECT    |                                    | ✓  | ✓   | ✓   | ✓  | ✓   |
| SD50 port (pcs)                      |                                    | 0  | 0   | 0   | 4  | 4   |
| SD300 port (pcs)                     |                                    | 4  | 3   | 3   | 0  | 0   |
| SD50 connector (pcs)                 |                                    | 0  | 0   | 0   | 0  | 0   |
| SD300 connector (pcs)                |                                    | 0  | 0   | 0   | 0  | 0   |
| Back light                           |                                    | ✓  | ✓   | ✓   | ✓  | ✓   |
| LCD size (inch)                      |                                    | 1.6  | 1.6   | 2.8   | 1.4  | 1.39  |
| Beep                                 |                                    | ✓  | ✓   | ✓   | ✓  | ✓   |
| Display detachable                   |                                    | -  | -   | ✓   | -  | -   |
| Display fixation                     |                                    | ✓  | ✓   | ✓   | ✓  | ✓   |
| Display change button                |                                    | ✓  | -   | ✓   | ✓  | ✓   |
| Assist mode change (w/o switch unit) |                                    | ✓  | -   | ✓   | ✓  | ✓   |
| Reset button                         |                                    | -  | -   | -   | -  | -   |
| Inside battery                       |                                    | ✓  | -   | -   | ✓  | ✓   |
| System on/off button                 |                                    | -  | -   | ✓   | -  | -   |
| Light on/off button                  |                                    | -  | -   | ✓   | -  | -   |
| Assist up/down button                |                                    | -  | -   | ✓   | -  | -   |
| Auto start & auto stop               |                                    | -  | -   | -   | -  | -   |
| Contents of display                  | Clock                              | ✓  | ✓   | ✓   | ✓  | ✓   |
|                                      | Assist mode display                | ✓  | ✓   | ✓   | ✓  | ✓   |
|                                      | Assist on/off                      | ✓  | ✓   | ✓   | ✓  | ✓   |
|                                      | Walk mode display                  | ✓  | ✓   | ✓   | ✓  | ✓   |
|                                      | Battery charge level               | ✓  | ✓   | ✓   | ✓  | ✓   |
|                                      | Light condition                    | ✓  | ✓   | ✓   | ✓  | ✓   |
|                                      | Current speed                      | ✓  | ✓   | ✓   | ✓  | ✓   |
|                                      | Gear position display              | * ✓  | ✓   | ✓   | ✓  | ✓   |
|                                      | Start mode                         | -  | ✓   | -   | -  | ✓   |
|                                      | Automatic shift mode               | * ✓  | ✓   | ✓   | -  | ✓   |
|                                      | Maximum speed                      | ✓  | ✓   | ✓   | ** ✓   | ** ✓  |
|                                      | Average speed                      | ✓  | ✓   | -   | ** ✓   | ** ✓  |
|                                      | Trip distance                      | ✓  | ✓   | ✓   | ✓  | ✓   |
|                                      | Trip time                          | ✓  | ✓   | ✓   | ** ✓   | ** ✓  |
|                                      | Odometer                           | ✓  | ✓   | ✓   | ✓  | ✓   |
|                                      | Estimated range                    | ✓  | ✓   | ✓   | ✓  | ✓   |
|                                      | Range overview                     | ✓  | -   | -   | -  | -   |
|                                      | Assist power indicator             | ✓  | ✓   | -   | ✓  | -   |
|                                      | Error message                      | ✓  | ✓   | ✓   | ✓  | ✓   |
|                                      | Cadence (rpm)                      | ✓  | ✓   | ✓   | ✓  | ** ✓  |
|                                      | Human output power                 | -  | -   | -   | -  | -   |
|                                      | Calorie                            | -  | -   | -   | -  | -   |
|                                      | Shifting advice                    | -  | -   | -   | -  | -   |
|                                      | Maintenance alert                  | ✓  | ✓   | ✓   | *** ✓  | ✓   |
|                                      | Bluetooth®LE connection status     | ✓  | ✓   | ✓   | -  | ✓   |
|                                      | Assist profile                     | -  | -   | ✓   | -  | -   |
| Setting menu                         | Trip distance reset                | ✓  | ✓   | ✓   | ✓  | ✓   |
|                                      | Odometer reset                     | ✓  | -   | -   | -  | -   |
|                                      | Setting clear                      | ✓  | ✓   | ✓   | ✓  | -   |
|                                      | Clock adjustment                   | ✓  | ✓   | ✓   | ✓  | ✓   |
|                                      | Start mode                         | -  | ✓   | ✓   | -  | ✓   |
|                                      | Shifting advice                    | -  | ✓   | ✓   | *** -  | -   |
|                                      | Back light on/off                  | ✓  | ✓   | ✓   | *** -  | -   |
|                                      | Light on/off                       | ** ✓   | ✓   | ✓   | ✓  | ✓   |
|                                      | Back light brightness              | ✓  | ✓   | ✓   | ✓  | -   |
|                                      | Beep on/off                        | ✓  | -   | ✓   | ✓  | ✓   |
|                                      | Unit (km/mile)                     | ✓  | ✓   | ✓   | ** ✓   | ✓   |
|                                      | Font color                         | -  | -   | -   | -  | ✓   |
|                                      | Adjusting for shift                | * ✓  | ✓   | ✓   | *** -  | * ✓   |
|                                      | Adjusting for auto shift timing    | -  | -   | ✓   | *** -  | * ✓   |
|                                      | RD protection reset                | * ✓  | -   | -   | -  | * ✓   |
|                                      | Bluetooth®LE pairing               | ✓  | ✓   | ✓   | ✓  | ✓   |
|                                      | Bluetooth®LE/ANT connection status | -  | -   | -   | ✓  | -   |
|                                      | Assist customize                   | ✓  | -   | -   | -  | -   |
|                                      | Assist profile select              | ✓  | ✓   | ✓   | -  | ✓   |
| Language                             | English                            | ✓  | ✓   | ✓   | ✓  | ✓   |
|                                      | German                             | ✓  | ✓   | ✓   | ✓  | ✓   |
|                                      | Dutch                              | ✓  | ✓   | ✓   | ✓  | ✓   |
|                                      | French                             | ✓  | ✓   | ✓   | ✓  | ✓   |
|                                      | Spanish                            | ✓  | ✓   | ✓   | ✓  | ✓   |
|                                      | Italian                            | ✓  | ✓   | ✓   | ✓  | ✓   |
| Average weight (g)                   |                                    | 39   | 24 (w/o clamp band)<br>36 (w/ ø31.8 clamp band)<br>37 (w/ ø35.0 clamp band)   | 97  | 40   | 41  |
| Note                                 |                                    | 2 spec of clamp band diameter 31.8 and 35.0 mm.<br>* In case of Di2<br>** In combination with assist mode switch | 2 spec of clamp band diameter 31.8 and 35.0 mm.<br>* integrate specification<br>Display contents are customized by E-TUBE PROJECT | Handle bar diameter: 25.4, 31.8 and 35.0 mm(3spec)<br>Display contents are customized by E-TUBE PROJECT | * Left on handlebar (normal specification and I-SPEC EV specification)<br>** Setting by E-TUBE PROJECT<br>*** Drive unit setting by E-TUBE PROJECT | 2 Spec of clamp band diameter: 31.8 and ø35.0<br>* In case of SEIS<br>** Option by E-TUBE PROJECT<br>** In case of SEIS PROJECT |

# Cycle Computer

E-BIKE

| Series                               | SHIMANO  | SHIMANO  | SHIMANO  | SHIMANO                                   |
|--------------------------------------|--|--|--|---|
| Model no.                            | SC-E6100   | SC-E5000   | SC-E5003   | EW-EN100                                  |
| Color                                | 1  | Black  | Black  | Black                                     |
|                                      | 2  | -  | -  | -   |
|                                      | 3  | -  | -  | -   |
| Battery management system            | First generation                                 | First generation   | First generation   | First generation                          |
| Mount position                       | Center on handlebar                              | ✓  | -  | -   |
|                                      | Right on handlebar                               | -  | -  | -   |
|                                      | Others   | -  | *✓   | ✓   |
| Master unit                          | -  | -  | -  | -   |
| Wireless system                      | ANT private, Bluetooth®LE                        | -  | -  | ANT private, Bluetooth®LE                 |
| Firmware update by E-TUBE PROJECT    | ✓  | ✓  | ✓  | ✓   |
| SD50 port (pcs)                      | 3  | 1  | 0  | 2   |
| SD300 port (pcs)                     | 0  | 0  | 1  | 0   |
| SD50 connector (pcs)                 | 0  | 0  | 0  | 0   |
| SD300 connector (pcs)                | 0  | 0  | 0  | 0   |
| Back light                           | ✓  | ✓  | ✓  | -   |
| LCD size (inch)                      | 2.7  | 1.4  | 1.4  | -   |
| Beep                                 | ✓  | -  | -  | -   |
| Display detachable                   | ✓  | -  | -  | -   |
| Display fixation                     | -  | ✓  | ✓  | -   |
| Display change button                | ✓  | ✓  | ✓  | -   |
| Assist mode change (w/o switch unit) | ✓  | ✓  | ✓  | ✓   |
| Reset button                         | -  | -  | -  | -   |
| Inside battery                       | ✓  | -  | -  | -   |
| System on/off button                 | ✓  | -  | -  | -   |
| Light on/off button                  | -  | ✓  | -  | ✓   |
| Assist up/down button                | -  | ✓  | ✓  | -   |
| Auto start & auto stop               | -  | -  | ✓  | -   |
| Contents of display                  | Clock  | ✓  | -  | -   |
|                                      | Assist mode display                              | ✓  | ✓  | ✓   |
|                                      | Assist on/off                                    | ✓  | -  | -   |
|                                      | Walk mode display                                | ✓  | ✓  | ✓   |
|                                      | Battery charge level                             | ✓  | ✓  | ✓   |
|                                      | Light condition                                  | ✓  | -  | -   |
|                                      | Current speed                                    | ✓  | ✓  | -   |
|                                      | Gear position                                    | ✓  | ✓  | -   |
|                                      | display  | ✓  | ✓  | -   |
|                                      | Start mode                                       | ✓  | -  | -   |
|                                      | Automatic shift mode                             | ✓  | ✓  | -   |
|                                      | Maximum speed                                    | **✓  | -  | -   |
|                                      | Average speed                                    | **✓  | -  | -   |
|                                      | Trip distance                                    | ✓  | ✓  | -   |
|                                      | Trip time  | **✓  | -  | -   |
|                                      | Odometer   | ✓  | ✓  | -   |
|                                      | Estimated range                                  | ✓  | ✓  | -   |
|                                      | Range overview                                   | ✓  | -  | -   |
|                                      | Assist power indicator                           | ✓  | -  | -   |
|                                      | Error message                                    | ✓  | ✓  | ✓   |
|                                      | Cadence (rpm)                                    | **✓  | -  | -   |
|                                      | Human output power                               | -  | -  | -   |
|                                      | Calorie  | -  | -  | -   |
|                                      | Shifting advice                                  | ✓  | -  | -   |
|                                      | Maintenance alert                                | ✓  | ***✓   | ***✓                                      |
|                                      | Bluetooth®LE connection status                   | ✓  | -  | -   |
|                                      | Assist profile                                   | -  | -  | -   |
|                                      | Trip distance reset                              | ✓  | ✓  | -   |
|                                      | Odometer reset                                   | ✓  | -  | -   |
|                                      | Setting clear                                    | ✓  | -  | -   |
|                                      | Clock adjustment                                 | ✓  | -  | -   |
| Setting menu                         | Start mode                                       | ✓  | ***-   | ***-                                      |
|                                      | Shifting advice                                  | ✓  | ***-   | ***-                                      |
|                                      | Back light on/off                                | ✓  | ***-   | ***-                                      |
|                                      | Light on/off                                     | ✓  | ***-   | ***-                                      |
|                                      | Back light brightness                            | ✓  | -  | -   |
|                                      | Beep on/off                                      | ✓  | -  | -   |
|                                      | Unit (km/mile)                                   | ✓  | **✓  | **✓                                       |
|                                      | Font color                                       | ✓  | -  | -   |
|                                      | Adjusting for shift                              | *✓   | ***-   | ***-                                      |
|                                      | Adjusting for auto shift timing                  | *✓   | ***-   | ***-                                      |
|                                      | RD protection reset                              | *✓   | -  | -   |
|                                      | Bluetooth®LE pairing                             | ✓  | -  | ✓   |
|                                      | Bluetooth®LE/ANT connection status               | -  | -  | -   |
|                                      | Assist customize                                 | ✓  | -  | -   |
|                                      | Assist profile select                            | ✓  | -  | -   |
| Language                             | English  | ✓  | ✓  | -   |
|                                      | German   | ✓  | -  | -   |
|                                      | Dutch  | ✓  | -  | -   |
|                                      | French   | ✓  | -  | -   |
|                                      | Spanish  | ✓  | -  | -   |
|                                      | Italian  | ✓  | -  | -   |
| Average weight (g)                   | 110  | 40   | 39   | 6   |
| Note                                 | * In case of SEIS<br>** Option by E-TUBE PROJECT | * Left on handlebar (normal specification and I-SPEC EV specification)<br>** Setting by E-TUBE PROJECT<br>*** Drive unit setting by E-TUBE PROJECT | * Left on handlebar (normal specification and I-SPEC EV specification)<br>** Setting by E-TUBE PROJECT<br>*** Drive unit setting by E-TUBE PROJECT | * Set by switch operation in case of SEIS |

SC

SW

DU

SMDU

SMDU

RT

FC

SMCR

SMCD

BT

BM

EWSW

EWCP

EC

SMBTE

SMDU

EWCA

BSAU

BSAS

BSAP

BSSS

SMPCE

BSEW

# Switch Unit

| Series   |                                      |  | SHIMANO                                | SHIMANO           | SHIMANO                          | SHIMANO          | SHIMANO          | SHIMANO   |
|--|--------------------------------------|--|--|-------------------|----------------------------------|------------------|------------------|---|
| Model no.  |                                      |  | SW-EM800-L                             | SW-EN600-L        | SW-EN600-R                       | SW-E8000-L       | SW-E7000-L       | SW-E7000-R  |
| Switch type  |                                      |  | -                                      | -                 | -                                | FIREBOLT         | -                | -   |
| Color  | 1                                    |  | Black                                  | Black             | Black                            | Black            | Black            | Black   |
|  | 2                                    |  | -                                      | -                 | -                                | -                | -                | -   |
|  | 3                                    |  | -                                      | -                 | -                                | -                | -                | -   |
| Battery management system  |                                      |  | First generation/<br>Second generation | Second generation | Second generation                | First generation | First generation | First generation  |
| Usage  |                                      |  | For assist                             | For assist        | For SEIS shift                   | For assist       | For assist       | For SEIS shift  |
| Right SW   |                                      |  | -                                      | -                 | ✓                                | -                | -                | ✓   |
| Left SW  |                                      |  | ✓                                      | ✓                 | -                                | ✓                | ✓                | -   |
| Button numbers (pcs)   |                                      |  | 2                                      | 5                 | 3                                | 2                | 2                | 2   |
| Master unit  |                                      |  | -                                      | -                 | -                                | -                | -                | -   |
| Firmware update by E-TUBE PROJECT  |                                      |  | ✓                                      | ✓                 | ✓                                | ✓                | ✓                | ✓   |
| SD50 port (pcs)  |                                      |  | 0                                      | 0                 | 0                                | 1                | 0                | 0   |
| SD300 port (pcs)   |                                      |  | 1                                      | 1                 | 1                                | 0                | 0                | 0   |
| SD50 connector (pcs)   |                                      |  | 0                                      | 0                 | 0                                | 0                | 1                | 1   |
| SD300 connector (pcs)  |                                      |  | 0                                      | 0                 | 0                                | 0                | 0                | 0   |
| System On-Off  |                                      |  | -                                      | ✓                 | -                                | -                | -                | -   |
| Assist mode change   |                                      |  | ✓                                      | ✓                 | -                                | ✓                | ✓                | -   |
| Display change   |                                      |  | -                                      | ✓                 | -                                | -                | -                | -   |
| Automatic/manual change  |                                      |  | -                                      | -                 | ✓                                | -                | -                | ✓   |
| Light On-Off   |                                      |  | -                                      | ✓                 | -                                | -                | -                | -   |
| Multiple input   | 2 step                               |  | -                                      | -                 | -                                | -                | -                | -   |
|  | Hold                                 |  | * ✓                                    | -                 | ** ✓                             | ✓                | ✓                | ✓   |
| LED  | Battery level                        |  | -                                      | ✓                 | -                                | -                | -                | -   |
|  | Assist status                        |  | -                                      | ✓                 | -                                | -                | -                | -   |
| Wireless function  | Bluetooth<br>h® LE<br>custom<br>(*1) | Dj2 data<br>items                              | -                                      | ✓                 | -                                | -                | -                | -   |
|  |                                      | SHIMANO<br>E-BIKE<br>SYSTEM<br>S data<br>items | -                                      | ✓                 | -                                | -                | -                | -   |
|  | ANT<br>private<br>(*2)               | Dj2 data<br>items                              | -                                      | ✓                 | -                                | -                | -                | -   |
|  |                                      | SHIMANO<br>E-BIKE<br>SYSTEM<br>S data<br>items | -                                      | ✓                 | -                                | -                | -                | -   |
| Average weight (g)   |                                      |  | 24.5                                   | 24                | 22                               | 93.2             | ** 23.9          | ** 23.9   |
| Note *1 Compatible with a Bluetooth LE cycle computer and smartphone/tablet but not freely open profile. *2 Compatible with ANT+ cycle computer but not freely open profile. |                                      |  | * Set by E-TUBE PROJECT                |                   | ** Available for rear derailleur |                  |                  | * Available for rear derailleur<br>** Cable length 700 mm spec.<br>Cable length: 400 mm, 300 mm, 700 mm |

# Switch Unit

| Series   |                           |                                    | SHIMANO           | SHIMANO                          | SHIMANO                    |
|--|---------------------------|------------------------------------|-------------------|----------------------------------|----------------------------|
| Model no.  |                           |                                    | SW-E6010-L        | SW-E6010-R                       | SW-E6000                   |
| Switch type  |                           |                                    | -                 | -                                | -                          |
| Color  | 1                         |                                    | Black             | Black                            | Black                      |
|  | 2                         |                                    | -                 | -                                | -                          |
|  | 3                         |                                    | -                 | -                                | -                          |
| Battery management system  |                           |                                    | First generation  | First generation                 | First generation           |
| Usage  |                           |                                    | For assist        | For SEIS shift                   | * For assist or SEIS shift |
| Right SW   |                           |                                    | -                 | ✓                                | ✓                          |
| Left SW  |                           |                                    | ✓                 | -                                | ✓                          |
| Button numbers (pcs)   |                           |                                    | 3                 | 3                                | 3                          |
| Master unit  |                           |                                    | -                 | -                                | -                          |
| Firmware update by E-TUBE PROJECT  |                           |                                    | ✓                 | ✓                                | ✓                          |
| SD50 port (pcs)  |                           |                                    | 0                 | 0                                | 0                          |
| SD300 port (pcs)   |                           |                                    | 0                 | 0                                | 0                          |
| SD50 connector (pcs)   |                           |                                    | 1                 | 1                                | 1                          |
| SD300 connector (pcs)  |                           |                                    | 0                 | 0                                | 0                          |
| System On-Off  |                           |                                    | -                 | -                                | -                          |
| Assist mode change   |                           |                                    | ✓                 | -                                | ✓                          |
| Display change   |                           |                                    | ✓                 | ✓                                | * ✓                        |
| Automatic/manual change  |                           |                                    | ✓                 | ✓                                | * ✓                        |
| Light On-Off   |                           |                                    | *-                | -                                | * ✓                        |
| Multiple input   | 2 step                    |                                    | -                 | -                                | -                          |
|  | Hold                      |                                    | -                 | ** ✓                             | -                          |
| LED  | Battery level             |                                    | -                 | -                                | -                          |
|  | Assist status             |                                    | -                 | -                                | -                          |
| Wireless function  | Bluetooth® LE custom (*1) | Di2 data items                     | -                 | -                                | -                          |
|  |                           | SHIMANO E-BIKE SYSTEM S data items | -                 | -                                | -                          |
|  | ANT private (*2)          | Di2 data items                     | -                 | -                                | -                          |
|  |                           | SHIMANO E-BIKE SYSTEM S data items | -                 | -                                | -                          |
| Average weight (g)   |                           |                                    | 31.3              | 31.3                             | 25.5                       |
| Note *1 Compatible with a Bluetooth LE cycle computer and smartphone/tablet but not freely open profile. *2 Compatible with ANT+ cycle computer but not freely open profile. |                           |                                    | * By Setting Menu | ** Available for rear derailleur | * Set by E-TUBE PROJECT    |



# Drive Unit

| Series  | EP8  | EP8  | EP8  | EP8  | EP6  | EP6  |
|---|--|--|--|--|--|--|
| Model no.   | DU-EP801   | DU-EP801-CRG   | DU-EP800   | DU-EP800-CRG   | DU-EP600   | DU-EP600-CRG   |
| Color   | Black  | Black  | Black  | Black  | Black  | Black  |
| 1   |  |  |  |  |  |  |
| 2   |  |  |  |  |  |  |
| 3   |  |  |  |  |  |  |
| UL2849  | ✓  | ✓  | -  | -  | ✓  | ✓  |
| Battery management system                             | Second generation  | Second generation  | First generation   | First generation   | Second generation  | Second generation  |
| Compatible brake type                                 | Disc brake   | Disc brake   | Disc brake   | Disc brake   | Disc brake   | Disc brake   |
| Motor type  | Brushless motor  | Brushless motor  | Brushless motor  | Brushless motor  | Brushless motor  | Brushless motor  |
| Position  | Midship  | Midship  | Midship  | Midship  | Midship  | Midship  |
| Compatible wheel size (mm)                            | *1300-3000   | *1300-3000   | **1300-3000  | **1300-3000  | *1300-3000   | *1300-3000   |
| Continuous rated power (Watt)                         | 250  | 250  | 250  | 250  | 250  | 250  |
| Maximum torque (Nm)                                   | 85   | 85   | 85   | 85   | 85   | 85   |
| Maximum assist support (%)                            | 400  | 400  | 400  | 400  | 400  | 400  |
| Rated voltage   | 36 V DC  | 36 V DC  | 36 V DC  | 36 V DC  | 36 V DC  | 36 V DC  |
| Di2 compatible  | Internal geared hub  | ✓  | ✓  | ✓  | ✓  | ✓  |
|   | Rear derailleur  | ✓  | ✓  | ✓  | ✓  | ✓  |
|   | 24 km/h  | -  | -  | -  | -  | -  |
|   | 25 km/h  | *✓   | *✓   | **✓  | *✓   | *✓   |
|   | 20 mph   | *✓   | *✓   | **✓  | *✓   | *✓   |
|   | 28 mph   | *****✓   | *****✓   | -  | *****✓   | *****✓   |
|   | Other  | -  | -  | -  | -  | -  |
|   | Adjustment   | -  | -  | *✓   | -  | -  |
|   | Dynamic  | -  | -  | -  | -  | -  |
|   | Explorer   | -  | -  | -  | -  | -  |
|   | Customize  | -  | -  | -  | -  | -  |
|   | Sportive/Light off-road  | -  | -  | -  | -  | -  |
|   | Comfort  | -  | -  | -  | -  | -  |
|   | Basic mode   | ✓  | ✓  | ✓  | ✓  | ✓  |
|   | Finetune mode  | ✓  | ✓  | ✓  | ✓  | ✓  |
| Assist customize                                      | Number of profile  | 2  | 2  | 2  | 2  | 2  |
|   | BOOST  | ✓  | ✓  | ✓  | ✓  | ✓  |
|   | HIGH   | ✓  | ✓  | -  | ✓  | ✓  |
|   | TRAIL  | ✓  | ✓  | ✓  | ✓  | ✓  |
|   | NORMAL   | ✓  | ✓  | ✓  | ✓  | ✓  |
|   | ECO  | ✓  | ✓  | ✓  | ✓  | ✓  |
| Power supply for front light                          | DC 13.5V   | DC 13.5V   | DC 13.5V   | DC 13.5V   | DC 13.5V   | DC 13.5V   |
| Power supply for rear light                           | DC 13.5V   | DC 13.5V   | DC 13.5V   | DC 13.5V   | DC 13.5V   | DC 13.5V   |
| Maximum current supply front and rear light total (A) | 2.0  | 2.0  | 2.0  | 2.0  | 2.0  | 2.0  |
| Power supply and maximum current for ACC              | DC 13.5 V / 2.0 A  | DC 13.5 V / 2.0 A  | -  | -  | DC 13.5 V / 2.0 A  | DC 13.5 V / 2.0 A  |
| Power supply and maximum current for CAN port         | DC 13.5V / 2.0 A   | DC 13.5V / 2.0 A   | -  | -  | DC 13.5V / 2.0 A   | DC 13.5V / 2.0 A   |
| Safe way home function                                | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
| Communication   | E-TUBE   | E-TUBE   | E-TUBE   | E-TUBE   | E-TUBE   | E-TUBE   |
| Master unit   | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
| Firmware update by E-TUBE PROJECT                     | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
| SD50 port (pcs)                                       | 0  | 0  | 0  | 0  | 0  | 0  |
| SD300 port (pcs)                                      | 3  | 3  | 2  | 2  | 3  | 3  |
| SD50 connector (pcs)                                  | 0  | 0  | 0  | 0  | 0  | 0  |
| SD300 connector (pcs)                                 | 0  | 0  | 0  | 0  | 0  | 0  |
| Terminal for light (pcs)                              | 1  | 1  | 1  | 1  | 1  | 1  |
| Port for electric devices (pcs)                       | ***2   | ***2   | 0  | 0  | ***2   | ***2   |
| Port for Speed  | SD50 type  | 0  | 0  | 0  | 0  | 0  |
| Sensor (pcs)  | SD300 type   | 1  | 1  | 1  | 1  | 1  |
| Chain case compatible                                 | ✓  | ✓  | -  | -  | ✓  | ✓  |
| Chain device compatible                               | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
| Torque sensor   | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
| Crank arm position sensor                             | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
| Bike speed sensor                                     | ***✓   | ***✓   | ***✓   | ***✓   | ***✓   | ***✓   |
| Cadence sensor  | ✓  | ✓  | ✓  | ✓  | ✓  | ✓  |
|   | On/Off   | *✓   | *✓   | **✓  | *✓   | *✓   |
|   | Standard   | -  | -  | -  | -  | -  |
|   | Intelligent  | ***✓   | ***✓   | *✓   | ***✓   | ***✓   |
|   | Quick  | ✓  | ✓  | ✓  | ✓  | ✓  |
|   | Internal geared hub  | -  | -  | -  | -  | -  |
|   | 11-speed   | -  | -  | -  | -  | -  |
|   | Internal geared hub  | ***✓   | ✓  | *✓   | ***✓   | ✓  |
|   | 8-speed  | -  | -  | -  | -  | -  |
|   | Internal geared hub  | -  | -  | -  | -  | -  |
|   | 7-speed  | -  | -  | -  | -  | -  |
|   | Internal geared hub  | ***✓   | ✓  | *✓   | ***✓   | ✓  |
|   | 5-speed (INTER-5E)   | ***✓   | ✓  | -  | ***✓   | ✓  |
|   | Rear derailleur  | ✓  | ✓  | -  | ✓  | ✓  |
| SYMPHOMATIC   | Internal geared hub  | ✓  | ✓  | *✓   | ✓  | ✓  |
|   | Rear derailleur  | ✓  | ✓  | -  | ✓  | ✓  |
| FREE SHIFT  | ✓  | ✓  | -  | -  | ✓  | ✓  |
| Electronic shift by drive unit control                | ✓  | ✓  | -  | -  | ✓  | ✓  |
| Compatible spindle type                               | 24mm narrow  | 24mm narrow  | 24mm narrow  | 24mm narrow  | 24mm narrow  | 24mm narrow  |
| Drive unit fixing screw (pcs)                         | 6  | 6  | 6  | 6  | 6  | 6  |
| Average weight (kg)                                   | 2.7  | 2.7  | 2.7  | 2.7  | 3.0  | 3.0  |
| Note  | *Set by E-TUBE PROJECT<br>**Can be selected by E-TUBE PROJECT Factory.<br>Boost/Trail/Eco or High/Normal/Eco<br>***CAN translation:1 AUX:1<br>****In combination with EW-SS300/SS301/SS302<br>*****In case of Di2<br>*****US Class 3 (comply with California) only | For CARGO bike<br>*Set by E-TUBE PROJECT<br>**Can be selected by E-TUBE PROJECT Factory.<br>Boost/Trail/Eco or High/Normal/Eco<br>***CAN translation:1 AUX:1<br>****In combination with EW-SS300/SS301/SS302<br>*****In case of Di2<br>*****US Class 3 (comply with California) only | * In case of Di2<br>** Set by E-TUBE PROJECT<br>*** By using EW-SS300 EW-SS301 | * In case of Di2<br>** Set by E-TUBE PROJECT<br>*** By using EW-SS300 EW-SS301 | *Set by E-TUBE PROJECT<br>**Can be selected by E-TUBE PROJECT Factory.<br>Boost/Trail/Eco or High/Normal/Eco<br>***CAN translation:1 AUX:1<br>****In combination with EW-SS300/SS301/SS302<br>*****In case of Di2<br>*****US Class 3 (comply with California) only | For CARGO bike<br>*Set by E-TUBE PROJECT<br>**Can be selected by E-TUBE PROJECT Factory.<br>Boost/Trail/Eco or High/Normal/Eco<br>***CAN translation:1 AUX:1<br>****In combination with EW-SS300/SS301/SS302<br>*****In case of Di2<br>*****US Class 3 (comply with California) only |

# Drive Unit

E-BIKE

| Series  | EP5  | SHIMANO  | SHIMANO   | SHIMANO  | SHIMANO  | SHIMANO  |
|---|--|--|---|--|--|--|
| Model no.   | DU-EP500   | DU-E8000   | DU-E8080  | DU-E7000   | DU-E6100   | DU-E6100-CRG   |
| Color   | 1<br>2<br>3  | Black  | Black   | Black  | Black  | Black  |
| UL2849  | -  | -  | -   | -  | -  | -  |
| Battery management system                             | Second generation  | First generation   | First generation                                | First generation   | First generation   | First generation   |
| Compatible brake type                                 | V-BRAKE, Roller brake, Disc brake, Coaster brake   | Disc brake/V-BRAKE   | Disc brake                                      | Disc brake/V-BRAKE   | V-BRAKE, Roller brake, Disc brake  | Disc brake   |
| Motor type  | Brushless motor  | Brushless motor  | Brushless motor                                 | Brushless motor  | Brushless motor  | Brushless motor  |
| Position  | Midship  | Midship  | Midship   | Midship  | Midship  | Midship  |
| Compatible wheel size (mm)                            | 1300-3000  | *1300-3000   | *1300-3000                                      | *1300-3000   | *1300-3000   | **1300-3000  |
| Continuous rated power (Watt)                         | 250  | 250  | 250   | 250  | 250  | 250  |
| Maximum torque (Nm)                                   | 60   | 70   | 70  | 60   | 60   | 60   |
| Maximum assist support (%)                            | 400  | -  | -   | -  | -  | -  |
| Rated voltage   | 36 V DC  | 36 V DC  | 36 V DC   | 36 V DC  | 36 V DC  | 36 V DC  |
| Di2 compatible  | Internal geared hub<br>Rear derailleur   | ✓<br>*✓  | ✓<br>*✓   | ✓<br>*✓  | ✓<br>*✓  | ✓<br>*✓  |
| Maximum support bike speed                            | 24 km/h<br>25 km/h<br>20 mph<br>28 mph<br>Other  | ✓<br>*✓<br>*✓<br>*****✓<br>-   | ✓<br>*✓<br>*✓<br>-<br>-                         | ✓<br>*✓<br>*✓<br>-<br>-  | ✓<br>*✓<br>*✓<br>-<br>-  | ✓<br>*✓<br>*✓<br>-<br>-  |
| Riding characteristics                                | Adjustment<br>Dynamic<br>Explorer<br>Customize<br>Sportive/Light off-road<br>Comfort<br>Basic mode<br>Finetune mode  | -<br>-<br>*✓<br>*✓<br>*✓<br>-<br>-<br>✓  | -<br>-<br>*✓<br>*✓<br>*✓<br>-<br>-<br>✓         | -<br>-<br>*✓<br>*✓<br>*✓<br>-<br>-<br>✓  | -<br>-<br>*✓<br>*✓<br>*✓<br>-<br>-<br>✓  | -<br>-<br>*✓<br>*✓<br>*✓<br>-<br>-<br>✓                                      |
| Assist customize                                      | Number of profile  | 2  | 1   | 1  | 1  | 1  |
| Assist mode   | BOOST<br>HIGH<br>TRAIL<br>NORMAL<br>ECO  | ✓<br>✓<br>✓<br>✓<br>✓  | ✓<br>✓<br>✓<br>✓<br>✓                           | ✓<br>✓<br>✓<br>✓<br>✓  | ✓<br>✓<br>✓<br>✓<br>✓  | ✓<br>✓<br>✓<br>✓<br>✓  |
| Power supply for front light                          | DC 13.5V   | 6 V DC   | 6 V DC  | DC 13.5V   | DC 13.5V   | DC 13.5V   |
| Power supply for rear light                           | DC 13.5V   | 6 V DC   | 6 V DC  | DC 13.5V   | DC 13.5V   | DC 13.5V   |
| Maximum current supply front and rear light total (A) | 2.0  | 2.0  | 2.0   | 2.0  | 2.0  | 2.0  |
| Power supply and maximum current for ACC              | -  | -  | -   | -  | -  | -  |
| Power supply and maximum current for CAN port         | -  | -  | -   | -  | -  | -  |
| Safe way home function                                | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Communication   | E-TUBE   | E-TUBE   | E-TUBE  | E-TUBE   | E-TUBE   | E-TUBE   |
| Firmware update by E-TUBE PROJECT                     | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| SD50 port (pcs)                                       | 0  | 2  | 2   | 2  | 2  | 2  |
| SD300 port (pcs)                                      | 2  | 0  | 0   | 0  | 0  | 0  |
| SD50 connector (pcs)                                  | 0  | 0  | 0   | 0  | 0  | 0  |
| SD300 connector (pcs)                                 | 0  | 0  | 0   | 0  | 0  | 0  |
| Terminal for light (pcs)                              | 1  | 1  | 1   | 1  | 1  | 1  |
| Port for electric devices (pcs)                       | 0  | 0  | 0   | 0  | 0  | 0  |
| Port for Speed Sensor (pcs)                           | 1  | 1  | 1   | 1  | 1  | 1  |
| SD300 type  | 1  | 0  | 0   | 0  | 0  | 0  |
| Chain case compatible                                 | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Chain device compatible                               | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Torque sensor   | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Crank arm position sensor                             | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Bike speed sensor                                     | ****✓  | **✓  | **✓   | **✓  | **✓  | ***✓   |
| Cadence sensor  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Walk assist function                                  | On/Off<br>Standard<br>Intelligent<br>Quick   | *✓<br>-<br>***✓<br>✓   | ✓<br>-<br>***✓<br>✓                             | *✓<br>-<br>**✓<br>✓  | *✓<br>-<br>***✓<br>✓   | *✓<br>-<br>*✓<br>✓   |
| Automatic shift                                       | Internal geared hub 11-speed<br>Internal geared hub 8-speed<br>Internal geared hub 7-speed<br>Internal geared hub 5-speed (INTER-SE)<br>Rear derailleur                              | -<br>*****✓<br>-<br>*****✓<br>*****✓   | -<br>-<br>-<br>-<br>-                           | -<br>-<br>-<br>-<br>-  | -<br>✓<br>-<br>✓<br>-  | -<br>✓<br>-<br>✓<br>-  |
| SYMPHOMATIC   | Internal geared hub<br>Rear derailleur   | ✓<br>✓   | -<br>-  | -<br>-   | ✓<br>-   | ✓<br>-   |
| FREE SHIFT  | ✓  | -  | -   | -  | -  | -  |
| Electronic shift by drive unit control                | 24mm narrow  | 24mm   | 24mm  | 24mm   | 24mm   | 24mm   |
| Compatible spindle type                               | 6  | -  | -   | -  | -  | -  |
| Drive unit fixing screw (pcs)                         | 3.0  | -  | -   | -  | -  | -  |
| Average weight (kg)                                   | -  | 2.9  | 2.9   | 2.8  | 2.8  | 2.8  |
| Note  | * Set by E-TUBE PROJECT<br>** Can be selected by E-TUBE PROJECT<br>*** In combination with EWSS300/SS301/SS302<br>**** In case of Di2<br>***** US Class3(comply with California)only | * Set by E-TUBE PROJECT<br>** By using SM-DUE10/SM-DUE11<br>*** By using RD-M9050/RD-M8050 | * Set by E-TUBE PROJECT<br>** By using SM-DUE11 | * Set by E-TUBE PROJECT<br>** By using SM-DUE10/SM-DUE11<br>*** By using RD-M9050/RD-M8050 | * Set by E-TUBE PROJECT<br>** By using SM-DUE10/SM-DUE11<br>*** Only in combination with Di2 | * In case of Di2<br>**Set by E-TUBE PROJECT<br>***By using SM-DUE10/SM-DUE11 |

SC

SW

DU

SMDU

SMDU

RT

FC

SMCR

SMCD

BT

BM

EWSW

EWCP

EC

SMBTE

SMDU

EWCA

BSAU

BSAS

BSAP

BSSS

SMPCE

BSEW

## ***Drive Unit***

| Series  |  | SHIMANO  | SHIMANO  | SHIMANO   | SHIMANO  | SHIMANO  | SHIMANO  |
|---|--|--|--|---|--|--|--|
| Model no.   |  | DU-E6110   | DU-E6180   | DU-E5100  | DU-E5000   | DU-E5080   | DU-E5080-H   |
| Color   | 1                                      | Black  | Black  | Black   | Black  | Black  | Black  |
|   | 2                                      | -  | -  | -   | -  | -  | -  |
|   | 3                                      | -  | -  | -   | -  | -  | -  |
| UL2849  |  |  |  |   |  |  |  |
| Battery management system                             |  | First generation   | First generation   | First generation  | First generation   | First generation   | First generation   |
| Compatible brake type                                 |  | Coaster brake  | V-BRAKE, Roller brake, Disc brake                        | V-BRAKE, Roller brake, Disc brake, Coaster brake  | V-BRAKE, Roller brake, Disc brake, Coaster brake   | V-BRAKE, Roller brake, Disc brake, Coaster brake         | V-BRAKE, Roller brake, Disc brake, Coaster brake         |
| Motor type  |  | Brushless motor  | Brushless motor  | Brushless motor   | Brushless motor  | Brushless motor  | Brushless motor  |
| Position  |  | Midship  | Midship  | Midship   | Midship  | Midship  | Midship  |
| Compatible wheel size (mm)                            |  | *1300-3000   | *1300-3000   | 1300-3000   | *1300-3000   | *1300-3000   | *1300-3000   |
| Continuous rated power (Watt)                         |  | 250  | 250  | 250   | 250  | 250  | 250  |
| Maximum torque (Nm)                                   |  | 60   | 60   | 50  | 40   | 40   | 40   |
| Maximum assist support(%)                             |  |  |  | 300   |  |  |  |
| Rated voltage   |  | 36 V DC  | 36 V DC  | 36 V DC   | 36 V DC  | 36 V DC  | 36 V DC  |
| Di2 compatible  | Internal geared hub                    | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
|   | Rear derailleur                        | -  | ✓  | ✓   | ✓  | ✓  | ✓  |
|   | 24 km/h                                | -  | ✓  | -   | -  | ✓  | ✓  |
| Maximum support bike speed                            | 25 km/h                                | *✓   | -  | ✓   | *✓   | -  | -  |
|   | 20 mph                                 | *✓   | -  | ✓   | *✓   | -  | -  |
|   | 28 mph                                 | -  | -  | -   | -  | -  | -  |
| Riding characteristics                                | Other                                  | -  | -  | -   | -  | -  | -  |
|   | Adjustment                             | *✓   | *✓   | -   | *✓   | *✓   | *✓   |
|   | Dynamic                                | -  | -  | -   | -  | -  | -  |
|   | Explorer                               | -  | -  | -   | -  | -  | -  |
|   | Customize                              | -  | -  | -   | -  | -  | -  |
|   | Sportive/Light off-road                | *✓   | *✓   | ✓   | *✓   | -  | ✓  |
|   | Comfort                                | *✓   | *✓   | -   | ✓  | ✓  | -  |
|   | Basic mode                             | -  | -  | -   | -  | -  | -  |
|   | Finetune mode                          | -  | -  | -   | -  | -  | -  |
|   | Assist customize                       | Number of profile  | 1  | 1   | -  | 1  | 1  |
| Assist mode   | BOOST                                  | -  | -  | -   | -  | -  | -  |
|   | HIGH                                   | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
|   | TRAIL                                  | -  | -  | -   | -  | -  | -  |
|   | NORMAL                                 | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
|   | ECO                                    | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Power supply for front light                          |  | DC 13.5V   | DC 13.5V   | DC 13.5V  | DC 13.5V   | DC 13.5V   | DC 13.5V   |
| Power supply for rear light                           |  | DC 13.5V   | DC 13.5V   | DC 13.5V  | DC 13.5V   | DC 13.5V   | DC 13.5V   |
| Maximum current supply front and rear light total (A) |  | 2.0  | 2.0  | 2.0   | 2.0  | 2.0  | 2.0  |
| Power supply and maximum current for ACC              |  | -  | -  | -   | -  | -  | -  |
| Power supply and maximum current for CAN port         |  | -  | -  | -   | -  | -  | -  |
| Safe way home function                                |  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Communication   |  | E-TUBE   | E-TUBE   | E-TUBE  | E-TUBE   | E-TUBE   | E-TUBE   |
| Master unit   |  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Firmware update by E-TUBE PROJECT                     |  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| SD50 port (pcs)                                       |  | 2  | 2  | 1   | 1  | 1  | 1  |
| SD300 port (pcs)                                      |  | 0  | 0  | 0   | 0  | 0  | 0  |
| SD50 connector (pcs)                                  |  | 0  | 0  | 0   | 0  | 0  | 0  |
| SD300 connector (pcs)                                 |  | 0  | 0  | 0   | 0  | 0  | 0  |
| Terminal for light (pcs)                              |  | 1  | 1  | 1   | 1  | 1  | 1  |
| Port for electric devices (pcs)                       |  | 0  | 0  | 0   | 0  | 0  | 0  |
| Port for Speed Sensor (pcs)                           | SD50 type                              | 1  | 1  | 1   | 1  | 1  | 1  |
|   | SD300 type                             | -  | -  | -   | -  | -  | -  |
| Chain case compatible                                 |  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Chain device compatible                               |  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| torque sensor   |  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Crank arm position sensor                             |  | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Bike speed sensor                                     |  | **✓  | **✓  | **✓   | **✓  | **✓  | **✓  |
| Cadence sensor  |  |  | ✓  |   | -  | -  | -  |
| Walk assist function                                  | On/Off                                 | *✓   | -  | *✓  | *✓   | -  | -  |
|   | Standard                               | -  | -  | -   | -  | -  | -  |
|   | Intelligent                            | ***✓   | -  | ***✓  | ***✓   | -  | -  |
| Automatic shift                                       | Quick                                  | ✓  | -  | ✓   | ✓  | -  | -  |
|   | Internal geared hub 11-speed           | -  | -  | -   | -  | -  | -  |
|   | Internal geared hub 8-speed            | ✓  | ✓  | ***✓  | ✓  | ✓  | ✓  |
|   | Internal geared hub 7-speed            | -  | -  | -   | -  | -  | -  |
|   | Internal geared hub 5-speed (INTER-5E) | ✓  | ✓  | ***✓  | ✓  | ✓  | ✓  |
| SYMPHOMATIC   | Rear derailleur                        | -  | -  | -   | -  | -  | -  |
|   | Internal geared hub                    | ✓  | ✓  | ✓   | ✓  | ✓  | ✓  |
| Rear derailleur                                       |  | -  | -  | -   | -  | -  | -  |
| FREE SHIFT  |  | -  | -  | -   | -  | -  | -  |
| Electronic shift by drive unit control                |  | -  | -  | ✓   | ✓  | ✓  | ✓  |
| Compatible spindle type                               |  | 24mm   | 24mm   | Square  | Square   | Square   | Square   |
| Drive unit fixing screw (pcs)                         |  | -  | -  | 6   | -  | -  | -  |
| Average weight (kg)                                   |  | 2.7  | 2.9  | 2.4   | 2.4  | 2.4  | 2.4  |
| Note  |  | * Set by E-TUBE PROJECT<br>** By using SM-DUE10/SM-DUE11<br>*** Only in combination with Di2 | * Set by E-TUBE PROJECT<br>** By using SM-DUE10/SM-DUE11 | * Set by E-TUBE PROJECT<br>** In combination with SM-DUE10/SM-DUE11<br>*** Only in combination with Di2 | * Set by E-TUBE PROJECT<br>** By using SM-DUE10/SM-DUE11<br>*** Only in combination with Di2 | * Set by E-TUBE PROJECT<br>** By using SM-DUE10/SM-DUE11 | * Set by E-TUBE PROJECT<br>** By using SM-DUE10/SM-DUE11 |

# Drive Unit Cover

| Series                            |           | SHIMANO    | SHIMANO    | SHIMANO            | SHIMANO    | SHIMANO    | SHIMANO    |
|-----------------------------------|-----------|------------|------------|--------------------|------------|------------|------------|
| Model no.                         |           | DC-EP801-A | DC-EP801-B | DC-EP801-G         | DC-EP800-A | DC-EP800-B | DC-EP800-G |
| Color                             | 1         | Black      | Black      | Black              | Black      | Black      | Black      |
|                                   | 2         | -          | -          | -                  | -          | -          | -          |
|                                   | 3         | -          | -          | -                  | -          | -          | -          |
| UL2849                            |           | ✓          | ✓          | - "Not Applicable" | -          | -          | -          |
| Cover                             | Right     | -          | -          | -                  | -          | -          | -          |
|                                   | Left      | ✓          | ✓          | -                  | ✓          | ✓          | -          |
|                                   | Bottom    | -          | -          | ✓                  | -          | -          | ✓          |
|                                   | Front     | -          | -          | -                  | -          | -          | -          |
|                                   | Connector | -          | -          | -                  | -          | -          | -          |
| Available drive unit angle (deg.) |           | 0-60       | 0-60       | 0-60               | 0-60       | 0-60       | 0-60       |
| Note                              |           |            |            |                    | -          | -          | -          |

| Series                            |           | SHIMANO        | SHIMANO           | SHIMANO    | SHIMANO    | SHIMANO    | SHIMANO    |
|-----------------------------------|-----------|----------------|-------------------|------------|------------|------------|------------|
| Model no.                         |           | SM-DUE80-A     | SM-DUE80-B        | SM-DUE70-A | SM-DUE70-B | SM-DUE70-C | SM-DUE61-T |
| Color                             | 1         | Gray           | Gray              | Black      | Black      | Black      | Black      |
|                                   | 2         | -              | -                 | -          | -          | -          | -          |
|                                   | 3         | -              | -                 | -          | -          | -          | -          |
| UL2849                            |           | -              | -                 | -          | -          | -          | -          |
| Cover                             | Right     | ✓              | ✓                 | ✓          | ✓          | -          | ✓          |
|                                   | Left      | ✓              | ✓                 | ✓          | ✓          | ✓          | ✓          |
|                                   | Bottom    | -              | -                 | -          | -          | -          | -          |
|                                   | Front     | -              | -                 | -          | -          | -          | -          |
|                                   | Connector | -              | -                 | -          | -          | -          | -          |
| Available drive unit angle (deg.) |           | 0-60           | 0-60              | 0-60       | 0-60       | 0-60       | 0-60       |
| Note                              |           | Standard cover | Mount screw cover | -          | -          | -          | -          |

| Series                            |           | SHIMANO                     | SHIMANO     | SHIMANO    | SHIMANO                     | SHIMANO     | SHIMANO  |
|-----------------------------------|-----------|-----------------------------|-------------|------------|-----------------------------|-------------|----------|
| Model no.                         |           | SM-DUE61-TCRG               | SM-DUE61-TC | SM-DUE61-C | SM-DUE61-CCRG               | SM-DUE61-CC | SM-DUE60 |
| Color                             | 1         | Black                       | Black       | Black      | Black                       | Black       | Gray     |
|                                   | 2         | -                           | -           | -          | -                           | -           | Black    |
|                                   | 3         | -                           | -           | -          | -                           | -           | -        |
| UL2849                            |           | -                           | -           | -          | -                           | -           | -        |
| Cover                             | Right     | ✓                           | ✓           | ✓          | ✓                           | ✓           | ✓        |
|                                   | Left      | ✓                           | ✓           | ✓          | ✓                           | ✓           | -        |
|                                   | Bottom    | -                           | -           | -          | -                           | -           | -        |
|                                   | Front     | -                           | -           | -          | -                           | -           | -        |
|                                   | Connector | -                           | -           | -          | -                           | -           | -        |
| Available drive unit angle (deg.) |           | 0-60                        | 0-60        | 0-60       | 0-60                        | 0-60        | 0        |
| Note                              |           | CARGO logo for DU-E6100-CRG | -           | -          | CARGO logo for DU-E6100-CRG | -           | -        |

## Drive Unit Cover

| Series                            |           | SHIMANO     | SHIMANO                    | SHIMANO                    | SHIMANO    | SHIMANO     | SHIMANO    |
|-----------------------------------|-----------|-------------|----------------------------|----------------------------|------------|-------------|------------|
| Model no.                         |           | SM-DUE60-45 | SM-DUE60-A                 | SM-DUE60-45A               | SM-DUE50-T | SM-DUE50-TC | SM-DUE50-C |
| Color                             | 1         | Gray        | Gray                       | Gray                       | Black      | Black       | Black      |
|                                   | 2         | Black       | Black                      | Black                      | -          | -           | -          |
|                                   | 3         | -           | -                          | -                          | -          | -           | -          |
| UL2849                            |           | -           | -                          | -                          | -          | -           | -          |
| Cover                             | Right     | ✓           | ✓                          | ✓                          | ✓          | -           | ✓          |
|                                   | Left      | -           | -                          | -                          | ✓          | ✓           | ✓          |
|                                   | Bottom    | -           | -                          | -                          | -          | -           | -          |
|                                   | Front     | -           | -                          | -                          | -          | -           | -          |
|                                   | Connector | -           | -                          | -                          | -          | -           | -          |
| Available drive unit angle (deg.) |           | 45          | 0                          | 45                         | 0-60       | 0-60        | 0-60       |
| Note                              |           | -           | For internal cable routing | For internal cable routing | -          | -           | -          |

| Series                            |           | SHIMANO     |
|-----------------------------------|-----------|-------------|
| Model no.                         |           | SM-DUE50-CC |
| Color                             | 1         | Black       |
|                                   | 2         | -           |
|                                   | 3         | -           |
| UL2849                            |           | -           |
| Cover                             | Right     | -           |
|                                   | Left      | ✓           |
|                                   | Bottom    | -           |
|                                   | Front     | -           |
|                                   | Connector | -           |
| Available drive unit angle (deg.) |           | 0-60        |
| Note                              |           | -           |

## Speed Sensor Unit

| Series                    |  | SHIMANO           | SHIMANO           | SHIMANO                   | SHIMANO          | SHIMANO                   |
|---------------------------|--|-------------------|-------------------|---------------------------|------------------|---------------------------|
| Model no.                 |  | EW-SS302          | EW-SS301          | EW-SS300                  | SM-DUE11         | SM-DUE10                  |
| Brake spec                | Disc   | ✓                 | ✓                 | ✓                         | ✓                | ✓                         |
|                           | Rim  | -                 | -                 | ✓                         | -                | ✓                         |
| Color                     | 1  | Black             | Black             | Black                     | Black            | Black                     |
|                           | 2  | -                 | -                 | -                         | -                | -                         |
|                           | 3  | -                 | -                 | -                         | -                | -                         |
| Battery management system |  | Second generation | Second generation | Second generation         | First generation | First generation          |
| Magnet type               | Spoke fixing type                              | -                 | -                 | ✓                         | -                | ✓                         |
|                           | Magnet integrated rotor                        | -                 | ✓                 | -                         | ✓                | -                         |
|                           | Magnet integrated lock ring                    | ✓                 | -                 | -                         | -                | -                         |
|                           | Magnet adapter for 6-bolt rotor(SM-EWSS1)      | -                 | ✓                 | -                         | ✓                | -                         |
|                           | Magnet adapter for center lock rotor(SM-EWSS2) | -                 | ✓                 | -                         | ✓                | -                         |
| SD50 connector (pcs)      |  | 0                 | 0                 | 0                         | 1                | 1                         |
| SD300 connector (pcs)     |  | 1                 | 1                 | 1                         | 0                | 0                         |
| Cable length (mm)         | 340  | -                 | -                 | ✓                         | -                | ✓                         |
|                           | 540  | -                 | -                 | ✓                         | -                | ✓                         |
|                           | 760  | ✓                 | ✓                 | ✓                         | ✓                | ✓                         |
|                           | 1400   | ✓                 | ✓                 | ✓                         | -                | ✓                         |
| Note                      |  | w/o Magnet set    | w/o Magnet set    | Spoke magnet set included | w/o Magnet set   | Spoke magnet set included |

## Disc Brake Rotor

| Series                             |                        |          | SHIMANO  | SHIMANO                                    | SHIMANO                             | SHIMANO                             |
|------------------------------------|------------------------|----------|--|--|-------------------------------------|-------------------------------------|
| Model no.                          |                        |          | RT-EM910   | RT-EM810                                   | RT-EM600                            | RT-EM300                            |
| CENTER LOCK                        |                        |          | ✓  | ✓  | ✓                                   | ✓                                   |
| 6-bolt (P.C.D. 44 mm)              |                        |          | -  | -  | -                                   | -                                   |
| ICE TECHNOLOGIES                   |                        |          | ✓  | ✓  | -                                   | -                                   |
| ICE TECHNOLOGIES FREEZA            |                        |          | ✓  | ✓  | -                                   | -                                   |
| Outside diameter (mm)              | 203                    |          | ✓*   | ✓*   | ✓*                                  | ✓*                                  |
|                                    | 180                    |          | ✓*   | ✓*   | ✓*                                  | ✓*                                  |
|                                    | 160                    |          | ✓*   | ✓*   | ✓*                                  | ✓*                                  |
|                                    | 140                    |          | -  | -  | -                                   | -                                   |
| Alloy lock ring                    |                        |          | ✓  | ✓  | -                                   | -                                   |
| Adapter                            | Material               |          | Aluminum   | Aluminum                                   | Aluminum                            | Steel                               |
|                                    | Finish                 |          | Painted  | Painted                                    | Painted                             | Painted                             |
| Rotor                              | Material               |          | Stainless steel +Aluminum +Stainless steel         | Stainless steel +Aluminum +Stainless steel | Stainless steel                     | Stainless steel                     |
|                                    | Finish                 |          | Polished   | Polished                                   | Polished                            | Polished                            |
| Pad material compatibility         | Metal                  |          | ✓  | ✓  | ✓                                   | -                                   |
|                                    | Resin                  |          | ✓  | ✓  | ✓                                   | ✓                                   |
| Lock ring                          | Internal type          | Material | Aluminum   | Aluminum                                   | Steel                               | -                                   |
|                                    |                        | Finish   | Anodized   | Anodized                                   | Plated                              | -                                   |
|                                    | External type          | Material | Aluminum   | Aluminum                                   | Steel                               | -                                   |
|                                    |                        | Finish   | Anodized   | Anodized                                   | Plated                              | -                                   |
|                                    | Internal/external type | Material | -  | -  | -                                   | Steel                               |
|                                    |                        | Finish   | -  | -  | -                                   | Painted                             |
| Average weight (g) (w/o lock ring) |                        |          | 113 (160 mm), 140 (180 mm), 154 (203 mm)           | 113 (160 mm), 140 (180 mm), 166 (203 mm)   | -                                   | -                                   |
| Note                               |                        |          | * For rear only with magnet bracket<br>Painted fin | * For rear only with magnet bracket        | * For rear only with magnet bracket | * For rear only with magnet bracket |

# Crank Arm

| Series                |            | SHIMANO        | SHIMANO        | SHIMANO     | DEORE XT       | DEORE XT                                  | SHIMANO                                   |
|-----------------------|------------|----------------|----------------|-------------|----------------|---|---|
| Model no.             |            | FC-EM900       | FC-EM600       | FC-EN500    | FC-M8150       | FC-M8050                                  | FC-E8050                                  |
| Color                 | 1          | Black          | Black          | Black       | Series color   | Series color                              | Black                                     |
|                       | 2          | -              | -              | Silver      | -              | -   | -   |
|                       | 3          | -              | -              | -           | -              | -   | -   |
| Crank arm type        | HOLLOWTECH | ✓              | -              | -           | ✓              | ✓   | ✓   |
|                       | Solid      | -              | ✓              | ✓           | -              | -   | -   |
| Q factor (mm)         |            | 177 (DU-EP800) | 177 (DU-EP800) | 178         | 177 (DU-EP800) | 177, 180 *                                | 177, 180 *                                |
| Chain case compatible |            | ✓              | ✓              | ✓           | ✓              | ✓ *                                       | ✓ *                                       |
| Crank arm length (mm) | 175        | ✓              | ✓              | ✓           | ✓              | ✓   | ✓   |
|                       | 172.5      | -              | -              | -           | -              | -   | -   |
|                       | 170        | ✓              | ✓              | ✓           | ✓              | ✓   | ✓   |
|                       | 165        | ✓              | ✓              | -           | ✓              | ✓   | -   |
|                       | 160        | ✓              | ✓              | -           | ✓              | -   | -   |
|                       | Others     | -              | -              | -           | -              | -   | -   |
| Crank arm             | Material   | Aluminum       | Aluminum       | Aluminum    | Aluminum       | Aluminum                                  | Aluminum                                  |
|                       | Finish     | Anodized       | Anodized       | Painted     | Anodized       | Anodized                                  | Anodized                                  |
| BB type               |            | 24mm narrow    | 24mm narrow    | 24mm narrow | 24mm narrow    | 24mm                                      | 24mm                                      |
| Average weight (g)    |            | -              | -              | -           | -              | -   | -   |
| Note                  |            | -              | -              | -           | -              | * In case with DU-E6100/E6110/E6180/E7000 | * In case with DU-E6100/E6110/E6180/E7000 |

| Series                |            | SHIMANO                                   | SHIMANO  | SHIMANO  | SHIMANO  | SHIMANO  |
|-----------------------|------------|---|----------|----------|----------|----------|
| Model no.             |            | FC-E8000                                  | FC-E6100 | FC-E6010 | FC-E5000 | FC-E5010 |
| Color                 | 1          | Black                                     | Silver   | Black    | Silver   | Black    |
|                       | 2          | -   | Black    | Gray     | -        | -        |
|                       | 3          | -   | -        | -        | -        | -        |
| Crank arm type        | HOLLOWTECH | -   | -        | -        | -        | -        |
|                       | Solid      | ✓   | ✓        | ✓        | ✓        | ✓        |
| Q factor (mm)         |            | 177, 180 *                                | 180      | 213      | 185      | 185      |
| Chain case compatible |            | ✓ *                                       | ✓        | ✓        | ✓        | ✓        |
| Crank arm length (mm) | 175        | ✓   | ✓        | ✓        | ✓        | ✓        |
|                       | 172.5      | -   | -        | -        | -        | -        |
|                       | 170        | ✓   | ✓        | ✓        | ✓        | ✓        |
|                       | 165        | ✓   | -        | -        | ✓        | ✓        |
|                       | 160        | ✓   | -        | -        | -        | -        |
|                       | Others     | -   | -        | -        | -        | -        |
| Crank arm             | Material   | Aluminum                                  | Aluminum | Aluminum | Aluminum | Aluminum |
|                       | Finish     | Painted                                   | Anodized | Painted  | Painted  | Painted  |
| BB type               |            | 24mm                                      | 24mm     | Square   | Square   | Square   |
| Average weight (g)    |            | -   | -        | -        | -        | -        |
| Note                  |            | * In case with DU-E6100/E6110/E6180/E7000 | -        | -        | -        | -        |

# Chainring

E-BIKE

| Series                        |                 | SHIMANO                | SHIMANO   | SHIMANO                | SHIMANO                | SHIMANO  | SHIMANO   |
|-------------------------------|-----------------|------------------------|---|------------------------|------------------------|--|---|
| Model no.                     |                 | CR-EM800               | CR-ET600  | SM-CRE80-12-B          | SM-CRE80-12-SB         | SM-CRE80-B                                       | SM-CRE80-R  |
| Color                         | 1               | Black                  | Silver (w/o chain guard)                            | Black                  | Black                  | Black  | Black   |
|                               | 2               | -                      | Black (w/o chain guard)                             | -                      | -                      | -  | -   |
|                               | 3               | -                      | -   | -                      | -                      | -  | -   |
| Gear speed                    |                 | 1                      | 1   | 1                      | 1                      | 1  | 1   |
| Rear speed                    | 12-speed        | ✓                      | -   | ✓                      | ✓                      | -  | -   |
|                               | 11-speed        | -                      | ✓   | -                      | -                      | ✓  | ✓   |
|                               | 10-speed        | -                      | ✓   | -                      | -                      | ✓  | ✓   |
|                               | 9-speed         | -                      | ✓   | -                      | -                      | -  | -   |
|                               | 8-speed         | -                      | -   | -                      | -                      | -  | -   |
|                               | 7-speed         | -                      | -   | -                      | -                      | -  | -   |
|                               | 5-speed         | -                      | -   | -                      | -                      | -  | -   |
|                               | Single          | -                      | ✓   | -                      | -                      | -  | -   |
| Compatible chain              |                 | HG 12-speed            | LINKGLIDE, HG 11-speed, HG-X 10-speed*, HG 9-speed* | HG 12-speed            | HG 12-speed            | LINKGLIDE, HG 11-speed, HG-X 10-speed*           | HG 12-speed, LINKGLIDE, HG 11-speed, HG-X 10-speed* |
| DYNAMIC CHAIN ENGAGEMENT+     |                 | ✓                      | -   | ✓                      | ✓                      | ✓  | -   |
| Chainring teeth               | Combination     | -                      | -   | -                      | -                      | -  | -   |
|                               | 47T             | -                      | -   | -                      | -                      | -  | ✓   |
|                               | 44T             | -                      | ✓   | -                      | -                      | -  | -   |
|                               | 42T             | -                      | -   | -                      | -                      | -  | -   |
|                               | 40T             | -                      | -   | -                      | -                      | -  | -   |
|                               | 38T             | -                      | ✓   | ✓                      | -                      | ✓  | -   |
|                               | 36T             | -                      | -   | ✓                      | ✓                      | -  | -   |
|                               | 34T             | -                      | -   | ✓                      | ✓                      | ✓  | -   |
|                               | 32T             | ✓                      | -   | -                      | -                      | -  | -   |
|                               | Others          | -                      | -   | -                      | -                      | -  | -   |
| Chain guard type              | Double          | -                      | ✓   | -                      | -                      | -  | -   |
|                               | Single          | -                      | ✓   | -                      | -                      | -  | -   |
|                               | w/o chain guard | ✓                      | ✓   | ✓                      | ✓                      | ✓  | ✓   |
| Chainring fixing lock nut     |                 | Included in drive unit | Included in drive unit                              | Included in drive unit | Included in drive unit | Included in drive unit                           | Included in drive unit                              |
| Arm cover outer diameter (mm) |                 | -                      | -   | -                      | -                      | -  | -   |
| Chain device compatible       |                 | ✓                      | -   | ✓                      | ✓                      | ✓  | SM-CDE80 (frame mount)                              |
| Chain case compatible         |                 | -                      | ✓   | -                      | -                      | -  | -   |
| Chain line (mm)               | 56.5            | -                      | -   | -                      | ✓                      | -  | -   |
|                               | 55              | ✓                      | -   | ✓                      | -                      | ✓  | -   |
|                               | 53              | -                      | -   | ✓                      | -                      | ✓  | -   |
|                               | 50              | -                      | ✓   | -                      | -                      | -  | ✓   |
|                               | 49.7            | -                      | -   | -                      | -                      | -  | -   |
|                               | 47              | -                      | -   | -                      | -                      | -  | -   |
|                               | 46.5            | -                      | -   | -                      | -                      | -  | -   |
| Belt line (mm)                | 46              | -                      | -   | -                      | -                      | -  | -   |
|                               | 43              | -                      | -   | -                      | -                      | -  | -   |
| P.C.D. (mm)                   |                 | 96                     | 104   | 104                    | 104                    | 104  | 104   |
| Chainring                     | Material        | Steel                  | Steel   | Steel                  | Steel                  | Steel  | Aluminum  |
|                               | Finish          | Painted                | Painted   | Plated                 | Plated                 | Plated   | Anodized  |
| Spider arm                    | Material        | Aluminum               | -   | Aluminum               | Aluminum               | Aluminum   | Aluminum  |
|                               | Finish          | Anodized               | -   | Anodized               | Anodized               | Anodized   | Anodized  |
| Chainring fixing bolt         | Material        | Stainless steel        | Stainless steel                                     | Stainless steel        | Stainless steel        | Stainless steel                                  | Stainless steel                                     |
|                               | Finish          | SP Black               | -   | SP Black               | SP Black               | SP Black   | SP Black  |
| Spider/gear arms              |                 | 4                      | 4   | 4                      | 4                      | 4  | 4   |
| Average weight (g)            |                 | -                      | -   | -                      | -                      | -  | -   |
| Note                          |                 |                        | * E-BIKE rear derailleur system compatible chain    |                        |                        | * E-BIKE rear derailleur system compatible chain | * E-BIKE rear derailleur system compatible chain    |

SC

SW

DU

SMDU

SMDU

RT

FC

SMCR

SMCD

BT

BM

EWSW

EWCP

EC

SMBTE

SMDU

EWCA

BSAU

BSAS

BSAP

BSSS

SMPCE

BSEW



# Chainring

| Series                        |                 | SHIMANO   | SHIMANO                | SHIMANO                | SHIMANO   | SHIMANO  | SHIMANO   |
|-------------------------------|-----------------|---|------------------------|------------------------|---|--|---|
| Model no.                     |                 | SM-CRE80  | SM-CRE70-12-B          | SM-CRE70-12            | SM-CRE70-B  | SM-CRE70   | SM-CRE61  |
| Color                         | 1               | Black   | Black                  | Black                  | Black   | Black  | Dark Gray   |
|                               | 2               | -   | -                      | -                      | -   | -  | Silver (w/o CG only)  |
|                               | 3               | -   | -                      | -                      | -   | -  | Black (w/o CG only)   |
| Gear speed                    |                 | 1   | 1                      | 1                      | 1   | 1  | 1   |
| Rear speed                    | 12-speed        | -   | ✓                      | ✓                      | -   | -  | -   |
|                               | 11-speed        | ✓   | -                      | -                      | ✓   | ✓  | ✓   |
|                               | 10-speed        | ✓   | -                      | -                      | ✓   | ✓  | ✓   |
|                               | 9-speed         | -   | -                      | -                      | ✓   | ✓  | ✓   |
|                               | 8-speed         | -   | -                      | -                      | -   | -  | -   |
|                               | 7-speed         | -   | -                      | -                      | -   | -  | -   |
|                               | 5-speed         | -   | -                      | -                      | -   | -  | -   |
|                               | Single          | -   | -                      | -                      | -   | -  | ✓   |
| Compatible chain              |                 | LINKGLIDE, HG 11-speed, HG-X 10-speed*                          | HG 12-speed            | HG 12-speed            | LINKGLIDE, HG 11-speed, HG-X 10-speed*, HG 9speed*      | LINKGLIDE, HG 11-speed, HG-X 10-speed*, HG 9speed*                           | HG-X 10-speed**, HG 9-speed**, HG 8/7/6-speed, Single speed               |
| DYNAMIC CHAIN ENGAGEMENT+     |                 | ✓ (38T, 34T)  | -                      | -                      | -   | -  | -   |
| Chainring teeth               | Combination     | -   | -                      | -                      | -   | -  | -   |
|                               | 47T             | -   | -                      | -                      | -   | -  | -   |
|                               | 44T             | ✓   | -                      | -                      | -   | -  | ✓   |
|                               | 42T             | -   | -                      | ✓                      | -   | -  | -   |
|                               | 40T             | -   | -                      | -                      | -   | -  | -   |
|                               | 38T             | ✓   | -                      | -                      | -   | ✓  | ✓   |
|                               | 36T             | -   | ✓                      | -                      | -   | -  | -   |
|                               | 34T             | ✓   | -                      | -                      | ✓   | -  | -   |
|                               | 32T             | -   | -                      | -                      | -   | -  | -   |
|                               | Others          | -   | -                      | -                      | -   | -  | -   |
| Chain guard type              | Double          | **✓   | -                      | ✓                      | -   | ✓  | ✓   |
|                               | Single          | -   | -                      | -                      | -   | -  | ✓   |
|                               | w/o chain guard | ✓   | ✓                      | -                      | ✓   | ✓  | ✓   |
| Chainring fixing lock nut     |                 | Included in drive unit  | Included in drive unit | Included in drive unit | Included in drive unit                                  | Included in drive unit   | Included in drive unit  |
| Arm cover outer diameter (mm) |                 | -   | -                      | -                      | -   | -  | 95 (w/o chain guard only)   |
| Chain device compatible       |                 | ✓   | ✓                      | -                      | ✓   | ✓  | -   |
| Chain case compatible         |                 | -   | -                      | -                      | -   | -  | ✓   |
| Chain line (mm)               | 56.5            | -   | -                      | -                      | -   | -  | -   |
|                               | 55              | -   | ✓                      | -                      | ✓   | -  | -   |
|                               | 53              | -   | ✓                      | -                      | ✓   | -  | -   |
|                               | 50              | ✓   | -                      | ✓                      | -   | ✓  | -   |
|                               | 49.7            | -   | -                      | -                      | -   | -  | -   |
|                               | 47              | -   | -                      | -                      | -   | -  | -   |
|                               | 46.5            | -   | -                      | -                      | -   | -  | ✓   |
| Belt line (mm)                | 46              | -   | -                      | -                      | -   | -  | -   |
|                               | 43              | -   | -                      | -                      | -   | -  | -   |
| P.C.D. (mm)                   |                 | 104   | 104                    | 104                    | 104   | 104  | -   |
| Chainring                     | Material        | Steel   | Steel                  | Steel                  | Steel   | Steel  | Steel   |
|                               | Finish          | Plated  | Painted                | Painted                | Painted   | Painted  | Painted   |
| Spider arm                    | Material        | Aluminum  | Aluminum               | Aluminum               | Aluminum (chain line: 55 mm), Steel (chain line: 53 mm) | Aluminum   | -   |
|                               | Finish          | Anodized  | Painted                | Painted                | Painted   | Anodized   | -   |
| Chainring fixing bolt         | Material        | Stainless steel   | Stainless steel        | Stainless steel        | Stainless steel   | Stainless steel  | Stainless steel   |
|                               | Finish          | SP Black  | SP Black               | SP Black               | SP Black  | SP Black   | -   |
| Spider/gear arms              |                 | 4   | 4                      | 4                      | 4   | 4  | 4   |
| Average weight (g)            |                 | -   | -                      | -                      | -   | -  | -   |
| Note                          |                 | * E-BIKE rear derailleur system compatible chain<br>** 44T only |                        |                        | * E-BIKE rear derailleur system compatible chain        | * E-BIKE rear derailleur system compatible chain<br>* w/o CG, w/o back plate | * Color of arm cover<br>** E-BIKE rear derailleur system compatible chain |

# Chainring

|                               |                 |   |
|-------------------------------|-----------------|---|
| Series                        |                 | SHIMANO   |
| Model no.                     |                 | SM-CRE50  |
| Color                         | 1               | Dark Gray   |
|                               | 2               | -   |
|                               | 3               | -   |
| Gear speed                    |                 | 1   |
| Rear speed                    | 12-speed        | -   |
|                               | 11-speed        | ✓   |
|                               | 10-speed        | ✓   |
|                               | 9-speed         | ✓   |
|                               | 8-speed         |   |
|                               | 7-speed         |   |
|                               | 5-speed         |   |
|                               | Single          | ✓   |
| Compatible chain              |                 | LINKGLIDE, HG 11-speed, HG-X 10-speed*, HG 9-speed*, HG 8/7/6-speed, Single speed |
| DYNAMIC CHAIN ENGAGEMENT+     |                 | -   |
| Chainring teeth               | Combination     | -   |
|                               | 47T             | -   |
|                               | 44T             | ✓   |
|                               | 42T             | -   |
|                               | 40T             | -   |
|                               | 38T             | ✓   |
|                               | 36T             | -   |
|                               | 34T             | -   |
|                               | 32T             | -   |
|                               | Others          | -   |
| Chain guard type              | Double          | ✓   |
|                               | Single          | ✓   |
|                               | w/o chain guard | ✓   |
| Chainring fixing lock nut     |                 | Included in drive unit  |
| Arm cover outer diameter (mm) |                 | 95 (w/o chain guard only)   |
| Chain device compatible       |                 | -   |
| Chain case compatible         |                 | ✓   |
| Chain line (mm)               | 56.5            | -   |
|                               | 55              | -   |
|                               | 53              | -   |
|                               | 50              | -   |
|                               | 49.7            | -   |
|                               | 47              | -   |
|                               | 46.5            | ✓   |
| Belt line (mm)                | 46              | -   |
|                               | 43              | -   |
| P.C.D. (mm)                   |                 | -   |
| Chainring                     | Material        | Steel   |
|                               | Finish          | Painted   |
| Spider arm                    | Material        | -   |
|                               | Finish          | -   |
| Chainring fixing bolt         | Material        | Stainless steel   |
|                               | Finish          | -   |
| Spider/gear arms              |                 | 4   |
| Average weight (g)            |                 | -   |
| Note                          |                 | * E-BIKE rear derailleur system compatible chain                                  |

SC

SW

DU

SMDU

SMDU

RT

FC

SMCR

SMCD

BT

BM

EWSW

EWCP

EC

SMBTE

SMDU

EWCA

BSAU

BSAS

BSAP

BSSS

SMPCE

BSEW

# Chain Device

| Series                         |          | SHIMANO   | SHIMANO  | SHIMANO                                      |
|--------------------------------|----------|---|--|--|
| Model no.                      |          | CD-EM800  | SM-CDE80   | SM-CDE70                                     |
| Color                          | 1        | Black   | Black  | Black  |
|                                | 2        | -   | -  | -  |
|                                | 3        | -   | -  | -  |
| Chain line (mm)                | 56.5     | ✓ * (w/ plate type),<br>✓ (w/o plate type)                                    | -  | -  |
|                                | 55       | ✓ ** (w/ plate type),<br>✓ (w/o plate type)                                   | -  | -  |
|                                | 53       | ✓ (w/ plate type), ✓<br>(w/o plate type)                                      | ✓ (w/ plate type), ✓<br>(w/o plate type)           | ✓  |
|                                | 50       | -   | - (w/ plate type), ✓<br>(w/o plate type)           | -  |
| Chain compatibility            | 12-speed | ✓   | ✓  | ✓  |
|                                | 11-speed | ✓   | ✓  | ✓  |
|                                | 10-speed | -   | ✓  | ✓  |
|                                | 9-speed  | -   | -  | ✓  |
| Top gear teeth                 | 38T      | ✓ (w/ plate type), -<br>(w/o plate type)                                      | ✓  | ✓  |
|                                | 36T      | ✓ (w/ plate type), -<br>(w/o plate type)                                      | ✓  | ✓  |
|                                | 34T      | ✓ (w/ plate type), -<br>(w/o plate type)                                      | ✓  | ✓  |
|                                | 32T      | - (w/ plate type), ✓<br>(w/o plate type)                                      | -  | -  |
|                                | 30T      | - (w/ plate type), ✓<br>(w/o plate type)                                      | -  | -  |
| Assumed rear<br>sprocket teeth | 10-45T   | ✓   | ✓  | ✓  |
|                                | 10-51T   | ✓   | ✓  | ✓  |
|                                | 11-36T   | -   | ✓  | ✓  |
|                                | 11-40T   | ✓   | ✓  | ✓  |
|                                | 11-42T   | ✓   | ✓  | ✓  |
|                                | 11-46T   | ✓   | ✓  | ✓  |
|                                | 11-50T   | ✓   | -  | -  |
|                                | Others   | -   | -  | -  |
| Direct mount to drive unit     |          | ✓ (w/ plate type), -<br>(w/o plate type)                                      | ✓ (w/ plate type), -<br>(w/o plate type)           | ✓  |
| Compatible drive unit          |          | DU-EP801, DU-<br>EP800, DU-EP600,<br>DU-E8000, DU-<br>E8080, DU-E7000         | DU-EP800<br>DU-E8000<br>DU-E8080<br>DU-E7000       | DU-EP800<br>DU-E8000<br>DU-E8080<br>DU-E7000 |
| Rear suspension stroke (mm)    |          | 0 - 170   | 0 - 170  | 0 - 170                                      |
| Back plate                     | Material | Aluminum (w/ plate<br>type), - (w/o plate<br>type)                            | Aluminum (w/ plate<br>type), - (w/o plate<br>type) | Steel  |
|                                | Finish   | Anodized (w/ plate<br>type), - (w/o plate<br>type)                            | Anodized (w/ plate<br>type), - (w/o plate<br>type) | Painted                                      |
| Chain guide                    | Material | Resin   | Resin  | Resin  |
|                                | Finish   | -   | -  | -  |
| Note                           |          | * w/ spacer for chain<br>line 56.5mm.<br>** w/ spacer for<br>chain line 55mm. | w/ Plate, w/o Plate<br>type are available          | w/ plate                                     |

# Battery

E-BIKE

| Series                          |            | SHIMANO  | SHIMANO   | SHIMANO   | SHIMANO   | SHIMANO                                | SHIMANO                                |
|---------------------------------|------------|--|---|---|---|--|--|
| Model no.                       |            | BT-EN817-B   | BT-EN805-A  | BT-EN805-L-A  | BT-EN806-A  | BT-EN604-A                             | BT-EN605-A                             |
| Color                           | 1          | Black  | Black   | Black   | Black   | Black                                  | Black                                  |
|                                 | 2          | -  | -   | -   | -   | -                                      | -                                      |
|                                 | 3          | -  | -   | -   | -   | -                                      | -                                      |
| EN 15194:2017+A1:2023 compliant |            | ✓  | ✓   | ✓   | ✓   | ✓                                      | ✓                                      |
| UL2271                          |            | ✓  | ✓   | ✓   | ✓   | -                                      | ✓                                      |
| Battery management system       |            | Second generation  | Second generation   | Second generation   | Second generation   | Second generation                      | Second generation                      |
| Chemistry                       |            | Li-Ion   | Li-Ion  | Li-Ion  | Li-Ion  | Li-Ion                                 | Li-Ion                                 |
| Position                        |            | Integrated   | Integrated  | Integrated  | Integrated  | Down tube/Seat tube                    | Down tube/Seat tube                    |
| Nominal voltage (V)             |            | 36.3   | 36  | 36  | 36  | 36                                     | 36                                     |
| Capacity (Ah)                   |            | 19.6   | 14  | 14  | 17.5  | 11.6                                   | 14                                     |
| Rated capacity (Ah)             |            | 19.6   | 13  | 13  | 16.2  | 10.9                                   | 13                                     |
| Energy Content (Wh)             |            | 712  | 504   | 504   | 630   | 418                                    | 504                                    |
| Rated capacity (Wh)             |            | 712  | 468   | 468   | 583   | 393                                    | 468                                    |
| Cyclife span for charge (times) |            | 1,000 (more than 60%)                                      | 1,000 (more than 60%)   | 1,000 (more than 60%)   | 1,000 (more than 60%)   | 1,000 (more than 60%)                  | 1,000 (more than 60%)                  |
| Time to charge (hour)           | SOC = 100% | * 5.2  | * 4 (** 4.5)  | * 4 (** 4.5)  | * 4.8 (** 5.7)  | * 3.0 (** 3.5)                         | * 4 (** 4.5)                           |
|                                 | SOC = 80%  | * 3.4  | * 2.5 (** 3.2)  | * 2.5 (** 3.2)  | * 3.2 (** 4)  | * 2.0 (** 2.5)                         | * 2.5 (** 3.2)                         |
| Charge level display            |            | ✓  | ✓   | ✓   | ✓   | ✓                                      | ✓                                      |
| Error signal                    |            | ✓  | ✓   | ✓   | ✓   | ✓                                      | ✓                                      |
| Charging port                   |            | ** -   | *** -   | *** -   | *** -   | ✓                                      | ✓                                      |
| System on/off switch            |            | ✓  | ✓   | ✓   | ✓   | ✓                                      | ✓                                      |
| Compatible battery mount        |            | BM-EN810-A   | BM-EN800-A<br>BM-EN800-B<br>BM-EN801-A<br>BM-EN801-B                    | BM-EN800-A<br>BM-EN800-B<br>BM-EN801-A<br>BM-EN801-B                    | BM-EN800-A<br>BM-EN800-B<br>BM-EN801-A<br>BM-EN801-B                    | BM-EN600                               | BM-EN600                               |
| Compatible charger              |            | EC-EN814   | EC-E6002, EC-E8004  | EC-E6002, EC-E8004  | EC-E6002, EC-E8004  | EC-E6002, EC-E8004                     | EC-E6002, EC-E8004                     |
| Compatible adaptor for charge   |            | SM-BTE81   | SM-BTE80  | SM-BTE80  | SM-BTE80  | -                                      | -                                      |
| Average weight (kg)             |            | 4.2  | 3.0   | 3.1   | 3.6   | 2.6                                    | 2.7                                    |
| Note                            |            | * By EC-EN814<br>** with SM-BTE81 and EW-CP110 or EW-CP111 | * By EC-E8004 (** In case of 100 V AC)<br>*** with SM-BTE80 or EW-CP100 | * By EC-E8004 (** In case of 100 V AC)<br>*** with SM-BTE80 or EW-CP100 | * By EC-E8004 (** In case of 100 V AC)<br>*** with SM-BTE80 or EW-CP100 | * By EC-E8004 (** In case of 100 V AC) | * By EC-E8004 (** In case of 100 V AC) |

SC

SW

DU

SMDU

SMDU

RT

FC

SMCR

SMCD

BT

BM

EWSW

EWCP

EC

SMBTE

SMDU

EWCA

BSAU

BSAS

BSAP

BSSS

SMPCE

BSEW

# Battery

| Series                            |            | SHIMANO                                | SHIMANO                                | SHIMANO                                | SHIMANO   | SHIMANO   | SHIMANO   |
|-----------------------------------|------------|--|--|--|---|---|---|
| Model no.                         |            | BT-EN606-A                             | BT-EN404-A                             | BT-EN405-A                             | BT-E8010-A  | BT-E8014-A  | BT-E8016-A  |
| Color                             | 1          | Black                                  | Black                                  | Black                                  | Black   | Black   | Black   |
|                                   | 2          | -                                      | Gray                                   | Gray                                   | -   | -   | -   |
|                                   | 3          | -                                      | -                                      | -                                      | -   | -   | -   |
| EN 15194:2017+A1:2023 compliant   |            | ✓                                      | ✓                                      | ✓                                      | ✓   | ✓   | ✓   |
| UL2271                            |            | ✓                                      | -                                      | -                                      | -   | -   | -   |
| Battery management system         |            | Second generation                      | Second generation                      | Second generation                      | First generation  | First generation  | First generation  |
| Chemistry                         |            | Li-Ion                                 | Li-Ion                                 | Li-Ion                                 | Li-Ion  | Li-Ion  | Li-Ion  |
| Position                          |            | Down tube/Seat tube                    | Rear carrier                           | Rear carrier                           | Down tube/Seat tube   | Down tube/Seat tube   | Down tube/Seat tube   |
| Nominal voltage (V)               |            | 36                                     | 36                                     | 36                                     | 36  | 36  | 36  |
| Capacity (Ah)                     |            | 17.5                                   | 11.6                                   | 14                                     | * 14  | * 11.6  | * 17.5  |
| Rated capacity (Ah)               |            | 16.2                                   | 10.9                                   | 13                                     | 13  | 10.9  | 16.2  |
| Energy Content (Wh)               |            | 630                                    | 418                                    | 504                                    | * 504   | * 418   | * 630   |
| Rated capacity (Wh)               |            | 583                                    | 393                                    | 468                                    | 468   | 393   | 583   |
| Cyclelife span for charge (times) |            | 1,000 (more than 60%)                  | 1,000 (more than 60%)                  | 1,000 (more than 60%)                  | 1,000 (more than 60%)   | 1,000 (more than 60%)   | 1,000 (more than 60%)   |
| Time to charge (hour)             | SOC = 100% | * 4.8 (** 5.7)                         | * 3.0 (** 3.5)                         | * 4 (** 4.5)                           | ** 4 (** 4.5)   | ** 3.0 (** 3.5)   | ** 4.8 (** 5.7)   |
|                                   | SOC = 80%  | * 3.2 (** 4)                           | * 2.0 (** 2.5)                         | * 2.5 (** 3.2)                         | ** 2.5 (** 3.2)   | ** 2.0 (** 2.5)   | ** 3.2 (** 4)   |
| Charge level display              |            | ✓                                      | ✓                                      | ✓                                      | ✓   | ✓   | ✓   |
| Error signal                      |            | ✓                                      | ✓                                      | ✓                                      | ✓   | ✓   | ✓   |
| Charging port                     |            | ✓                                      | -                                      | -                                      | ✓   | ✓   | ✓   |
| System on/off switch              |            | ✓                                      | ✓                                      | ✓                                      | ✓   | ✓   | ✓   |
| Compatible battery mount          |            | BM-EN600                               | BM-EN400                               | BM-EN400                               | BM-E8016  | BM-E8016  | BM-E8016  |
| Compatible charger                |            | EC-E6002, EC-E8004                     | EC-E6002, EC-E8004                     | EC-E6002, EC-E8004                     | EC-E6002, EC-E8004  | EC-E6002, EC-E8004  | EC-E6002, EC-E8004  |
| Compatible adaptor for charge     |            | -                                      | SM-BTE60                               | SM-BTE60                               | -   | -   | -   |
| Average weight (kg)               |            | 3.3                                    | 2.7                                    | 2.8                                    | 2.7   | 2.6   | 3.3   |
| Note                              |            | * By EC-E8004 (** In case of 100 V AC) | * By EC-E8004 (** In case of 100 V AC) | * By EC-E8004 (** In case of 100 V AC) | * BT-E8010-A for Japan (13 Ah, 468 Wh)<br>** By EC-E8004 (** In case of 100 V AC) | * BT-E8014-A for Japan (10.9 Ah, 393 Wh)<br>** By EC-E8004 (** In case of 100 V AC) | * BT-E8016-A for Japan (16.2 Ah, 583 Wh)<br>** By EC-E8004 (** In case of 100 V AC) |

# Battery

| Series                            |            | SHIMANO   | SHIMANO   | SHIMANO   | SHIMANO                                | SHIMANO                                | SHIMANO  |
|-----------------------------------|------------|---|---|---|--|--|--|
| Model no.                         |            | BT-E8035-A  | BT-E8035-L-A  | BT-E8036-A  | BT-E6000-A                             | BT-E6001-A                             | BT-EN805   |
| Color                             | 1          | Black   | Black   | Black   | Black                                  | Black                                  | Black  |
|                                   | 2          | -   | -   | -   | Gray                                   | Gray                                   | -  |
|                                   | 3          | -   | -   | -   | -                                      | -                                      | -  |
| EN 15194:2017+A1:2023 compliant   |            | ✓   | ✓   | ✓   | ✓                                      | ✓                                      | -  |
| UL2271                            |            | -   | -   | -   | -                                      | -                                      | -  |
| Battery management system         |            | First generation  | First generation  | First generation  | First generation                       | First generation                       | Second generation  |
| Chemistry                         |            | Li-Ion  | Li-Ion  | Li-Ion  | Li-Ion                                 | Li-Ion                                 | Li-Ion   |
| Position                          |            | Integrated  | Integrated  | Integrated  | Rear carrier                           | Rear carrier                           | Integrated   |
| Nominal voltage (V)               |            | 36  | 36  | 36  | 36                                     | 36                                     | 36   |
| Capacity (Ah)                     |            | * 14  | * 14  | * 17.5  | 11.6                                   | 14                                     | 14   |
| Rated capacity (Ah)               |            | 13  | 13  | 16.2  | 11.6                                   | 13                                     | 13   |
| Energy Content (Wh)               |            | * 504   | * 504   | * 630   | 418                                    | 504                                    | 504  |
| Rated capacity (Wh)               |            | 468   | 468   | 583   | 418                                    | 468                                    | 468  |
| Cyclelife span for charge (times) |            | 1,000 (more than 60%)   | 1,000 (more than 60%)   | 1,000 (more than 60%)   | 1,000 (more than 60%)                  | 1,000 (more than 60%)                  | 1,000 (more than 60%)  |
| Time to charge (hour)             | SOC = 100% | ** 4 (** 4.5)   | ** 4 (** 4.5)   | ** 4.8 (** 5.7)   | * 3.0 (** 3.5)                         | * 4 (** 4.5)                           | * 4 (** 4.5)   |
|                                   | SOC = 80%  | ** 2.5 (** 3.2)   | ** 2.5 (** 3.2)   | ** 3.2 (** 4)   | * 2.0 (** 2.5)                         | * 2.5 (** 3.2)                         | * 2.5 (** 3.2)   |
| Charge level display              |            | ✓   | ✓   | ✓   | ✓                                      | ✓                                      | ✓  |
| Error signal                      |            | ✓   | ✓   | ✓   | ✓                                      | ✓                                      | ✓  |
| Charging port                     |            | **** _  | **** _  | **** _  | -                                      | -                                      | *** _  |
| System on/off switch              |            | ✓   | ✓   | ✓   | ✓                                      | ✓                                      | ✓  |
| Compatible battery mount          |            | BM-E8030-A<br>BM-E8030-B<br>BM-E8031-A<br>BM-E8031-B  | BM-E8030-A<br>BM-E8030-B<br>BM-E8031-A<br>BM-E8031-B  | BM-E8030-A<br>BM-E8030-B<br>BM-E8031-A<br>BM-E8031-B  | BM-E6000                               | BM-E6000                               | BM-EN800-A<br>BM-EN800-B<br>BM-EN801-A<br>BM-EN801-B                     |
| Compatible charger                |            | EC-E6002, EC-E8004  | EC-E6002, EC-E8004  | EC-E6002, EC-E8004  | EC-E6002, EC-E8004                     | EC-E6002, EC-E8004                     | EC-E6002, EC-E8004   |
| Compatible adaptor for charge     |            | SM-BTE80  | SM-BTE80  | SM-BTE80  | SM-BTE60                               | SM-BTE60                               | SM-BTE80   |
| Average weight (kg)               |            | 3.0   | 3.1   | 3.6   | 2.7                                    | 2.8                                    | 2.9  |
| Note                              |            | * BT-E8035-A for Japan (13 Ah, 468 Wh)<br>** By EC-E8004 (** In case of 100 V AC)<br>**** with SM-BTE80 or EW-CP100 | * BT-E8035-L-A for Japan (13 Ah, 468 Wh)<br>** By EC-E8004 (** In case of 100 V AC)<br>**** with SM-BTE80 or EW-CP100 | * BT-E8036-A for Japan (16.2 Ah, 583 Wh)<br>** By EC-E8004 (** In case of 100 V AC)<br>**** with SM-BTE80 or EW-CP100 | * By EC-E8004 (** In case of 100 V AC) | * By EC-E8004 (** In case of 100 V AC) | * By EC-E8004 (** In case of 100 V AC)<br>**** with SM-BTE80 or EW-CP100 |

# Battery

| Series                            |            | SHIMANO   | SHIMANO   | SHIMANO                                | SHIMANO                                | SHIMANO                                | SHIMANO                                |
|-----------------------------------|------------|---|---|--|--|--|--|
| Model no.                         |            | BT-EN805-L  | BT-EN806  | BT-EN604                               | BT-EN605                               | BT-EN606                               | BT-EN404                               |
| Color                             | 1          | Black   | Black   | Black                                  | Black                                  | Black                                  | Black                                  |
|                                   | 2          | -   | -   | -                                      | -                                      | -                                      | Gray                                   |
|                                   | 3          | -   | -   | -                                      | -                                      | -                                      | -                                      |
| EN 15194:2017+A1:2023 compliant   |            | -   | -   | -                                      | -                                      | -                                      | -                                      |
| UL2271                            |            | -   | -   | -                                      | -                                      | -                                      | -                                      |
| Battery management system         |            | Second generation   | Second generation   | Second generation                      | Second generation                      | Second generation                      | Second generation                      |
| Chemistry                         |            | Li-Ion  | Li-Ion  | Li-Ion                                 | Li-Ion                                 | Li-Ion                                 | Li-Ion                                 |
| Position                          |            | Integrated  | Integrated  | Down tube/Seat tube                    | Down tube/Seat tube                    | Down tube/Seat tube                    | Rear carrier                           |
| Nominal voltage (V)               |            | 36  | 36  | 36                                     | 36                                     | 36                                     | 36                                     |
| Capacity (Ah)                     |            | 14  | 17.5  | 11.6                                   | 14                                     | 17.5                                   | 11.6                                   |
| Rated capacity (Ah)               |            | 13  | 16.2  | 10.9                                   | 13                                     | 16.2                                   | 10.9                                   |
| Energy Content (Wh)               |            | 504   | 630   | 418                                    | 504                                    | 630                                    | 418                                    |
| Rated capacity (Wh)               |            | 468   | 583   | 393                                    | 468                                    | 583                                    | 393                                    |
| Cyclelife span for charge (times) |            | 1,000 (more than 60%)   | 1,000 (more than 60%)   | 1,000 (more than 60%)                  | 1,000 (more than 60%)                  | 1,000 (more than 60%)                  | 1,000 (more than 60%)                  |
| Time to charge (hour)             | SOC = 100% | * 4 (** 4.5)  | * 4.8 (** 5.7)  | * 3.0 (** 3.5)                         | * 4 (** 4.5)                           | * 4.8 (** 5.7)                         | * 3.0 (** 3.5)                         |
|                                   | SOC = 80%  | * 2.5 (** 3.2)  | * 3.2 (** 4)  | * 2.0 (** 2.5)                         | * 2.5 (** 3.2)                         | * 3.2 (** 4)                           | * 2.0 (** 2.5)                         |
| Charge level display              |            | ✓   | ✓   | ✓                                      | ✓                                      | ✓                                      | ✓                                      |
| Error signal                      |            | ✓   | ✓   | ✓                                      | ✓                                      | ✓                                      | ✓                                      |
| Charging port                     |            | *** -   | *** -   | ✓                                      | ✓                                      | ✓                                      | -                                      |
| System on/off switch              |            | ✓   | ✓   | ✓                                      | ✓                                      | ✓                                      | ✓                                      |
| Compatible battery mount          |            | BM-EN800-A<br>BM-EN800-B<br>BM-EN801-A<br>BM-EN801-B                    | BM-EN800-A<br>BM-EN800-B<br>BM-EN801-A<br>BM-EN801-B                    | BM-EN600                               | BM-EN600                               | BM-EN600                               | BM-EN400                               |
| Compatible charger                |            | EC-E6002, EC-E8004  | EC-E6002, EC-E8004  | EC-E6002, EC-E8004                     | EC-E6002, EC-E8004                     | EC-E6002, EC-E8004                     | EC-E6002, EC-E8004                     |
| Compatible adaptor for charge     |            | SM-BTE80  | SM-BTE80  | -                                      | -                                      | -                                      | SM-BTE60                               |
| Average weight (kg)               |            | 3.1   | 3.6   | 2.6                                    | 2.6                                    | 3.2                                    | 2.7                                    |
| Note                              |            | * By EC-E8004 (** In case of 100 V AC)<br>*** with SM-BTE80 or EW-CP100 | * By EC-E8004 (** In case of 100 V AC)<br>*** with SM-BTE80 or EW-CP100 | * By EC-E8004 (** In case of 100 V AC) | * By EC-E8004 (** In case of 100 V AC) | * By EC-E8004 (** In case of 100 V AC) | * By EC-E8004 (** In case of 100 V AC) |

# Battery

E-BIKE

| Series                            |            | SHIMANO                                | SHIMANO   | SHIMANO   | SHIMANO   | SHIMANO                                | SHIMANO   |
|-----------------------------------|------------|--|---|---|---|--|---|
| Model no.                         |            | BT-EN405                               | BT-E8010  | BT-E8014  | BT-E8016  | BT-E8020                               | BT-E8035  |
| Color                             | 1          | Black                                  | Black   | Black   | Black   | Black                                  | Black   |
|                                   | 2          | Gray                                   | -   | -   | -   | -                                      | -   |
|                                   | 3          | -                                      | -   | -   | -   | -                                      | -   |
| EN 15194:2017+A1:2023 compliant   |            | -                                      | -   | -   | -   | -                                      | -   |
| UL2271                            |            | -                                      | -   | -   | -   | -                                      | -   |
| Battery management system         |            | Second generation                      | First generation  | First generation  | First generation  | First generation                       | First generation  |
| Chemistry                         |            | Li-Ion                                 | Li-Ion  | Li-Ion  | Li-Ion  | Li-Ion                                 | Li-Ion  |
| Position                          |            | Rear carrier                           | Down tube/Seat tube   | Down tube/Seat tube   | Down tube/Seat tube   | Integrated                             | Integrated  |
| Nominal voltage (V)               |            | 36                                     | 36  | 36  | 36  | 36                                     | 36  |
| Capacity (Ah)                     |            | 14                                     | * 14  | * 11.6  | * 17.5  | 14                                     | * 14  |
| Rated capacity (Ah)               |            | 13                                     | 13  | 10.9  | 16.2  | 13                                     | 13  |
| Energy Content (Wh)               |            | 504                                    | * 504   | * 418   | * 630   | 504                                    | * 504   |
| Rated capacity (Wh)               |            | 468                                    | 468   | 393   | 583   | 468                                    | 468   |
| Cyclelife span for charge (times) |            | 1,000 (more than 60%)                  | 1,000 (more than 60%)   | 1,000 (more than 60%)   | 1,000 (more than 60%)   | 1,000 (more than 60%)                  | 1,000 (more than 60%)   |
| Time to charge (hour)             | SOC = 100% | * 4 (** 4.5)                           | ** 4 (***) 4.5)   | ** 3.0 (***) 3.5)   | ** 4.8 (***) 5.7)   | * 4 (** 4.5)                           | ** 4 (***) 4.5)   |
|                                   | SOC = 80%  | * 2.5 (** 3.2)                         | ** 2.5 (***) 3.2)   | ** 2.0 (***) 2.5)   | ** 3.2 (***) 4)   | * 2.5 (** 3.2)                         | ** 2.5 (***) 3.2)   |
| Charge level display              |            | ✓                                      | ✓   | ✓   | ✓   | ✓                                      | ✓   |
| Error signal                      |            | ✓                                      | ✓   | ✓   | ✓   | ✓                                      | ✓   |
| Charging port                     |            | -                                      | ✓   | ✓   | ✓   | ✓                                      | **** -  |
| System on/off switch              |            | ✓                                      | ✓   | ✓   | ✓   | ✓                                      | ✓   |
| Compatible battery mount          |            | BM-EN400                               | BM-E8016  | BM-E8016  | BM-E8016  | BM-E8020                               | BM-E8030-A<br>BM-E8030-B<br>BM-E8031-A<br>BM-E8031-B  |
| Compatible charger                |            | EC-E6002, EC-E8004                     | EC-E6002, EC-E8004  | EC-E6002, EC-E8004  | EC-E6002, EC-E8004  | EC-E6002, EC-E8004                     | EC-E6002, EC-E8004  |
| Compatible adaptor for charge     |            | SM-BTE60                               | -   | -   | -   | -                                      | SM-BTE80  |
| Average weight (kg)               |            | 2.8                                    | 2.6   | 2.6   | 3.2   | 3.1                                    | 3.0   |
| Note                              |            | * By EC-E8004 (** In case of 100 V AC) | * BT-E8010 for Japan (13 Ah, 468 Wh)<br>** By EC-E8004 (***) In case of 100 V AC) | * BT-E8014 for Japan (10.9 Ah, 393 Wh)<br>** By EC-E8004 (***) In case of 100 V AC) | * BT-E8016 for Japan (16.2 Ah, 583 Wh)<br>** By EC-E8004 (***) In case of 100 V AC) | * By EC-E8004 (** In case of 100 V AC) | * BT-E8035 for Japan (13 Ah, 468 Wh)<br>** By EC-E8004 (***) In case of 100 V AC)<br>**** with SM-BTE80 or EW-CP100 |

SC

SW

DU

SMDU

SMDU

RT

FC

SMCR

SMCD

BT

BM

EWSW

EWCP

EC

SMBTE

SMDU

EWCA

BSAU

BSAS

BSAP

BSSS

SMPCE

BSEW



# Battery

| Series                            |            | SHIMANO   | SHIMANO   | SHIMANO                                | SHIMANO                                |
|-----------------------------------|------------|---|---|--|--|
| Model no.                         |            | BT-E8035-L  | BT-E8036  | BT-E6000                               | BT-E6001                               |
| Color                             | 1          | Black   | Black   | Black                                  | Black                                  |
|                                   | 2          | -   | -   | Gray                                   | Gray                                   |
|                                   | 3          | -   | -   | -                                      | -                                      |
| EN 15194:2017+A1:2023 compliant   |            | -   | -   | -                                      | -                                      |
| UL2271                            |            | -   | -   | -                                      | -                                      |
| Battery management system         |            | First generation  | First generation  | First generation                       | First generation                       |
| Chemistry                         |            | Li-Ion  | Li-Ion  | Li-Ion                                 | Li-Ion                                 |
| Position                          |            | Integrated  | Integrated  | Rear carrier                           | Rear carrier                           |
| Nominal voltage (V)               |            | 36  | 36  | 36                                     | 36                                     |
| Capacity (Ah)                     |            | * 14  | * 17.5  | 11.6                                   | 14                                     |
| Rated capacity (Ah)               |            | 13  | 16.2  | 10.9                                   | 13                                     |
| Energy Content (Wh)               |            | * 504   | * 630   | 418                                    | 504                                    |
| Rated capacity (Wh)               |            | 468   | 583   | 393                                    | 468                                    |
| Cyclelife span for charge (times) |            | 1,000 (more than 60%)   | 1,000 (more than 60%)   | 1,000 (more than 60%)                  | 1,000 (more than 60%)                  |
| Time to charge (hour)             | SOC = 100% | ** 4 (** 4.5)   | ** 4.8 (** 5.7)   | * 3.0 (** 3.5)                         | * 4 (** 4.5)                           |
|                                   | SOC = 80%  | ** 2.5 (** 3.2)   | ** 3.2 (** 4)   | * 2.0 (** 2.5)                         | * 2.5 (** 3.2)                         |
| Charge level display              |            | ✓   | ✓   | ✓                                      | ✓                                      |
| Error signal                      |            | ✓   | ✓   | ✓                                      | ✓                                      |
| Charging port                     |            | **** _  | **** _  | -                                      | -                                      |
| System on/off switch              |            | ✓   | ✓   | ✓                                      | ✓                                      |
| Compatible battery mount          |            | BM-E8030-A<br>BM-E8030-B<br>BM-E8031-A<br>BM-E8031-B  | BM-E8030-A<br>BM-E8030-B<br>BM-E8031-A<br>BM-E8031-B  | BM-E6000                               | BM-E6000                               |
| Compatible charger                |            | EC-E6002, EC-E8004  | EC-E6002, EC-E8004  | EC-E6002, EC-E8004                     | EC-E6002, EC-E8004                     |
| Compatible adaptor for charge     |            | SM-BTE80  | SM-BTE80  | SM-BTE60                               | SM-BTE60                               |
| Average weight (kg)               |            | 3.1   | 3.6   | 2.7                                    | 2.8                                    |
| Note                              |            | * BT-E8035-L for Japan (13 Ah, 468 Wh)<br>** By EC-E8004 (** In case of 100 V AC)<br>**** with SM-BTE80 or EW-CP100 | * BT-E8036 for Japan (16.2 Ah, 583 Wh)<br>** By EC-E8004 (** In case of 100 V AC)<br>**** with SM-BTE80 or EW-CP100 | * By EC-E8004 (** In case of 100 V AC) | * By EC-E8004 (** In case of 100 V AC) |

# Battery Mount

| Series                                       |      | SHIMANO              | SHIMANO  | SHIMANO  | SHIMANO  | SHIMANO  | SHIMANO   |
|--|------|----------------------|--|--|--|--|---|
| Model no.                                    |      | BM-EN810-A           | BM-EN800-A   | BM-EN800-B   | BM-EN801-A   | BM-EN801-B   | BM-EN600  |
| Color  | 1    | Black                | Black  | Black  | Black  | Black  | Black   |
|  | 2    | -                    | -  | -  | -  | -  | -   |
|  | 3    | -                    | -  | -  | -  | -  | -   |
| UL2849                                       |      | ✓                    | ✓  | ✓  | ✓  | ✓  | ✓   |
| Battery management system                    |      | Second generation    | Second generation  | Second generation  | Second generation                                      | Second generation                                      | Second generation   |
| Position                                     |      | Integrated           | Integrated   | Integrated   | Integrated   | Integrated   | Down tube/Seat tube   |
| Charging port                                |      | -                    | -  | -  | -  | -  | -   |
| Key lock system                              |      | -                    | ✓  | ✓  | -  | -  | ✓   |
| Power cable                                  |      | ✓                    | ✓  | ✓  | ✓  | ✓  | ✓   |
| Power cable length (mm)                      | 75   | -                    | -  | -  | -  | -  | -   |
|  | 250  | ✓                    | ✓  | ✓  | ✓  | ✓  | ✓   |
|  | 300  | -                    | -  | -  | -  | -  | ✓   |
|  | 400  | ✓                    | ✓  | ✓  | ✓  | ✓  | -   |
|  | 600  | -                    | -  | -  | -  | -  | ✓   |
|  | 900  | -                    | -  | -  | -  | -  | -   |
|  | 920  | -                    | -  | -  | -  | -  | -   |
|  | 1000 | -                    | -  | -  | -  | -  | -   |
|  | 1020 | -                    | -  | -  | -  | -  | -   |
| Compatible satellite charging port           |      | EW-CP110<br>EW-CP111 | EW-CP100   | -  | EW-CP100   | -  | -   |
| Cable length to satellite charging port (mm) |      | 200                  | 200  | -  | 200  | -  | -   |
| Average weight (kg)                          |      | -                    | * 0.31 (Power cable: 250 mm), * 0.32 (Power cable: 400 mm) | * 0.29 (power cable: 250 mm), * 0.30 (power cable: 400 mm) | 0.33 (power cable: 250 mm), 0.34 (power cable: 400 mm) | 0.31 (power cable: 250 mm), 0.32 (power cable: 400 mm) | * 0.27 (power cable: 250 mm/300 mm), * 0.30 (power cable: 600 mm) |
| Note   |      |                      | * Without key unit   | * Without key unit   | -  | -  | * Without key unit  |

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# Battery Mount

| Series                                       |      | SHIMANO   | SHIMANO  | SHIMANO             | SHIMANO          | SHIMANO  | SHIMANO  |
|--|------|---|--|---------------------|------------------|--|--|
| Model no.                                    |      | BM-EN400-A  | BM-EN400-B   | BM-E8016            | BM-E8020         | BM-E8030-A   | BM-E8030-B   |
| Color  | 1    | Black   | Black  | Black               | Black            | Black  | Black  |
|  | 2    | Gray  | Gray   | -                   | -                | -  | -  |
|  | 3    | -   | -  | -                   | -                | -  | -  |
| UL2849                                       |      | -   | -  | -                   | -                | -  | -  |
| Battery management system                    |      | Second generation   | Second generation  | First generation    | First generation | First generation   | First generation   |
| Position                                     |      | Rear carrier  | Rear carrier   | Down tube/Seat tube | Integrated       | Integrated   | Integrated   |
| Charging port                                |      | ✓   | ✓  | -                   | -                | -  | -  |
| Key lock system                              |      | ✓   | ✓  | ✓                   | ✓                | ✓  | ✓  |
| Power cable                                  |      | ✓   | ✓  | ✓                   | ✓                | ✓  | ✓  |
| Power cable length (mm)                      | 75   | -   | -  | -                   | -                | -  | -  |
|  | 250  | -   | -  | ✓                   | ✓                | ✓  | ✓  |
|  | 300  | -   | -  | ✓                   | -                | -  | -  |
|  | 400  | -   | -  | -                   | ✓                | ✓  | ✓  |
|  | 600  | -   | -  | ✓                   | -                | -  | -  |
|  | 900  | -   | -  | -                   | -                | -  | -  |
|  | 920  | ✓   | ✓  | -                   | -                | -  | -  |
|  | 1000 | -   | -  | -                   | -                | -  | -  |
|  | 1020 | ✓   | ✓  | -                   | -                | -  | -  |
| Compatible satellite charging port           |      | -   | -  | -                   | -                | EW-CP100   | -  |
| Cable length to satellite charging port (mm) |      | -   | -  | -                   | -                | 200  | -  |
| Average weight (kg)                          |      | * 0.38 (power cable: 920 mm), * 0.39 (power cable: 1020 mm) | * 0.38 (power cable: 920 mm), * 0.39 (power cable: 1020 mm)          | -                   | -                | * 0.31 (Power cable: 250 mm), * 0.32 (Power cable: 400 mm) | * 0.29 (power cable: 250 mm), * 0.30 (power cable: 400 mm) |
| Note   |      | Compatibility with AXA key unit.<br>* Without key unit      | Compatibility with ABUS and Trellock key unit.<br>* Without key unit | -                   | -                | * Without key unit   | * Without key unit   |

# Battery Mount

| Series                                       |      | SHIMANO  | SHIMANO  | SHIMANO                          | SHIMANO                                       |
|--|------|--|--|----------------------------------|---|
| Model no.                                    |      | BM-E8031-A   | BM-E8031-B   | BM-E6000-A                       | BM-E6000-B                                    |
| Color  | 1    | Black  | Black  | Black                            | Black   |
|  | 2    | -  | -  | Gray                             | Gray  |
|  | 3    | -  | -  | -                                | -   |
| UL2849                                       |      | -  | -  | -                                | -   |
| Battery management system                    |      | First generation                                       | First generation                                       | First generation                 | First generation                              |
| Position                                     |      | Integrated   | Integrated   | Rear carrier                     | Rear carrier                                  |
| Charging port                                |      | -  | -  | ✓                                | ✓   |
| Key lock system                              |      | -  | -  | ✓                                | ✓   |
| Power cable                                  |      | ✓  | ✓  | ✓                                | ✓   |
| Power cable length (mm)                      | 75   | -  | -  | -                                | -   |
|  | 250  | ✓  | ✓  | -                                | -   |
|  | 300  | -  | -  | -                                | -   |
|  | 400  | ✓  | ✓  | -                                | -   |
|  | 600  | -  | -  | -                                | -   |
|  | 900  | -  | -  | -                                | -   |
|  | 920  | -  | -  | ✓                                | ✓   |
|  | 1000 | -  | -  | -                                | -   |
|  | 1020 | -  | -  | ✓                                | ✓   |
| Compatible satellite charging port           |      | EW-CP100   | -  | -                                | -   |
| Cable length to satellite charging port (mm) |      | 200  | -  | -                                | -   |
| Average weight (kg)                          |      | 0.33 (power cable: 250 mm), 0.34 (power cable: 400 mm) | 0.31 (power cable: 250 mm), 0.32 (power cable: 400 mm) | -                                | -   |
| Note   |      | -  | -  | Compatibility with AXA key unit. | Compatibility with ABUS and Trelock key unit. |

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## Satellite System ON/OFF Switch

| Series                            |               | SHIMANO           | SHIMANO          | SHIMANO          |
|-----------------------------------|---------------|-------------------|------------------|------------------|
| Model no.                         |               | EW-SW310          | EW-SW300         | EW-SW100         |
| Battery management system         |               | Second generation | First generation | First generation |
| Position                          |               | Integrated        | Integrated       | Integrated       |
| Master unit                       |               | -                 | -                | -                |
| Switch QTY (pcs)                  |               | 2                 | 1                | 1                |
| SD50 port (pcs)                   |               | 0                 | 0                | 0                |
| SD300 port (pcs)                  |               | 2                 | 0                | 0                |
| SD50 connector (pcs)              |               | 0                 | 0                | 1                |
| SD300 connector (pcs)             |               | 0                 | 1                | 0                |
| LED                               | Battery level | ✓                 | -                | -                |
|                                   | Assist status | ✓                 | -                | -                |
| Firmware update by E-TUBE PROJECT |               | ✓                 | ✓                | ✓                |
| Cable length (mm)                 |               | -                 | 1100             | 1100             |
| Average weight (g)                |               | 10                | 23               | 25               |
| Note                              |               |                   |                  |                  |

## Satellite Charging Port

| Series                             |  | SHIMANO                            | SHIMANO    | SHIMANO  |
|------------------------------------|--|------------------------------------|------------|--|
| Model no.                          |  | EW-CP110                           | EW-CP111   | EW-CP100                                       |
| UL2849                             |  | ✓                                  | ✓          | ✓  |
| Position                           |  | Integrated                         | Integrated | Integrated                                     |
| Compatible battery mount           |  | BM-EN810-A                         | BM-EN810-A | BM-EN800-A, BM-EN801-A, BM-E8030-A, BM-E8031-A |
| Compatible battery charger         |  | * EC-EN814                         | EC-EN814   | EC-E6002, EC-E8004                             |
| Firmware update by E-TUBE PROJECT  |  | -                                  | -          | -  |
| Cable length to battery mount (mm) |  | 200, 550                           | 200, 550   | 200, 550                                       |
| Average weight (g)                 |  | -                                  | -          | -  |
| Note                               |  | * Need SM-BTE81 to charge in frame |            |  |

# Battery Charger

E-BIKE

| Series   |                    | SHIMANO                      | SHIMANO  | SHIMANO   | SHIMANO                      | SHIMANO  | SHIMANO  |
|--|--------------------|------------------------------|--|---|------------------------------|--|--|
| Model no.  |                    | EC-EN814                     | EC-E8004-1   | EC-E8004-2  | EC-E8004-3                   | EC-E8004-4   | EC-E8004-6   |
| Color  | 1                  | Black                        | Black  | Black   | Black                        | Black  | Black  |
|  | 2                  | -                            | -  | -   | -                            | -  | -  |
|  | 3                  | -                            | -  | -   | -                            | -  | -  |
| Plug type  |                    | -                            | Type C   | Type A  | Type A                       | Type O   | Type BF  |
| Typical example country/region                     |                    | Worldwide                    | Europe   | USA, Canada   | Japan                        | Australia, New Zealand                                 | UK   |
| Compatible voltage                                 |                    | 100 V - 240 V AC, 50 - 60 Hz | 100 V - 240 V AC, 50 - 60 Hz                           | USA/Canada: 120 V AC, 50 - 60 Hz / Others: 100 - 240 V AC, 50 - 60 Hz | 100 V AC, 50 - 60 Hz         | 100 V - 240 V AC, 50 - 60 Hz                           | 100 V - 240 V AC, 50 - 60 Hz                           |
| Output   |                    | 42 V DC, 4A                  | 42 V DC, 4 - 4.6 A                                     | 42 V DC, 4 A  | 42 V DC, 4 - 4.6 A           | 42 V DC, 4 - 4.6 A                                     | 42 V DC, 4 - 4.6 A                                     |
| CE standard  |                    | ✓                            | ✓  | -   | -                            | -  | ✓  |
| UL1012   |                    | ✓                            | ✓  | ✓   | ✓                            | ✓  | ✓  |
| Korea standard                                     |                    | ✓                            | -  | -   | -                            | -  | -  |
| Japan standard                                     |                    | ✓                            | -  | -   | ✓                            | -  | -  |
| Charging time for 712 Wh battery                   | Full charge (hour) | 5.2                          | -  | -   | -                            | -  | -  |
|  | 80% charge (hour)  | 3.4                          | -  | -   | -                            | -  | -  |
| Charging time for 630 Wh (583 Wh in Japan) battery | Full charge (hour) | -                            | 4.8 (* 5.7)  | 5.7   | 5.7                          | 4.8 (* 5.7)  | 4.8 (* 5.7)  |
|  | 80% charge (hour)  | -                            | 3.2 (* 4)  | 4   | 4                            | 3.2 (* 4)  | 3.2 (* 4)  |
| Charging time for 504 Wh (464 Wh in Japan) battery | Full charge (hour) | -                            | 4 (* 4.5)  | 4.5   | 4.5                          | 4 (* 4.5)  | 4 (* 4.5)  |
|  | 80% charge (hour)  | -                            | 2.5 (* 3.2)  | 3.2   | 3.2                          | 2.5 (* 3.2)  | 2.5 (* 3.2)  |
| Charging time for 418 Wh (393 Wh in Japan) battery | Full charge (hour) | -                            | 3.0 (* 3.5)  | 3.5   | 3.5                          | 3.0 (* 3.5)  | 3.0 (* 3.5)  |
|  | 80% charge (hour)  | -                            | 2.0 (* 2.5)  | 2.5   | 2.5                          | 2.0 (* 2.5)  | 2.0 (* 2.5)  |
| Charging level display                             |                    | -                            | -  | -   | -                            | -  | -  |
| Plug in charging type                              |                    | ✓                            | ✓  | ✓   | ✓                            | ✓  | ✓  |
| Charging temperature                               |                    | 0 - 40 °C                    | 0 - 40 °C  | 0 - 40 °C   | 0 - 40 °C                    | 0 - 40 °C  | 0 - 40 °C  |
| Storage temperature                                |                    | -20 - 60 °C                  | -20 - 60 °C  | -20 - 60 °C   | -20 - 60 °C                  | -20 - 60 °C  | -20 - 60 °C  |
| Error signal                                       |                    | ✓                            | ✓  | ✓   | ✓                            | ✓  | ✓  |
| Adapter for battery connector                      |                    | * -                          | ** -   | * -   | * -                          | ** -   | ** -   |
| Compatible AC power cable                          |                    | SM-BCC1                      | -  | -   | -                            | -  | -  |
| Built in AC cable                                  |                    | -                            | ✓  | ✓   | ✓                            | ✓  | ✓  |
| Built in AC cable length (m)                       |                    | -                            | 2  | 2   | 1                            | 1  | 1  |
| Average weight (g)                                 |                    | 600                          |  |   |                              |  |  |
| Note   |                    | * Check latest line-up chart | * In case of 100 V AC<br>** Check latest line-up chart | * Check latest line-up chart  | * Check latest line-up chart | * In case of 100 V AC<br>** Check latest line-up chart | * In case of 100 V AC<br>** Check latest line-up chart |

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# Battery Charger

| Series   |                    | SHIMANO  | SHIMANO  | SHIMANO                      |
|--|--------------------|--|--|------------------------------|
| Model no.  |                    | EC-E8004-7   | EC-E8004-12  | EC-E6002                     |
| Color  | 1                  | Black  | Black  | Black                        |
|  | 2                  | -  | -  | -                            |
|  | 3                  | -  | -  | -                            |
| Plug type  |                    | Type C   | Type C   | -                            |
| Typical example country/region                     |                    | Korea  | Brazil   | Worldwide                    |
| Compatible voltage                                 |                    | 100 V - 240 V AC, 50 - 60 Hz                           | 100 V - 240 V AC, 50 - 60 Hz                           | 100 V - 240 V AC, 50 - 60 Hz |
| Output   |                    | 42 V DC, 4 - 4.6 A                                     | 42 V DC, 4 - 4.6 A                                     | 42 V DC, 1.8 A               |
| CE standard  |                    | -  | -  | ✓                            |
| UL1012   |                    | ✓  | ✓  | ✓                            |
| Korea standard                                     |                    | ✓  | -  | ✓                            |
| Japan standard                                     |                    | -  | -  | ✓                            |
| Charging time for 712 Wh battery                   | Full charge (hour) | -  | -  | -                            |
|  | 80% charge (hour)  | -  | -  | -                            |
| Charging time for 630 Wh (583 Wh in Japan) battery | Full charge (hour) | 4.8 (* 5.7)  | 4.8 (* 5.7)  | 10.2                         |
|  | 80% charge (hour)  | 3.2 (* 4)  | 3.2 (* 4)  | 7.5                          |
| Charging time for 504 Wh (464 Wh in Japan) battery | Full charge (hour) | 4 (* 4.5)  | 4 (* 4.5)  | 7.5                          |
|  | 80% charge (hour)  | 2.5 (* 3.2)  | 2.5 (* 3.2)  | 4                            |
| Charging time for 418 Wh (393 Wh in Japan) battery | Full charge (hour) | 3.0 (* 3.5)  | 3.0 (* 3.5)  | 6.5                          |
|  | 80% charge (hour)  | 2.0 (* 2.5)  | 2.0 (* 2.5)  | 3.5                          |
| Charging level display                             |                    | -  | -  | -                            |
| Plug in charging type                              |                    | ✓  | ✓  | ✓                            |
| Charging temperature                               |                    | 0 - 40 °C  | 0 - 40 °C  | 0 - 40 °C                    |
| Storage temperature                                |                    | -20 - 60 °C  | -20 - 60 °C  | -20 - 60 °C                  |
| Error signal                                       |                    | ✓  | ✓  | ✓                            |
| Adapter for battery connector                      |                    | ** -   | ** -   | * -                          |
| Compatible AC power cable                          |                    | -  | -  | SM-BCC1                      |
| Built in AC cable                                  |                    | ✓  | ✓  | -                            |
| Built in AC cable length (m)                       |                    | 1  | 1  | -                            |
| Average weight (g)                                 |                    |  |  | 523                          |
| Note   |                    | * In case of 100 V AC<br>** Check latest line-up chart | * In case of 100 V AC<br>** Check latest line-up chart | * Check latest line-up chart |

## Charging Adapter

| Series                       | SHIMANO    | SHIMANO  | SHIMANO                                      |
|------------------------------|------------|--|--|
| Model no.                    | SM-BTE81   | SM-BTE80   | SM-BTE60                                     |
| UL2849                       | ✓          | ✓  | -  |
| Compatible battery           | BT-EN817-B | BT-EN806<br>BT-EN805-L<br>BT-EN805<br>BT-E8036<br>BT-E8035-L<br>BT-E8035 | BT-EN405<br>BT-EN404<br>BT-E6001<br>BT-E6000 |
| Compatible Charger           | EC-EN814   | EC-E6000<br>EC-E6002<br>EC-E8004   | EC-E6000<br>EC-E6002<br>EC-E8004             |
| Compatible Charger port      | EW-CP110   | -  | -  |
| For range extender           | -          | -  | -  |
| Built in AC cable            | -          | -  | -  |
| Built in AC cable length (m) | -          | -  | -  |
| Note                         |            |  |  |

## Chain Case Fixing Screw

| Series                    | SHIMANO   |
|---------------------------|---|
| Model no.                 | SM-DUE61-FB   |
| Color                     | Black   |
| Size                      | M4 x 8 low head                                       |
| Quantity (pcs) /1 package | 120   |
| Note                      | Available for DU-E6100/DU-E6100-CRG/DU-E6110/DU-E6180 |

## CAN Cable

| Series                | SHIMANO            |
|-----------------------|--------------------|
| Model no.             | EW-CA110           |
| Type                  | -                  |
| Compatible system     | DU-EP801, DU-EP600 |
| SD50 port (pcs)       | 0                  |
| SD300 port (pcs)      | 0                  |
| SD50 connector (pcs)  | 0                  |
| SD300 connector (pcs) | 0                  |
| Cord diameter         | ø3.15              |
| Plug diameter         | ø5.5               |
| Note                  |                    |

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BSAP

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SMPCE

BSEW



# ABS Main Unit

|                             |                      |   |
|-----------------------------|----------------------|---|
| Series                      |                      | SHIMANO                                     |
| Model no.                   |                      | BS-AU301                                    |
| Color                       | 1                    | Black                                       |
|                             | 2                    | -   |
|                             | 3                    | -   |
| Compatible brake type       |                      | Disc brake                                  |
| Frame mount                 | Internal             | ✓   |
|                             | External             | ✓   |
| Adaptive bike category      | E-MTB                | ✓**   |
|                             | E-ROAD/GRAVEL        | -   |
|                             | E-TREKKING/CITY      | ✓   |
|                             | E-Cargo              | ✓   |
|                             | E-Small tire         | ✓   |
| Compatible drive unit       | SHIMANO              | ✓*  |
|                             | Others               | ✓   |
| Compatible battery          | SHIMANO              | ✓*  |
|                             | 3rd Party            | ✓   |
| Compatible wheel size (mm)  |                      | 1300-3000                                   |
| Control tire                | Front                | ✓   |
|                             | Rear                 | -   |
| J-kit                       |                      | ✓   |
| Brake hose length           |                      | 3000 mm or less                             |
| Communication               | E-TUBE               | -   |
|                             | CAN                  | ✓   |
|                             | USB                  | -   |
| Port for wheel speed sensor |                      | ✓   |
| Port for CAN connection     |                      | ✓   |
| Master unit                 |                      | -   |
| Firmware update             | By E-TUBE PROJECT    | -   |
|                             | By Blubrake software | ✓   |
| SD300 port (pcs)            |                      | 0   |
| SD300 connector (pcs)       |                      | 0   |
| SD50 port (pcs)             |                      | 0   |
| SD50 connector (pcs)        |                      | 0   |
| Average weight (g)          |                      | -   |
| Note                        |                      | *Refer to Line-up chart<br>**With condition |

## ABS Main Unit Mounting Parts Set

| Series                |          | SHIMANO    | SHIMANO    |
|-----------------------|----------|------------|------------|
| Model no.             |          | BS-AS300-O | BS-AS300-I |
| Color                 | 1        | Black      | -          |
|                       | 2        | -          | -          |
|                       | 3        | -          | -          |
| Compatible brake type |          | -          | -          |
| Frame mount           | Internal | -          | ✓          |
|                       | External | ✓          | -          |
| Average weight (g)    |          | -          | -          |
| Note                  |          |            |            |

## ABS Power Split Cable

| Series                   |           | SHIMANO                 |
|--------------------------|-----------|-------------------------|
| Model no.                |           | BS-AP301                |
| Color                    | 1         | Black                   |
|                          | 2         | -                       |
|                          | 3         | -                       |
| Adaptation voltage (V)   |           | 24 - 60                 |
| Compatible drive unit    | SHIMANO   | ✓*                      |
|                          | Others    | -                       |
| Compatible battery       | SHIMANO   | ✓*                      |
|                          | 3rd Party | ✓                       |
| Wire harness length (mm) |           | 950                     |
| Communication            | E-TUBE    | -                       |
|                          | UART      | ✓                       |
|                          | CAN       | -                       |
|                          | USB       | -                       |
| Average weight (g)       |           | -                       |
| Note                     |           | *Refer to Line-up chart |

SC

SW

DU

SMDU

SMDU

RT

FC

SMCR

SMCD

BT

BM

EWSW

EWCP

EC

SMBTE

SMDU

EWCA

BSAU

BSAS

BSAP

BSSS

SMPCE

BSEW

## ABS Wheel Speed Sensor Kit

| Series                     |                          | SHIMANO                                    | SHIMANO                                    | SHIMANO        | SHIMANO        |
|----------------------------|--------------------------|--|--|----------------|----------------|
| Model no.                  |                          | BS-SS310-C                                 | BS-SS310-S                                 | BS-SS300-C     | BS-SS300-S     |
| Color                      | 1                        | Black                                      | Black                                      | Black          | Black          |
|                            | 2                        | -  | -  | -              | -              |
|                            | 3                        | -  | -  | -              | -              |
| Compatible brake type      |                          | Disc brake                                 | Disc brake                                 | Disc brake     | Disc brake     |
| Mount type                 |                          | F&R160PM, F&R180PM, F&R200PM, F&R203PM, IS | F&R160PM, F&R180PM, F&R200PM, F&R203PM, IS | F160PM, F180PM | F160PM, F180PM |
| Compatible rotor size      | 140 mm (SS)              | -  | -  | -              | -              |
|                            | 160 mm (S)               | -  | -  | -              | -              |
|                            | 180 mm (M)               | ✓  | ✓  | ✓              | ✓              |
|                            | 203 mm (L)               | ✓  | ✓  | ✓              | ✓              |
|                            | 220 mm (LL)              | ✓  | ✓  | -              | -              |
| Compatible rotor mount     | CENTER LOCK              | ✓  | -  | ✓              | -              |
|                            | 6-bolt                   | -  | ✓  | -              | ✓              |
| Fork and frame mount style | Post mount               | 140 mm direct                              | -  | -              | -              |
|                            |                          | 160 mm direct                              | ✓  | ✓              | ✓              |
|                            |                          | 180 mm direct                              | ✓  | ✓              | ✓              |
|                            |                          | 200 mm direct                              | ✓  | -              | -              |
|                            |                          | 203 mm direct                              | ✓  | -              | -              |
|                            | Flat mount               | Front                                      | -  | -              | -              |
|                            |                          | Rear                                       | -  | -              | -              |
|                            | International A-standard |  | ✓  | ✓              | -              |
| Wire harness length (mm)   |                          | -  | -  | 140            | 140            |
| Average weight (g)         |                          | -  | -  | -              | -              |
| Note                       |                          | For ABS, without Speed Sensor              | For ABS, without Speed Sensor              |                |                |

## PC Linkage Device for ABS

| Series                | SHIMANO        |
|-----------------------|----------------|
| Model no.             | SM-PCEBS       |
| USB port (pcs)        | Type-A(2.0): 1 |
| SD50 port (pcs)       | 0              |
| SD300 port (pcs)      | 0              |
| SD50 connector (pcs)  | 0              |
| SD300 connector (pcs) | 0              |
| PC link port (pcs)    | 0              |
| LED                   | 1              |
| Note                  |                |

# Extension Cable for ABS

| Series                   |        | SHIMANO              | SHIMANO                |
|--------------------------|--------|----------------------|------------------------|
| Model no.                |        | BS-EW302             | BS-EW305               |
| Color                    | 1      | Black                | Black                  |
|                          | 2      | -                    | -                      |
|                          | 3      | -                    | -                      |
| Wire harness length (mm) | 350    | -                    | ✓                      |
|                          | 400    | ✓                    | -                      |
|                          | 500    | ✓                    | -                      |
|                          | 600    | ✓                    | -                      |
|                          | 1600   | -                    | ✓                      |
| Communication            | E-TUBE | -                    | -                      |
|                          | UART   | -                    | -                      |
|                          | CAN    | -                    | ✓                      |
|                          | USB    | -                    | -                      |
| Average weight (g)       |        | -                    | -                      |
| Note                     |        | Connector color: red | Connector color: green |

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**SHIMANO**