Shift/Brake Lever (Hydraulic Disc Brake)

Se	Series		DURA-ACE	DURA-ACE	ULTEGRA	ULTEGRA	ULTEGRA	ULTEGRA
Mod	el no.		ST-R9120-R	ST-R9120-L	ST-R8020-R	ST-R8020-L	ST-R8025-R	ST-R8025-L
Callan		1	Series color	Series color	Series color	Series color	Black	Black
Color		2	-	-	-	-	-	-
Shifte	er type		DUAL CONTROL LEVER					
	Front	speeds	-	2	-	2	-	2
	Rear	speeds	11	-	11	-	11	-
Shift lever	Max. mul (main le	tiple shifts ver/rear)	2	-	2	-	2	-
	Multi-l consti	bearing ruction	-	-	-	-	-	-
	Outer	Lever side	OT-SP41	OT-SP41	OT-SP41	OT-SP41	OT-SP41	OT-SP41
	Outer casing	Rear derailleu r side	OT-RS900	OT-RS900	OT-RS900	OT-RS900	OT-RS900	OT-RS900
Shift lever cable		Polymer- coated cable	~	1	1	1	1	1
	Inner cable	OPTISLIC K	-	-	-	-	-	-
		SIL-TEC	-	-	-	-	-	-
		Stainless	-	-	-	-	-	-
		Steel	-	-	-	-	-	-
	Brake hose (k		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	1	Black	Black	Black	Black	Black	Black
	color (kit)	2	-	-	-	-	-	-
	Recom brake	mended caliper	BR-R9170	BR-R9170	BR-R8070	BR-R8070	BR-R8070	BR-R8070
	C	Dil	SHIMANO Mineral					
Brake lever	Reach	adjust	✓	1	1	1	1	1
	Clamp b	and (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	1	1	1	1	1	1
	Free stro	ke adjust	✓	1	1	1	1	✓
	SERVO	WAVE	✓	1	1	1	1	1
	Mat	terial	CFRP	CFRP	Engineering composite	Engineering composite	Aluminum	Aluminum
	Finish		Painted	Painted	Painted	Painted	Painted	Painted
Bracket	Mat	terial	Engineering composite	Engineering composite	Engineering composite	Engineering composite	Engineering composite	Engineering composite
	Fir	nish	-	-	-	-	-	-
Clamp band	Material		Titanium	Titanium	Steel	Steel	Steel	Steel
Average	weight (g)		538 (/pair)	538 (/pair)	554 (/pair)	554 (/pair)	568 (/pair)	568 (/pair)
N	ote						For small hand.	For small hand.

Shift/Brake Lever (Hydraulic Disc Brake)

Series		SHIMANO 105	SHIMANO 105	SHIMANO 105	SHIMANO 105	SHIMANO 105	SHIMANO 105	
Mod	el 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
Color		2	-	-	-	-	-	-
Shifte	er type		DUAL CONTROL LEVER					
	Front	speeds	-	2	-	2	-	2
	Rear spe		12	-	11	-	11	-
Shift lever	Max. mul (main le	tiple shifts ver/rear)	2	-	2	-	2	-
	Multi-l consti	bearing ruction	-	-	-	-	-	-
	Outor	Lever side	OT-SP41	OT-SP41	OT-SP41	OT-SP41	OT-SP41	OT-SP41
	Outer casing	Rear derailleu r side	OT-RS900	OT-RS900	OT-RS900	OT-RS900	OT-RS900	OT-RS900
Shift lever cable		Polymer- coated cable		-	-	-	-	
	Inner cable	OPTISLIC K	✓	1	1	1	1	✓
	cable	SIL-TEC	-	-	-	-	-	-
		Stainless	-	-	-	-	-	-
		Steel	-	-	-	-	-	-
	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	1	Black	Black	Black	Black	Black	Black
	color (kit)	2	-	-	-	-	-	-
	Recomi brake	mended caliper	BR-R7170	BR-R7170	BR-R7070, BR-R7170	BR-R7070, BR-R7170	BR-R7070, BR-R7170	BR-R7070, BR-R7170
Burlin lavor	C	Dil	SHIMANO Mineral					
Brake lever	Reach	adjust	✓	1	1	1	1	✓
	Clamp b	and (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	√	1	1	1	1	✓
	Free stro	ke adjust	-	-	-	-	-	-
	SERVO	WAVE	-	-	-	-	-	-
	Mat	terial	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
	Finish		Painted	Painted	Painted	Painted	Painted	Painted
Bracket	Mat	terial	Engineering composite	Engineering composite	Engineering composite	Engineering composite	Engineering composite	Engineering composite
	Fir	nish	-	-	-	-	-	-
Clamp band	Mat	terial	Steel	Steel	Steel	Steel	Steel	Steel
Average	weight (g)		612 (/pair)	612 (/pair)	610 (/pair)	610 (/pair)	619 (/pair)	619 (/pair)
No.	ote		-	-	-	-	For small hand.	For small hand.

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Shift/Brake Lever (Hydraulic Disc Brake)

Se	Series		TIAGRA	TIAGRA	TIAGRA	TIAGRA	SHIMANO	SHIMANO
Mod	Model no.		ST-4720-R	ST-4720-L	ST-4725-R	ST-4725-L	ST-RS685-R	ST-RS685-L
Calar		1	Series color	Series color	Series color	Series color	Series color	Series color
Color	2		-	-	-	-	-	-
Shifte	er type		DUAL CONTROL LEVER	DUAL CONTROL LEVER	DUAL CONTROL LEVER	DUAL CONTROL LEVER	DUAL CONTROL LEVER	DUAL CONTROL LEVER
	Front	speeds	-	2	-	2	-	2
	Rears	speeds	10	-	10	-	11	-
Shift lever	Max. mul (main le	tiple shifts ver/rear)	2	-	2	-	2	-
	Multi-l consti	bearing ruction	-	-	-	-	-	-
	Outer	Lever side	OT-SP41	OT-SP41	OT-SP41	OT-SP41	OT-SP41	OT-SP41
	Outer casing	Rear derailleu r side	OT-SP41	OT-SP41	OT-SP41	OT-SP41	OT-SP41	OT-SP41
Shift lever cable		Polymer- coated cable	-	-	-	-	1	1
	Inner cable	OPTISLIC K	1	1	1	1	-	-
	cable	SIL-TEC	-	-	-	-	-	-
		Stainless	-	-	-	-	-	-
		Steel	-	-	-	-	-	-
	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	1	Black	Black	Black	Black	Black	Black
	color (kit)	2	-	-	-	-	White	White
	Recomi brake	mended caliper	BR-4770	BR-4770	BR-4770	BR-4770	BR-RS785	BR-RS785
		Dil	SHIMANO Mineral	SHIMANO Mineral	SHIMANO Mineral	SHIMANO Mineral	SHIMANO Mineral	SHIMANO Mineral
Brake lever	Reach	adjust	✓	1	✓	✓	✓	✓
	Clamp b	and (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	✓	1	1	1	✓	✓
	Free stro	ke adjust	-	-	-	-	1	✓
	SERVO	WAVE	-	-	-	-	1	✓
	Mat	terial	Aluminum	Aluminum	Aluminum	Aluminum	Engineering composite	Engineering composite
	Finish		Painted	Painted	Painted	Painted	Painted	Painted
Bracket	Mat	terial	Engineering composite	Engineering composite	Engineering composite	Engineering composite	Aluminum	Aluminum
	Fir	nish	-	-	-	-	Painted	Painted
Clamp band	Mat	terial	Steel	Steel	Steel	Steel	Steel	Steel
Average v	weight (g)		-	-	-	-	649 (/pair)	649 (/pair)
No	ote				For small hand.	For small hand.		

Shift/Brake Lever (Hydraulic Disc Brake)

Se	ries		SHIMANO	SHIMANO
Mod	el no.		ST-RS405-R	ST-RS405-L
C. I		1	Dark gray	Dark gray
Color	:	2	-	-
Shifter type			DUAL CONTROL LEVER	DUAL CONTROL LEVER
	Front	speeds	-	2
	Rear	peeds	10	10
Shift lever	Max. mul (main le	tiple shifts ver/rear)	2	-
	Multi-l consti	pearing ruction	-	-
	Outer	Lever side	OT-SP41	OT-SP41
	Outer casing	Rear derailleu r side	OT-SP41	OT-SP41
Shift lever cable		Polymer- coated cable	-	-
	Inner	OPTISLIC K	1	4
	Inner cable	SIL-TEC	-	-
		Stainless	-	-
		Steel	-	-
	Brake hose (kit)		SM-BH59-J-SS	SM-BH59-J-SS
	Hose joint		Straight	Straight
	Brake hose	1	Black	Black
	hose color (kit)	2	-	-
	Recomi brake	mended caliper	BR-RS405	BR-RS405
	C	Dil	SHIMANO Mineral	SHIMANO Mineral
Brake lever	Reach	adjust	✓	✓
	Clamp b	and (mm)	23.8-24.2	23.8-24.2
	Funnel	bleeding	✓	1
	Free stro	ke adjust	-	-
	SERVO	WAVE	-	-
	Mat	erial	Aluminum	Aluminum
	Finish		Painted	Painted
Bracket	Material Material		Aluminum	Aluminum
	Fir	ish	Painted	Painted
Clamp band Material			Steel	Steel
Average	weight (g)		-	-
N	ote			

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Shift/Brake Lever

Ser	ies		DURA-ACE	DURA-ACE	DURA-ACE	ULTEGRA	ULTEGRA	ULTEGRA		
Mode			ST-R9100-R	ST-R9100-L	ST-9001	ST-R8000-R	ST-R8000-L	ST-6800		
		1	Series color							
Color	Color 2		-	-	-	-	-	-		
Shifte	r type		DUAL CONTROL LEVER							
	Front	speeds	-	2	2	-	2	2		
Shift lever	Rear s	peeds	11	-	11	11	-	11		
	Multi-k constr	earing ruction	R:4 L:4	R:4 L:4	R:4 L:4	*	*	_*		
	Outer casing	Outon	Outer	Lever side	OT-SP41	OT-SP41	OT-SP41	OT-SP41	OT-SP41	OT-SP41
		Rear derailleu r side	OT-RS900	OT-RS900	OT-SP41 sealed	OT-RS900	OT-RS900	OT-SP41 sealed		
Shift lever cable		Polymer- coated cable	1	1	1	1	1	1		
5	Inner	OPTISLIC K	-	-	-	-	-	-		
	cable	SIL-TEC	-	-	-	-	-	-		
		Stainless	1	1	1	1	1	1		
		Steel	-	-	-	-	-	-		
	Reach	adjust	Screw	Screw	Screw	Screw	Screw	Screw		
	Clamp ba	and (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	R-EV	✓	1	✓	✓	✓	✓		
Brake lever	NEW SU	IPER SLR	-	-	-	-	-	-		
	SUPE	R SLR	-	-	-	-	-	-		
	Mat	erial	Carbon	Carbon	Carbon	CFRP	CFRP	CFRP		
	Fin	ish	Painted	Painted	Painted	Painted	Painted	Painted		
Procket	Mat	erial	CFRP	CFRP	CFRP	CFRP	CFRP	CFRP		
Bracket	Fin	ish	CFRP	CFRP	CFRP	CFRP	CFRP	CFRP		
Average v	veight (g)		365 (/pair)	365 (/pair)	365 (/pair)	220	218	425 (/pair)		
No	te					* Use bush	* Use bush	* Use bush		

Shift/Brake Lever

Ser	Series		SHIMANO 105	SHIMANO 105	SHIMANO 105	TIAGRA	TIAGRA	TIAGRA
Mode	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
Color	2		Spark silver	Spark silver	Silver	-	-	-
Shifte	r type		DUAL CONTROL LEVER					
	Front	speeds	-	2	2	-	2	3
Shift lever	Rears	peeds	11	-	11	10	-	-
	Multi-l constr	pearing ruction	0	0	0	0	0	0
	Outer	Lever side	OT-SP41	OT-SP41	OT-SP41	OT-SP41	OT-SP41	OT-SP41
	Outer casing	Rear derailleu r side	OT-RS900	OT-RS900	OT-SP41 sealed	OT-SP41 sealed	OT-SP41 sealed	OT-SP41 sealed
Shift lever cable		Polymer- coated cable	-	-	-	-	-	-
	Inner	OPTISLIC K	1	✓	1	1	1	✓
	Inner cable	SIL-TEC	-	-	-	-	-	-
		Stainless	1	1	1	1	1	1
		Steel	-	-	-	-	-	-
	Reach	adjust	Screw	Screw	Screw	screw	Screw	Screw
	Clamp ba	and (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	R-EV	1	✓	1	✓	1	✓
Brake lever	NEW SU	JPER SLR	-	-	-	-	-	-
	SUPE	R SLR	-	-	-	-	-	-
	Mat	erial	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
	Fin	ish	Painted	Painted	Painted	Painted	Painted	Painted
Bracket	Material		GFRP	GFRP	GFRP	GFRP	GFRP	GFRP
Diacket	Fin	ish	GFRP	GFRP	GFRP	GFRP	GFRP	GFRP
Average v	veight (g)		251	249	486 (/pair)	-	-	-
No	ote		-	-				

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Shift/Brake Lever

Ser	ios		SORA	SORA	SORA	CLARIS	CLARIS	CLARIS
Mode			ST-R3000-R	ST-R3000-L	ST-R3030-L	ST-R2000-R	ST-R2000-L	ST-R2030-L
Wilde		1	Series color					
Color	Color 2		-	-	-	-	-	-
Shifte	r type		DUAL CONTROL LEVER					
	Front	speeds	-	2	3	-	2	3
Shift lever	Rear s	peeds	9	-	-	8	-	-
	Multi-k constr	pearing ruction	0	0	0	-	-	-
	Outer	Lever side	OT-SP41	OT-SP41	OT-SP41	OT-SP41	OT-SP41	OT-SP41
	casing	Rear derailleu r side	OT-SP41 sealed					
Shift lever cable		Polymer- coated cable	-	-	-	-	-	-
	Inner	OPTISLIC K	1	1	1	1	1	1
	Inner cable	SIL-TEC	-	-	-	-	-	-
		Stainless	1	1	1	-	-	-
		Steel	-	-	-	1	1	1
	Reach	adjust	Screw	Screw	Screw	Screw	Screw	Screw
	Clamp ba	and (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	R-EV	=	-	-	-	-	-
Brake lever	NEW SU	IPER SLR	✓	1	✓	✓	✓	✓
	SUPE	R SLR	-	-	-	-	-	-
	Mat	erial	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
	Fin	ish	Painted	Painted	Painted	Painted	Painted	Painted
Bracket	Mat	erial	GFRP	GFRP	GFRP	GFRP	GFRP	GFRP
Diacket	Fin	ish	GFRP	GFRP	GFRP	GFRP	GFRP	GFRP
Average v	veight (g)		-	-	-	-	-	-
No	te							

Shift/Brake Lever

Sei	ries		CLARIS	CLARIS	CLARIS
Mode	el no.		ST-RS200-R	ST-RS200-L	ST-RS203-L
Color		1	Series color	Series color	Series color
Color	:	2	-	-	-
Shifte	Shifter type		RAPIDFIRE PLUS	RAPIDFIRE PLUS	RAPIDFIRE PLUS
	Front	speeds	-	2	3
Shift lever	Rear	peeds	8	-	-
	Multi-l consti	pearing ruction	-	-	-
	Outer	Lever side	OT-SP41	OT-SP41	OT-SP41
	casing	Rear derailleu r side	OT-SP41 sealed	OT-SP41 sealed	OT-SP41 sealed
Shift lever cable	Inner cable	Polymer- coated cable	-	-	-
		OPTISLIC K	~	1	1
		SIL-TEC	-	-	-
		Stainless	-	-	-
		Steel	~	1	1
	Reach	adjust	~	1	1
	Clamp b	and (mm)	22.2	22.2	22.2
	SLF	R-EV	-	-	-
Brake lever	NEW SU	JPER SLR	-	-	-
	SUPE	R SLR	✓	1	1
	Mat	erial	Aluminum	Aluminum	Aluminum
	Fir	ish	Painted	Painted	Painted
Bracket	Material		Aluminum	Aluminum	Aluminum
Biacket	Fir	ish	Painted	Painted	Painted
Average v	weight (g)		-	-	-
No	ote				

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Shifter

Ser	ies		DURA-ACE	SHIMANO	SHIMANO	DURA-ACE	TIAGRA	TIAGRA
Mode	el no.		SL-BSR1	SL-RS700	SL-RS700-I	SL-7900	SL-4700	SL-4703
		1	Series color	Black	Black	Series color	Series color	Series color
Color	Color		-	-	-	-	-	-
Shifte	r type		Bar end shifter	RAPIDFIRE PLUS	RAPIDFIRE PLUS	Down tube shifter	RAPIDFIRE PLUS	RAPIDFIRE PLUS
Front	peeds		2	2	2	2/3	2	3
Rear s	peeds		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
	Clamp	band	-	1	-	-	✓	1
Mount type	I-SP	EC B	-	-	-	-	-	-
	I-SP	EC II	-	-	✓	-	-	-
Shift lever po	sition adju	st	-	-	-	-	-	-
Shift lever o	able adjust	t	-	1	1	-	1	1
Max. multiple shift	s (main lev	er/rear)	-	4	4	-	4	-
	MULTI F	RELEASE	-	*✔ (right)/- (left)	*✔ (right)/- (left)	-	-	-
Release function	INSTANT	RELEASE	-	✓	✓	-	✓ (rear)	-
	2-WAY F	RELEASE	-	1	✓	-	✓	✓
	With		-	-	-	-	✓	✓
OPTICAL GEAR DISPLAY	With (re	movable)	-	-	-	-	-	-
	With	hout	✓	1	1	1	-	-
Multi-bearing	construction	on	-	R:2 L:2	R:2 L:2	-	R:2 L:2	2
		Polymer- coated cable	-	-	-	-	-	-
Shift lever cable	Inner cable	OPTISLIC K	-	-	-	-	-	-
	cable	SIL-TEC	✓	1	✓	✓	-	-
		Stainless	✓	1	✓	✓	✓	1
		Steel	-	-	-	-	-	-
Shift lever bracket	Mat	erial	-	Aluminum	Aluminum	-	Aluminum	Aluminum
	Fin	ish	-	Painted	Painted	-	Painted	Painted
Clamp screw		erial	-			-		
·	Finish		-			-		
Main lever body		erial	Aluminum	CFRP	CFRP	Aluminum	Aluminum	Aluminum
	Finish		Clear coated	Painted	Painted	Clear coated	Painted	Painted
Release lever body		erial	-	Steel+GFRP	Steel+GFRP	-	Steel+Resin	Steel+Resin
		ish	-	-	-	-	-	-
Recommended shift		er casing	OT-SP41	OT-SP41	OT-SP41	OT-SP41	OT-SP41	OT-SP41
Average v	veight (g)		153 (/pair)	210 (/pair)	210 (/pair)	63 (/pair)	-	-
No	te			* Pull: single Push: double	* Pull: single Push: double			

Shifter

Ser	ies		TIAGRA	DURA-ACE	SORA	SORA	SORA	CLARIS
Mode	el 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
Coloi	:	2	-	-	-	-	-	-
Shifte	r type		RAPIDFIRE PLUS	Down tube shifter	RAPIDFIRE PLUS	RAPIDFIRE PLUS	RAPIDFIRE PLUS	RAPIDFIRE PLUS
Front s	peeds		3	2/3	-	2	3	-
Rear s	peeds		-	9	9	-	-	8
Compatible rear	derailleur	type	-	ROAD 9-speed	RD-R3000	FD-R3000	FD-R3030	ROAD 8-speed
	Clamp	band	✓	-	1	1	✓	1
Mount type	I-SP	EC B	-	-	-	-	-	-
	I-SP	EC II	-	-	-	-	-	-
Shift lever po	sition adju	st	-	-	-	-	-	-
Shift lever o	able adjus	t	1	-	1	1	1	1
Max. multiple shift	s (main lev	er/rear)	-	-	3	-	-	3
	MULTI I	RELEASE	-	-	-	-	-	-
Release function	INSTANT	RELEASE	-	-	-	-	-	-
	2-WAY	RELEASE	1	-	1	1	✓	1
	With		✓	-	1	1	✓	✓
OPTICAL GEAR DISPLAY	With (re	movable)	-	-	-	-	-	-
	Wit	hout	-	✓	-	-	-	-
Multi-bearing	constructi	on	2	-	-	-	-	-
		Polymer- coated cable	-	-	-	-	-	-
Shift lever cable	Inner cable	OPTISLIC K	-	-	1	1	1	1
	саріе	SIL-TEC	-	-	-	-	-	-
		Stainless	1	1	1	1	1	-
		Steel	-	-	-	-	-	1
Shift lever bracket	Mat	erial	Aluminum	-	Aluminum	Aluminum	Aluminum	Aluminum
Sime level brucket	Fir	ish	Painted	-	Painted	Painted	Painted	Painted
Clamp screw	Mat	erial		-				
Cidilip Scient	Fir	nish		-				
Main lever body	Mat	erial	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Steel+Resin
a icici bouy	Finish		Painted	Clear coated	Painted	Painted	Painted	-
Release lever body	Mat	erial	Steel+Resin	-	Steel+Resin	Steel+Resin	Steel+Resin	Steel+Resin
	Fir	nish	-	-	-	-	-	-
Recommended shift	t lever oute	er casing	OT-SP41	OT-SP41	OT-SP41	OT-SP41	OT-SP41	OT-SP41
Average v	veight (g)		-	-	-	-	-	-
No	te							

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Shifter

Sei	ries		CLARIS	CLARIS	SHIMANO
Mode	el no.		SL-R2000-L	SL-R2030-L	SL-R400
		1	Series color	Series color	Series color
Color		2	-	-	-
Shifte	r type		RAPIDFIRE PLUS	RAPIDFIRE PLUS	Down tube shifter
Front	speeds		2	3	2/3
Rears	peeds		-	-	8
Compatible rea	Compatible rear derailleur type		-	-	ROAD 8-speed
	Clamp	band	1	✓	-
Mount type	I-SP	EC B	-	-	-
	I-SP	EC II	-	-	-
Shift lever po	osition adju	st	-	-	-
Shift lever	cable adjus	t	✓	1	-
Max. multiple shift	ts (main lev	er/rear)	-	-	-
	MULTI I	RELEASE	-	-	-
Release function	INSTANT RELEASE		-	-	-
	2-WAY RELEASE		1	1	-
	w	ith	1	1	-
OPTICAL GEAR DISPLAY	With (removable)		-	-	-
	Wit	hout	-	-	1
Multi-bearing	g constructi	on	-	-	-
		Polymer- coated cable	-	-	-
Shift lever cable	Inner cable	OPTISLIC K	1	✓	-
Silit level cable	cable	SIL-TEC	-	-	-
		Stainless	-	-	1
		Steel	√	✓	-
Shift lever bracket	Mat	erial	Aluminum	Aluminum	-
Silit level blacket	Fir	ish	Painted	Painted	-
Clamp screw	Mat	erial			-
ciamp sciew	Fir	ish			-
Main lever body	Mat	erial	Steel+Resin	Steel+Resin	Aluminum
am level body	Finish		-	-	Painted
Release lever body	Mat	erial	Steel+Resin	Steel+Resin	-
	Fir	ish	-	-	-
Recommended shif	Recommended shift lever outer casing		OT-SP41	OT-SP41	OT-SP41
Average v	weight (g)		-	-	-
No	ote				

Brake Lever (Hydraulic Disc Brake)

Sei	ries	SHIMANO				
Mode	el no.	BL-RS600				
Brake	type	Hydraulic disc brake				
	e (finger)	3				
	1	Black				
Color	2	-				
	3	-				
Brake h	Brake hose (kit)					
Hose	joint	Straight				
Proko boso solor	1	Black				
Brake hose color (kit)	2	-				
J-Kit spec	J-Kit spec (for OEM)					
SERVO	WAVE	-				
	Toolless	-				
Reach adjust	/					
Free stro	ke adjust	-				
	Clamp band	✓				
Compatible shifter mount	I-SPEC B	-				
	I-SPEC II	1				
Clarent band	Open clamp	1				
Clamp band	Diameter (mm)	22.2				
Recommended	d brake caliper	BR-RS405				
С	il	SHIMANO mineral				
Funnel l	oleeding	1				
Clause annual	Material	Stainless steel				
Clamp screw	Finish	-				
Dun dunt	Material	-				
Bracket	Finish	-				
Poster lesses	Material	Aluminum				
Brake lever	Finish	Anodized				
Master sulinda:	Material	Aluminum				
Master cylinder	Finish	Painted				
Average v						
No	ote					

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Brake Lever

Se	ries	DURA-ACE	TIAGRA	SORA	CLARIS	SHIMANO	SHIMANO
Mod	Model no.		BL-4700	BL-R3000	BL-R2000	BL-R780	BL-R550
	1	Black	Series color	Series color	Series color	Silver	Silver
Color	2	-	-	-	-	Black	Black
	3	-	-	-	-	-	-
	V-BRAKE	-	1	1	1	1	-
	Mechanical disc brake (Road)	✓	✓	1	1	1	1
Compatible brake type	Caliper (NEW SUPER SLR)	•	✓	✓	✓	•	-
31	Caliper (SUPER SLR)	-	-	-	-	-	✓
	Cantilever brake	✓	✓	✓	1	✓	✓
	Roller brake	-	-	-	-	-	-
Recommended	V-BRAKE	-	-	-	-	-	-
Recommended POWER MODULATOR	Mechanical disc brake (MTB)	-	-	-	-	-	-
	Open clamp band	-	-	-	-	-	-
Clamp band	I-SPEC	-	-	-	-	-	-
	Diameter (mm)	*	22.2	22.2	22.2	22.2	22.2
Internal bu	umper stop	-	1	1	1	1	-
Lever siz	e (finger)	-	2.5	2.5	2.5	2.5	2.5
Brake ca	able type	-	T-type	T-type	T-type	T-type	T-type
Power	adjuster	-	-	-	-	-	-
SERVO	WAVE	-	-	-	-	-	-
Reach	adjust	✓	✓	✓	1	✓	✓
Cable	adjust	-	✓	✓	✓	✓	✓
Cable ad	ljust type	-	Two hand	Two hand	Two hand	Two hand	Two hand
Brake lever	Material	CFRP	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Di ake level	Finish	Painted	Anodized	Anodized	anodized	Anodized	Anodized
Brake bracket	Material	CFRP	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Didne Didnet	Finish	Painted	Painted	Painted	painted	Painted	Painted
Average v	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.					

Brake Lever

Se	ries	SHIMANO		
Mod	BL-R400			
····oa	Series color			
Color	2	Jeries Color		
Color	_	-		
	3	-		
	V-BRAKE	-		
	Mechanical disc brake (Road)	-		
Compatible brake type	Caliper (NEW SUPER SLR)	-		
,.	Caliper (SUPER SLR)	✓		
	Cantilever brake	-		
	Roller brake	-		
Recommended	V-BRAKE	-		
POWER MODULATOR	Mechanical disc brake (MTB)	-		
	Open clamp band	-		
Clamp band	I-SPEC	-		
	Diameter (mm)	23.8-24.2		
Internal b	umper stop	-		
Lever siz	e (finger)	-		
Brake ca	able type	-		
Power	adjuster	-		
SERVO) WAVE	-		
Reach	adjust	-		
Cable	adjust	-		
Cable ac	ljust type	-		
	Material	Aluminum		
Brake lever	Finish	Barrel		
	Material			
Brake bracket	Finish	Anodized		
Average	weight (g)	-		
Ne	ote			

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Brake (Hydraulic Disc Brake)

Ser	ries	DURA-ACE	DURA-ACE	DURA-ACE	ULTEGRA	ULTEGRA	ULTEGRA
Mode	el no.	BR-R9270	BR-R9170-F	BR-R9170-R	BR-R8170	BR-R8070-F	BR-R8070-R
	1	Series color	Series color	Series color	Series color	Series color	Series color
Color 2		-	-	-	-	-	-
	3	-	-	-	-	-	-
Brake	type	Hydraulic disc brake	Hydraulic disc brake	Hydraulic disc brake	Hydraulic disc brake	Hydraulic disc brake	Hydraulic disc brake
Brake h	ose (kit)	SM-BH90-JK-SSR	SM-BH90-JK-SSR	SM-BH90-JK-SSR	SM-BH90-JK-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
(kit)	2	-	-	-	-	-	-
J-Kit spec	(for OEM)	1	1	1	1	1	1
ICE TECHNOLOGIES p	ad compatible caliper	1	1	1	1	1	1
	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)
Pad	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)
	10 mm mount	1	-	-	1	-	1
	15 mm mount	1	-	1	✓	-	1
	20 mm mount	✓	-	✓	✓	-	✓
Fixing screw spec for rear mount	25 mm mount	✓	-	✓	✓	-	✓
for řear mount	30 mm mount	1	-	1	✓	-	1
	35 mm mount	✓	-	1	✓	-	1
	15.2 mm	-	-	-	-	-	-
	18.7 mm	-	-	-	-	-	-
Recommende	d brake lever	ST-R9270 ST-R9180	ST-R9180 ST-R9170 ST-R9120	ST-R9180 ST-R9170 ST-R9120	ST-R8170	ST-R8070 ST-R8020	ST-R8070 ST-R8020
Recommended	disc brake rotor	RT-MT900 RT-CL900	SM-RT900 RT-MT900 RT-CL900	SM-RT900 RT-MT900 RT-CL900	RT-MT800 RT-CL800	SM-RT800	SM-RT800
0	il	SHIMANO mineral	SHIMANO mineral	SHIMANO mineral	SHIMANO mineral	SHIMANO mineral	SHIMANO mineral
ONE WAY	BLEEDING	1	1	1	1	1	1
Moun	t type	Flat mount	Flat mount	Flat mount	Flat mount	Flat mount	Flat mount
Pist	ton	2	2	2	2	2	2
Piston n	naterial	Resin	Ceramic	Ceramic	Resin	Ceramic	Ceramic
	MONO-BODY	1	-	-	-	-	-
Caliper	Material	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
	Finish	Anodized	Anodized	Anodized	Painting	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 m	nount	Pad axle	Pad axle	Pad axle	Pad axle	Pad axle	Pad axle
Average v	veight (g)	97	131	111	123	141	124
No	ote						

Brake (Hydraulic Disc Brake)

Ser	ies	SHIMANO 105	SHIMANO 105	SHIMANO 105	TIAGRA	TIAGRA	SHIMANO
Mode	el no.	BR-R7170	BR-R7070-F	BR-R7070-R	BR-4770-F	BR-4770-R	BR-RS785
	1	Black	Silky black	Silky black	Series color	Series color	Series color (ULTEGRA)
Color	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 ho	ose (kit)	SM-BH90-J-SSR SM-BH90-JK-SSR	SM-BH90-JK-SSR, SM-BH90-J-SSR	SM-BH90-JK-SSR, 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
(kit)	2	-	-	-	-	-	White
J-Kit spec	(for OEM)	✓	✓	✓	1	✓	✓
ICE TECHNOLOGIES pa	ad compatible caliper	✓	~	~	-	-	✓
	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)
Pad	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)
rdu	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)	-	-	-
	10 mm mount	~	-	√	-	✓	-
	15 mm mount	~	-	~	-	✓	-
	20 mm mount	~	-	~	-	✓	-
Fixing screw spec	25 mm mount	✓	-	~	-	✓	-
Fixing screw spec for rear mount	30 mm mount	1	-	1	-	1	-
	35 mm mount	✓	-	✓	-	✓	-
	15.2 mm	-	-	-	-	-	-
	18.7 mm	-	-	-	-	-	1
Recommende	d brake lever	ST-R7170	ST-R7020 ST-R7025	ST-R7020 ST-R7025	ST-4720 ST-4725	ST-4720 ST-4725	ST-R8070
Recommended (disc brake rotor	SM-RT70, SM-RT64	SM-RT70	SM-RT70	SM-RT64	SM-RT64	SM-RT99
0	il	SHIMANO mineral	SHIMANO mineral	SHIMANO mineral	SHIMANO mineral	SHIMANO mineral	SHIMANO mineral
ONE WAY	BLEEDING	1	1	1	1	1	1
Moun	t type	Flat mount	Flat mount	Flat mount	Flat mount	Flat mount	Post type
Pist	ton	2	2	2	2	2	2
Piston n	naterial	Resin	Ceramic	Ceramic	Resin	Resin	Ceramic
	MONO-BODY	-	-	-	-	-	-
Caliper	Material	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
	Finish	Painted	Painted	Painted	Painted	Painted	Painted
	Material	Steel	Steel	Steel	Steel	Steel	Steel
Caliper fixing screw	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 m	nount	Pad axle	Pad axle	Pad axle	Pad axle	Pad axle	Pad axle
Average v	veight (g)	123	141	124	-	-	271 (/pair)
No	te						

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Brake (Hydraulic Disc Brake)

Ser	ries	SHIMANO	SHIMANO
Mode	el no.	BR-RS405-F	BR-RS405-R
	1	Dark gray	Dark gray
Color	2	-	-
	3	-	-
Brake	type	Hydraulic disc brake	Hydraulic disc brake
Brake h	ose (kit)	SM-BH59-J-SS SM-BH59-JK-SS	SM-BH59-J-SS SM-BH59-JK-SS
Hose	joint	Straight	Straight
Brake hose color (kit)	1	Black	Black
(kit)	2	-	-
J-Kit spec	(for OEM)	1	1
ICE TECHNOLOGIES p	ad compatible caliper	✓	✓
	Standard 1	K05S-RX Resin (w/o fin)	K05S-RX Resin (w/o fin)
Pad	Standard 2	-	-
Pad	Option 1	L05A-RF Resin (w/ fin)	L05A-RF Resin (w/ fin)
	Option 2	-	-
	10 mm mount	-	✓
	15 mm mount	-	✓
	20 mm mount	-	✓
Fixing screw spec	25 mm mount	-	✓
Fixing screw spec for rear mount	30 mm mount	-	1
	35 mm mount	-	✓
	15.2 mm	-	-
	18.7 mm	-	-
Recommende	d brake lever	ST-RS405 BL-RS600	ST-RS405 BL-RS600
Recommended	disc brake rotor	SM-RT70	SM-RT70
0	il	SHIMANO mineral	SHIMANO mineral
ONE WAY	BLEEDING	✓	✓
Moun	t type	Flat mount	Flat mount
Pist	ton	2	2
Piston r	material	Resin	Resin
	MONO-BODY	-	-
Caliper	Material	Aluminum	Aluminum
	Finish	Painted	Painted
	Material	Steel	Steel
Caliper fixing screw	Tool size	4 mm	4 mm
	Anti loosen method	Screw fix pin+Snap ring	Screw fix pin
Pad n	nount	Pad axle	Pad axle
Average v	veight (g)	-	-
No	ote		

Brake (Mechanical Disc Brake)

			·	
Se	ries	SHIMANO	SHIMANO	SHIMANO
Mod	el no.	BR-R317	BR-RS305-F	BR-RS305-R
Color	1	Black	Black	Black
Color	2	-	-	-
Brake	Brake type		Mechanical disc brake	Mechanical disc brake
Compa	atibility	NEW SUPER SLR	NEW SUPER SLR	NEW SUPER SLR
ICE TECHNOLOGIES p	ad compatible caliper	-	1	✓
	Standard 1		K05S-RX Resin (w/o fin)	K05S-RX Resin (w/o fin)
Pad	Standard 2	-	-	-
rau	Option 1	-	L05A-RF Resin (w/ fin)	L05A-RF Resin (w/ fin)
	Option 2	-	-	-
	10 mm mount	-	-	✓
	15 mm mount			✓
Fixing screw spec	20 mm mount	-	-	1
Fixing screw spec for rear mount	25 mm mount	-	-	1
	30 mm mount	-	-	1
	35 mm mount	-	-	1
Recommende	ed 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)
Mour	t type	Post type	Flat mount	Flat mount
Pis	ton	1	1	1
Piston	material	-	-	-
	MONO-BODY	-	-	-
Caliper	Material	Aluminum	Aluminum	Aluminum
	Finish	Painted	Painted	Painted
	Material	Steel	Steel	Steel
Caliper fixing screw	Tool size	5 mm	4 mm	4 mm
	Anti loosen method	Snap ring	Screw fix pin+Snap ring	Screw fix pin
Pad r	nount	Pad axle	Pad axle	Pad axle
Average	weight (g)	-	-	-
No	ote	SHIMANO logo	SHIMANO logo	SHIMANO logo

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Brake (Caliper Brake)

Ser	ies		DURA-ACE	DURA-ACE	DURA-ACE	DURA-ACE	DURA-ACE	DURA-ACE
Mode	Model no.		BR-R9200	BR-R9210-F	BR-R9210-RS	BR-R9100	BR-R9110-F	BR-R9110-R
	1	l	Series color					
Color	2	!	-	-	-	-	-	-
Ту	ре		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
	Stan	dard	R55C4	R55C4	R55C4	R55C4	R55C4	R55C4
Brake shoe	Optiona	l choice	R55C4 Carbon, R55C4-A Carbon, R55CT4					
Compa	tibility		SLR-EV	SLR-EV	SLR-EV	SLR-EV	SLR-EV	SLR-EV
		10.5	1	-	-	1	-	-
		12.5	1	-	-	1	-	-
A	Front (mm)	18.0	✓	-	-	✓	-	-
Assembly pivot nut (mm)		27.0	1	-	-	1	-	-
		32.0	1	-	-	1	-	-
	Rear (mm)	10.5	1	-	-	1	-	-
Cartridge s	hoe holder		√	1	1	✓	1	✓
Tire guide	Tire guide bumpers		✓	1	1	1	1	^
Quick rele	ase lever		1	1	1	1	1	-
Shoe angle	adjusting		1	1	1	1	1	1
Spring tension	on adjustin	9	-	-	-	-	-	1
Maximun	n tire size		28C	28C	28C	28C	28C	28C
Rim wid	th (mm)		20.8-28	20.8-28	20.8-28	20.8-28	20.8-28	20.8-28
Cartridge shoe holder	Mat	erial	Magnesium	Magnesium	Magnesium	Magnesium	Magnesium	Magnesium
holder	Fin	ish	Painted	Painted	Painted	Painted	Painted	Painted
6 2 3 3 3	Mat	erial	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
C-arm	Fin	ish	Anodized	Anodized	Anodized	Anodized	Anodized	Anodized
V	Mat	erial	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Y-arm	Fin	ish	Anodized	Anodized	Anodized	Anodized	Anodized	Anodized
Gata	Mat	erial	Aluminum	-	-	Aluminum	-	-
Gate	Fin	ish	Anodized	-	-	Anodized	-	-
Quick roleses love:	Mat	erial	Resin	Resin	Resin	Resin	Resin	-
Quick release lever	Quick release lever Finish		Painted	Painted	Painted	Painted	Painted	-
Titanium cable	e fixing scre	ew	✓	1	1	✓	1	~
Titanium	pivot bolt		1	√ (fixing screw)	√ (fixing screw)	1	√ (fixing screw)	√ (fixing screw)
Average v	veight (g)		327 (/pair)	156 (/pc)	154 (/pc)	327 (/pair)	150 (/pc)	139 (/pc)
No	te							Need inline cable adjuster (SM-CB90) for cable adjusting and guick release feature.

Brake (Caliper Brake)

Series		DURA-ACE	ULTEGRA	ULTEGRA	ULTEGRA	SHIMANO	ULTEGRA	
Mode	el no.		BR-R9110-RS	BR-R8100	BR-R8110-F	BR-R8110-RS	BR-RS811-R	BR-R8000
Calan		1	Series color	Series color	Series color	Series color	Black	Series color
Color	2	2	-	-	-	-	-	-
Ту	pe		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
	Stan	dard	R55C4	R55C4	R55C4	R55C4	R55C4	R55C4
Brake shoe	Optiona	al choice	R55C4 Carbon, R55C4-A Carbon, R55CT4	R55C4 carbon, R55C4-A carbon, R55CT4				
Compa	tibility		SLR-EV	SLR-EV	SLR-EV	SLR-EV	SLR-EV	SLR-EV
		10.5	-	1	-	-	-	1
		12.5	-	1	-	-	-	✓
A	Front (mm)	18.0	-	1	-	-	-	✓
Assembly pivot nut (mm)		27.0	-	1	-	-	-	✓
		32.0	-	1	-	-	-	✓
	Rear (mm)	10.5	-	1	-	-	-	1
Cartridge s	hoe holder		✓	✓	1	✓	✓	✓
Tire guide	bumpers		1	1	1	1	1	1
Quick rele	ase lever		1	1	1	1	-	1
Shoe angle	adjusting		1	1	1	1	1	✓
Spring tension	on adjustin	g	-	-	-	-	1	-
Maximun	n tire size		28C	28C	28C	28C	28C	28C
Rim wid	th (mm)		20.8-28	20.8-28	20.8-28	20.8-28	20.8-28	20.8-28
Cartridge shoe	Mat	erial	Magnesium	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Cartridge shoe holder	Fin	ish	Painted	Painted	Painted	Painted	Painted	Painted
C	Mat	erial	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
C-arm	Fin	ish	Anodized	Anodized	Anodized	Anodized	Painted	Anodized
V	Mat	erial	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Y-arm	Fin	ish	Anodized	Anodized	Anodized	Anodized	Painted	Anodized
Cata	Mat	erial	-	Aluminum	-	-	-	Aluminum
Gate	Fin	ish	-	Anodized	-	-	-	Anodized
Material		Resin	Resin	Resin	Resin	-	Resin	
Quick release lever Finish		Painted	Painted	Painted	Painted	-	-	
Titanium cable fixing screw		~	-	-	-	-	-	
Titanium pivot bolt		√ (fixing screw)	-	-	-	-	-	
Average v	veight (g)		148 (/pc)	182 (Front) 180 (Rear)	180 (/pc)	178 (/pc)	-	182 (Front) 178 (Rear)
No	te						Need inline cable adjuster (SM-CB90) for cable adjusting and quick release feature.	

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Brake (Caliper Brake)

Ser	ies		ULTEGRA	ULTEGRA	ULTEGRA	ULTEGRA	ULTEGRA	ULTEGRA
Mode	Model no.		BR-R8010-F	BR-R8010-R	BR-R8010-RS	BR-6800	BR-6810-F	BR-6810-RS
	1		Series color	Series color	Series color	Series color	Series color	Series color
Color	2	2	-	-	-	-	-	-
Ту	ре		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
	Stan	dard	R55C4	R55C4	R55C4	R55C4	R55C4	R55C4
Brake shoe	Optiona	al 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	R55C4 carbon, R55C4-A carbon
Compa	tibility		SLR-EV	SLR-EV	SLR-EV	SLR-EV	SLR-EV	SLR-EV
		10.5	-	-	-	1	-	-
		12.5	-	-	-	1	-	-
A	Front (mm)	18.0	-	-	-	1	-	-
Assembly pivot nut (mm)		27.0	-	-	-	1	-	-
		32.0	-	-	-	1	-	-
	Rear (mm)	10.5	-	-	-	1	-	-
Cartridge s	hoe holder		✓	✓	✓	✓	✓	✓
Tire guide	Tire guide bumpers		1	1	1	1	1	1
Quick rele	ase lever		1	-	1	1	1	1
Shoe angle	adjusting		1	1	1	1	1	1
Spring tension	on adjustin	g	-	1	-	1	-	-
Maximun	tire size		28C	28C	28C	25C	28C	28C
Rim wid	th (mm)		20.8-28	20.8-28	20.8-28	19-28	19-28	19-28
Cartridge shoe holder	Mat	erial	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
holder	Fin	ish	Painted	Painted	Painted	Painted	Painted	Painted
C-arm	Mat	erial	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
C-arm	Fin	ish	Anodized	Anodized	Anodized	Anodized	Anodized	Anodized
Varm	Mat	erial	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Y-arm	Fin	ish	Anodized	Anodized	Anodized	Anodized	Anodized	Anodized
Cata	Mat	erial	-	-	-	Aluminum	-	-
Gate	Fin	ish	-	-	-	Anodized	-	-
Quick volonge lever	Mat	erial	Resin	-	Resin	Aluminum	Aluminum	Aluminum
Quick release lever Finish		-	-	-	Painted	Painted	Painted	
Titanium cabl	Titanium cable fixing screw		-	-	-	-	-	-
Titanium	Titanium pivot bolt		-	-	-	-	-	-
Average v	veight (g)		174 (/pc)	160 (/pc)	172 (/pc)	335 (/pair)	173 (/pc)	168 (/pc)
No	te			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)

Brake (Caliper Brake)

Ser	ies		SHIMANO 105	SHIMANO 105	SHIMANO 105	TIAGRA	SORA	CLARIS
Mode	el no.		BR-R7000	BR-R7010-F	BR-R7010-RS	BR-4700	BR-R3000	BR-R2000
	1		Silky black	Silky black	Silky black	Series color	Series color	Series color
Color	2	2	Spark silver	-	-	-	-	-
Ту	pe		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	51mm	51mm
	Stan	dard	R55C4	R55C4	R55C4	R50T5	R50T5	R50T5
Brake shoe	Optiona	al choice	R55C4 carbon, R55C4-A carbon, R55CT4	R55C4 carbon, R55C4-A carbon, R55CT4	R55C4 carbon, R55C4-A carbon, R55CT4	R50T4	R50T4	R50T4
Compa	tibility		SLR-EV	SLR-EV	SLR-EV	NEW SUPER SLR	NEW SUPER SLR	NEW SUPER SLR
		10.5	1	-	-	1	1	1
		12.5	1	-	-	1	1	1
	Front (mm)	18.0	1	-	-	1	1	1
Assembly pivot nut (mm)	` ,	27.0	1	-	-	1	1	1
		32.0	1	-	-	1	1	1
	Rear (mm)	10.5	1	-	-	1	1	1
Cartridge shoe holder		1	1	1	-	-	-	
Tire guide	bumpers		1	1	1	-	-	-
Quick rele	ase lever		1	1	1	1	1	1
Shoe angle	adjusting		1	1	1	1	1	1
Spring tension	on adjustin	g	-	-	-	-	-	-
Maximum	tire size		28C	28C	28C	28C	28 mm	28 mm
Rim wid	th (mm)		20.8-28	20.8-28	20.8-28	19-26	19-28	19-26
Cartridge shoe	Mat	erial	Aluminum	Aluminum	Aluminum	-	-	-
Cartridge shoe holder	Fin	ish	Painted	Painted	Painted	-	-	-
	Mat	erial	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
C-arm	Fin	ish	Anodized	Anodized	Anodized	Anodized	Painted	Painted
V	Mat	erial	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Y-arm	Fin	ish	Anodized	Anodized	Anodized	Anodized	Painted	Painted
Cata	Material		Aluminum	-	-	Aluminum	Aluminum	Aluminum
Gate Finish		Anodized	-	-	Anodized	Anodized	Anodized	
Quick valonce lever	Material		Resin	Resin	Resin	Resin	Resin	Resin
Quick release lever	uick release lever Finish		-	-	-	Painted	-	-
Titanium cable	e fixing scre	ew	-	-	-	-	-	-
Titanium _I	pivot bolt		-	-	-	-	-	-
Average v	veight (g)		379 (/pair)	174 (/pc)	174 (/pc)	-	-	-
No	te		-	-	-			

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Brake (Caliper Brake)

Ser	ies		SHIMANO	SHIMANO	
Mode	el no.		BR-R561	BR-R451	
Calan		1	Silver	Black	
Color	2		Black	Silver	
Ту	ре		NEW SUPER SLR Dual pivot	SUPER SLR Dual Pivot	
Reach	(mm)		49	57	
	Stan	dard	R55C3	R50T2	
Brake shoe	Optional choice		R55C for ceramic rim, R55C3 for carbon rim	-	
Compa	tibility		NEW SUPER SLR	SUPER SLR	
		10.5	1	1	
		12.5	1	1	
	Front (mm)	18.0	1	1	
Assembly pivot nut (mm)	, ,	27.0	1	1	
		32.0	-	-	
	Rear (mm)	10.5	1	1	
Cartridge s	Cartridge shoe holder			-	
Tire guide	bumpers		-	-	
Quick rele	Quick release lever			1	
Shoe angle	adjusting		1	1	
Spring tension	on adjustin	g	-	-	
Maximun	n tire size		28C	32C	
Rim wid	th (mm)		19-26	19-26	
Cartridge shoe	Mat	erial	Aluminum	-	
Cartridge shoe holder	Fin	ish	Painted	-	
	Mat	erial	Aluminum	Aluminum	
C-arm	Fin	ish	Anodized	Painted	
V	Mat	erial	Aluminum	Aluminum	
Y-arm	Fin	ish	Anodized	Painted	
Gets	Mat	erial	Aluminum	Aluminum	
Gate	Fin	ish	Anodized	Painted	
Quick roleses love:	Mat	erial	Zinc	Resin	
Quick release lever Finish			Plated	-	
Titanium cabl	Titanium cable fixing screw			-	
Titanium	pivot bolt		-	-	
Average v	veight (g)		-	-	
No	te		Maximum tire size: 28 mm	Quick release lever wider open Maximum tire size: 32 mm	

Brake (V-BRAKE)

Ser	SHIMANO	
Mode	el no.	BR-R353
	1	Silver
Color	2	Black
	3	-
Brake	type	V-BRAKE
	Standard 1	\$70T
Brake shoe	Standard 2	-
Brake snoe	Option 1	M70T4
	Option 2	-
Cartridge s	hoe holder	-
Arch siz	ze (mm)	90
	X type	1
Spacer type	Y type	-
Compatible lead	pipe angle (deg.)	45/90/135
Sleeve & bu	ushing axle	1
V (E	Material	Aluminum
V-arm/caliper	Finish	Painted
Fixing screw length	16	1
Fixing screw length (mm)	25	1
	Material	Steel
Fixing screw	Finish	Plated (black)
	Chamfered screw	-
POWER MO	-	
Linear	1	
Threaded bra	ike shoe post	1
Average v	veight (g)	-
No	ote	SHIMANO logo

Brake (Cantilever Brake)

Sei	ries	SHIMANO		
Mod	el no.	BR-CX50		
Color	1	Silver		
Color	2	-		
Brake	type	Cantilever brake		
Re	ach	-		
Brake shoe	Standard	R50T2		
brake slide	Optional choice	-		
Compa	Compatibility			
Assembly pi	vot nut (mm)	-		
Cartridge s	hoe holder	-		
Tire guide	bumpers	-		
Quick rel	ease lever	-		
Toe-in	adjust	✓		
Spring tensi	on adjusting	✓		
Cartridge shoe holder	Material	-		
holder	Finish	-		
Cantilever	Material	Aluminum		
Cantilever	Finish	Anodized		
Average v	weight (g)	175		
No	ote	Cyclocross usage		

Brake Cable

Ser	ries	DURA-ACE	SHIMANO	SHIMANO
Mode	el no.	BC-9000	BC-R680	BC-1051
	High-tech gray	1	1	✓
	Black	1	1	✓
	White	1	1	✓
Color	Red		1	✓
Color	Blue	1	1	-
	Lime-green	1	1	-
	Orange	1	1	-
	Yellow	1	1	-
Brake	type	Caliper	Caliper	Caliper
	Material	Stainless steel	Stainless steel	Steel
Inner cable	Coated	Polymer-coated cable	Polymer-coated cable	-
	Material	Steel (plated)	Steel (plated)	Steel
Outer casing	Prelubricated casings	1	1	-
No	ote			

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Rear Derailleur

Series		DURA-ACE	DURA-ACE	ULTEGRA	ULTEGRA	ULTEGRA	ULTEGRA	
Mode	el 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
	l	2	-	-	-	-	-	-
Rear s	peeds		11	11	11	11	11	11
Compati	ble chain	SHADOW	LINKGLIDE, HG 11-speed	LINKGLIDE, HG 11-speed	LINKGLIDE, HG 11-speed	LINKGLIDE, HG 11-speed	LINKGLIDE, HG 11-speed	LINKGLIDE, HG 11-speed
DD cometwortion		SHADOW D SHADOW	✓	-	✓	✓	-	-
RD construction	RI	D+	-	-	-	-	-	-
	Double	e servo Direct	-	1	-	-	√	√
	SHIMAN O MTB type	attachm ent (convent ional)	-	-	-	-	-	-
		Direct mount	-	-	-	-	-	-
Applicable derailleur hanger	SHIMAN O ROAD type	Direct attachm ent (convent ional)	*	1	1	4	1	•
	J, .	Direct mount	~	-	1	1	-	-
	UDH st	andard	-	-	-	-	-	-
	Riveted	ROAD type	-	-	-	-	-	-
	adapter	BMX- track type	-	-	-	-	-	-
Cable a	ıdjuster		✓	1	1	1	1	1
Max. front	difference		16T	16T	16T	16T	16T	16T
Total c	apacity		35T	33T	35T	39T	33T	37T
Low sprocket	M	ax.	30T	28T	30T	34T	28T	32T
LOW Sprocket	М	in.	25T	23T	25T	28T	23T	28T
Top sprocket	M	ax.	14T	14T	14T	12T	14T	12T
		in.	11T	11T	11T	11T	11T	11T
Fluoric coated		-	4	4	4	4	4	4
	Guide bea	pulley ring	✓	✓	1	✓	✓	✓
. ··	Tensior bea	n pulley ring	✓	1	1	1	1	1
Pulley		eth	11T	11T	11T	11T	11T	11T
		material	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
	Sunken ty		√ Alamainana	1	1	1	1	✓
Bracket		erial	Aluminum	-	-	-	-	-
		w axle	Anodized ✓	-	-	-	-	-
B-axle		w axie erial	Aluminum	Aluminum	Stainless steel	Stainless steel	Stainless steel	Stainless steel
	Fin	ish	Anodized	-	-	-	-	-
	Hollo	w axle	-	-	-	-	-	-
B-axle 2		erial	Aluminum	-	-	-	-	-
		ish	Anodized	-	-	-	-	-
Bracket body		erial	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
		ish	Anodized	Anodized	Painted	Painted	Painted	Painted
P-axle		erial	Aluminum	Aluminum Plated	Aluminum Plated	Aluminum	Aluminum Plated	Aluminum
Finish Material		Plated CFRP	CFRP	GFRP	Plated GFRP	CFRP	Plated CFRP	
Plate body Finish		Painted	Painted	Painted	Painted	Painted	Painted	
_	Material		Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Outer link Finish		Anodized	Anodized	Painted	Painted	Painted	Painted	
I D 1	Material		Aluminum	Aluminum	GFRP	GFRP	Aluminum	Aluminum
Inner link	Finish		Anodized	Anodized	-	-	Painted	Painted
Outer plate	Material		Carbon	Carbon	Aluminum	Aluminum	Aluminum	Aluminum
Outer plate	Finish		Clear coated	Clear coated	Painted	Painted	Painted	Painted
Inner plate	Material		CFRP	CFRP	Aluminum	Aluminum	Aluminum	Aluminum
c. piace		ish	Clear coated	Clear coated	Painted	Painted	Painted	Painted
Cable fixing screw		erial	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
<u> </u>		ish	Black coated	-	Black coated	Black coated	-	-
Stroke adjusting screw		erial	Aluminum	Aluminum	Steel	Steel	Steel	Steel
	l	ish	Anodized 158	Anodized	Plated 200	Plated 210	Plated	Plated 207
	weight (g)			158			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	
Mode	el no.		RD-RX800-GS	RD-R7100	RD-R7000-SS	RD-R7000-GS	RD-5701-SS	RD-5701-GS
Calan		1	Series color	Series color	Silky black	Silky black	Black	Black
Color	2	2	-	-	Spark silver	Spark silver	Silver	Silver
Rear s	peeds		11	12	11	11	10	10
Compati			LINKGLIDE, HG 11-speed	HG 12-speed	LINKGLIDE, HG 11-speed	LINKGLIDE, HG 11-speed	HG 10-speed	HG 10-speed
	SHIMANO R		-	✓	1	1	-	-
RD construction	SHIMANO RI	SHADOW D+	✓	-	-	-	-	-
	Double	e servo	-	-	-	-	✓	1
	SHIMAN O MTB type	Direct attachm ent (convent ional)	-	-	-	-	-	-
	,,,,,	Direct mount	-	-	-	-	-	-
Applicable derailleur hanger	SHIMAN O ROAD type	Direct attachm ent (convent ional)	√	✓	1	1	1	,
		Direct mount	✓	✓	1	1	-	-
	UDH st	andard	-	-	-	-	-	-
	l	ROAD type	-	-	-	-	-	-
	Riveted adapter	BMX- track type	-	-	-	-	-	-
Cable a	djuster	-3pc	1	1	1	1	1	1
Max. front			16T	16T	16T	16T	16T	16T (front double), 22T (front triple)
Total ca	apacity		39T	41T	35T	39T	34T	40T
		ax.	34T	36T	30T	34T	30T	30T (front triple), 32T (front double)
Low sprocket		in.	28T	34T	25T	28T	25T	27T (front double), 25T (front triple)
	Ma	ax.	11T	11T	14T	12T	14T	12T (front double).
Top sprocket		in.	11T	11T	11T	11T	11T	14T (front triple)'
Fluoric coated			4	2	2	2	2	2
Tidoric coated					2		2	2
		pulley ring 	1	· · · · · · · · · · · · · · · · · · ·	-	-	-	-
	Tensior bea	n pulley ring	✓	-	-	-	-	-
Pulley	Tee	eth	11T	11T	11T	11T	11T	11T
		material	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
	Sunken ty scr	pe pulley ew	✓	✓	✓	✓	✓	✓
Bracket	Mat	erial	Aluminum	-	-	-	-	-
2.44.64	Fin		Anodized	-	-	-	-	-
		w axle	1	-	-	-	-	-
B-axle		erial	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Steel	Steel
		ish	-	-	-	-	Plated	Plated
B-axle 2		w axle erial	-	<u>-</u> -	-	-	-	-
P-GVIE 7		ish	-	-	-	-	-	-
		erial	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Bracket body		ish	Painted	Painted	Painted	Painted	Painted	Painted
pl.		erial	Steel	Steel	Steel	Steel	Steel	Steel
P-axle	Fin	ish	-	Plated	Plated	Plated	Plated	Plated
Material Material		Aluminum	GFRP	GFRP	GFRP	Aluminum	Aluminum	
Plate body Finish		Painted	Painted	Painted	Painted	Painted	Painted	
Outer link	Outer link Material		Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
	Finish		Painted	Painted	Painted	Painted	Painted	Painted
Inner link	Material Finish		Aluminum Painted	GFRP	GFRP	GFRP	Steel	Steel Plated
	Material		Aluminum	Aluminum	Aluminum	- Aluminum	Aluminum	Aluminum
Outer plate	Finish		Painted	Painted	Painted	Painted	Painted	Painted
In a later	Material		Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Inner plate	Fin	ish	Painted	Painted	Painted	Painted	Painted	Painted
Cable fiving	Mat	erial	Stainless steel	Steel	Steel	Steel	Steel	Steel
Cable fixing screw	Fin	ish	Passivation	Plated	Plated	Plated	Plated	Plated
Stroke adjusting screw	Mat	erial	Steel	Steel	Steel	Steel	Steel	Steel
screw	Fin	ish	Plated	Plated	Plated	Plated	Plated	Plated
Average v	veight (g)		248	249	225	232	230	243
No	ote		* w/o bracket spec available		* w/o Bracket spec available	* w/o Bracket spec available		

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Rear Derailleur

Series		TIAGRA	TIAGRA	SORA	SORA	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
Color	Color 2		-	-	-	-	-	-
Rear s			10	10	9	9	9	8
Compatil		CUADOW	HG-X 10-speed	HG-X 10-speed	HG 9-speed	HG 9-speed	HG 9-speed	HG 8/7/6-speed
	SHIMANO		-	-	-	-	-	-
RD construction	SHIMANO	SHADOW D+	-	-	-	-	-	-
		e servo	1	1	1	1	1	1
		Direct attachm						
	SHIMAN O MTB type	ent (convent ional)	-	-	-	-	-	-
	3,70	Direct mount	-	-	-	-	-	-
Applicable derailleur hanger	SHIMAN O ROAD type	Direct attachm ent (convent ional)	1	1	1	1	•	1
	3,60	Direct mount	-	-	-	-	-	-
	UDH st	andard	-	-	-	-	-	-
		ROAD	-	-	-	-	-	-
	Riveted adapter	BMX- track	_	_	_	_	_	_
6-11		track type	,	,	,			
Cable a	-		√	√ 16T (front double)	√	/	✓	√
Max. front			16T	16T (front double), 20T (front triple)	16T	20T	20T	16T
Total ca	apacity T		33T	41T	37T	43T	41T	37T
Low sprocket	М	ax.	28T	32T (front triple), 34T (front double)	32T	34T	32T	32T
	М	in.	25T	28T (front double), 25T (front triple)	25T	28T	25T	25T
Top sprocket	M	ax.	14T	12T	14T	14T	14T	13T
		in.	11T	11T	11T	11T	11T	11T
Fluoric coated		_	2	2	2	2	2	-
	Guide	pulley ring	-	-	-	-	-	-
	Tensior bea	n pulley ring	-	-	-	-	-	-
Pulley	Te	eth	11T	11T	11T	11T	11T	11T
		material	Stainless steel	Stainless steel	Steel	Steel	Steel	Steel
	Sunken ty scr	pe pulley ew	✓	1	-	-	✓	✓
Bracket	Mat	erial	-	-	-	-	-	-
Bracket		ish	-	-	-	-	-	-
B		w axle	- Challed and a stand	- Chairle and a l	- Challed an artical	- Ct-inless to d	- Ctairle and all	- Challalana da al
B-axle		erial	Stainless steel -	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel Plated
		w axle	-	-	-	-	-	-
B-axle 2		erial	-	-	-	-	-	-
	Fin	nish	-	-	-	-	-	-
Bracket body		erial	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
		nish	Painted	Painted	Painted	Painted	Painted	Painted
P-axle		erial	Steel Plated	Steel Plated	Steel Plated	Steel Plated	Steel Plated	Steel Plated
Finish Material		Aluminum	Aluminum	Resin	Resin	Resin	Resin	
Plate body 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 Material		Plated	Plated	Painted Steel	Painted	Painted Steel	Painted Steel
Outer plate	Finish		Steel Plated	Steel Plated	Painted	Steel Painted	Painted	Painted
In the second	Material		Steel	Steel	Steel	Steel	Steel	Steel
Inner plate	Finish		Plated	Plated	Painted	Painted	Painted	Painted
Cable fixing screw		erial	Steel	Steel	Steel	Steel	Steel	Steel
Cable lixing sciew		nish 	Plated	Plated	Nickel plated	Nickel plated	Nickel plated	Nickel plated
Stroke adjusting Material		Steel	Steel	Steel Zinc Plated	Steel Zinc Plated	Steel Zinc Plated	Steel	
Stroke adjusting screw	Average weight (g)				(Inc Plated	/Inc Plated	/Inc Plated	Zinc Plated
Stroke adjusting screw		nish	Plated -	Plated -	-	-	-	-

ST

Rear Derailleur

Se	Series									
Mod	CLARIS RD-R2000-GS									
Calan	Series color									
Color	-									
Rear	speeds		8							
Compati	ble chain		HG 8/7/6-speed							
	SHIMANO SHADOW RD									
RD construction	SHIMANO RI	SHADOW D+	-							
	Double	e servo	✓							
	SHIMAN O MTB type	Direct attachm ent (convent ional)	-							
		Direct mount	-							
Applicable derailleur hanger	SHIMAN O ROAD type	Direct attachm ent (convent ional)	1							
		Direct mount	-							
	UDH st	andard	-							
		ROAD type	-							
	Riveted adapter	вмх-								
	adapter BMX- track type									
	adjuster		✓							
	t difference		20T							
Total c	apacity		43T							
Low sprocket		ax.	34T							
		in. ax.	28T							
Top sprocket		in.	13T 11T							
Fluoric coated			- 111							
Truoric cource	1	pulley ring	-							
		n pulley ring	-							
Pulley		eth	11T							
	Screws	material	Steel							
	Sunken ty scr	/pe pulley ew	✓							
Bracket	Mat	erial	1							
Bracket	Fin	ish	-							
	Hollo	w axle	-							
B-axle	Mat	erial	Stainless steel							
		ish	Plated							
		w axle	-							
B-axle 2		erial	-							
	-	ish erial	- Aluminum							
Bracket body		eriai ish	Painted							
		erial	Steel							
P-axle		ish	Plated							
		erial	Resin							
Plate body	Fin	ish	Painted							
Outer limb	Mat	erial	Steel							
Outer link	Fin	ish	Painted							
Inner link	Inner link Material									
	Finish									
Outer plate	Mat	Steel								
· ·		ish	Painted Steel							
Inner plate	Inner plate Material Finish									
			Painted							
Cable fixing screw		erial	Steel Nickel plated							
	Finish									
Stroke adjusting screw		ish	Steel Zinc Plated							
Average	weight (g)		-							
No.	ote									

BR BR ВС RD FD ВВ НВ FH WH WH НР ST ST SW

RD

FD

Front Derailleur

Model no.	Series		DURA-ACE	DURA-ACE	DURA-ACE	DURA-ACE	ULTEGRA	ULTEGRA	
Protection Pr	Mode	el no.		FD-R9100-F	+	FD-9000-F	<u> </u>	FD-R8000-F	FD-R8000-B
Foreign For			ļ	Series color					
The companies	Color	2	2	-	-	-	-	-	-
Comparison Co	Front s	peeds		2	2	2	2	2	2
Action	Rear s	peeds		11	11	11	11	11	11
Action Down-right	Compatib	ole chain		LINKGLIDE, HG 11-speed					
Mount Mou		TOP S	WING	-	-	-	-	-	-
Mount Same Mount Moun	Action	Down	swing	1	1	1	1	1	1
Mount Mou			28.6	-	✓ (w/ S size adapter)	-	✓ (w/ S size adapter)	-	✓ (w/ S size adapter)
34.9		Clamp band	31.8	-	1	-	1	-	1
Cable adjust	Mount	(mm)	34.9	-	1	-	1	-	1
Cable route type		Braze	ed-on	✓	-	1	-	1	-
Cable route type	Cable a	adjust		1	1	-	-	1	1
Chain line (mm)			exclusive	-	-	-	-		-
Top gear teeth	Chain lin	ne (mm)		43.5	43.5	43.5	43.5	43.5	43.5
Total capacity 16T	Chainstay a	ngle (deg.)		61-66	61-66	61-66	61-66	61-66	61-66
Total capacity	Top gea	r teeth		50-55T	50-55T	50-55T	50-55T	46-53T	46-53T
Applicable top-mid tooth difference -				16T	16T	16T	16T	16T	16T
Angled clamp band design - - - - - - - - - -			erence	-	-	-	-	-	-
Multi-bearing construction 2 2 2	Angled clamp	band design	gn	-	-	-	-	-	-
Tink bushings 8 8 7 7 8 8 8 8 8 8				2	2	-	-	-	-
Front clamp band base bracket Finish - Painted - Anodized - Painted Finish - Painted Aluminum				8	8	7	7	8	8
Finish -		Mate	erial	-	Aluminum	-	Aluminum	-	Aluminum
Finish Painted Paint	Front clamp band	Fin	ish	-	Painted	-	Anodized	-	Painted
Clamp screw Material -		Mate	erial	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Clamp screw Finish Outer link Material CFRF CFRF Aluminum Aluminum Aluminum GFRP GFRP GFRP Inner link Material Anodized Steel Steel Steel Stainless steel	base bracket	Fin	ish	Painted	Painted	Anodized	Anodized	Painted	Painted
Outer link Material CFRF CFRF Aluminum Aluminum GFRP GFRP		Mate	erial	-	-	-	-	-	-
Outer linkFinishPlated/PaintedPlated/PaintedAnodizedAnodizedPaintedInner linkMaterialAluminumAluminumAluminumAluminumAluminumAluminumFinishAnodizedAnodizedAnodizedPaintedChain guideMaterialAluminumAluminumAluminumAluminumCable fixing screwMaterialStainless steelStainless steelStainless steelStroke adjusting screwMaterialSteelSteelAluminumAluminumStainless steelStroke adjusting screwMaterialSteelSteelAluminumAluminumStainless steelFinishSteelSteelAluminumAluminumStainless steelFinishBlackBlackAnodizedAnodizedBlackBlackAverage weight (g) (band type: L size, direct type w/screw)7085667892106	Clamp screw	Fin	ish	-	-	-	-	-	-
Finish Plated/Painted Plated/Painted Anodized Anodized Anodized Painted Painted		Mate	erial	CFRF	CFRF	Aluminum	Aluminum	GFRP	GFRP
Inner link Finish Anodized Anodized Anodized Anodized Painted Painted Chain guide Finish Nickel plated Nickel plated Nickel plated Nickel plated Chrome plated Cable fixing screw Finish Stainless steel Sta	Outer link	Fin	ish	Plated/Painted	Plated/Painted	Anodized	Anodized	Painted	Painted
Finish Anodized Anodized Anodized Anodized Painted Painted Material Aluminum Aluminum Aluminum Aluminum Steel Steel Finish Nickel plated Nickel plated Nickel plated Nickel plated Chrome plated Chrome plated Cable fixing screw Finish		Mate	erial	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Chain guide Finish Nickel plated Nickel plated Nickel plated Nickel plated Chrome plated Chrome plated Cable fixing screw Finish	Inner link		Anodized	Anodized	Anodized	Anodized	Painted	Painted	
Chain guide Finish Nickel plated Nickel plated Nickel plated Nickel plated Chrome plated Chrome plated Cable fixing screw Finish	Material		Aluminum	Aluminum	Aluminum	Aluminum	Steel	Steel	
Material Stainless steel	Chain guide								
Cable fixing screw Finish Stroke adjusting screw Finish Strel Steel Steel Steel Aluminum Aluminum Stainless steel			-	Stainless steel		Stainless steel			
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	Cable fixing screw Finish		-	-	-	-	-	-	
Stroke adjusting Screw Finish Black Black Anodized Anodized Black Black Black Average weight (g) (band type: L size, direct type w/ screw) 70 85 66 78 92 106	Chusha adiiyatiya	Material							
	screw			Black	Black	Anodized	Anodized	Black	
Note	Average weight (g) direct type	(band type w/ screw)	e: L size,	70	85	66	78	92	106
	No	te							

Front Derailleur

Mode No. Image Fig.	Series		ULTEGRA	ULTEGRA	SHIMANO 105	SHIMANO 105	SHIMANO 105	SHIMANO 105	
Color Front peed	Mode	el no.		FD-6800-F	FD-6800-B	FD-R7100-F	FD-R7100-B	FD-R7000-F	FD-R7000-B
Front ypeds	Color		1	Series color	Series color	Series color	Series color	Silky black	Silky black
Rear speeds	Coloi			-	-	-	-	Spark silver	Spark silver
No. Compatible May Compatible May M	Front s	peeds		2	2	2	2	2	2
Action TOP SWING Property	Rear s	peeds		11	11	12	12	11	11
Action Down	Compatil	ole chain		LINKGLIDE, HG 11-speed	LINKGLIDE, HG 11-speed	HG 12-speed	HG 12-speed	LINKGLIDE, HG 11-speed	LINKGLIDE, HG 11-speed
Mount Mou	Action	TOP S	WING	-	-	-	-	-	-
Mount Mou	Action	Down	swing	✓	✓	✓	✓	✓	1
State Sta			28.6	-	✓ (w/ S size adapter)	-	✓ (w/ S size adapter)	-	✓ (w/ S size adapter)
State Sta		Clamp band (mm)	31.8	-	1	-	1	-	1
Cable	Mount	()	34.9	-	✓	-	1	-	1
Top-pull exclusive		Braze	ed-on	✓	-	✓	-	1	-
Chain line (mm) 43.5 43.5 44.5 44.5 43.5 43.5 Chainstay angle (deg.) 61-66 61-6	Cable	adjust		-	-	✓	1	1	1
Chainstay angle (deg.) 61-66 61-	Cable route type	Top-pull	exclusive	-	-	-	-	-	-
Top gear teeth	Chain lir	ne (mm)		43.5	43.5	44.5	44.5	43.5	43.5
Total capacity	Chainstay a	ngle (deg.)		61-66	61-66	61-66	61-66	61-66	61-66
Applicable top-mid tooth difference Angled clamp band design	Top gea	r teeth		46-53T	46-53T	50-52T	50-52T	46-53T	46-53T
Angled clamp band design	Total ca	pacity		16T	16T	16T	16T	16T	16T
Multi-bearing construction - - - - - - - - -	Applicable top-mi	d tooth diff	erence	-	-	-	-	-	-
Tink bushings 7 7 7 7 7 7 7 7 7	Angled clamp	band desi	gn	-	-	-	1	-	1
Material - Aluminum	Multi-bearing	constructi	on	-	-	-	-	-	-
Front clamp band Rear clamp band, base bracket Rear clamp banded R	Link bu	shings		7	7	7	7	7	7
Finish - Painted - P	Front clause band	Mat	erial	-	Aluminum	-	Aluminum	-	Aluminum
Finish Painted Paint	Front clamp band	Fin	ish	-	Painted	-	Painted	-	Painted
Clamp screw Material -	Rear clamp band.	Mat	erial	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Clamp screw Finish Outer link Material Aluminum Aluminum GFRP GFRP GFRP GFRP Finish Painted Painted Painted Painted Painted Painted Painted Material Aluminum Aluminum Steel Steel Steel Steel Steel Finish Painted Painted Plated Plated Plated Plated Plated Finish Painted Painted Plated Plated Plated Plated Plated Chain guide Material Steel Steel Steel Steel Steel Steel Steel Steel Finish Chrome plated Chrome plated Chrome Plated Chrome Plated Chrome Plated Cable fixing screw Finish	base bracket	Fin	ish	Painted	Painted	Painted	Painted	Painted	Painted
Finish Finish Finish Finish Finish Painted Plated Plate	Clause and the	Mat	erial	-	-	-	-	-	-
Outer linkFinishPaintedPaintedPaintedPaintedPaintedPaintedInner linkMaterialAluminumAluminumSteelSteelSteelSteelFinishPaintedPaintedPlatedPlatedPlatedPlatedPlatedPlatedPlatedPlatedChain guideMaterialSteelSteelSteelSteelSteelFinishChrome platedChrome PlatedChrome PlatedChrome PlatedChrome PlatedCable fixing screwMaterialStainless steelStainless steelStainless steelStainless steelFinishStroke adjusting screwMaterialStainless steelStainless steelStainless steelStainless steelFinishBlackBlackBlackAverage weight (g) (band type: L size, direct type w/ screw)891049611196111	Clamp screw	Fin	ish	-	-	-	-	-	-
Finish Painted Steel Steel Steel Steel Steel Plated P	Outer link	Mat	erial	Aluminum	Aluminum	GFRP	GFRP	GFRP	GFRP
Plated P	Outer link	Fin	ish	Painted	Painted	Painted	Painted	Painted	Painted
Finish Painted Painted Plated Plated Plated Plated Plated Material Steel Finish Chrome plated	Innas Unit	Mat	erial	Aluminum	Aluminum	Steel	Steel	Steel	Steel
Chain guide Finish Chrome plated Chrome Plat	inner link	Fin	ish	Painted	Painted	Plated	Plated	Plated	Plated
Finish Chrome plated Chr			Steel	Steel	Steel	Steel	Steel	Steel	
Cable fixing screw Finish	Chain guide Finish		Chrome plated	Chrome plated	Chrome Plated	Chrome Plated	Chrome Plated	Chrome Plated	
Stroke adjusting screw Finish - - - - - - - - -			Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	
Stroke adjusting Screw Finish Black Black Black Black Black Average weight (g) (band type: L size, direct type w/ screw) 89 104 96 111 96 111			-	-	-	-	-	-	
Average weight (g) (band type: L size, direct type w/ screw) 89 104 96 111 96 111	Stroke adjusting Material		Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	
	screw	Fin	ish	-	-	Black	Black	Black	Black
Note	Average weight (g) direct type	(band type w/ screw)	e: L size,	89	104	96	111	96	111
	No	te				-	-	-	-

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Front Derailleur

Ser	ies		SHIMANO 105	SHIMANO 105	TIAGRA	TIAGRA	TIAGRA	TIAGRA
Mode	el no.		FD-5700-F	FD-5703-F	FD-4700-F	FD-4700-B	FD-4703-F	FD-4703-B
	1	l	Black	Black	Series color	Series color	Series color	Series color
Color	2	!	Silver	Silver	-	-	-	-
Fronts	peeds		2	3	2	2	3	3
Rear s	peeds		10	10	10	10	10	10
Compatil	ole chain		HG 10-speed	HG 10-speed (for 3x10s)	HG-X 10-speed, CN- HG500	HG-X 10-speed, CN- HG500	HG-X 10-speed, CN- HG500	HG-X 10-speed, CN- HG500
A -41	TOP S	WING	-	-	-	-	-	-
Action	Down	swing	1	1	1	1	1	1
		28.6	-	-	-	√ *	-	√ *
	Clamp band (mm)	31.8	-	-	-	1	-	1
Mount	()	34.9	-	-	-	1	-	✓
	Braze	d-on	1	1	1	-	1	-
Cable	adjust		-	-	-	-	-	-
Cable route type	Top-pull	exclusive	-	-	-	-	-	-
Chain li	ne (mm)		43.5	45	43.5	43.5	45	45
Chainstay a	ingle (deg.)		61-66	63-66	61-66	61-66	63-66	63-66
Top gea	r teeth		50-56T	50T	46-52T	46-52T	50T	50T
Total ca	apacity		16T	20T	16T	16T	20T	20T
Applicable top-mi	d tooth diff	erence	-	11T	-	-	11T	11T
Angled clamp	band desig	jn	-	-	-	-	-	-
Multi-bearing	construction	on	-	-	-	-	-	-
Link bu	ıshings		-	-	-	-	-	-
	Mate	erial	-	-	Aluminum	Aluminum	Aluminum	Aluminum
Front clamp band	Fin	ish	-	-	Painted	Painted	Painted	Painted
Rear clamp band.	Mate	erial	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Rear clamp band, base bracket	Fin	ish	Painted	Painted	Painted	Painted	Painted	Painted
Clamar assess	Mate	erial	-	-	-	-	-	-
Clamp screw	Fin	ish	-	-	-	-	-	-
Outer link	Mate	erial	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Outer link	Fin	ish	Painted	Painted	Painted	Painted	Painted	Painted
Inna link	Mate	erial	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Inner link	Fin	ish	Painted	Painted	Painted	Painted	Painted	Painted
Material		erial	Steel	Steel	Steel	Steel	Steel	Steel
Chain guide Finish		Chrome plated	Chrome plated	Chrome plated	Chrome plated	Chrome plated	Chrome plated	
Cable fixing screw		Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	
Finish		ish	-	-	-	-	-	-
Stroke adjusting Material		Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	
Stroke adjusting Screw Finish		-	-	-	-	-	-	
Average weight (g) direct type	(band type w/ screw)	e: L size,	89	114	-	-	-	-
No	te					* 28.6 mm Clamp band: 31.8 mm w/ Adapter		* 28.6 mm Clamp band: 31.8 mm w/ Adapter

Front Derailleur

Color	Series		SHIMANO	SHIMANO	SORA	SORA	SORA	SORA	
Color 2	Mode	Model no.		FD-CX70-F-T	FD-CX70-F-D	FD-R3000-F	FD-R3000-B	FD-R3030-F	FD-R3030-B
Pront speeds	Calan	1	ı	Gray	Gray	Series color	Series color	Series color	Series color
Rear speeds	Color	2	2	-	-	-	-	-	-
Compatible chain	Front s	peeds		2	2	2	2	3	3
Action	Rear sp	peeds		10	10	9	9	9	9
Action Down swing	Compatib	ole chain		HG 10-speed	HG 10-speed	-	-	-	-
Down swing	A	TOP S	WING	-	-	-	-	-	-
Mount Ginn 31.8	Action	Down	swing	✓	1	1	1	1	1
Mount			28.6	-	-	-	✓ (w/ S size adapter)	-	✓ (w/ S size adapter)
	Mount	Clamp band (mm)	31.8	-	-	-	✓ (w/ M size adapter)	-	✓ (w/ M size adapter)
Cable adjust			34.9	-	-	-	1	-	1
Cable route type Top-pull exclusive ✓ -		Braze	ed-on	1	1	1	-	1	-
Chain line (mm)	Cable a	adjust		-	-	-	-	-	-
Chainstay angle (deg.) 63-66 63-66 63-66 61-66 63-66 63-66 63-66 Top gear teeth 46-52T 46-52T 46-52T 46-52T 50T 50T Total capacity 16T 16T 16T 16T 16T 20T 20T Applicable top-mid tooth difference -	Cable route type	Top-pull	exclusive	1	-	-	-	-	-
Top gear teeth	Chain lin	ie (mm)		43.5	43.5	43.5	43.5	45	45
Total capacity	Chainstay a	ngle (deg.)		63-66	63-66	61-66	61-66	63-66	63-66
Applicable top-mid tooth difference	Top gea	r teeth		46-52T	46-52T	46-52T	46-52T	50T	50T
Angled clamp band design	Total ca	pacity		16T	16T	16T	16T	20T	20T
Multi-bearing construction	Applicable top-mid	d tooth diff	erence	-	-	-	-	11T	11T
Link bushings 7 7 7 -	Angled clamp	band desig	gn	-	-	1	1	1	1
Front clamp band Front clamp band Finish Front clamp band Finish Finish Finish Finish Finish Fainted Finish Finish Fainted Finish Finish Fainted Finish Finish Fainted Finish Fin	Multi-bearing	construction	on	-	-	-	-	-	-
Front clamp band Rear clamp band, base bracket Rear clamp band, base bracket Finish Painted	Link bu	shings		7	7	-	-	-	-
Finish Painted - Painted Rear clamp band, base bracket Finish Painted Painted Painted Painted Painted Painted Painted Clamp screw Material	For at alassa hand	Mat	erial	-	-	-	Aluminum	-	Aluminum
Finish Painted	Front clamp band	Fin	ish	-	-	-	Painted	-	Painted
Clamp screw Material -	Rear clamp band.	Mat	erial	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Clamp screw Finish Outer link Material Aluminum Aluminum Aluminum Aluminum Aluminum Aluminum Aluminum Aluminum Finish Painted Painted Painted Painted Painted Painted Inner link Material Aluminum Aluminum Aluminum Aluminum Aluminum Aluminum Aluminum Aluminum Aluminum Painted Painted Painted Painted Painted Painted Painted Painted	base bracket	Fin	ish	Painted	Painted	Painted	Painted	Painted	Painted
Finish Outer link Material Aluminum Aluminum Aluminum Aluminum Aluminum Aluminum Aluminum Finish Painted Painted Painted Painted Painted Painted Material Aluminum Aluminum Aluminum Aluminum Aluminum Aluminum Aluminum Aluminum Aluminum Painted Finish Painted Painted Painted Painted Painted Painted Painted	Clarent server	Mat	erial	-	-	-	-	-	-
Outer link Finish Painted	Clamp screw	Fin	ish	-	-	-	-	-	-
Finish Painted Paint	Outer link	Mat	erial	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Inner link Finish Painted Painted Painted Painted Painted Painted Painted	Outer link	Fin	ish	Painted	Painted	Painted	Painted	Painted	Painted
Finish Painted Painted Painted Painted Painted Painted Painted	Innov link	Mat	erial	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
	inner link	Fin	ish	Painted	Painted	Painted	Painted	Painted	Painted
Material Steel Steel Steel Steel Steel Steel			Steel	Steel	Steel	Steel	Steel	Steel	
Chain guide Finish Chrome plated Chrome plat	Chain guide Finish		Chrome plated	Chrome plated	Chrome plated	Chrome plated	Chrome plated	Chrome plated	
Material Stainless steel Steel Steel Steel Steel Steel			erial	Stainless steel	Stainless steel	Steel	Steel	Steel	Steel
Finish - Nickel plated Nickel plated Nickel plated Nickel plated Nickel plated	Cable fixing screw Finish		-	-	Nickel plated	Nickel plated	Nickel plated	Nickel plated	
Stroke adjusting Material Stainless steel Stainless steel Steel Steel Steel Steel	Stroke adjusting Material		Stainless steel	Stainless steel	Steel	Steel	Steel	Steel	
Stroke adjusting screw Finish - Zinc plated Zinc pla	screw	Fin	ish	-	-	Zinc plated	Zinc plated	Zinc plated	Zinc plated
Average weight (g) (band type: L size, direct type w/ screw) 92 87	Average weight (g) direct type	(band type w/ screw)	e: L size,	92	87	-	-	-	-
Note Control C	No	te							

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Front Derailleur

Ser	ies		CLARIS	CLARIS	CLARIS	CLARIS
Mode	el no.		FD-R2000-F	FD-R2000-B	FD-R2030-F	FD-R2030-B
		1	Series color	Series color	Series color	Series color
Color	2	2	-	-	-	-
Front	speeds		2	2	3	3
Rear s	peeds		8	8	8	8
Compati	ble chain		HG 8/7/6-speed	HG 8/7/6-speed	HG 8/7/6-speed	HG 8/7/6-speed
A -41	TOP S	WING	-	-	-	-
Action	Down	swing	✓	✓	✓	1
		28.6	-	✓ (w/ S size adapter)	-	√ (w/ S size adapter)
Mount	Clamp band (mm)	31.8	-	✓ (w/ M size adapter)	-	✓ (w/ M size adapter)
		34.9	-	1	-	1
	Braze	ed-on	✓		✓	
Cable	adjust		-	-	-	-
Cable route type	Top-pull	exclusive	-	-	-	-
Chain li	ne (mm)		43.5	43.5	45	45
Chainstay a	ingle (deg.)	1	61-66	61-66	63-66	63-66
Top gea	r teeth		46-52T	46-52T	50T	50T
Total ca	Total capacity		16T	16T	20T	20T
Applicable top-mi	Applicable top-mid tooth difference		-	-	11T	11T
Angled clamp	band desi	gn	✓	1	✓	1
Multi-bearing	constructi	on	-	-	-	-
Link bu	ıshings		-	-	-	-
For a to all and to a d	Mat	erial	-	Steel	-	Steel
Front clamp band	Fin	ish	-	Painted	-	Painted
Rear clamp band	Mat	erial	Aluminum	Aluminum	Aluminum	Aluminum
Rear clamp band, base bracket	Fin	ish	Painted	Painted	Painted	Painted
Claman sawawa	Mat	erial	-	-	-	-
Clamp screw	Fin	ish	-	-	-	-
Outor link	Mat	erial	Aluminum	Aluminum	Aluminum	Aluminum
Outer link	Fin	ish	Painted	Painted	Painted	Painted
Innau link	Mat	erial	Steel	Steel	Steel	Steel
Inner link	Fin	ish	Painted	Painted	Painted	Painted
Chain avida	Material		Steel	Steel	Steel	Steel
Cilairi guide	Chain guide Finish		Chrome plated	Chrome plated	Chrome plated	Chrome plated
Cable fixing sere	Mat	erial	Steel	Steel	Steel	Steel
Cable fixing screw	xing screw Finish		Nickel plated	Nickel plated	Nickel plated	Nickel plated
Stroke adjusting	Mat	erial	Steel	Steel	Steel	Steel
Stroke adjusting screw	Fin	ish	Zinc plated	Zinc plated	Zinc plated	Zinc plated
Average weight (g) direct type	(band type w/ screw)	e: L size,	-	-	-	-
No	ote					

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
Color	2	-	-	-	-	-	-
Rear s	peeds	12	12	12	12	11	11
Compatil	ole chain	HG 12-speed	HG 12-speed	HG 12-speed	HG 12-speed	LINKGLIDE, HG 11-speed	LINKGLIDE, HG 11-speed
Chain lir	ne (mm)	44.5	44.5	44.5	44.5	44.5	43.5
P.C.D.	(mm)	110	110	110	110	110	110
Spider/g	ear arms	4	4	4	4	4	4
Chainring co	ombination	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-facto	r (mm)	148	148	148	150	148	146
	160	1	1	1	-	-	-
	165	1	1	1	1	1	1
	167.5	1	-	-	-	1	1
	170	1	1	1	1	1	1
Crank arm length (mm)	172.5	1	1	1	1	1	1
	175	<i>\</i>	1	√	1	√	1
-		<i>,</i>	-	-	-	√	1
	177.5		-	-	-	-	<i>,</i>
	180	-					
Optional chain guard	With chain guard	-	-	-	-	-	-
guard	Without chain/bash guard	✓	✓	✓	✓	✓	✓
HOLLOV		1	1	1	-	1	1
2-PIECE C	RANKSET	-	-	-	1	-	-
HOLLOWTEC		1	1	1	-	1	1
ОСТА		-	-	-	-	-	-
HOLLOV		1	1	_	_	1	1
	Outboard	1	1	1	1	1	1
Compatible bottom bracket type	OCTALINK		-	-	-	-	_
bracket type	Square	_		-	_	-	_
	Threaded (normal)	BB-R9100	SM-BBR60	SM-BBR60	BB-RS501	BB-R9100	BB-R9100
Recommended bottom bracket							
Axle length of I	Press-Fit	SM-BB92-41B -	SM-BB72-41B -	SM-BB72-41B -	BB-RS500-PB	SM-BB92-41B -	SM-BB92-41B -
		-		- -	-	-	-
Threaded bottom bracket shell width (mm)	68		1				
(IIIII)	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	Aluminum/CFRP	Aluminum/CFRP	Alumaia uma CERR	Aluminum Parin	Alversioner CERR	- Al.,
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 Material Finish		Aluminum Anodized	Aluminum	Stainless Steel	Stainless Steel	Aluminum	Aluminum
TIXING DOIT			Anodized	-	-	Anodized	Anodized
Inner ring fixing Material Finish		-	-	-	-	-	-
screw Finish		-	-	-	-	-	-
Crank fixing s	crew included	√	✓	✓	✓	✓	✓
Average weight (g) (170 mm, w/o bottom bracket)		693 (46-36T) 685 (50-34T) 692 (52-36T) 714 (54-40T)	702 (46-36T) 700 (50-34T) 711 (52-36T)	754 (50-34T)	-	685 (50-34T) 692 (52-36T) 714 (54-40T)	614 (50-34T) 624 (52-36T) 626 (53-39T) 642 (54-42T) 650 (55-42T)
No	te						, , ,
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Crankset

Ser	ries	DURA-ACE	ULTEGRA	ULTEGRA	SHIMANO 105	SHIMANO	DURA-ACE
Mode	el no.	FC-9000	FC-08	FC-R8000	FC-R7000	FC-RS510	FC-7710
	1	Series color	Series color	Series color	Silky black	Black	Series color
Color	2	-	-	-	Spark silver	-	-
Rear s	peeds	11	11	11	11	11	1
Compatible chain		LINKGLIDE, HG	LINKGLIDE, HG	LINKGLIDE, HG	LINKGLIDE, HG	LINKGLIDE, HG	1/2 x 1/8, 1/2 x 3/32
<u> </u>		11-speed 43.5	11-speed 44.5	11-speed 43.5	11-speed 43.5	11-speed 43.5	42.5
Chain line (mm)		110	110	110	110	110	144
	P.C.D. (mm) Spider/gear arms		4	4	4	4	5
Spide1/9	ear arms	4 50-34T 52-36T					
Chainring o		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-facto		146	148	146	146	150	136.3
	160	-	-	-	✓	-	-
	165	1	✓	1	1	✓	1
	167.5	1	-	-	-	-	1
Crank arm length (mm)	170	✓	✓	1	✓	1	1
(IIIII)	172.5	✓	✓	1	✓	1	1
	175	✓	✓	1	✓	1	1
	177.5	✓	-	-	-	-	-
	180	✓	-	-	-	-	-
Optional chain	With chain guard	-	-	-	-	-	-
guard	Without chain/bash guard	✓	✓	1	✓	✓	1
HOLLOWTECH II		✓	✓	✓	✓	-	-
2-PIECE CRANKSET		-	-	-	-	1	-
HOLLOWTECH crank arm		✓	✓	✓	✓	-	✓
OCTA	ALINK	-	-	-	-	-	1
HOLLO	WGLIDE	✓	✓	√ , - (46-36T)	-	-	-
	Outboard	✓	1	1	1	✓	-
Compatible bottom bracket type	OCTALINK	-	-	-	-	-	1
	Square	-	-	-	-	-	-
Recommended	Threaded (normal)	BB-R9100	SM-BBR60	SM-BBR60	SM-BBR60	BB-RS501	BB-7710, BB-7700
Recommended bottom bracket	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	✓	✓	1	✓	✓	1
(mm)	70	✓	✓	1	✓	✓	1
Cuanti aum	Material	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Crank arm	Finish	Anodized	Anodized	Anodized	Anodized	Anodized	Anodized
Cuanti avila	Material	Steel	Steel	Steel	Steel	Steel	-
Crank axle	Finish	Plated	Plated	Plated	Plated	Plated	-
6.11	Material	-	-	-	-	-	-
Spider arm	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	-	-	-
Innar sine fining	Material	-	-	-	-	-	-
Inner ring fixing screw	Finish	-	-	-	_	-	-
Crank fixing screw included		1	1	1	1	1	1
Average weight (g) (170 mm, w/o bottom bracket)		610 (50-34T) 618 (52-36T) 622 (52-38T) 618 (53-39T) 632 (54-42T) 639 (55-42T)	702 (46-36T) 700 (50-34T) 711 (52-36T)	668 (46-36T) 674 (50-34T) 681 (52-36T) 690 (53-39T)	713.4 (50-34T) 742.6 (52-36T) 757.8 (53-39T)	908 (50-34T)	566 (52T, 1/2 inch x 1/8 inch)
Note			*46T chairing color is black. Fixed with dedicated nuts.				

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 s	peeds	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 li	ne (mm)	43.5	45	43.5	43.5	45	43.5
P.C.D.	(mm)	110	130/74	110	110	110/74	110
Spider/g	ear arms	5	5	5	4	4	5
Chainring c	ombination	50-34T	50-39-30T	46-36T	48-34T, 50-34T, 52-36T	50-39-30T	50-34T
Q-facto	or (mm)	146	154.76	150	150	158.8	150.3
Crank arm langth	160	-	-	-	-	-	-
	165	✓	1	-	1	✓	-
	167.5	-	-	-	-	-	-
	170	1	1	1	1	✓	1
Crank arm length (mm)	172.5	✓	1	1	1	✓	-
	175	✓	1	✓	1	1	1
	177.5	-	-	-	-	-	-
	180	-	-	-	-	-	-
	With chain guard	-	-	-	-	-	-
Optional chain guard	Without chain/bash	1	,	,	,	,	,
	guard		1	✓	1	✓	√
HOLLOV	VTECH II	✓	1	-	-	-	-
2-PIECE CRANKSET		-	-	✓	1	✓	✓
HOLLOWTECH crank arm		✓	1	-	-	-	-
OCTA	ALINK	-	-	-	-	-	-
HOLLO	WGLIDE	-	-	-	-	-	-
	Outboard	1	1	1	1	✓	1
Compatible bottom bracket type	OCTALINK	-	-	-	-	-	-
Diamet type	Square	-	-	-	-	-	-
Recommended	Threaded (normal)	SM-BB5700	SM-BB5700	BB-RS501	BB-RS501	BB-RS501	BB-RS501
Recommended bottom bracket	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)	-	-	-	-	-	-
	68	1	1	1	1	1	1
Threaded bottom bracket shell width (mm)	70	1	1	1	1	1	1
. ,	Material	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Crank arm	Finish	Anodized	Anodized	Anodized	Anodized	Anodized	Painted
	Material	Steel	Steel	Steel	Steel	Steel	-
Crank axle	Finish	Plated	Plated	Plated	Plated	Plated	<u>-</u>
	Material	-		-	- Flateu	-	
Spider arm Spider arm cover	Finish	-		-	-	-	
			-				
	Material	<u>-</u>	-	-	-	-	-
Outer ring	Finish 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		✓	1	✓	1	1	1
Average weight (g) (170 mm, w/o bottom bracket)		716	831	798	-	-	-
verage weight (g) (Note		1		1		

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Crankset

Rear speed Compatible of Chain line (m P.C.D. (mm Spider/gear a Chainring combi Q-factor (mi Crank arm length	1 2 ds chain mm) n) arms	FC-R3030 Series color 9 HG 9-speed 45 110/74 4 50-39-30T 158.8	FC-R3030-CG Series color - 9 HG 9-speed 45 130/74 5 50-39-30T 158.8	FC-R3000 Series color - 9 HG 9-speed 43.5 110 4 50-34T 150 -	FC-R3000-CG Series color - 9 HG 9-speed 43.5 110 5 50-34T 150 -	FC-R345 Silver Black 9 HG 9-speed 43.5 110 5 50-34T 152.2	FC-R2030 Series color
Rear speed Compatible of Chain line (m P.C.D. (mm Spider/gear a Chainring combi Q-factor (m	2 ds chain mm) n) arms bination nm) 160 165 167.5 170 172.5	9 HG 9-speed 45 110/74 4 50-39-30T 158.8 -	- 9 HG 9-speed 45 130/74 5 50-39-30T 158.8 -	- 9 HG 9-speed 43.5 110 4 50-34T	- 9 HG 9-speed 43.5 110 5 50-34T	Black 9 HG 9-speed 43.5 110 5 50-34T 152.2	- 8 HG 8/7/6-speed 45 110/74 4 50-39-30T 158.8
Rear speed Compatible cl Chain line (m P.C.D. (mm Spider/gear a Chainring combi Q-factor (mi	ds chain mm) n) arms bination nm) 160 165 167.5 170 172.5	9 HG 9-speed 45 110/74 4 50-39-30T 158.8 - ✓	9 HG 9-speed 45 130/74 5 50-39-30T 158.8	9 HG 9-speed 43.5 110 4 50-34T 150	9 HG 9-speed 43.5 110 5 50-34T	9 HG 9-speed 43.5 110 5 50-34T 152.2	8 HG 8/7/6-speed 45 110/74 4 50-39-30T 158.8
Compatible cl Chain line (m P.C.D. (mm Spider/gear a Chainring combi Q-factor (mi	chain mm) mm) arms bination mm) 160 165 167.5 170 172.5	HG 9-speed 45 110/74 4 50-39-30T 158.8 - ✓	HG 9-speed 45 130/74 5 50-39-30T 158.8 -	HG 9-speed 43.5 110 4 50-34T 150	HG 9-speed 43.5 110 5 50-34T 150	HG 9-speed 43.5 110 5 50-34T 152.2	HG 8/7/6-speed 45 110/74 4 50-39-30T 158.8
Chain line (m P.C.D. (mm Spider/gear a Chainring combi Q-factor (m	mm) n) arms bination nm) 160 165 167.5 170 172.5	45 110/74 4 50-39-30T 158.8	45 130/74 5 50-39-30T 158.8 -	43.5 110 4 50-34T 150	43.5 110 5 50-34T 150	43.5 110 5 50-34T 152.2	45 110/74 4 50-39-30T 158.8
P.C.D. (mm Spider/gear a Chainring combi Q-factor (mi	n) arms bination nm) 160 165 167.5 170 172.5	110/74 4 50-39-30T 158.8 - ✓	130/74 5 50-39-30T 158.8 -	110 4 50-34T 150	110 5 50-34T 150	110 5 50-34T 152.2	110/74 4 50-39-30T 158.8
Spider/gear a Chainring combi Q-factor (mi	arms bination nm) 160 165 167.5 170 172.5	4 50-39-30T 158.8 - ✓	5 50-39-30T 158.8 - ✓	4 50-34T 150	5 50-34T 150	5 50-34T 152.2	4 50-39-30T 158.8
Chainring combi Q-factor (m	oination nm) 160 165 167.5 170	50-39-30T 158.8 - ✓	50-39-30T 158.8 - ✓	50-34T 150 -	50-34T 150	50-34T 152.2	50-39-30T 158.8
Chainring combi Q-factor (m	oination nm) 160 165 167.5 170	158.8 - - -	50-39-30T 158.8 - ✓	150	50-34T 150	152.2	158.8
Q-factor (mi	nm) 160 165 167.5 170 172.5	-	-	-			
	160 165 167.5 170 172.5	-	-	-			
Crank arm length (mm)	167.5 170 172.5	-		1			-
Crank arm length (mm)	167.5 170 172.5	-			1	-	1
Crank arm length	170 172.5	1		-	-	-	-
Crank arm length (mm)	172.5		1	1	1	1	1
		-	-	-	-	<u>-</u>	-
	173	1	1	1	1	1	1
<u> </u>	177.5	-	-	-	-	√	-
, i			-		-		
181	180 Vith chain guard	-		-		-	-
Ontional chain —		-	1		1	•	
guard Wit	ithout chain/bash guard	✓	-	✓	-	✓	✓
HOLLOWTEC	CH II	-	-	-	-	-	-
2-PIECE CRANI	IKSET	✓	✓	1	1	-	✓
HOLLOWTECH crank arm		-	-	-	-	-	-
OCTALINK	К	-	-	-	-	✓	-
HOLLOWGLI	LIDE	-	-	-	-	-	-
	Outboard	✓	1	1	1	-	1
Compatible bottom bracket type	OCTALINK	-	-	-	-	1	-
bracket type	Square	-	-	-	-	-	-
B Th	nreaded (normal)	BB-RS501	BB-RS501	BB-RS501	BB-RS501	BB-ES300	BB-RS501
Recommended bottom bracket	Press-Fit	BB-RS500-PB	BB-RS500-PB	BB-RS500-PB	BB-RS500-PB	-	BB-RS500-PB
Axle length of BB-U		-	-	-	-	113	-
	68	1	1	1	1	1	1
Threaded bottom bracket shell width (mm)	70	√	1	1	1		1
(,	Material	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Crank arm	Finish	Painted	Painted	Painted	Painted	Painted	Painted
	Material	Steel	Steel	Steel	Steel	- Tuniteu	Steel
Crank axle	Finish	Plated	Plated	Plated	Plated	<u> </u>	Plated
	Material	-	- Flateu	- riateu	- Flateu		- riateu
Spider arm	Finish	-	-	-	-	-	-
	Material	<u> </u>	-	-	-	-	-
Spider arm cover	Finish	-	-	-	-	-	-
 	Material		- Aluminum+Resin	Aluminum+Resin	- Aluminum+Resin		
Outer ring	Finish	Aluminum+Resin Anodized		Anodized		Aluminum	Steel+Resin Painted
			Anodized	Anodized	Anodized	Anodized	
Middle ring	Material	Steel Painted	Steel	-	-	-	Steel
	Finish		Painted				Painted
Inner ring	Material	Steel	Steel	Steel	Steel	Steel	Steel
	Finish	Painted Stainless stand	Painted Stainless staal	Painted	Painted Stainless steel	Painted Stainless steel	Painted
Outer/middle ring fixing bolt	Material	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
	Finish	Canimina et el	Chaimlan et al	Canimia	Chainlassetsel	-	Ctainle
Inner ring fixing	Material	Stainless steel	Stainless steel	Stainless steel	Stainless steel	-	Stainless steel
	Finish	-	-	-	-	-	-
Crank fixing screw		✓	1	1	1	✓	1
Average weight (g) (170 n bracket)	mm, w/o bottom	-	-	-	-	-	-
Note			w/ Chain guard spec.		w/ Chain guard spec.		

Crankset

Series		CLARIS	CLARIS	CLARIS	SHIMANO
Mode	el no.	FC-R2030-CG	FC-R2000	FC-R2000-CG	FC-RS200
	1	Series color	Series color	Series color	Black
Color	2	-	-	-	-
Rear s	peeds	8	8	8	8
Compati	ble chain	HG 8/7/6-speed	HG 8/7/6-speed	HG 8/7/6-speed	HG 8/7/6-speed
Chain li	ne (mm)	45	43.5	43.5	43.5
P.C.D.	(mm)	110/74	110	110	110
Spider/g	ear arms	4	4	4	5
Chainring c	ombination	50-39-30T	50-34T	50-34T	46-34T, 50-34T
Q-facto	or (mm)	158.8	150	150	153.7
	160	-	-	-	-
	165	✓	✓	1	1
	167.5	-	-	-	-
Crank arm length	170	✓	1	1	✓
Crank arm length (mm)	172.5	-	-	-	-
	175	✓	1	✓	✓
	177.5	-	-	-	-
	180	-	-	-	-
Ontional shair	With chain guard	1	-	1	✓
Optional chain guard	Without chain/bash guard	-	1	-	1
HOLLOV		-	-	_	•
			-		-
2-PIECE CRANKSET		-	-	1	
HOLLOWTECH crank arm		-	-	-	-
OCTALINK HOLLOWGLIDE		-	-	-	-
HOLLO		-	-	-	-
Compatible bottom	Outboard	1	1	1	-
Compatible bottom bracket type	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	-
	BB-UN/ES (mm)	-	-	-	MM110
Threaded bottom bracket shell width	68	1	1	1	1
(mm)	70	√	/	/	Al
Crank arm	Material	Aluminum	Aluminum	Aluminum	Aluminum
	Finish	Painted	Painted	Painted	Painted
Crank axle	Material	Steel Plated	Steel	Steel	-
	Finish		Plated	Plated	
Spider arm	Material Finish	-	-	-	-
	Material	-	-	-	-
Spider arm cover	Finish	-	-	-	-
	Material	Steel+Resin	Steel+Resin	Steel+Resin	Steel
Outer ring	Finish	Painted	Painted	Painted	Painted
		Steel	- rainteu	-	
Middle ring	Material Finish	Painted	-	-	-
	Material	Steel	Steel	Steel	Steel
Inner ring	Finish	Painted	Painted	Painted	Painted
	Material	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Outer/middle ring fixing bolt	Finish	-	-	-	-
	Material	Stainless steel	Stainless steel	Stainless steel	-
Inner ring fixing screw	Finish	-	-	-	-
	crew included	- ·	√	-	-
			•	•	•
brace	170 mm, w/o bottom ket)	-	-	-	-
No	ote				

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Crankset (Power Meter)

Series		DURA-ACE	DURA-ACE	DURA-ACE	ULTEGRA	
Mode	Model no.			FC-R9200-PX	FC-R9100-P	FC-R8100-P
Chainring combination		50-34T, 52-36T, 54-40T, w/o chainings	50-34T, 52-36T, 54-40T	50-34T, 52-36T, 53-39T, w/o chainrings	50-34T, 52-36T, w/o chainrings	
			✓ * ✓ (50-34T, 52-36T,	-	-	/ *
	165		w/o chainrings)	1	√ *	1
Crank arm length		7.5 70	/ *	-	/ *	-
(mm)	17	2.5	1	1	1	1
	175 177.5		/ / *	-	/ *	-
	1:	80	-	-	√ *	-
Force measurement Right Number of			1	1	1	1
		of strain	24	24	24	24
Cadence		nsor anet	√	✓	√	√
measurement		ometer	-	-	-	-
Accura	acy (%) stem status		±1.5 ✓	±1.5	±2	±2 ✓
Number of co	ontrol butto		1	1	1	1
Zero offset		ol button evice	1	1	1	<i>J</i>
Active temperatu			1	1	1	1
	Туре	Lithium ion Coin cell	√	√	√	√
Battery		fe	226 h	226 h	300 h or longer	226 h
		ng port ng cable	✓ EW-EC300	✓ EW-EC300	√ Included	✓ EW-EC300
Firmware update b			✓	✓	✓	✓
Di2 connectivity wired	Di2 shifting		-	-	-	-
		nifting	-	-	-	-
	Bluetoot h® LE	Cycling power	✓	1	1	1
	ANT+	Bicycle power	✓	1	1	1
	Bluetoot h® LE custom (*1)	Adjust mode informat ion	-	-	-	-
		Di2 battery level	-	-	-	-
		Gear position	-	-	-	-
		SHIMAN O E-BIKE SYSTEM S data items (*3)	-	-	-	-
Di2 connectivity wireless		Compati ble with E-TUBE RIDE	1	✓	1	1
		Compati ble with E-TUBE PROJECT	1	1	1	1
		Adjust mode informat ion	-	-	-	-
	ĄNŢ	Di2 battery level	-	-	-	-
	private (*2)	Gear position	-	-	-	-
		SHIMAN O E-BIKE SYSTEM S data items (*3)	-	-	-	-
SD50 port (pcs)		0	0	0	0	
SD300 port (pcs) 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) 752 (52-36T) 774 (54-40T)	745 (50-34T) 752 (52-36T) 774 (54-40T)	685 (50-34T) 695 (52-36T) 696 (53-39T)	758 (50-34T) 769 (52-36T)	
Note *1 Compatible	with a Blue	etooth LE	Crankset specifications not listed here are the same as FC-R9200	Crankset specifications not listed here are the same as FC-R9200	Crankset specifications not listed here are the same as FC-R9100	Crankset specifications not listed here are the same as FC-R8100
not freely open pro	ofile. *2 Cor	npatible not freely	* w/o chainrings	* w/o chainrings	* w/o chainrings	* w/o chainrings
Note *1 Compatible cycle computer and sign of freely open prowith ANT + cycle con open profile. *3 Will connected to SHIMA bil	be shown o NO E-BIKE ke.	only when SYSTEMS	Chemistry: Li-ion Rated voltage: 3.7 V Rated capacity: 0.66 Ah			
			Rated capacity: 2.442 Wh	Rated capacity: 2.442 Wh	Rated capacity: 2.442 Wh	Rated capacity: 2.442 Wh

Bottom Bracket (HOLLOWTECH II)

Series		SHIMANO	SHIMANO	SHIMANO	SHIMANO	SHIMANO	SHIMANO
Mode	Model no.		SM-BB92-41B	SM-BB72-41B	SM-BB71-41B	SM-BBR60	BB-RS501
HOLLOWTECH II bottom bracket	Threaded bottom bracket type	1	-	-	-	1	1
bottom bracket	Press-Fit type	-	✓	1	1	-	-
Threaded bottom bracket shell width	68	1	-	-	-	1	✓
(mm)	70	1	-	-	-	✓	✓
Press-Fit bottom bracket shell width (mm)	86.5	-	✓	1	✓	-	-
Small bal	l bearing	1	✓	1	-	✓	-
Adamtau	Material	Aluminum	Resin	Resin	Resin	Aluminum	Aluminum
Adapter	Finish	Anodized	-	-	-	Anodized	Anodized
Average v	Average weight (g)		54	69	71	77	93
No	Note						

Sei	ries	SHIMANO	SHIMANO	
Mode	el no.	BB-RS500	BB-RS500-PB	
HOLLOWTECH II bottom bracket	Threaded bottom bracket type	1	-	
bottom bracket	no. BB-RS500 BB-RS Threaded bottom Press-Fit type 68 70 86.5 Dearing Material Aluminum R Finish Anodized sight (g) 92	✓		
Threaded bottom	68	1	-	
bracket shell width (mm)	70	ss-Fit type -		
Press-Fit bottom bracket shell width (mm)	86.5	-	✓	
Small bal	l bearing	-	-	
Adaptor	Material	Aluminum	Resin	
Adapter	Finish	Anodized	-	
Average v	weight (g)	92 71		
No	ote			

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Bottom Bracket

Sei	ries		DURA-ACE	DURA-ACE	SHIMANO 105
Model no.		BB-7700	BB-7710	BB-5500	
		w pipe	√	1	1
Spindle		ALINK	1	1	1
Spiridle			•	7	,
	Squar	e type	-	-	-
	109.5	(BC1.37)	✓	•	√ (for double)
		70 (M36)	~	-	✓ (for double)
	MM110	68 (BC1.37)	-	-	-
		70 (M36)	-	-	-
	LL113	68 (BC1.37)	-	-	-
Axle length/shell width (mm)		70 (M36)	-	-	-
	113	(BC1.37)	-	-	-
		70 (M36)	-	-	-
	118.5	68 (BC1.37)	-	-	✓ (for triple)
		70 (M36)	-	-	✓ (for triple)
	121	68 (BC1.37)	=	-	-
Spindle	Mat	erial	Steel	Steel	Steel
Spinale	Fir	ish	Plated	Plated	Plated
Left hand adapter	Mat	erial	Aluminum	Aluminum	Aluminum
Leit nand adapter	Fir	ish	Anodized	Anodized	Anodized
Average v	weight (g)		173	244	-
No	ote			For track	

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Cassette

Ser	ies	DURA-ACE	ULTEGRA	ULTEGRA
Mode	el no.	CS-R9200-12	CS-R8101-12	CS-R8100-12
Tv	pe	HYPERGLIDE+	HYPERGLIDE+	HYPERGLIDE+
Rear s	peeds	12	12	12
	ble chain	HG 12-speed	HG 12-speed	HG 12-speed
Combination nar	ne (Group name)	11-30T, 11-34T	11-30T, 11-34T	11-30T, 11-34T
	1	11-12-13-14-15-16-17-19*-21*-24*-27*-30* 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 *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
Combination * Titanium gear	3	•	-	-
i itanium gear	4	-	-	-
	5	•	-	-
	6	-	-	-
	7	-	12	-
	MICRO SPLINE	-	-	-
	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, 7-speed CS-HG400/HG210)	-	-	-
	HG spline S (7-speed)	-	-	-
Carbon spider arm	QTY (pcs)	-	-	-
Carbon spider arm	Finish	•		-
Aluminum spider	QTY (pcs)	2	2	2
arm	Finish	Anodized	-	-
Steel spider arm	QTY (pcs)	-	-	-
Steel spider anni	Finish	-		-
Titanium gear	QTY (pcs)	5 (11-30T), 6 (11-34T)		0
- realisating gear	Finish	Titanium		-
Aluminum gear	QTY (pcs)	0	·	0
gear	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 v		223 (11-30T) 253 (11-34T)	291 (11-30T) 345 (11-34T)	291 (11-30T) 345 (11-34T)
No	ote			

Se	ries	SHIMANO 105	SHIMANO 105	SHIMANO
Mod	el no.	CS-R7101-12	CS-R7100-12	CS-HG710-12
Ту	pe	HG	HG	HG
Rear	speeds	12	12	12
Compati	ble chain	HG 12-speed	HG 12-speed	HG 12-speed
Combination nar	me (Group name)	11-34T	11-34T	11-36T
	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	-	-	-
Combination * Titanium gear	3	<u>-</u>	-	-
	4	-	-	-
····	5	-	-	-
	6	-	-	-
	7	-	-	-
	MICRO SPLINE	-	-	-
	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, 7-speed CS-HG400/HG210)	-	-	-
	HG spline S (7-speed)	-	-	-
Caulaan andalan anna	QTY (pcs)	-	-	-
Carbon spider arm	HG spline S (7-speed) OTY (pcs) Finish	-	-	-
Aluminum spider		1	1	1
arm '		Anodized	Anodized	Anodized
Stool spidor arm		-	1 1 1 1 Anodized Anodized	
steer spider ann				-
Titanium gear	bon spider arm uminum spider arm el spider arm e	0	0	0
ritailiaili geal	Finish	-	-	-
Aluminum gear	QTY (pcs)	0	0	0
Alaininum year	Finish	-	-	-
Stool goar QTY (pcs)		12	12	12
steer gear	Finish	Nickel plated	Nickel plated	Nickel plated Steel
Lock ring	Material	Steel	Steel	
	Finish	Nickel plated	Nickel plated	Nickel plated
	weight (g)	361	361	391
No	ote			

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Cassette

Sei	ries	DURA-ACE	ULTEGRA	SHIMANO
Mode	el no.	CS-R9100	CS-R8000	CS-HG800-11
Ty	pe	HG-EV	HG-EV	HG-EV
Rears	peeds	11	11	11
Compati	ble chain	LINKGLIDE, HG 11-speed	LINKGLIDE, HG 11-speed	LINKGLIDE, HG 11-speed
Combination nar	ne (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
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	-
Combination * Titanium gear	4	12-13-14-15-16-17-18*-19*-21*-23*-25*T	12-13-14-15-16-17-18-19-21-23-25T	-
Trainiani gear	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	-	-	-
	MICRO SPLINE	-	-	-
	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, 7-speed CS-HG400/HG210)	-	-	✓
	HG spline S (7-speed)	-	-	-
Carbon spider arm	QTY (pcs)	1	1	-
Carbon spider anni	Finish	-	-	-
Aluminum spider	QTY (pcs)	1	1	2
arm	Finish	Anodized	Anodized	Anodized
Steel spider arm	QTY (pcs)	-	-	-
Steer spider dim	Finish	-	-	-
Titanium gear	QTY (pcs)	5	0	0
- reaman gear	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) 193 (11-28T) 211 (11-30T) 189 (12-25T) 205 (12-28T)	232 (11-25T) 251 (11-28T) 269 (11-30T) 243 (12-25T) 300 (14-28T) 292 (11-32T)	335
No	ote		·	<u> </u>

Ser	ries	SHIMANO 105	SHIMANO	ULTEGRA
Mode	el no.	CS-R7000	CS-HG700-11	CS-6700
Ty	pe	HG-EV	HG-EV	HG
Rears	peeds	11	11	10
Compati	ble chain	LINKGLIDE, HG 11-speed	LINKGLIDE, HG 11-speed	HG 10-speed
Combination nar	ne (Group name)	11-28T, 11-30T, 11-32T, 12-25T	11-34T	11-25T, 11-28T, 12-25T, 12-30T
	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
Combination * Titanium gear	4	12-13-14-15-16-17-18-19-21-23-25T	-	12-13-14-15-17-19-21-24-27-30T
Trainan gear	5	-	-	-
	6	-	-	-
	7	-	-	-
	MICRO SPLINE	-	-	-
	HG spline L2 (ROAD 12-speed dedicated)	-	-	-
Culina tuna	HG spline L (ROAD 12/11-speed)	✓	-	-
Spline type	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)	-	-	-
Carbon spider ann	Finish	-	-	-
Aluminum spider	QTY (pcs)	1	1	1
arm '	Finish	Anodized	· · · · · · · · · · · · · · · · · · ·	Anodized
Steel spider arm	QTY (pcs)	-	-	
Steel spider anni	Finish	-	-	-
Titanium gear	QTY (pcs)	0	0	0
i italiialii geal	Finish	-		
Aluminum gear	QTY (pcs)	0	0	
Adminium gear	Finish	-	-	
Steel gear	QTY (pcs)	11	11	
Steel gear Fin	Finish	Nickel plated	Nickel plated	
Lock ring	Material	Steel	Steel	
LOCK TINIS	Finish	Nickel plated	Nickel plated	
Average v		284 (11-28T) 304 (11-30T) 320 (11-32T) 269 (12-25T)	379	230 (11-25T) 242 (11-28T) 238 (11-25T) 275 (12-30T)
No	ote			

Cassette

Sei	ries	SHIMANO	SHIMANO
Mod	el no.	CS-HG500-10	CS-HG50-9
Tv	pe	HG	HG
Rears	peeds	10	9
Compati	ble 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
	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
Combination * Titanium gear	4	11-13-15-17-19-21-23-26-30-34T	14-15-16-17-18-19-21-23-25T
manani gear	5	-	-
	6	-	-
	7	-	-
	MICRO SPLINE	-	-
	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, 7-speed CS-HG400/HG210)	✓	1
	HG spline S (7-speed)	-	-
Carbon spider arm	QTY (pcs)	-	-
Carbon spider arm	Finish	-	-
Aluminum spider	QTY (pcs)	-	-
arm		-	-
Steel spider arm		-	
Steel spider aim			
Titanium gear	HG spline M (10/9) 8-speed, MTB 11-speed, 7-speed 11-speed, 7-speed C-HG400/HG210) HG spline S (7-speed) OTY (pcs) Finish	0	0
i italiiulii yeal		-	- - - - - 0
Aluminum gear		0	0
Aidininalii geai		-	
Steel gear	QTY (pcs)	10	
Jeer year	Finish	Nickel plated	Nickel plated
Lock ring	Material	Steel	Steel
	Finish	Nickel plated	Nickel plated
	weight (g)	-	-
No	ote		

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Front Hub (Rim/Disc Brake)

Ser	ies	DURA-ACE	DURA-ACE	DURA-ACE	ULTEGRA	SHIMANO 105	SHIMANO 105
Mode	Model no.		HB-7710	HB-7600	HB-6800	HB-R7000	HB-R7070
	1 Hub shell	Series color	Silver	Silver	Series color	Silky black	Silky black
ŀ	1 Quick release	Series color	Silver	Silver	Series color	Black	-
Color	2 Hub shell	-	-	-	-	Spark silver	-
	2 Quick release	-	-	-	-	Black	-
Brake		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
24H		1	-	-	-	-	-
	28H	1	1	1	-	-	-
Spoke hole	32H	1	1	1	1	1	1
•	36H	1	1	1	1	1	1
Axle fixing		Quick release	Nut	Nut	Quick release	Quick release	12 mm E-THRU
i	129	-	-	-	-	-	-
Quick release skewer length (mm)	133	1	-	_	1	1	_
	100 x 8	-	_	-	-	-	-
Thru axle (length x	100 x 12	_	_	_	-	-	1
Thru axle (length x inner diameter ; mm)	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 dian	neter (mm)	48.4	46 (Front), 52 (Rear)	75	50.4	48.4	52.8
Se	al	Labyrinth+Contact	Dust cap	Dust cap	Labyrinth+Contact	Contact	Contact
Internal gre	ease sleeve	1	-	-	✓	✓	✓
Digital adjust	ment system	1	-	-	✓	-	-
	Stainless ball	1	1	1	-	-	-
Bearing	Cup	Super finishing **	Polish	CBN+Polish	Polish	Polish	Polish
-	Cone	CBN+Polish	CBN+Polish	CBN+Polish	CBN+Polish	CBN+Polish	CBN+Polish
	Material	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Hub shell	Finish	Anodized	Anodized	Anodized	Anodized	Anodized	Anodized
	Material	Aluminum	Steel	Steel	Aluminum	Steel	Aluminum
Axle	Finish	Anodized	Plating	Plating	Anodized	-	Anodized
	Material	Aluminum	-	-	Aluminum	Aluminum	-
Quick release lever	Finish	Anodized	-	-	Anodized	Anodized	-
Ouick rologe	Material	Anodized	-	-	Aluminum	Aluminum	-
Quick release housing	Finish	Silver	-	-	Anodized	Anodized	-
-	Material	Anodized	-	-	Resin	Resin	-
Quick release nut Finish		Silver	-	-	Black	Black	-
Radial lacing		1	-	-	√	✓	-
Average weight (g)		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) ** Super Finishing	For Track * Dishing Distance R (Single Thread): 2.75 mm / (Double Thread): 0			-	-

Front Hub (Rim/Disc Brake)

Ser	ies	SHIMANO	SHIMANO	SHIMANO	SHIMANO
Mode	el no.	HB-RS770	HB-RS400	HB-RS470	HB-RS300
	1 Hub shell	Black/Silver	Black	Black	Silver
Color	1 Quick release	-	Black	-	Silver
Color	Model no.	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
	24H	-	-	-	-
Spoke hole	28H	✓	✓	✓	✓
Spoke Hole	24H	✓			
	36H	✓	✓	-	✓
Axle fixin	g method	12 mm E-THRU	Quick release	12 mm E-THRU	Quick release
Ouick release	129	-	-	-	✓
Quick release skewer length (mm)	133	-	✓	-	✓
	100 x 8	-	-	-	-
Thru axle (length x inner diameter ; mm)	100 x 12	1	-	1	-
inner diameter ; mm)	100 x 15	CENTER LOCK disc brake Rim brake CENTER LOCK disc brake Rim brake 100 100 100 100 - - - - - - - - - - - - - - - - 12 mm E-THRU Quick release 12 mm E-THRU Quick release - - - - 8 - - - - - - - 8 - - - - - - - 15 - - - 20 - - - 59.6 71.6 59.6 71.6 59.6 71.6 59.6 71.6 44 38 44 38 52.8 48.4 52.8 48.4 Labyrinth+Contact Contact Contact Contact - -	-		
	110 x 20	-	-	-	-
Flange dist	ance (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 diar	neter (mm)	52.8	48.4	52.8	48.4
Se	al	Labyrinth+Contact	Contact	Contact	Contact
Internal gre	ease sleeve	-	✓	1	-
Digital adjust	ment system	-	-	-	-
	Stainless ball	-	-	-	-
Bearing	Cup	CBN	Polish	Polish	-
	Cone	CBN	CBN	CBN+Polish	-
Hub shell	Material	Aluminum	Aluminum	Aluminum	Aluminum
riub sileli	Finish	Anodized	Anodized	Anodized	Anodized
Axle	Material	Aluminum	Steel	Aluminum	Steel
AAIC	Finish	Anodized	-	-	-
Quick release lever	Material	-	Aluminum	-	Aluminum
Quick release level	Finish	-	Painted	-	Painted
Quick release housing	Material	-	Aluminum	-	Steel
housing	Finish	-	Painted	-	Painted
Quick release nut	Material	-	Resin	-	Resin
Quick release flut	Finish	-	Black	-	Black
Radial	lacing	-	✓	✓	✓
Average weight (g)	(w/o axle and lock g)	125	-		-
No	te	-		-	

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FREEHUB (Rim/Disc Brake)

Ser	ies	DURA-ACE	ULTEGRA	SHIMANO 105	SHIMANO 105	SHIMANO	SHIMANO
Mode	el no.	FH-9000	FH-6800	FH-R7000	FH-R7070	FH-RS770	FH-RS400
	1 Hub shell	Series color	Series color	Silky black	Silky black	Black/Silver	Black
	1 Quick release	Series color	Series color	Black	Black	-	Black
Color	2 Hub shell	-	-	Spark silver	-	-	Silver
	2 Quick release	-	-	Black	-	-	Black
Proko		Dim braka	Dim braka		CENTER LOCK disc	CENTER LOCK disc	
Brake		Rim brake	Rim brake	Rim brake	brake	brake	Rim brake
Rear s		11/10 *	11/10 *	11/10 *	11/10 *	11/10 *	11/10
O.L.D.	(mm)	130	130	130	142	142	130
	24H	✓	-	-	-	-	-
Spoke hole	28H	✓	-	-	-	✓	✓
эроке поте	32H	✓	1	✓	✓	1	✓
	36H	✓	1	✓	✓	✓	✓
External serration	With	-	-	-	-	-	-
disc brake rotor lock ring	Without	-	-	-	-	-	-
Internal serration disc brake rotor lock	With	-	-	-	-	-	-
disc brake rotor lock ring	Without	-	-	-	1	1	-
CENTER LOCK mo		-	-	_	1	-	_
Axle fixin		Quick release	Quick release	Quick release	12 mm E-THRU	12 mm E-THRU	Quick release
Axie lixili		- Quick release	- Quick release	- Quick release		-	- Quick release
	161				-		
	163	1	1	1	-	-	✓
Quick release skewer length (mm)	166	-	-	-	-	-	-
skewer length (mill)	168	✓	✓	1	-	-	✓
	170	-	-	-	-	-	-
	173	-	-	-	-	-	-
	135 x 10	-	-	-	-	-	-
Thru axle (length x	135 x 12	-	-	-	-	-	-
Thru axle (length x inner diameter ; mm)	142 x 12	-	-	-	✓	1	-
111111)	148 x 12	-	-	-	-	-	-
	150 x 12	-	-	-	-	-	-
Flange dist	ance (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	• • •	52.8/53.8	52.8/53.8	52.8/53.8	52.8/53.8	52.8/53.8	52.8/53.8
	MICRO SPLINE	-	-	-	-	-	-
	HG spline L2 (ROAD 12-speed dedicated)	-	-	-	-	-	-
	HG spline L (ROAD 12/11-speed)	1	1	1	1	1	1
Spline type	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
) Sedi	FREEHUB body	Contact	Contact	Contact	Contact	Contact	Contact
Internal gre	ease sleeve	✓	1	1	1	-	1
Digital adjust	ment system	✓	1	-	-	-	-
	Stainless ball	✓	-	-	-	-	-
Bearing	Cup	CBN	Polish	Polish	Polish	CBN	Polish
	Cone	CBN	CBN	CBN	CBN	CBN	CBN
EDEE:	Material	Titanium	Steel	Steel	Steel	Steel	Steel
FREEHUB body	Finish	-	-	-	-	-	-
	Material	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Hub shell	Finish	Anodized	Anodized	Anodized	Anodized	Anodized	Anodized
_	Material	Aluminum	Aluminum	Steel	Steel	Aluminum	Steel
Axle	Finish	Anodized	Anodized	-	-	Anodized	-
	Material	Aluminum	Aluminum	Aluminum	-	-	Aluminum
Ouick release lever	Finish	Anodized	Anodized	Anodized	-	-	Painted
Anick icicase icacl	Color	9000SLV	Black	Black	-	-	Black
	Material	Aluminum	Aluminum	Aluminum	-	-	Aluminum
Quick release housing	Finish	Anodized	Anodized	Anodized	-	-	Painted
	Material	Aluminum	Resin	Resin	-	-	Resin
Quick release nut	Finish	Anodized			-	-	Black
			Black	Black			
Disc brake rotor lock ring	Material	-	-	-	-	-	-
	Finish	-	-	-	-	-	-
Radial		-	-	-	-	-	-
Average weight (c release no	y (w/o axie, quick r lock ring)	247	330	368	361	302	-
No		* Can be used for 10-speed with an additional spacer ** Aero spoke hole available *** Flange Distance: 50.5, Dish:9.95(only for 28H), **** Super Finishing.	* Can be used for 10-speed with an additional spacer	* Can be used for 10-speed with an additional spacer	* Can be used for 10-speed with an additional spacer.	* Can be used for 10-speed with an additional spacer. For disc brake! CENTER LOCK mount	* Can be used for 10-speed with an additional spacer

FREEHUB (Rim/Disc Brake)

Node no.	Ser	ies	SHIMANO	SHIMANO
Thu shell			H	
Color				
2 Hub shell -			-	
Rear speeds	Color	2 Hub shell	-	Black
Brake Strake St		2 Quick release	-	Black
Rear speeds	Brake	type		Rim brake
Spoke hole	Rear s	peeds		11/10/9/8/7
28H				
Spoke hole 32H		24H	-	-
32H	Snoke hole	28H		✓
External serration disc brake protor lock ring Without - - -	Spoke Hole		✓	<u>_</u>
Internal serration With - - -			-	✓
Internal serration With - - -	External serration disc brake rotor lock			-
CENTER LOCK mount cover option	ring		-	-
CENTER LOCK mount cover option	Internal serration disc brake rotor lock		-	-
Axle fixing method			7	-
161			- 12 mm E TUDII	- Ouick rolosso
163 -	Axie ilxin		12 IIIII E-I II NU	- Quick release
166			-	· /
Skewer length (mm)	Quick release			-
173	skewer length (mm)		-	1
Thru axle (length x inner diameter; mm)			-	-
Thru axle (length x inner diameter; mm)		173	-	=
Thru axle (length x inner diameter; minm)			-	-
148 x 12	Thru axle (length x		-	-
148 x 12	inner diameter ;		1	-
Flange distance (mm) 55.7 57.9				
Offset (mm)	Flamma disa			
P.C.D. left / right (mm)				
Spline type		` '		
MICRO SPLINE				
12-speed dedicated	J		-	-
HG spline L (ROAD 1/11-speed)		HG spline L2 (ROAD	-	-
HG spline M (10/9/8 2-5peed, MTB 11-speed, JTSpeed, MTB 11-speed, JTSpeed (S-HG400/HG210)			1	_
HG spline S (7-speed)	Spline type		V	
HG spline S (7-speed)		8-speed, MTB 11-speed, 7-speed CS-HG400/HG210)	-	✓
Seal Hub Contact Contact			-	-
FREEHUB body Contact Contact	Co-1		Contact	Contact
Digital adjustment system	Seal	FREEHUB body		
Stainless ball - - -			1	1
Cup	Digital adjust		-	-
Cone CBN	l			
Material Steel Steel Finish	Bearing			
FREEHUB body Finish - -				
Material Aluminum Aluminum	FREEHUB body		31661	steer
Finish			Aluminum	Aluminum
Material Steel Steel	Hub shell			
Prinish - -	Avda		Steel	
Quick release lever	AXIE	Finish	-	-
Color			-	
Quick release housing Material - Steel Quick release nut Material - Resin Quick release nut Finish - Black Disc brake rotor lock ring Material - - Finish - - - Radial lacing - - - Average weight (g) (w/o.axle, quick release not lock ring) - - -	Quick release lever		-	
Painted Pain				
Material Resin	Quick release			
Quick release nut				
Disc brake rotor lock Material - -	Quick release nut			
rring Finish Radial lacing Average weight (g) (w/o axle, quick release nor lock ring)	Disc brake rotor lock			
Average weight (g) (w/o axle, quick release nor lock ring)	ring		-	-
			-	-
* Can be used for 10-speed with an additional spacer	Average weight (c release no	g) (w/o axle, quick r lock ring)	-	-
	No	ote	* Can be used for 10-speed with an additional spacer	

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Wheel (Disc Brake)

Ser	ies	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		WH-R9270-C60-HR- TU	WH-R9270-C60-HR- TU	WH-R9270-C60-HR- TL	WH-R9270-C60-HR- TL	WH-R9270-C50-TU	WH-R9270-C50-TU
Specifi	1 Hub shell	F Series color	R Series color	F Series color	R Series color	F Series color	R Series color
Color	1 Ouick release 2 Hub shell	-	-	-	-	-	-
Front	2 Ouick release /Rear	- Front	Rear	- Front	Rear	- Front	- Rear
Brake	type	CENTER LOCK disc brake	Rear CENTER LOCK disc brake	Front CENTER LOCK disc brake	Rear CENTER LOCK disc brake	Front CENTER LOCK disc brake	Rear CENTER LOCK disc brake
Rear s O.L.D. Whee	peeds (mm)	100	12 142 700C	100	12 142 622 <u>x</u> 21C (700C)	100	12 142 700C
Whee Tire	el size Type	700C Tubular	Tubular	622 x 21C (700C) Tubeless 25-622 - 32-622	622 x 21C (700C) Tubeless 25-622 - 32-622	700C Tubular	700C Tubular
Tire	Type Recommended size Height (mm)	Tubular 25-28" - 32-28" 60	25-28" - 32-28" 60	25-622 - 32-622 60	25-622 - 32-622 60	Tubular 25-28" - 32-28" 50	Tubular 25-28" - 32-28" 50
	Height (mm) Internal width (mm) External width (mm)	28	28	60 21 28	21 28	- 28	- 28
Rim	Rim joint	-	-	-	-	-	-
	Brazed reinforcement	-	-	-	-	-	-
	OFFSET RIM Requires rim tape	-	-	· /	1	-	-
	Number Straight pull	24 •	24 √	<u>∠4</u>	<u>∠4</u>	24 √	24 ✓
Spokes	Bladed Butted	1	1	1	7	4	4
Axle fixin	Diameter (mm)	2.0-1.8-2.0 12 mm E-THRU	2.0-1.8-2.0 12 mm E-THRU	2.0-1.8-2.0 12 mm E-THRU	2.0-1.8-2.0 12 mm E-THRU	2.0-1.5-2.0 12 mm E-THRU	2.0-1.5-2.0 12 mm E-THRU
Ouick release	133				-	- 12 IIIII E-1 HKU	- 12 IIIII E-I HKU
skewer length (mm)	163 168	-	-	-	-	-	-
Thru axle (length x inner diameter ; mm)	100 x 8 100 x 12	7	-	-	-	-	-
mm)	142 x 12	-	√	-	/	-	√
	HG spline L2 (ROAD	-	✓	-	1	-	1
	HG spline L (ROAD	-	-	-	-	-	-
Spline type	HG spline M (10/9/						
	MICHO STAINE 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	-	-	-	-	-	-
	77 - 550000	-	-	-	-	-	-
Engagem	ent type Stainless ball	-	Direct engagement	-	Direct engagement	-	Direct engagement
Bearing	Cub I	CBN	CBN	CBN	CBN	CBN	CBN CBN
	Cone CENTER LOCK CENTER LOCK	CBN ✓	CBN ✓	CBN ✓	CBN ✓	CBN ✓	✓ CBIN
Disc mount	mount cover option	-	-	-	-	-	-
	rotor compatible	1	1	1	1	✓	1
OPTBA D2	140 mm disc brake rotor compatible L (2:1) rim	1	1	1	1	7	1
Digital aujust		- Contact	- Contact	- Contact	- Contact	- Contact	- Contact
Seal Internal gre	Hub FREEHUB body ease sleeve	-	Contact	-	Contact	-	Contact
Rim	ease sleeve Material Finish	Carbon Painted	Carbon Painted	Carbon Painted	Carbon Painted	Carbon Painted	Carbon Painted
Spoke	Material	Stainless steel	Stainless steel	Stainless steel	Painted Stainless steel	Painted Stainless steel	Painted Stainless steel
Nipple	Finish Material	Series color Aluminum	Series color Aluminum	Series color Aluminum	Series color Aluminum	Series color Aluminum	Series color Aluminum
FREEHUB body	Finish Material	Series color -	Series color Aluminum	Series color -	Series color Aluminum	Series color -	Series color Aluminum
Hub shell	Finish Material Finish	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Axle	iviateriai	Anodized Aluminum	Anodized Aluminum	Anodized Aluminum	Anodized Aluminum	Anodized Aluminum	Anodized Aluminum
Quick release lever	Finish Material	Anodized -	Anodized -	Anodized -	Anodized -	Anodized -	Anodized -
Ouick release	Finish Material	-	-	-	-	-	-
housing	Finish Material	-	-	-	-	-	-
Quick release nut Compatible sp	Finish	-	- CP-WR92C	-	CP-WR92C	-	CP-WR92A
Companible Sp	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
Reflector	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) (v tape, tubeless tape, v		667	RR-317-WUA SW 770	751	RR-317-WUA SW 858	RR-317-WUA SW 610	723
	(alve stem lock ring)	007	770	131	030	010	123

Wheel (Disc Brake)

Series		DURA-ACE	DURA-ACE	DURA-ACE	DURA-ACE	DURA-ACE	DURA-ACE
Mode		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 Specifi	name cation	WH-R9270-C50-TL	WH-R9270-C50-TL	WH-R9270-C36-TU	WH-R9270-C36-TU	WH-R9270-C36-TL	WH-R9270-C36-TL
эресп	1 Hub shell 1 Quick release	Series color	Series color	Series color	Series color	Series color	Series color
Color	l 2 Hub shell l	-	-	-	-	-	-
Front	2 Quick release	- Front	- Rear	- Front	- Rear	- Front	- Rear
Brake		CENTER LOCK disc	Rear CENTER LOCK disc	Front CENTER LOCK disc	Rear CENTER LOCK disc	Front CENTER LOCK disc	CENTER LOCK disc
		brake -	brake 12	brake -	brake 12	brake -	brake 12
Rear s O.L.D. Whee	(mm) el size	100 622 x 21C (700C)	142 622 x 21C (700C)	100 700C	142 700C	100 622 x 21C (700C)	142 622 x 21C (700C)
Tire	Type Recommended size	Tubeless 25-622 - 32-622	Tubeless 25-622 - 32-622	Tubular 25-28" - 32-28"	Tubular 25-28" - 32-28"	Tubeless 25-622 - 32-622	Tubeless 25-622 - 32-622
	Height (mm) Internal width (mm)	50	50	36	36	36	36 21
	External width (mm)	21 28	21 28	28	28	21	21
Rim	External width (mm) Rim joint	-	-	-	-	-	-
	Brazed reinforcement OFFSET RIM	-	-	-	-	-	-
	Requires rim tape	· /	- -	-	-	- -	· /
	Number Straight pull	24 •	24 •	24 •	24 •	24 •	24 •
Spokes	Bladed	ý	Ĭ,	Ĭ,	ý	ý	Ĭ,
	Butted Diameter (mm)	2.0-1.5-2.0	2.0-1.5-2.0 12 mm E-THRU	2.0-1.5-2.0	2.0-1.5-2.0	2.0-1.5-2.0	2.0-1.5-2.0 12 mm E-THRU
Axle fixin	g 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)	133 163 168	-	-	-	-	-	-
Tḥru axle (length x	168 100 x 8	-	-	-	-	-	-
inner diameter ; mm)	100 x 12 142 x 12 MICRO SPLINE	-	-	-	-	-	-
	MICRO SPLINE	-	-	-	-	-	-
	HG spline L2 (ROAD 12-speed dedicated)	-	✓	-	1	-	1
Spline type	HG spline L (ROAD 12/11-speed)	-	-	-	-	-	-
Spilite type	HG spline M (10/9/ 8-speed, MTB 11-speed, 7-speed CS-HG400/HG210)	-	-	_	_	_	-
	CS-HG400/HG210)						
	HG spline S (7-speed)	-	-	-	-	-	-
Engagem	Stainless ball	-	Direct engagement	-	Direct engagement	-	Direct engagement
Bearing	Cup	CBN CBN	CBN CBN	CBN CBN	CBN CBN	CBN CBN	CBN CBN
	Cone CENTER LOCK	✓	✓	✓ ✓	✓	✓	✓
Disc mount	CENTER LOCK mount cover option	-	-	-	-	-	-
	mount cover option 140 mm disc brake rotor compatible L (2:1)	✓	✓	✓	✓	✓	✓
OPTBA D2	L (2:1) rim	-	1	-	1	-	1
Digital adjust	ment system	Contact	Contact	Contact	Contact	Contact	- Contact
Seal	Hub FREEHUB body	-	Contact	-	Contact	-	Contact
Rim	ease sleeve Material	- Carbon	Carbon	- Carbon	- Carbon	- Carbon	- Carbon
	Finish Material	Painted Stainless steel	Painted Stainless steel	Painted Stainless steel	Painted Stainless steel	Painted Stainless steel	Painted Stainless steel
Spoke	Finish Material	Series color Aluminum	Series color Aluminum	Series color Aluminum	Series color Aluminum	Series color Aluminum	Series color Aluminum
Nipple	Finish	Series color	Series color Aluminum	Series color	Series color Aluminum	Series color	Series color
FREEHUB body	Material Finish		-		-		Aluminum
Hub shell	Material Finish	Aluminum Anodized	Aluminum Anodized Aluminum	Aluminum Anodized	Aluminum Anodized	Aluminum Anodized	Aluminum Anodized
Axle	Material Finish	Aluminum Anodized	Aluminum Anodized	Aluminum Anodized	Aluminum Anodized	Aluminum Anodized	Aluminum Anodized
Quick release lever	Material	-	-	-	-	-	-
Quick release	Finish Material	-	-	-	-	-	-
housing Ouisk release put	Finish Material Finish	-	<u>-</u>	<u>-</u>	-	-	-
Quick release nut	Finish oke protector	-	- CP-WR92A	-	- CP-WR92Δ	-	- CP-WR92Δ
Compatible 3	JIS/CPSC	CATEYE RR-550-WUW SW	CATEYE RR-550-WUW SW	CATEYE RR-550-WUW SW	CP-WR92A CATEYE RR-550-WUW SW	CATEYE RR-550-WUW SW	CP-WR92A CATEYE RR-550-WUW SW
Reflector	AS	CATEYE	CATFYF	CATEYE	CATEYE	CATFYF	CATEYE
	DIN	CATEYE RR-550-WUA SW CATEYE	RR-550-WUA SW CATEYE	RR-550-WUA SW CATEYE	CATEYE RR-550-WUA SW CATEYE	RR-550-WUA SW CATEYE	RR-550-WUA SW CATEYE
Average weight (g) (v		RR-317-WUA SW 674	RR-317-WUA SW 787	RR-317-WUA SW 522	RR-317-WUA SW 632	RR-317-WUA SW 620	730
tape, tubeless tape, N	v/o quick release, rim valve stem, lock ring) ote	5/4	737	322	032	020	730

ST

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ВВ

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CS HB

FH

WH

WH

HP

т

SW

RD

ED

Wheel (Disc Brake)

Sei	ries	ULTEGRA	ULTEGRA	ULTEGRA	ULTEGRA	ULTEGRA	ULTEGRA
	el 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
Mode	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
Specif	ication 1 Hub shell	F Series color	R Series color	F Series color	R Series color	F Series color	R Series color
Color	1 Hub shell 1 Quick release 2 Hub shell 2 Quick release	-	-	-	-	-	-
Frank	2 Quick release	- Frank	- Dans	- Funnt	- Dans	- Frant	- Dans
	t/Rear e type	Front CENTER LOCK disc	Rear CENTER LOCK disc	Front CENTER LOCK disc	Rear CENTER LOCK disc	Front CENTER LOCK disc	Rear CENTER LOCK disc
Rear	speeds	brake -	<u>brake</u> 12/11	brake -	<u>brake</u> 12/11	brake -	<u>brake</u> 12/11
Rear s O.L.D Whee	. (mm) el size	100 622 x 21C (700C)	142 622 x 21C (700C)	100 622 x 21C (700C)	142 622 x 21C (700C)	100 622 x 21C (700C)	142 622 x 21C (700C)
Tire	Type	Tubeless 25-622 - 32-622	Tubeless 25-622 - 32-622	Tubeless 25-622 - 32-622	Tubeless 25-622 - 32-622	Tubeless 25-622 - 32-622	Tubeless 25-622 - 32-622
	Recommended size Height (mm)	60	60	50	50	36	36
	Height (mm) Internal width (mm) External width (mm)	21 28	21 28	21 28	50 21 28	21 28	21 28
Rim	I KIM IOINT	-	-	-	-	-	-
	Brazed reinforcement	-	-	-	-	-	-
	OFFSET RIM Requires rim tape	<i>y</i>	<i>y</i>	<i>y</i>	y	<i>J</i>	· /
	Number Straight pull Bladed	<u>∠4</u> ✓	<u>∠4</u>	<u>∠4</u>	<u>∠4</u>	<u>∠4</u>	<u>∠4</u>
Spokes	Bladed Butted	1	1	1	1	1	1
Avia fivin	Diameter (mm)	2.0-1.6-2.0 12 mm E-THRU	2.0-1.6-2.0 12 mm E-THRU	2.0-1.6-2.0 12 mm E-THRU	2.0-1.6-2.0 12 mm E-THRU	2.0-1.6-2.0 12 mm E-THRU	2.0-1.6-2.0 12 mm E-THRU
	133 163	- 12 111111 E-1 FIRO	12 IIIIII E-1 FIRU -	- 12 111111 E-1 FIRU	12 IIIII E-I FIRU -	12 IIIII E-I FIRU -	- 12 IIIIII E-1 ITKU
Quick release skewer length (mm)	163 168 100 x 8	-	<u>-</u>	-	<u>-</u>	<u>-</u>	-
Thru axle (length x inner diameter ; mm)		-	-	-	-	-	-
mm)	142 x 12	-	1	-	1	-	1
	HG spline L2 (ROAD	-	-	-	-		-
	HG spline L (RQAD	-	1	_	1	_	1
Spline type	12/11-speed) HG spline M (10/9/	-	•	-	<u> </u>	-	•
" " " " " " " " " " " " " " " " " " "	8-speed, MTB 11-speed, 7-speed	-	-	-	-	-	-
	CS-HG400/HG210) HG spline S						
Fngagen	100 x 12 142 x 12 MICRO SPLINE HG spline L2 (ROAD) 12-speed dedicated) 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
Bearing	Stainless ball Cup	- Polish	Polish	- Polish	Polish	- Polish	Polish
Bearing	Cone	CBN	CBN	CBN	CBN	CBN	CBN
	CENTER LOCK CENTER LOCK	-	-	-	-	-	-
Disc mount	mount cover option 140 mm disc brake	-	-	-	-	-	1
OPTR4	rotor compatible AL (2:1)	-	- /	-	1	-	7
D2	rim	1	7	1	7	1	7
Seal	tment system Hub	Contact	Contact	Contact	Contact	Contact	Contact
	FREEHUB body ease sleeve	7	Contact ✓	7	Contact ✓	7	Contact ✓
Rim	Material Finish	Carbon Painted	Carbon Painted	Carbon Painted	Carbon Painted	Carbon Painted	Carbon Painted
Spoke	Material Finish	Stainless steel Series color	Stainless steel	Stainless steel Series color	Stainless steel	Stainless steel Series color	Stainless steel
Nipple	Material	Aluminum	Series color Aluminum	Aluminum	Aluminum	Aluminum	Series color Aluminum
FREEHUB body	Finish Material	Series color -	Series color Steel	Series color -	Series color Steel	Series color -	Series color Steel
Hub shell	Finish Material	- Aluminum	- Aluminum	- Aluminum	- Aluminum	- Aluminum	- Aluminum
	Finish Material	Anodized Aluminum	Anodized Aluminum	Anodized Aluminum	Anodized Aluminum	Anodized Aluminum	Anodized Aluminum
Axle	Finish Material	Anodized	Anodized	Anodized	Anodized	Anodized	Anodized
Quick release lever	Finish Material	-	-	-	-	-	-
Quick release housing	l Finish	-	-	-	-	-	-
Quick release nut	Material Finish	-	-	-	-	-	-
Compatible sp	ooke protector	- CATEYE	CP-WR81A CATEYE RR-550-WUW SW	- CATEYE	CP-WR81A CATEYE	- CATEVE	CP-WR81A CATEYE RR-550-WUW SW
	JIS/CPSC	RR-550-WUW SW	RR-550-WUW SW	RR-550-WUW SW	RR-550-WUW SW	CATEYE RR-550-WUW SW	RR-550-WUW SW
Reflector	AS	CATEYE RR-550-WUA SW	CATEYE RR-550-WUA SW	CATEYE RR-550-WUA SW CATEYE	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 valve stem, lock ring) ote	738	911	698	872	657	831
No	ote						

Wheel (Disc Brake)

Series		SHIMANO	SHIMANO	SHIMANO	SHIMANO	DURA-ACE	SHIMANO
Mode	Model no.		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 cation	WH-RS710 C32-TL-F Black	WH-RS710 C32-TL-R Black	WH-RS710 C46-TL-F	WH-RS710 C46-TL-R Black	WH-R9170-C60-TU F12	WH-RS370-TL F12
Specin	1 Huh chall	Black	Black	Black	Black	Series color	Black
Color	1 Quick release 2 Hub shell	-	-	-	-	-	-
Fuent	2 Quick release	- Fuent	- Dans	- Fuent	- Deer	- Fuend	-
Front Brake		Front CENTER LOCK disc	Rear CENTER LOCK disc	Front CENTER LOCK disc	Rear CENTER LOCK disc	Front CENTER LOCK disc	Front CENTER LOCK disc
Rear s	peeds	brake -	brake 12/11 142	brake -	brake 12/11 142	brake -	brake -
Rear s O.L.D. Whee	(mm)	100 622 x 21C (700C)	142 622 x 21C (700C)	100 622 x 21C (700C)	142 622 x 21C (700C)	100 700C	100 622 <u>x</u> 19Ç (700C)
Tire	lvpe	622 x 21C (700C) Tubeless 25-622 - 32-622	622 x 21C (700C) Tubeless 25-622 - 32-622 32	622 x 21C (700C) Tubeless 25-622 - 32-622	622 x 21C (700C) Tubeless 25-622 - 32-622	Tuhular	Tubeless
	Recommended size Height (mm)	<u> 25-622 - 32-622</u> 32	<u> 25-622 - 32-622</u> 32	<u> 25-622 - 32-622</u> 46	<u> 25-622 - 32-622</u> 46	23-28" - 28-28" 60	Tubeless 28-622 - 45-622 19
	Internal width (mm) External width (mm)	21	21 28	21 28	21 28	28	19 23.4
Rim	Rim joint Brazed	-	-	-	-	-	Welded
	reinforcement OFFSET RIM	=	-	=	-	=	-
	OFFSET RIM Requires rim tape	-	-	-	-	-	-
	Number	24	24	24	24	24	24
Spokes	Straight pull Bladed	7	7	7	7	Ž	-
,	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
	Diameter (mm) g method	2.0-1.6-2.0 12 mm E-THRU	2.0-1.6-2.0 12 mm E-THRU	2.0-1.6-2.0 12 mm E-THRU	2.0-1.6-2.0 12 mm E-THRU	2.0-1.8-2.0 12 mm E-THRU	2.0-1.8-2.0 12 mm E-THRU
Quick release skewer length (mm)	133 163	-	-	-	-	-	-
Thru axle (length x inner diameter ;	168 100 x 8	-	-	<u>-</u>	-	-	-
inner diameter ; mm)	100 x 12	√	-	√	-	√	√
,	MICRO SPLINE	=	-	-	-	-	-
	12-speed dedicated)	-	-	-	-	-	-
	HG spline L (ROAD 12/11-speed)	-	✓	-	1	-	-
Spline type	HG spline M (10/9/ 8-speed, MTB						
	142 X 12 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	-	-	-	-	-	-
	HG spline S (7-speed)	-	-	-	-	-	-
Engagen	lent type	-	Pawl ratchet	-	Pawl ratchet	,	
Bearing	Cup	Polish CBN	Polish CBN	Polish CBN	Polish CBN	CBN CBN	Polish CBN
	Cone CENTER LOCK	CBN	CBN	CBN	CBN	CBN	CBN
Disc mount	CENTER LOCK	-	-	-	-	-	-
J.Sccu.ii	140 mm disc brake	1	1	1	1	1	1
OPTBA	Cup Cone CENTER LOCK CENTER LOCK CENTER LOCK CENTER LOCK mount cover option 140 mm disc brake rotor compatible L (2:1) rim ment system Hub	-	-	-	-	-	-
Digital adjust	ment system	-	-	-	-	-	-
Seal	Hub FREEHUB body	Contact -	Contact Contact	Contact -	Contact Contact	Contact -	Contact -
	ease sleeve	Carban	-	Corbon	-	Carban	√ Alumiaa
Rim	Material Finish	Carbon Painted	Carbon Painted	Carbon Painted	Carbon Painted	Carbon Painted	Aluminum Anodized
Spoke	<u>Material</u> Finish	Black	Black	Stainless steel Black	Stainless steel Black	Stainless steel Black	Stainless steel Black
Nipple	Material Finish	Aluminum Black	Aluminum Black	Aluminum Black	Aluminum Black	Aluminum Silver	Aluminum Black
FREEHUB body	Material Finish	-	Steel	-	Steel	-	-
Hub shell	Material	Aluminum	Aluminum	Aluminum Anodized	Aluminum	Aluminum Anodized	Aluminum Anodized
Axle	Finish Material	Anodized Aluminum	Anodized Aluminum	Aluminum	Anodized Aluminum	Aluminum	Anodized Aluminum
	Finish Material	Anodized	Anodized	Anodized	Anodized	Anodized	-
Quick release lever	Finish	-	-	-	-	-	-
Quick release housing	Material Finish	-	-	-	-	-	-
Quick release nut	Material Finish	-	-	=	-	-	-
Compatible sp		-	CP- WH24(11-28,30,32,3 4T)	-	CP- WH24(11-28,30,32,3 4T)	-	-
	JIS/CPSC	CATEYE RR-550-WUW SW	4T) CP-WR71A(11-36T) CATEYE RR-550-WUW SW	CATEYE RR-550-WUW SW	4T) CP-WR71A(11-36T) CATEYE RR-550-WUW SW	CATEYE RR-550-WUW SW	CATEYE RR-550-WUW SW
Reflector	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
Reflector	DIN	RR-550-WUA SW CATEYE	RR-550-WUA SW CATEYE RR-317-WUA SW	RR-550-WUA SW CATEYE	RR-550-WUA SW CATEYE RR-317-WUA SW	RR-550-WUA SW CATEYE	RR-550-WUA SW CATEYE RR-317-WUA SW
Average weight (g) (v tape, tubeless tape, v		CATEYE RR-317-WUA SW 665	RR-317-WUA SW 839	CATEYE RR-317-WUA SW 719	RR-317-WUA SW 893	CATEYE RR-317-WUA SW 678	RR-317-WUA SW 890
tape, tubeless tape, N	valve stem, lock ring)	000	039	/19	033	0/8	- 030

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Wheel (Disc Brake)

Se	ries	SHIMANO	SHIMANO	SHIMANO	SHIMANO	SHIMANO
Mod	el no.	WH-RS370-TL-R12	WH-RS171-CL- F12-700C	WH-RS171-CL- R12-700C	WH-RX010-CL-F	WH-RX010-CL-R
Mode	name	WH-RS370-TL			WH-RX010-CL	WH-RX010-CL
	ication 1 Hub shell	WH-RS370-TL R12 Black	WH-RS171-CL F12-700c Black	WH-RS171-CL R12-700c Black	F Black	R Black
Color	1 Quick release 2 Hub shell	- Diack	- Diack	- Diack	Black	Black
Color	2 Hub shell 2 Quick release	-	-	-	-	-
Front		Rear	Front	Rear	Front	Rear
	e type	CENTER LOCK disc brake	CENTER LOCK disc brake	CENTER LOCK disc brake	CENTER LOCK disc brake	CENTER LOCK disc brake
Rear s	speeds . (mm)	11/10 * 142	100	11/10 * 142	100	11/10 *
Whee	el size	622 x 19C (700C)	622 x 19C (700C)	622 x 19C (700C) Clincher	622 x 17C (700C) Clincher	135 622 x 17C (700C) Clincher
Tire	Type Recommended size	Tubeless 28-622 - 45-622	Clincher 28-622 - 42-622	28-622 - 42-622	25-622 - 38-622	25-622 - 38-622
	Height (mm)	19	19 19	19 19	24	24
	Internal width (mm) External width (mm)	19 23.4	24.6	24.6	23	23
Rim	Rim joint Brazed	Welded	Sleeve	Sleeve	Sleeve	Sleeve
	reinforcement OFFSET RIM	-	-	-	-	-
	Requires rim tape	- -	-	7	7	· /
	Number	24	28	28	28	28
Spokes	Straight pull Bladed	-	-	-	-	-
	Butted Diameter (mm)	2.0-1.8-2.0	2	2	2	2
Axle fixin	a method	12 mm E-THRU	12 mm E-THRU	12 mm E-THRU	Quick release	Quick release
Quick release skewer length (mm)	133 163	-	-	-	-	-
	168 100 x 8	-	-	-	-	1
Thru axle (length x inner diameter ;	l 100 x 12 l	-	7	-	-	-
mm)	142 x 12 MICRO SPLINE HG spline L2 (ROAD 12-specime L (ROAD)	-	-	-	-	-
	HG spline L2 (ROAD	-	-	-	-	-
	HG spline L (ROAD	1	-	1	-	1
Spline type	HG spline L (ROAD 12/11-speed) HG spline M (10/9/	•		•		•
3,6-	8-speed, MTB 11-speed, 7-speed CS-HG400/HG210) HG spline S	-	-	-	-	-
	CS-HG400/HG210)					
	(7-speed)	-	-	-	-	-
Engagen	nent type Stainless ball	-	-	Pawl ratchet	-	Pawl ratchet
Bearing	Cup	Polish CBN	Polish CBN	Polish CBN	Polish CBN	Polish CBN
	Cone CENTER LOCK	✓	✓	✓ ✓	✓ ✓	✓ ✓
Disc mount	CENTER LOCK mount cover option	-	-	-	-	-
	mount cover option 140 mm disc brake	✓	1	1	✓	1
OPTB/	140 mm disc brake rotor compatible AL (2:1)	-	-	-	-	-
	rim tment system		-	-	-	-
Seal	Hub FREEHUB body	Contact Contact	Contact	Contact Contact	Contact	Contact Contact
Internal gr	ease sleeve	✓		√	· · ·	✓
Rim	Material Finish	Aluminum Anodized	Aluminum Anodized	Aluminum Anodized	Aluminum Anodized (black)	Aluminum Anodized (black)
Spoke	Material Finish	Stainless steel Black	Stainless steel Black	Stainless steel Black	Stainless steel Black	Stainless steel Black
Nipple	Material	Aluminum	Brass	Brass Silver	Brass	Brass
	Finish Material	Black Steel	Silver -	Silver Steel	Silver	Silver Steel
FREEHUB body	Material Finish Material	Aluminum	- Aluminum	Aluminum	- Aluminum	Aluminum
Hub shell	Finish	Anodized	Anodized	Anodized	Anodized	Anodized
Axle	Material Finish	Steel -	Aluminum -	Aluminum -	Steel	Steel -
Quick release lever	Finish Material	-	-	-	Aluminum	Aluminum
Quick release	Finish Material	-	-	-	Painted Steel	Painted Steel
housing	Finish Material	-	-	-	Painted Resin	Painted Resin
Quick release nut	Finish	-	-	-	Black	Black
		CP-FH08 (23T-28T 11-speed)		CP-FH08 (23T-28T 11-speed)		CP-FH08/CP-WH12
Compatible sp	ooke protector	11-speed) CP-WH41 (23-30T 10-speed)	-	CP-WH41 (23-30T	-	(11-speed), CP-FH40/ CP-FH41/CP-WH12
		CP-WH12 (321 11/		11-speed) CP-WH41 (23-30T 10-speed) CP-WH12 (32T 11/		(10-speed)
	JIS/CPSC	10-speed) CATEYE	CATEYE RR-550-WUW SW	CATEYE	CATEYE RR-550-WUW SW	CATEYE RR-550-WUW SW
		RR-550-WUW SW CATEYE	RR-550-WUW SW	RR-550-WUW SW	RR-550-WUW SW	RR-550-WUW SW
Reflector	AS	RR-550-WUA SW	RR-550-WUA SW	CATEYE RR-550-WUA SW	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 valve stem, lock ring)	1090	897	1098	982	1177
	ote	* The adapter is needed to use		* The adapter is needed to use		* The adapter is needed to use
INC	, ie	10-speed cassette		10-speed cassette		10-speed cassette

Wheel (Rim Brake)

Ser	ries	DURA-ACE	DURA-ACE	DURA-ACE	DURA-ACE	DURA-ACE	DURA-ACE
Mode	el 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
Specifi		F	R	F	R	F	R
	1 Hub shell 1 Quick release	Series color Series color	Series color Series color	Series color Series color	Series color Series color	Series color Series color	Series color Series color
Color	2 Hub shell	-	-	-	-	-	-
	2 Quick release	-	-	-	-	-	-
Front		Front	Rear	Front	Rear	Front	Rear
Brake Rear s		Rim brake	Rim brake 12	Rim brake	Rim brake 12	Rim brake	Rim brake 12
O.L.D.		100	130	100	130	100	130
Whee	l size	700C	700C	700C	700C	700C	700C
Tire	Type	Tubular	Tubular	Tubular	Tubular	Tubular	Tubular
	Recommended size Height (mm)	25-28" - 32-28" 60	25-28" - 32-28" 60	25-28" - 32-28" 50	25-28" - 32-28" 50	25-28" - 32-28" 36	25-28" - 32-28" 36
	Internal width (mm)	-	-	-	-	-	-
	External width (mm)	28	28	28	28	28	28
Rim	Rim joint	-	-	-	-	-	=
	Brazed reinforcement	-	-	-	-	-	-
	OFFSET RIM	-	-	-	-	-	-
	Requires rim tape	- 16	- 21	-	- 21	- 16	- 21
	Number Straight pull	16 ✓	21 ✓	16 ✓	21 ✓	16 ✓	21 ✓
Spokes	Straight puil Bladed	7	1	1	1	1	1
5,5,65	Butted	7	1	1	1	1	1
	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 fixin		Quick release	Quick release	Quick release	Quick release	Quick release	Quick release
Quick release	133 163	-	-	√	-	-	-
skewer length (mm)	163 168	-	1	-	1	-	1
Tḥru axle (length x	100 x 12	-	-	-	-	-	-
inner diameter ; mm)	142 x 12	-	-	-	-	-	-
,	MICRO SPLINE	-	-	-	-	-	-
	HG spline L2 (ROAD 12-speed dedicated)	-	1	-	1	-	1
	HG spline L (RQAD		-				-
Spline type	12/11-speed)	-	-	-	-	-	-
Spilite type	HG spline M (10/9/ 8-speed, MTB 11-speed, 7-speed CS-HG400/HG210)						
	11-speed, 7-speed	-	-	-	-	-	-
	CS TIGHOUTHGE TO						
	HG spline S	_	_	_	_	_	_
Engagom	HG spline S (7-speed)	-	- Direct engagement	-	- Direct engagement	-	- Direct engagement
Engagem	ent type	-	Direct engagement	-	Direct engagement	-	Direct engagement
Engagem Bearing		-		-	Direct engagement CBN		
	eent type Stainless ball Cup Cone	- ✓ CBN CBN	Direct engagement CBN CBN	- ✓ CBN CBN	CBN CBN	- CBN CBN	CBN CBN
	sent type Stainless ball Cup Cone CENTER LOCK	- ✓ CBN	Direct engagement CBN	- ✓ CBN	√ CBN	- ✓ CBN	√ CBN
	eent type Stainless ball Cup Cone	- ✓ CBN CBN	Direct engagement CBN CBN	- ✓ CBN CBN	CBN CBN	- CBN CBN	CBN CBN
Bearing	Stainless ball Cup Cone CENTER LOCK CENTER LOCK MOUNT COVER Option 140 mm disc brake	- ✓ CBN CBN	Direct engagement CBN CBN -	- ✓ CBN CBN	CBN CBN	- CBN CBN CBN	CBN CBN
Bearing Disc mount	Stainless ball Cup Cone CENTER LOCK CENTER LOCK mount cover option 140 mm disc brake rotor compatible	CBN CBN	CBN CBN	- CBN CBN -	CBN CBN	CBN CBN	CBN CBN
Bearing Disc mount OPTBA D2	sent type Stainless ball Cup Cone CENTER LOCK CENTER LOCK MOUNT COVER OPTION 140 mm disc brake rotor compatible LL (2:1) rim	- CBN CBN CBN	Direct engagement CBN CBN	CBN CBN	CBN CBN -	-	CBN CBN -
Bearing Disc mount OPTBA D2	Stainless ball Cup Cone CENTER LOCK CENTER LOCK MOUNT cover option 140 mm disc brake rotor compatible LL (2:1) rim ment system	-	Direct engagement CBN CBN	- CBN CBN	CBN CBN	- CBN CBN	CBN CBN
Bearing Disc mount OPTBA D2	sent type Stainless ball Cup Cone CENTER LOCK CENTER LOCK mount cover option 140 mm disc brake rotor compatible LL (2:1) rim ment system Hub	CBN CBN	Direct engagement CBN CBN Contact	CBN CBN CBN	CBN CBN Contact	- CBN CBN	CBN CBN Contact
Disc mount OPTBA D2 Digital adjust Seal	Stainless ball Cup Cone Cone CENTER LOCK CENTER LOCK MOUNT COVER OPTION 140 mm disc brake rotor compatible LL (2:1) rim ment system Hub FREEHUB body	-	Direct engagement CBN CBN	- CBN CBN	CBN CBN	- CBN CBN	CBN CBN
Disc mount OPTBA D2 Digital adjust Seal Internal green	Stainless ball Cup Cone Cone CENTER LOCK CENTER LOCK MOUNT COVER OPTION 140 mm disc brake rotor compatible LL (2:1) rim ment system Hub FREEHUB body	-	CBN CBN Contact Contact Corbon	- CBN CBN	CBN CBN Contact	- CBN CBN	CBN CBN Contact Contact
Bearing Disc mount OPTBA D2 Digital adjust Seal	Stainless ball Cup Cone Cone CENTER LOCK CENTER LOCK MOUNT COVER OPTION 140 mm disc brake rotor compatible LL (2:1) rim ment system Hub FREEHUB body ease sleeve Material Finish	- GBN CBN	CBN CBN Contact Contact Carbon Painted	Contact Carbon Painted	Contact Contact Corbon Painted	- GBN CBN Contact Carbon Painted	CBN CBN Contact Contact Contact - Carbon Painted
Disc mount OPTBA D2 Digital adjust Seal Internal green	Stainless ball Cup Cone CENTER LOCK CENTER LOCK MOUNT cover option 140 mm disc brake rotor compatible LL (2:1) rim Hub FREEHUB body ease sleeve Material Finish Material	CBN CBN Contact - Carbon Painted Stainless steel	Direct engagement CBN CBN Contact Contact Contact Carbon Painted Stainless steel	Contact Carbon Painted Stainless steel	CBN CBN Contact Contact - Carbon Painted Stainless steel	- Contact - Carbon Painted Stainless steel	CBN CBN Contact Contact - Carbon Painted Stainless steel
Bearing Disc mount OPTBA D2 Digital adjust Seal Internal grown Rim Spoke	sent type Stainless ball Cup Cone CENTER LOCK CENTER LOCK MOUNT cover option 140 mm disc brake rotor compatible L (2:1) rim ment system Hub FREEHUB body ease sleeve Material Finish Material Finish	CBN CBN Contact - Carbon Painted Stainless steel Series color	CBN CBN Contact Contact Corbon Painted Stainless steel Series color	Contact Carbon Painted Stainless steel Series color	CBN CBN Contact Contact Contact Contact Stainless steel Series color	CBN CBN Contact - Carbon Painted Stainless steel Series color	CBN CBN Contact Contact Contact Carbon Painted Stainless steel Series color
Bearing Disc mount OPTBA D2 Digital adjust Seal Internal gre	Stainless ball Cup Cone CENTER LOCK CENTER LOCK MOUNT cover option 140 mm disc brake rotor compatible LL (2:1) rim Hub FREEHUB body ease sleeve Material Finish Material	CBN CBN Contact - Carbon Painted Stainless steel	Direct engagement CBN CBN Contact Contact Contact Carbon Painted Stainless steel	Contact Carbon Painted Stainless steel	CBN CBN Contact Contact - Carbon Painted Stainless steel	- Contact - Carbon Painted Stainless steel	CBN CBN Contact Contact - Carbon Painted Stainless steel
Bearing Disc mount OPTBA D2 Digital adjust Seal Internal gro Rim Spoke Nipple	sent type Stainless ball Cup Cone CENTER LOCK CENTER LOCK MOUNT cover option 140 mm disc brake rotor compatible L (2:1) rim The Hub FREEHUB body PREEHUB body	Contact Carbon Painted Stainless steel Series color Aluminum	CBN CBN CBN Contact Contact Contact Stainless steel Series color Aluminum Series color Aluminum	Contact Carbon Painted Stainless steel Series color Aluminum	CBN CBN CBN CONTACT CONTACT CONTACT CONTACT CONTACT Carbon Painted Stainless steel Series color Aluminum Series color Aluminum	Contact Carbon Painted Stainless steel Series color Aluminum	CBN CBN CBN Contact Contact Contact Carbon Painted Stainless steel Series color Aluminum Series color Aluminum
Bearing Disc mount OPTBA D2 Digital adjust Seal Internal grown Rim Spoke	sent type Stainless ball Cup Cone CENTER LOCK CENTER LOCK CENTER LOCK To service of the s	Contact Carbon Painted Stainless steel Series color Aluminum Series color	CBN CBN Contact Contact Carbon Painted Stainless steel Series color Aluminum Anodized	Contact Carbon Painted Stainless steel Series color Aluminum Series color -	CBN CBN Contact Contact Contact Carbon Painted Stainless steel Series color Aluminum Series color Aluminum Anodized	CBN CBN CBN Contact - Carbon Painted Stainless steel Series color Aluminum Series color	CBN CBN CBN Contact Contact Contact Carbon Painted Stainless steel Series color Aluminum Series color Aluminum Anodized
Bearing Disc mount OPTBA D2 Digital adjust Seal Internal gro Rim Spoke Nipple	sent type Stainless ball Cup Cone CENTER LOCK CENTER LOCK MOUNT cover option 140 mm disc brake rotor compatible L (2:1) rim Hub FREEHUB body ease sleeve Material Finish	CBN CBN CBN Contact - Carbon Painted Stainless steel Series color Aluminum Series color Aluminum	Direct engagement CBN CBN Contact Contact Contact Stainless steel Series color Aluminum Anodized Aluminum	CBN	CBN CBN CBN Contact Contact Cortact - Carbon Painted Stainless steel Series color Aluminum Series color Aluminum Anodized Aluminum	CBN CBN CBN Contact - Carbon Painted Stainless steel Series color Aluminum Series color Aluminum	CBN CBN CBN Contact Contact Contact Stainless steel Series color Aluminum Anodized Aluminum
Bearing Disc mount OPTBA D2 Digital adjust Seal Internal gre Rim Spoke Nipple FREEHUB body Hub shell	sent type Stainless ball Cup Cone CENTER LOCK CENTER LOCK CENTER LOCK To service of the s	CBN CBN CBN Contact - Carbon Painted Stainless steel Series color Aluminum Series color Aluminum Anodized Aluminum	CBN CBN Contact Contact Carbon Painted Stainless steel Series color Aluminum Anodized	Contact Carbon Painted Stainless steel Series color Aluminum Anodized Aluminum	CBN CBN Contact Contact Contact Carbon Painted Stainless steel Series color Aluminum Series color Aluminum Anodized	CBN CBN CBN Contact - Carbon Painted Stainless steel Series color Aluminum Series color Aluminum Anodized Aluminum	CBN CBN CBN Contact Contact Contact Carbon Painted Stainless steel Series color Aluminum Series color Aluminum Anodized
Bearing Disc mount OPTBA D2 Digital adjust Seal Internal gro Rim Spoke Nipple FREEHUB body	sent type Stainless ball Cup Cone CENTER LOCK CENTER LOCK mount cover option 140 mm disc brake rotor compatible L (2:1) rim Hub FREEHUB body ease sleeve Material Finish	CBN CBN CBN Contact - Carbon Painted Stainless steel Series color Aluminum Series color Aluminum Anodized Aluminum Anodized	Direct engagement CBN CBN Contact Contact Contact Stainless steel Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized	CBN	CBN CBN CBN Contact Contact Contact - Carbon Painted Stainless steel Series color Aluminum Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized	GBN CBN CBN Contact - Carbon Painted Stainless steel Series color Aluminum Anodized Aluminum Anodized	CBN CBN CBN Contact Contact Contact Stainless steel Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized
Bearing Disc mount OPTBA D2 Digital adjust Seal Internal gre Rim Spoke Nipple FREEHUB body Hub shell	sent type Stainless ball Cup Cone CENTER LOCK CENTER LOCK Mount cover option 140 mm disc brake rotor compatible L (2:1) rim ment system Hub FREEHUB body ease sleeve Material Finish	CBN CBN CBN Contact - Carbon Painted Stainless steel Series color Aluminum Series color Aluminum Anodized Aluminum Anodized Aluminum	Direct engagement CBN CBN Contact Contact Contact Stainless steel Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum	CBN	CBN CBN CBN Contact Contact Contact - Carbon Painted Stainless steel Series color Aluminum Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum	GBN CBN CBN Contact - Carbon Painted Stainless steel Series color Aluminum Anodized Aluminum Anodized Aluminum	CBN CBN Contact Contact Contact - Carbon Painted Stainless steel Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum
Bearing Disc mount OPTBA D2 Digital adjust Seal Internal gre Rim Spoke Nipple FREEHUB body Hub shell Axle Quick release lever	sent type Stainless ball Cup Cone CENTER LOCK CENTER LOCK CENTER LOCK Mount cover option 140 mm disc brake rotor compatible L(2:1) rim FREEHUB body Present system Material Finish	CBN CBN CBN Contact - Carbon Painted Stainless steel Series color Aluminum Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized	CBN CBN Contact Contact Contact Carbon Painted Stainless steel Series color Aluminum Anodized	CBN CBN CBN Contact - Carbon Painted Stainless steel Series color Aluminum Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized	CBN CBN CBN Contact Contact Contact Stainless steel Series color Aluminum Anodized	CBN CBN CBN Contact - Carbon Painted Stainless steel Series color Aluminum Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized	CBN CBN CBN Contact Contact Contact Stainless steel Series color Aluminum Anodized
Disc mount OPTBA D2 Digital adjust Seal Internal gre Rim Spoke Nipple FREEHUB body Hub shell Axle	sent type Stainless ball Cup Cone CENTER LOCK CENTER LOCK Mount cover option 140 mm disc brake rotor compatible L (2:1) rim ment system Hub FREEHUB body ease sleeve Material Finish	CBN CBN CBN Contact - Carbon Painted Stainless steel Series color Aluminum Series color Aluminum Anodized Aluminum Anodized Aluminum	Direct engagement CBN CBN Contact Contact Contact Stainless steel Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum	CBN	CBN CBN CBN Contact Contact Contact - Carbon Painted Stainless steel Series color Aluminum Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum	GBN CBN CBN Contact - Carbon Painted Stainless steel Series color Aluminum Anodized Aluminum Anodized Aluminum	CBN CBN Contact Contact Contact - Carbon Painted Stainless steel Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum
Bearing Disc mount OPTBA D2 Digital adjust Seal Internal gro Rim Spoke Nipple FREEHUB body Hub shell Axle Quick release lever Quick release housing	sent type Stainless ball Cup Cone CENTER LOCK CENTER LOCK MOUNT cover option 140 mm disc brake rotor compatible L(2:1) rim FREEHUB body PREHUB body PREH	CBN CBN CBN Contact - Carbon Painted Stainless steel Series color Aluminum Anodized Aluminum	CBN CBN CBN Contact Contact Contact Stainless steel Series color Aluminum Anodized Aluminum	CBN CBN CBN Contact - Carbon Painted Stainless steel Series color Aluminum Anodized Aluminum	CBN CBN CBN Contact Contact Contact - Carbon Painted Stainless steel Series color Aluminum Anodized Aluminum	GBN CBN CBN Contact - Carbon Painted Stainless steel Series color Aluminum Anodized Aluminum	CBN CBN CBN Contact Contact Contact Carbon Painted Stainless steel Series color Aluminum Anodized Aluminum
Bearing Disc mount OPTBA D2 Digital adjust Seal Internal grown Rim Spoke Nipple FREEHUB body Hub shell Axle Quick release lever Quick release nut	sent type Stainless ball Cup Cone CENTER LOCK CENTER LOCK mount cover option 140 mm disc brake rotor compatible L (2:1) rim Hub FREEHUB body ease sleeve Material Finish	CBN CBN CBN Contact - Contact - Carbon Painted Stainless steel Series color Aluminum Series color Aluminum Anodized	Direct engagement CBN CBN Contact Contact Contact Series color Aluminum Anodized Aluminum Series color	CBN	CBN CBN CBN Contact Contact Contact - Carbon Painted Stainless steel Series color Aluminum Series color Aluminum Anodized Aluminum Series color	GBN CBN CBN Contact Carbon Painted Stainless steel Series color Aluminum Anodized	CBN CBN CBN Contact Contact Contact Stainless steel Series color Aluminum Anodized Aluminum Series color
Bearing Disc mount OPTBA D2 Digital adjust Seal Internal grown Rim Spoke Nipple FREEHUB body Hub shell Axle Quick release lever Quick release nut	sent type Stainless ball Cup Cone CENTER LOCK CENTER LOCK mount cover option 140 mm disc brake rotor compatible L (2:1) rim Hub FREEHUB body ease sleeve Material Finish	GBN CBN CBN Contact Carbon Painted Stainless steel Series color Aluminum Series color Aluminum Anodized Aluminum Series color	Direct engagement CBN CBN Contact Contact Contact Stainless steel Series color Aluminum Anodized Aluminum	CBN CBN CBN CBN CBN CBN CBN CBN CDN CDN COntact Contact Carbon Painted Stainless steel Series color Aluminum Series color Aluminum Anodized Aluminum Contact Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Contact Aluminum Anodized Aluminum Contact Aluminum Contact Aluminum Contact	CBN CBN CBN Contact Contact Contact - Carbon Painted Stainless steel Series color Aluminum Anodized Aluminum Series color CP-W124	GBN CBN CBN Contact Carbon Painted Stainless steel Series color Aluminum Series color - Aluminum Anodized Aluminum	CBN CBN CBN Contact Contact Contact Contact Stainless steel Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Contact Aluminum Anodized Aluminum Series color CP-W124
Bearing Disc mount OPTBA D2 Digital adjust Seal Internal grown Rim Spoke Nipple FREEHUB body Hub shell Axle Quick release lever Quick release nut	sent type Stainless ball Cup Cone CENTER LOCK CENTER LOCK mount cover option 140 mm disc brake rotor compatible L (2:1) rim Hub FREEHUB body ease sleeve Material Finish	CBN	Direct engagement CBN CBN Contact Contact Contact Stainless steel Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Contact Aluminum Anodized Aluminum Series color CP-W124 CATEY	CBN	CBN CBN CBN CBN	GBN CBN CBN Contact Carbon Painted Stainless steel Series color Aluminum Anodized Aluminum Carbon	CBN CBN CBN Contact Contact Contact Contact Stainless steel Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Contact Aluminum Anodized Aluminum Series color CP-W124 CATEYE RR-550-WUW SW
Bearing Disc mount OPTBA D2 Digital adjust Seal Internal grown Rim Spoke Nipple FREEHUB body Hub shell Axle Quick release lever Quick release nut	sent type Stainless ball Cup Cone CENTER LOCK CENTER LOCK mount cover option 140 mm disc brake rotor compatible L (2:1) rim Hub FREEHUB body ease sleeve Material Finish	CBN CBN CBN Contact Carbon Painted Stainless steel Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Contact Aluminum Anodized Aluminum Series color - CATEYE RR-550-WUW SW CATEYE	CBN CBN CBN Contact Contact Contact Stainless steel Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Contact Aluminum Anodized Aluminum Series color CP-W124 CATEYE RR-550-WUW SW CATEYE	Carbon Painted Stainless steel Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Carbon Aluminum Anodized Aluminum Series color	CBN CBN CBN Contact Contact Contact Contact Stainless steel Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Contact Aluminum Anodized Aluminum Series color CP-W124 CATEYE RR-550-WUW SW CATEYE	GBN CBN CBN Contact Carbon Painted Stainless steel Series color Aluminum Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Contact Aluminum Anodized Aluminum Contact Co	CBN CBN CBN Contact Contact Contact Contact Stainless steel Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Contact Aluminum Anodized Aluminum Series color CP-W124 CATEYE RR-550-WUW SW
Bearing Disc mount OPTBA D2 Digital adjust Seal Internal gre Rim Spoke Nipple FREEHUB body Hub shell Axle Quick release lever Quick release housing Quick release nut Compatible sp	sent type Stainless ball Cup Cone CENTER LOCK CENTER LOCK Mount cover option 140 mm disc brake rotor compatible L(2:1) rim Hub FREEHUB body Pases sleeve Material Finish	CBN	Direct engagement CBN CBN Contact Contact Contact Stainless steel Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Contact Aluminum Anodized Aluminum Series color CP-W124 CATEYE RR-550-WUW SW CATEYE RR-550-WUM SW	Carbon Aluminum Anodized Aluminum	CBN	GBN CBN CBN Contact Carbon Painted Stainless steel Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Contact Aluminum Anodized Aluminum Series color	CBN
Bearing Disc mount OPTBA D2 Digital adjust Seal Internal gro Rim Spoke Nipple FREEHUB body Hub shell Axle Quick release lever Quick release housing Quick release nut Compatible sp	sent type Stainless ball Cup Cone CENTER LOCK CENTER LOCK mount cover option 140 mm disc brake rotor compatible L (2:1) rim Hub FREEHUB body ease sleeve Material Finish	GBN CBN CBN Contact Carbon Painted Stainless steel Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Contact	CBN CBN CBN Contact Contact Contact Stainless steel Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Contact Aluminum Anodized Aluminum Series color CP-W124 CATEYE RR-550-WUW SW CATEYE RR-550-WUM SW CATEYE RR-317-WUM SW	GBN CBN CBN Contact Carbon Painted Stainless steel Series color Aluminum Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Contact	CBN CBN CBN Contact Contact Contact Contact Stainless steel Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Contact Aluminum Anodized Aluminum Series color CP-W124 CATEYE RR-550-WUA SW CATEYE RR-550-WUA SW CATEYE RR-317-WUA SW	GBN CBN CBN Contact Carbon Painted Stainless steel Series color Aluminum Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Contact	CBN
Bearing Disc mount OPTBA D2 Digital adjust Seal Internal gre Rim Spoke Nipple FREEHUB body Hub shell Axle Quick release lever Quick release housing Quick release nut Compatible sp	sent type Stainless ball Cup Cone CENTER LOCK CENTER LOCK mount cover option 140 mm disc brake rotor compatible L (2:1) rim Hub FREEHUB body ease sleeve Material Finish	CBN	Direct engagement CBN CBN Contact Contact Contact Stainless steel Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Contact Aluminum Anodized Aluminum Series color CP-W124 CATEYE RR-550-WUW SW CATEYE RR-550-WUM SW	Carbon Aluminum Anodized Aluminum	CBN	GBN CBN CBN Contact Carbon Painted Stainless steel Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Contact Aluminum Anodized Aluminum Series color	CBN
Bearing Disc mount OPTBA D2 Digital adjust Seal Internal gre Rim Spoke Nipple FREEHUB body Hub shell Axle Quick release lever Quick release housing Quick release nut Compatible sp	sent type Stainless ball Cup Cone CENTER LOCK CENTER LOCK Mount cover option 140 mm disc brake rotor compatible L(2:1) rim Hub FREEHUB body Passes sleeve Material Finish	GBN CBN CBN Contact Carbon Painted Stainless steel Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Contact	CBN CBN CBN Contact Contact Contact Stainless steel Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Contact Aluminum Anodized Aluminum Series color CP-W124 CATEYE RR-550-WUW SW CATEYE RR-550-WUM SW CATEYE RR-317-WUM SW	GBN CBN CBN Contact Carbon Painted Stainless steel Series color Aluminum Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Contact	CBN CBN CBN Contact Contact Contact Contact Stainless steel Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Contact Aluminum Anodized Aluminum Series color CP-W124 CATEYE RR-550-WUA SW CATEYE RR-550-WUA SW CATEYE RR-317-WUA SW	GBN CBN CBN Contact Carbon Painted Stainless steel Series color Aluminum Series color Aluminum Anodized Aluminum Anodized Aluminum Anodized Aluminum Contact Aluminum Anodized Aluminum Series color - CATEYE RR-550-WUW SW CATEYE RR-550-WUM SW CATEYE RR-317-WUA SW	CBN

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Wheel (Rim Brake)

Model no.	
Specification	WH-RS500-TL-F
Thus hell Series color Series color Series color Silver	WH-RS500-TL
Color	F Silver
Pront Pront Pront Pront Pront Rear Pront Pro	Silver
Front Front Front Rear Front Rear Brake type Rim brake Rim b	-
Rear speeds	Front
O.L.D. (mm)	Rim brake
Wheel size	100
Recommended size 23-28" - 28-28" 23-28" - 28-28" 23-622 - 32-622 23-622 33-622	622 x 15C (700C)
Height (mm) 60 37 37 24 31 Internal width (mm) - - - 15 15 External width (mm) 28 28 28 20.8	Tubeless 23-622 - 32-622
External width (mm)	24
Rim Sim Rim Sim Rim	15 20.8
Brazed reinforcement	Welded
OFFSET RIM	✓
Number 16	=
Straight pull	- 16
Spokes	
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 2.0-1.8-2.0	1
Axle fixing method Quick release Quick r	2.0-1.5-2.0
133	Quick release
Skewer length (mm)	✓
Thru axle (length x inner diameter; 100 x 12	-
MicRo SPLINE	-
HG spline L2 (ROAD 12-speed dedicated) -	-
12-speed dedicated	-
12/11-speed HG spline M (10/9/8	-
B-speed MTB	-
HG spline S (7-speed)	-
Engagement type	_
Cup	-
Cone CBN	- Delieb
CENTER LOCK CENTER LOCK Disc mount mount cover option	Polish CBN+Polish
Disc mount mount cover option and mount cover option	-
	-
140 mm disc brake	-
OPTBAL (2:1) - ✓ ✓	-
D2 rim	- -
Hub Contact Contact Contact Contact	Contact
FREEHUB body Contact - Contact	-
Internal grease sleeve Material Carbon Carbon Carbon Carbon Carbon+AL Carbon+AL	✓ Aluminum
Finish Painted Painted Painted Painted Painted Painted	Anodized
Spoke Material Stainless steel Black Black <td>Stainless steel Black</td>	Stainless steel Black
Ningle Material Aluminum Aluminum Aluminum Aluminum Aluminum Aluminum	Aluminum
Material Silver Silver DidCk DidCk	Black -
FREEHUB body Finish	
Hub shell Material Aluminum Aluminum Aluminum Aluminum Aluminum Aluminum Andrizad Anadizad Anadizad Anadizad Anadizad	Aluminum
Finish Anodized Anodi	Anodized Aluminum
Axie Finish Anodized Anodized Anodized Anodized Anodized Anodized	Anodized
Quick release lever Material Aluminum Aluminum Aluminum Aluminum Aluminum Aluminum Aluminum Aluminum Aluminum Anodized	Aluminum Anodized
Quick release Material Aluminum Aluminum Aluminum Aluminum	Aluminum
housing Finish Anodized Anodized Anodized Anodized Anodized Aluminum Aluminum Aluminum Aluminum Resin Resin	Anodized Resin
Quick release nut Finish Series color Series color Series color Black Black	Black
Compatible spoke protector CP-W124 - CP-W124	-
JIS/CPSC CATEYE RR-550-WUW SW RR-550-WUW SW RR-550-WUW SW RR-550-WUW SW RR-550-WUW SW	CATEYE RR-550-WUW SW
Reflector AS CATEYE CATEYE CATEYE CATEYE CATEYE RR-550-WUA SW RR-550-WUA SW RR-550-WUA SW RR-550-WUA SW	CATEYE RR-550-WUA SW
DIN CATEYE CATEYE CATEYE CATEYE CATEYE CATEYE CATEYE CATEYE RR-317-WUA SW RR-317-WUA SW RR-317-WUA SW 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
tape, tubeless tape, valve stem, lock ring) bbb b3/ * The adapter is * The adapter is	705
Note reded to use set to speed assette 10-speed cassette	
10-speed Cassette 10-speed Cassette	

Wheel (Rim Brake)

Sei	ries	SHIMANO	SHIMANO	SHIMANO	SHIMANO	SHIMANO	SHIMANO
Mode	el 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
	name	WH-RS500-TL	WH-RS300-CL	WH-RS300-CL	WH-RS330-CL	WH-RS330-CL	WH-RS100-CL
Specif	ication	R Silver	F	R	F	R	F
	1 Hub shell 1 Quick release	Silver	Black Black	Black Black	Black Black	Black Black	Black Black
Color	2 Hub shell	-	-	-	-	-	-
Front	2 Quick release	- Rear	Front	Rear	- Front	- Rear	- Front
Brake		Rim brake	Rim brake	Rim brake	Rim brake	Rim brake	Rim brake
Rears		11/10 *	-	11/10 *	-	11/10 *	-
O.L.D. Whee		130 622 x 15C (700C)	100 622 x 17C (700C)	130 622 x 17C (700C)	100 622 x 15C (700C)	130 622 x 15C (700C)	100 622 x 17C (700C)
Tire	Туре	Tubeless	Clincher	Clincher	Clincher	Clincher	Clincher
	Recommended size Height (mm)	23-622 - 32-622 24	23-622 - 32-622 24	23-622 - 32-622 24	23-622 - 32-622 30	23-622 - 32-622 30	23-622 - 32-622 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	Rim joint Brazed	Welded	Sleeve	Sleeve	Sleeve	Sleeve	Sleeve
	reinforcement	1	-	-	-	-	-
	OFFSET RIM Requires rim tape	1	18-622	√ 18-622	-	1	- 18-622
	Number	20	16	20	16	21	20
	Straight pull	✓	✓	1	1	1	-
Spokes	Bladed	1	√	1	1	1	-
	Butted Diameter (mm)	2.0-1.8-2.0	2	2	2	2	2
Axle fixin	g method	Quick release	Quick release	Quick release	Quick release	Quick release	Quick release
Quick release	133 163	-	<u>√</u>	- J	√	-	√
skewer length (mm)	168	1	-	1	-	1	-
Thru axle (length x inner diameter ; mm)	100 x 12	-	-	-	-	-	-
mm)	142 x 12	-	-	-	-	-	-
	MICRO SPLINE	-	-	-	-	-	-
	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, 7-speed CS-HG400/HG210)	-	-	-	-	-	-
	HG spline S (7-speed)	_		_	_	_	_
Engagen	(/-speed) nent type	Pawl ratchet	-	Pawl ratchet	-	Pawl ratchet	-
gugu	Stainless ball	-	-	-	-	-	-
Bearing	Cup	Polish	Polish	Polish	Polish	Polish	Polish
	Cone CENTER LOCK	CBN+Polish -	CBN -	CBN -	CBN+Polish -	CBN+Polish -	CBN -
Disa manust	CENTER LOCK	-	-	-	-	-	-
Disc mount	mount cover option 140 mm disc brake	_		_	_	_	_
ODTR	rotor compatible LL (2:1)	-	<u> </u>	-	-	-	-
	rim	-	-	-	-	-	-
Digital adjust	ment system	✓	-	-	-	-	-
Seal	Hub FREEHUB body	Contact	Contact	Contact Contact	Contact -	Contact Contact	Contact
Internal gr		Contact ✓	· ·	Contact	· /	Contact	-
Rim	Material	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
	Finish Material	Anodized Stainless steel	Black Stainless steel	Black Stainless steel	Painted Stainless steel	Painted Stainless steel	Black Stainless steel
Spoke	Finish	Black	Black	Black	Black	Black	Black
Nipple	Material	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Brass
	Finish Material	Black Steel	Black anodized -	Black anodized Steel	Black -	Black Steel	Silver -
FREEHUB body	Finish	-	-	-	-	-	
Hub shell	Material Finish	Aluminum Anodized	Aluminum Anodized	Aluminum Anodized	Aluminum	Aluminum	Aluminum Painted
A! -	Material	Aluminum	Steel	Steel	Steel	Steel	Steel
Axle	Finish	Anodized	-	-	-	-	-
Quick release lever	Material Finish	Aluminum Anodized	Aluminum Anodized	Aluminum Anodized	Aluminum	Aluminum	Aluminum Painted
Quick release	Material	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Steel
housing	Finish	Anodized	Anodized	Anodized	Anodized	Anodized	Black
Quick release nut	Material Finish	Resin Black	Resin Black	Resin Black	Resin Black	Resin Black	Resin Black
Compatible sp	ooke protector	CP-WH23 (23-28T) CP-W120 (32T) CP-W020 (10-speed)	-	CP-WH23 (23-28T) CP-W120 (32T)	-	CP-W124	-
	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
Reflector	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
renector		RR-550-WUA SW	RR-550-WUA SW	RR-550-WUA SW	RR-550-WUA SW	RR-550-WUA SW	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) (\ tape, tubeless tape, \	w/o quick release, rim valve stem, lock ring)	944	770	1057	875	1176	827
	ote	* The adapter is needed to use		* The adapter is needed to use		* The adapter is needed to use	_
NI.							

ST

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r.D

Wheel (Rim Brake)

Ser	ries	SHIMANO	SHIMANO	SHIMANO	SHIMANO	SHIMANO	SHIMANO
Mode	el no.	WH-RS100-CL-R	WH-RS010-CL-F	WH-RS010-CL-R	WH-R501-A-CL-F	WH-R501-A-CL-R	WH-R501-CL-F
	name	WH-RS100-CL	WH-RS010-CL	WH-RS010-CL	WH-R501-A-CL	WH-R501-A-CL	WH-R501-CL
Specifi	ication 1 Hub shell	R Black	F Black	R Black	F Black	R Black	F Black
Color	1 Quick release	Black	Black	Black	Black	Black	Black
Color	2 Hub shell	-	- Disale	- Disale	Silver	Silver	Silver
Front	2 Quick release	- Rear	Black Front	Black Rear	Black Front	Black Rear	Black Front
Brake		Rim brake	Rim brake	Rim brake	Rim brake	Rim brake	Rim brake
Rear s O.L.D.		11/10 * 130	100	11/10 * 130	100	11/10/9/8/7 130	100
	el 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	Туре	Clincher	Clincher	Clincher	Clincher	Clincher	Clincher
	Recommended size Height (mm)	23-622 - 32-622 24	23-622 - 32-622 24	23-622 - 32-622 24	23-622 - 32-622 24	23-622 - 32-622 24	23-622 - 32-622 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	Rim joint Brazed	Sleeve	Sleeve	Sleeve -	Sleeve	Sleeve	Sleeve
	reinforcement	-	-		-	-	-
	OFFSET RIM Requires rim tape	18-622	-	1	-	-	-
	Number	24	20	24	20	24	20
Caralina	Straight pull	-	-	-	-	-	-
Spokes	Bladed Butted	-	-	-	-	-	-
	Diameter (mm)	2	2	2	2	2	2
Axle fixin	g method	Quick release	Quick release	Quick release	Quick release	Quick release	Quick release
Quick release skewer length (mm)	133 163	-	-	-	-	-	-
	168		-	1	-	· /	-
Thru axle (length x inner diameter ; mm)	100 x 12	-	-	-	-	-	-
mm)	142 x 12 MICRO SPLINE	-	-	-	-	-	-
	HG spline L2 (ROAD	-	-	-	-	-	-
	12-speed dedicated) HG spline L (RQAD			_		_	
Spline type	l 12/11-speed) l	1	-	1	-	-	-
эрине туре	HG spline M (10/9/ 8-speed, MTB 11-speed, 7-speed CS-HG400/HG210)	-	-	-	-	1	-
	HG spline S (7-speed)	-	-	-	-	-	-
Engagem	nent type	Pawl ratchet	-	Pawl ratchet	-	Pawl ratchet	-
B	Stainless ball	- D-15-b	- D. P. J.	- D - U - I-	- D-U-h	- D-11-h	- D-15-1-
Bearing	Cup Cone	Polish CBN	Polish CBN	Polish CBN	Polish CBN	Polish CBN	Polish CBN
	CENTER LOCK	-	-	-	-	-	-
Disc mount	CENTER LOCK mount cover option	-	-	-	-	-	-
	140 mm disc brake rotor compatible	-	-	-	-	-	-
OPTBA		-	-	-	-	-	-
	rim	-	-	-	-	-	-
Digital adjust	Hub	- Contact	Contact	Contact	Contact	- Contact	- Contact
Seal	FREEHUB body	Contact	-	Contact	-	Contact	-
Internal gro	ease sleeve Material	- Aluminum	- Aluminum	- Aluminum	- Aluminum	- Aluminum	- Aluminum
Rim	Finish	Black	Anodized	Anodized	Anodized	Anodized	Anodized
Spoke	Material	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
	Finish Material	Black Brass	Black Brass	Black Brass	Black Brass	Black Brass	Black Brass
Nipple	Finish	Silver	Silver	Silver	Silver	Silver	Silver
FREEHUB body	Material	Steel	-	Steel	-	Steel	-
11	Finish Material	- Aluminum	- Aluminum	- Aluminum	- Aluminum	- Aluminum	- Aluminum
Hub shell	Finish	Painted	Anodized	Anodized	Anodized	Anodized	Anodized
Axle	Material Finish	Steel -	Steel -	Steel -	Steel -	Steel -	Steel -
Ouick release lever	Material	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
•	Finish	Painted	Painted	Painted	Painted	Painted	Painted
Quick release housing	Material Finish	Steel Black	Steel Painted	Steel Painted	Steel Painted	Steel Painted	Steel Painted
Quick release nut	Material	Resin	Resin	Resin	Resin	Resin	Resin
Quick release nut	Finish	Black	Black	Black	Black	Black CP-FH06	Black
Compatible sp	ooke protector	CP-WH24 CP-FH53 (34T)	-	CP-WH24 CP-FH53 (34T)	-	CP-FH31 CP-FH46 CP-WH24	-
	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
Reflector	AS	CATEYE	CATEYE	CATEYE	CATEYE	CATEYE	CATEYE
Reflector		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	RR-317-WUA SW	RR-317-WUA SW	RR-317-WUA SW	RR-317-WUA SW	RR-317-WUA SW	CATEYE RR-317-WUA SW
Average weight (g) (v tape, tubeless tape, v	w/o quick release, rim valve stem, lock ring)	1105	818	1102	820	1069	820
	ote	* The adapter is needed to use		* The adapter is needed to use			

Wheel (Rim Brake)

	ries	SHIMANO			
Mod	el no.	WH-R501-CL-R			
Mode	WH-R501-CL				
Specif	R				
	1 Hub shell 1 Quick release	Black Black			
Color	2 Hub shell	Silver			
	2 Quick release	Black			
Front Brake					
	speeds	11/10/9/8/7			
O.L.D	. (mm)	130			
	el size Type	622 x 15C (700C) Clincher			
Tire	Recommended size	23-622 - 32-622			
	Height (mm)	24			
	Internal width (mm) External width (mm)	15 20.8			
Rim	Rim joint	Sleeve			
	Brazed reinforcement	-			
	OFFSET RIM	-			
	Requires rim tape	√			
	Number Straight pull	24			
Spokes	Bladed	-			
•	Butted	-			
Ayle fivin	Diameter (mm) g method	Quick release			
	133				
Quick release skewer length (mm)	163	1			
	168 100 x 12	✓			
Thru axle (length x inner diameter ; mm)	142 x 12	<u> </u>			
111111)	MICRO SPLINE				
	HG spline L2 (ROAD 12-speed dedicated)	_			
	HG spline L (ROAD				
Spline type	HG spline L (ROAD 12/11-speed)	-			
-p 13 p-	HG spline M (10/9/ 8-speed_MTB	1			
	8-speed, MTB 11-speed, 7-speed CS-HG400/HG210)	•			
	HG spline S (7-speed)	-			
Engagen	nent type	Pawl ratchet			
Daniu.	Stainless ball	- Polish			
Bearing	Cup Cone	CBN			
	CENTER LOCK	-			
Disc mount	CENTER LOCK mount cover option	-			
	140 mm disc brake rotor compatible	-			
ОРТВА	AL (2:1)	-			
	rim	-			
Digital adjus	tment system Hub	Contact			
Seal	FREEHUB body	Contact			
Internal gr	ease sleeve	-			
Rim	Material	Aluminum			
	Finish Material	Anodized Stainless steel			
C!	Finish	Black			
Spoke					
Spoke Nipple	Material	Brass			
Nipple		Brass Silver Steel			
	Material Finish Material Finish	Silver Steel -			
Nipple	Material Finish Material Finish Material	Silver Steel - Aluminum			
Nipple FREEHUB body Hub shell	Material Finish Material Finish	Silver Steel -			
Nipple FREEHUB body	Material Finish Material Finish Material Finish Material Finish Material	Silver Steel - Aluminum Anodized Steel			
Nipple FREEHUB body Hub shell	Material Finish Material Finish Material Finish Material Finish Material Finish Material	Silver Steel - Aluminum Anodized Steel - Aluminum			
Nipple FREEHUB body Hub shell Axle Quick release lever	Material Finish Material Finish Material Finish Material Finish Material Finish Finish	Silver Steel - Aluminum Anodized Steel - Aluminum			
Nipple FREEHUB body Hub shell Axle	Material Finish	Silver Steel Aluminum Anodized Steel Aluminum Painted Steel Painted			
Nipple FREEHUB body Hub shell Axle Quick release lever Quick release	Material Finish Material	Silver Steel Aluminum Anodized Steel Aluminum Painted Steel Painted Resin			
Nipple FREEHUB body Hub shell Axle Quick release lever Quick release housing	Material Finish	Silver Steel Aluminum Anodized Steel Aluminum Painted Steel Painted Resin Black CP-EHD6			
Nipple FREEHUB body Hub shell Axle Quick release lever Quick release housing Quick release nut	Material Finish	Silver Steel Aluminum Anodized Steel Aluminum Painted Steel Painted Resin Black CP-EHD6			
Nipple FREEHUB body Hub shell Axle Quick release lever Quick release housing Quick release nut	Material Finish Material	Silver Steel - Aluminum Anodized Steel - Aluminum Painted Steel Painted Resin Black CP-FH06 CP-FH31 CP-FH46 CP-WH24			
Nipple FREEHUB body Hub shell Axle Quick release lever Quick release housing Quick release nut	Material Finish	Silver Steel - Aluminum Anodized Steel - Aluminum Painted Steel Painted Resin Black CP-FH06 CP-FH36 CP-FH46 CP-WH24 CATEYE			
Nipple FREEHUB body Hub shell Axle Quick release lever Quick release housing Quick release nut Compatible sp	Material Finish Moterial Finish	Silver Steel - Aluminum Anodized Steel - Aluminum Painted Steel Painted Resin Black CP-FH06 CP-FH31 CP-FH46 CP-WH24 CATEYE RR-550-WUW SW CATEYE			
Nipple FREEHUB body Hub shell Axle Quick release lever Quick release housing Quick release nut	Material Finish Moterial Finish Moterial Finish Material Finish Material Finish Material Finish Material Finish Material Finish	Silver Steel Aluminum Anodized Steel Aluminum Painted Steel Painted Resin Black CP-FH06 CP-FH31 CP-FH46 CP-WH24 CATEYE RR-550-WUW SW CATEYE RR-550-WUA SW			
Nipple FREEHUB body Hub shell Axle Quick release lever Quick release housing Quick release nut Compatible sp	Material Finish Moterial Finish	Silver Steel - Aluminum Anodized Steel - Aluminum Painted Steel Painted Resin Black CP-FH06 CP-FH31 CP-FH46 CP-WH24 CATEYE RR-550-WUW SW CATEYE			

ВВ WH

WH

ΗР

SW

RD

FD

Head Parts

Ser	Series			
Mode	HP-7410			
Si	ze	JIS, ENGLISH		
Thr	ead	BC 1 x 24 T.P.I.		
Sealed cartri	dge bearings	1		
Stack hei	ght (mm)	37.6		
Lock nut	Material	Aluminum		
LOCK HUT	Finish	Anodized		
Unner / Lever suns	Material	Aluminum		
Upper / Lower cups	Finish	Anodized		
Unner stem sone	Material	Aluminum		
Upper stem cone	Finish	Anodized		
Stem cone	Material	Aluminum		
Stem cone	Finish	Anodized		
Average v	veight (g)	101		
No	ote			

Shift/Brake Lever (Hydraulic Disc Brake)

Ser	Series		DURA-ACE	DURA-ACE	ULTEGRA	ULTEGRA	SHIMANO 105	SHIMANO 105
Mode	el 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				
Color	:	2	-	=	-	-	-	-
Shifte	r type		DUAL CONTROL LEVER	DUAL CONTROL LEVER				
Remote	switch		✓	✓	✓	✓	-	-
	Brake h	ose (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	SM-BH90-J-SSR, SM- BH90-JK-SSR
	Hose	joint	Straight	Straight	Straight	Straight	Straight	Straight
	Brake hose	1	Black	Black	Black	Black	Black	Black
	color (kit)	2	-	-	-	-	-	-
	Recomi brake	mended caliper	BR-R9270	BR-R9270	BR-R8170	BR-R8170	BR-R7170	BR-R7170
Barrier Lauren		Dil	SHIMANO Mineral	SHIMANO Mineral				
Brake lever	Reach	adjust	✓	✓	1	1	1	1
	Clamp b	and (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	1	√	1	1	1	1
	Free stro	ke adjust	✓	✓	1	1	✓	1
	SERVO WAVE		1	1	1	1	-	-
	Mat	erial	Carbon	Carbon	Aluminum	Aluminum	Aluminum	Aluminum
	Fir	ish	Painted	Painted	Painted	Painted	Anodized	Anodized
Bracket	Mat	erial	CFRP	CFRP	CFRP	CFRP	GFRP	GFRP
Bracket	Fir	ish	-	-	-	-	-	-
Electric button	Mat	erial	CFRP	CFRP	CFRP	CFRP	GFRP	GFRP
Electric button	Fir	nish	Painted	Painted	Painted	Painted	-	-
Di2 connectivity wired	Di2 sł	nifting	✓	✓	1	1	-	-
Di2 connectivity wireless	Di2 sł	nifting	✓	✓	1	1	1	1
Maste	er unit		-	-	-	-	-	-
Firmware update b	y E-TUBE P	ROJECT	1	✓	1	1	1	1
SD50 po	ort (pcs)		0	0	0	0	0	0
SD300 p	ort (pcs)		1	1	1	1	1	1
SD50 conn	ector (pcs)		0	0	0	0	0	0
SD300 conr	nector (pcs)		0	0	0	0	0	0
Port for SD50 remote	sprinter sh	nifter (pcs)	0	0	0	0	0	0
Port for SD300 sat	tellite shifte	er (pcs)	1	1	1	1	0	0
Batt	tery		CR1632	CR1632	CR1632	CR1632	CR1632 x 2	CR1632 x 2
Average v	weight (g)		350 (/pair)	350 (/pair)	391 (/pair)	391 (/pair)	423 (/pair)	423 (/pair)
No	ote							

ST

L

BL

BR

BR

BR

DC

FC

FC

BB CS

HB FH

WH

JD.

ST

SW

Shift/Brake Lever (Hydraulic Disc Brake)

Seri	es		DURA-ACE	DURA-ACE	DURA-ACE	DURA-ACE	ULTEGRA	ULTEGRA
Mode	l no.		ST-R9170-R	ST-R9170-L	ST-R9180-R	ST-R9180-L	ST-R8070-R	ST-R8070-L
		1	Series color	Series color	Series color	Series color	Series color	Series color
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		✓	✓	-	-	✓	1
	Brake h	ose (kit)	SM-BH90-JK-SSR	SM-BH90-JK-SSR	SM-BH90-JK-SS	SM-BH90-JK-SS	SM-BH90-JK-SSR	SM-BH90-JK-SSR
	Hose joint		Straight	Straight	Straight	Straight	Straight	Straight
[Brake hose	1	Black	Black	Black	Black	Black	Black
	hose color (kit)	2	-	-	-	-	-	-
	Recomr brake	mended caliper	BR-R9170	BR-R9170	BR-R9170	BR-R9170	BR-R8070	BR-R8070
[O	Dil	SHIMANO Mineral	SHIMANO Mineral	SHIMANO Mineral	SHIMANO Mineral	SHIMANO Mineral	SHIMANO Mineral
Brake lever	Reach	adjust	1	1	1	1	1	1
	Clamp ba	and (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	23.8-24.2
[Funnel bleeding		1	1	1	1	1	1
[Free stroke adjust		1	1	-	-	1	1
[SERVO WAVE		-	-	-	-	-	-
[Material		Carbon	Carbon	Carbon	Carbon	Aluminum	Aluminum
[Fin	ish	Painted	Painted	Painted	Painted	Painted	Painted
Procket	Mat	erial	CFRP	CFRP	Aluminum	Aluminum	CFRP	CFRP
Bracket	Fin	ish	-	-	-	-	-	-
Electric button	Mat	erial	-	-	CFRP	CFRP	-	-
Liectific Button	Fin	nish	-	-	-	-	-	-
Di2 connectivity wired	Di2 sh	nifting	✓	✓	✓	✓	1	1
Di2 connectivity wireless	Di2 sh	nifting	-	-	-	-	-	-
Master	unit		-	-	-	-	-	-
Firmware update by	y E-TUBE P	ROJECT	1	1	1	1	1	1
SD50 po	rt (pcs)		2	2	1	1	2	2
SD300 pc	ort (pcs)		0	0	0	0	0	0
SD50 conne	ector (pcs)		0	0	0	0	0	0
SD300 conn	ector (pcs)		0	0	0	0	0	0
Port for SD50 remote	sprinter sh	nifter (pcs)	0	0	0	0	0	0
Port for SD300 sate	ellite shifte	er (pcs)	0	0	0	0	0	0
Batte	ery		-	-	-	-	-	-
Average w	eight (g)		160	160	99	99	180	180
Not	te							

Shift/Brake Lever

Ser	ies	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
Shifte	r type	DUAL CONTROL LEVER					
Remote	switch	✓	✓	✓	✓	✓	1
	Reach adjust	✓	1	1	1	1	1
	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
Brake lever	SLR-EV	✓	√	1	✓	1	1
	Material	CFRP	CFRP	Aluminum	Aluminum	CFRP	CFRP
	Finish	Painted	Painted	Painted	Painted	Painted	Painted
Bracket	Material	CFRP	CFRP	GFRP	GFRP	CFRP	CFRP
bracket	Finish	-	-	-	-	-	-
Electric button	Material	CFRP	CFRP	GFRP	GFRP	CFRP	CFRP
Electric button	Finish	Painted	Painted	-	-	-	-
Maste	er unit	-	-	-	-	-	-
Firmware update b	y E-TUBE PROJECT	✓	✓	1	1	1	1
Di2 connectivity wired	Di2 shifting	✓	✓	1	1	1	1
Di2 connectivity wireless	Di2 shifting	-	-	-	-	-	-
SD50 pc	ort (pcs)	0	0	0	0	2	2
SD300 p	ort (pcs)	2	2	2	2	0	0
SD50 conn	ector (pcs)	0	0	0	0	0	0
SD300 conr	nector (pcs)	0	0	0	0	0	0
Port for SD50 remote	sprinter shifter (pcs)	0	0	0	0	1	1
Port for SD300 sat	tellite shifter (pcs)	1	1	1	1	0	0
Batt	tery	-	-	-	-	-	-
Average v	veight (g)	230 (/pair)	230 (/pair)	295 (/pair)	295 (/pair)	230 (/pair)	230 (/pair)
No	ote					-	-

Ser	ries	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
Shifte	r 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	-	-	✓	✓	-	-
	Reach adjust	✓	1	✓	1	1	✓
	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
Brake lever	SLR-EV	✓	1	1	1	1	✓
	Material	CFRP	CFRP	Aluminum	Aluminum	Aluminum	Aluminum
	Finish	Painted	Painted	Anodized	Anodized	Anodized	Anodized
Bracket	Material	GFRP	GFRP	GFRP	GFRP	GFRP	GFRP
вгаскет	Finish	-	-	-	-	-	-
Electric button	Material	CFRP	CFRP	GFRP	GFRP	CFRP	CFRP
Electric button	Finish	-	-	-	-	-	-
Maste	er unit	-	-	-	-	-	-
Firmware update b	y E-TUBE PROJECT	✓	✓	✓	✓	1	✓
Di2 connectivity wired	Di2 shifting	~	~	✓	1	1	1
Di2 connectivity wireless	Di2 shifting	-	-	-	-	-	-
SD50 po	ort (pcs)	1	1	2	2	1	1
SD300 p	ort (pcs)	0	0	0	0	0	0
SD50 conn	ector (pcs)	0	0	0	0	0	0
SD300 con	nector (pcs)	0	0	0	0	0	0
Port for SD50 remote	sprinter shifter (pcs)	0	0	1	1	0	0
Port for SD300 sat	tellite shifter (pcs)	0	0	0	0	0	0
Bati	tery	-	-	-	-	-	-
Average v	veight (g)	127 (/pair)	127 (/pair)	295 (/pair)	295 (/pair)	138 (/pair)	138 (/pair)
No	ote	-	-	-	-	-	-

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BR BR

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HB FH

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Shift/Brake Lever

Ser		ULTEGRA	ULTEGRA
Mode	el no.	ST-6870	ST-6871
Shifte	r type	DUAL CONTROL LEVER	TT/Triathlon DUAL CONTROL LEVER
Remote	switch	-	-
	Reach adjust	✓	✓
	Clamp band (mm)	23.8-24.2	INNER DIA. 19.0 - 22.5
Brake lever	SLR-EV	✓	✓
	Material	Aluminum	Aluminum
	Finish	Painted	Anodized
Bracket	Material	GFRP	CFRP
вгаскет	Finish	-	-
Electric button	Material	GFRP	GFRP
Electric button	Finish	-	-
Maste	r unit	-	-
Firmware update b	y E-TUBE PROJECT	1	1
Di2 connectivity wired	Di2 shifting	✓	✓
Di2 connectivity wireless	Di2 shifting	-	-
SD50 po	ort (pcs)	2 /each, total 4	0
SD300 po	ort (pcs)	0	0
SD50 conn	ector (pcs)	0	1 /each, total 2
SD300 conn	nector (pcs)	0	0
Port for SD50 remote	sprinter shifter (pcs)	1 /each, total 2	0
Port for SD300 sat	ellite shifter (pcs)	0	0
Batt	ery	-	-
		202 2 (/)	440 (/)
Average v	veight (g)	303.2 (/pair)	148 (/pair)

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	-	1	
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			

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Rear Derailleur

Serio Model Color Rear sp	l no.	1	DURA-ACE RD-R9250 Series color	ULTEGRA RD-R8150	RD-R7150	DURA-ACE RD-R9150	ULTEGRA RD-R8050-SS	ULTEGRA RD-R8050-GS	
Color - Rear sp	1	1				112 110 100			
Rear sp	needs		JCI ICJ COIUI	Series color	Series color	Series color	Series color	Series color	
iteai sp		' —	12	12	12	- 11	- 11	- 11	
	SHIMANO	SHADOW	√	1	1	1	1	1	
RD construction	SHIMANO	SHADOW	-	-	-	_	-	-	
	RE Double	e servo Direct	-	-	-	-	-	-	
	SHIMAN	ent (convent	-	-	-	-	-	-	
Applicable	type	ional) Direct mount	-	-	-	-	-	-	
Applicable derailleur hanger	SHIMAN O ROAD type	Direct attachm ent (convent ional)	✓	✓	✓	✓	•	1	
		Direct mount andard	1	1	1	1	1	1	
Max. front o	difference	ailuaiu	16T 37T	16T 39T	16T 41T	16T 33T	16T 33T	16T 37T	
Low sprocket	pacity Ma	ax.	3/1 34T 30T	391 34T 30T	36T 34T	331 30T 25T	331 30T 25T	371 34T	
 	Mi Ma	in.	30T 11T	30T 11T	34T 11T	25T 14T	25T 14T	34T 28T 12T	
Top sprocket	Mi	in. l	11T	11T 11T	11T	111	11T	11T	
Fluoric coated	Guide	pulley	4	4	<u>4</u> -	4	4	<u>4</u> ✓	
	bear	ring - n pulley	4	1	_	1	1	1	
Pulley	bea Tee	rina	√ 11T	11T	- 11T	11T	11T	√ 11T	
	Screws r	material	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	
	Sunken ty	ew	√	√	√ Stant	√	√	√	
Bracket	Mate Fin	eriai iish	Aluminum Anodized	Aluminum Painted	Steel Plated	Aluminum Anodized	Aluminum Anodized	Aluminum Anodized	
B-axle	Hollov Mate	w axle	Aluminum	Stainless steel	Stainless steel	Aluminum	Stainless steel	Stainless steel	
D-axie	Fin	ish l	Anodized	Painted		Anodized			
B-axle 2	Hollov Mate	erial	√ Aluminum	√ Aluminum	✓ Stainless steel	√ Aluminum	√ Aluminum	√ Aluminum	
	Fin Mat	ish	Anodized Aluminum	Anodized Aluminum	- Aluminum	Anodized Aluminum	Anodized Aluminum	Anodized Aluminum	
Bracket body	Fin	ish l	Painted	Painted Steel	Painted	Painted	Painted	Painted Steel	
P-axle	Mate Fin	eriai ish	Aluminum Plated CFRP	Passivation GFRP	Steel Plated GFRP	Aluminum Plated	Steel Passivation GFRP	Passivation GFRP	
Plate body	Fin Mate Fin	erial Jish	CFRP Painted	GFRP Painted	GFRP -	Plated CFRP Painted	GFRP Painted	GFRP Painted	
Outer link	Mate Fin	erial	Aluminum Anodized	Aluminum	Aluminum	Aluminum	Aluminum Painted	Aluminum Painted	
Inner link	Fin Mate	erial	CFRP	Painted GFRP	Painted Steel	Anodized CFRP	GFRP	GFRP	
—	Fin Mate	ish	- Carbon	- Aluminum	Painted Aluminum	Painted Carbon	- Aluminum	- Aluminum	
Outer plate	Fin	ish	Painted	Painted	Painted	Painted	Painted	Painted	
Inner plate	Mate Fin	ish	Carbon Painted	Aluminum Painted	Aluminum Painted	Carbon Painted	Aluminum Painted	Aluminum Painted	
Stroke adjusting screw	Mate Fin	erial ish	Aluminum Anodized	Steel Plated	Steel Plated	Aluminum Anodized	Steel Plated	Steel Plated	
Di2 connectivity wired	Di2 sh		1	1	1	1	1	1	
	Di2 sh		1	1	1	-	-	-	
<u> </u>	Bluetoot h® LE	Cycling power	-	-	-	-	-	-	
	ANT+	Bicycle power	-	-	-	-	-	-	
			Adjust mode informat ion	✓	✓	✓	-	-	-
		Di2 battery level	✓	✓	1	-	-	-	
	Bluetoot	Gear position SHIMAN O E-BIKE SYSTEM	✓	✓	1	-	-	-	
	h® LE custom (*1)	items (*3)	✓	1	✓	-	-	-	
Di2 connectivity wireless		Compati ble with E-TUBE RIDE	✓	✓	✓	-	-	-	
		Compati ble with E-TUBE PROJECT Adjust	✓	✓	✓	-	-	-	
		Adjust mode informat ion Di2	✓	✓	✓	-	-	-	
	ANT	battery level	✓	✓	✓	-	-	-	
	private (*2)	l Gear I	1	1	1	-	-	-	
	SHIMA O E-BIN SYSTEI S data	position SHIMAN O E-BIKE SYSTEM S data	√	√	1	-	-	-	
		items (*3)							
Firmware update by SD50 poi	y E-TUBE Pl rt (pcs)	ROJECT	0	0	V	1	1	1	
SD300 po SD50 conne	ort (pcs)		1	1	1	0	0	0	
SD300 conne	ector (pcs)		0	0	0	Ö	0	Ö	
LED for syst Chargin	g port		1	1	7	-	-	-	
Charging	g cable		EW-EC300 215	EW-EC300 262	EW-EC300 302	197	240	247	
Note *1 Compatible v cycle computer and sm not freely open prof with ANT.+ cycle comp open profile. *3 Will b connected to SHIMAN bike	with a Blue partphone/ file. *2 Con puter but r be shown o NO E-BIKE S	etooth LE /tablet but npatible not freely only when SYSTEMS	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	

Rear Derailleur

Series		ULTEGRA	ULTEGRA	ULTEGRA RX	
Model no.		RD-6870-SS	RD-6870-GS	RD-RX805-GS	
Model no. Color 1 2		Series color	Series color	Series color	
	peeds	2	11	11	11
il car s	SPEEDS SHIMANO R	SHADOW	-	-	-
RD construction	I RI	SHADOW O+	-	-	1
	Double	e servo Direct	√	1	-
	SHIMAN	attachm ent			
	O MTB type	(convent ional)			_
	l type	Direct mount	-	-	-
Applicable derailleur hanger		Direct attachm			
	SHIMAN O ROAD	ent (convent	✓	✓	✓
	type	ional) Direct			
	IIDH si	mount	-	-	/
Max. front	difference apacity		16T 33T	16T 37T	16T 39T
Low sprocket	M	ax.	28T 23T	37T 32T 28T	34T 28T
Top sprocket	M	in. ax.	14T	28T 12T 11T	11T
Fluoric coated	l link bushir	in. ngs	11T 4	11T 4	11T 4
	Guide	pulley	1	1	1
Dulle	Tension bea	n pülley rina	✓	1	✓
Pulley	Screws	eth material	11T Stainless steel	11T Stainless steel	11T Stainless steel
	Sunken to	pe pulley	✓	✓	✓
Bracket	Mat	erial iish	Aluminum	Aluminum	Aluminum Anodized
	Hollo	w axle	Ctoir less ct		√
B-axle	Fir	erial iish	Stainless steel Passivation	Stainless steel Passivation	Stainless steel
B-axle 2	<u> Mat</u>	w axle erial	-	-	Aluminum
	Fir Mat	ish erial	- Aluminum	- Aluminum	Anodized Aluminum
Bracket body	Fir	ish erial	Painted Aluminum	Painted Aluminum	Painted Steel
P-axle	Fir	ish erial	Plated CFRP	Plated CFRP	Aluminum
Plate body	Fir	ish	Painted	Painted	Painted
Outer link	Fir	erial iish	Aluminum Painted	Aluminum Painted	Painted
Inner link	Fir	erial iish	Steel Painted	Steel Painted	GFRP
Outer plate	Fir	erial iish	Aluminum Painted	Aluminum Painted	Aluminum Painted
Inner plate	Mat Fir	erial iish	Aluminum Painted	Aluminum Painted	Aluminum Painted
Stroke adjusting screw	Mat	erial iish	Stainless steel Black coated	Stainless steel Black coated	Steel Plated
Di2 connectivity wired		nifting	✓	Jack coated ✓	√
	Di2 sl Bluetoot	ifting Cycling	-	-	-
	N® LE	power	-	-	-
	ANT+	Bicycle power Adjust	-	-	-
		mode informat	-	-	-
		Di2			
		battery level	-	-	-
		Gear position SHIMAN	-	-	-
	Bluetoot h® LE	SHIMAN O E-BIKE SYSTEM			
	custom (*1)	I Shata ∣	-	-	-
	` ''	items (*3)			
Di2 connectivity wireless		Compati ble with E-TUBE	_	_	_
		RIDE			
		Compati ble with E-TUBE	-	-	-
		PROJECT Adjust			
		mode informat	-	-	-
		lon Di2			
	ANT	battery level	-	-	-
	private (*2)	Gear	-	-	-
	` ′	position SHIMAN O E-BIKE SYSTEM			
		Ş data	-	-	-
		items (*3)	_		
Firmware update SD50 p	oy E-TUBE P ort (pcs)	KOJECT	1	1	1
SD300 p	ort (pcs) nector (pcs)		0	0	0
SD300 con	nector (pcs) stem status		0	0 -	, , , , , , , , , , , , , , , , , , ,
Chargi	ng port ng cable		-	-	-
Average Note *1 Compatible	weight (g)	otooth ! F	257	268	280
cycle computer and s	martphone	tablet but			
cycle computer and s not freely open pro with ANT+ cycle con open profile. *3 Will connected to SHIMA bi	nputer but i	not freely only when			* w/o Bracket spec available
connected to SHIMA	NO E-BIKE	SYSTEMS			

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SW

RD FD

Front Derailleur

Ser	ries	DURA-ACE	ULTEGRA	SHIMANO 105	DURA-ACE	ULTEGRA	ULTEGRA
Mode	el no.	FD-R9250	FD-R8150	FD-R7150	FD-R9150	FD-R8050	FD-6870-F
	1	Series color	Series color	Series color	Series color	Series color	Series color
Color	Color 2		-	-	-	-	-
Front	speeds	2	2	2	2	2	2
Rear s	peeds	12	12	12	11	11	11
Compati	ble 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	-	-	-	-	-	-
Action	Down swing	✓	✓	✓	1	1	1
	Clamp band1	=	-	-	-	-	-
	Clamp band2	-	-	-	-	-	-
Mount	Clamp band3	-	-	-	-	-	-
	Brazed-on	✓	✓	✓	1	✓	1
Chain li	ne (mm)	44.5	44.5	44.5	43.5	43.5	43.5
Chainstay a	ngle (deg.)	61-66	61-66	61-66	61-66	61-66	61-66
Top gea	ar teeth	46-54T	46-52T	50-52T	50T-55T	46T-53T	46T-53T
Total ca	apacity	16T	16T	16T	16T	16T, 17T *	16T
Link bu	ıshings	4	4	2	4	2	4
Formet alaman hamal	Material	-	-	-	-	-	-
Front clamp band	Finish	-	-	-	-	-	-
Rear clamp band, base bracket	Material	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
base bracket	Finish	Painted	Painted	Painted	Anodized	Painted	Painted
Out on Park	Material	Aluminum	Aluminum	GFRP	CFRP	CFRP	CFRP
Outer link	Finish	Anodized	Painted	-	Painted	Painted	Painted
Inner link	Material	Steel	Steel	Steel	Titanium	Steel	Steel
inner link	Finish	Plated	Painted	Plated	-	Plated	Plated
Chain guide	Material	Aluminum	Steel	Steel	Aluminum	Steel	Steel
Chain guide	Finish	Plated	Plated	Chrome plated	Nickel plated	Chrome plated	Chrome plated
Maste	er unit	-	-	-	-	-	-
Firmware update k	y E-TUBE PROJECT	1	1	1	1	1	1
SD50 po	ort (pcs)	0	0	0	1	1	1
SD300 p	ort (pcs)	1	1	1	0	0	0
SD50 conn	ector (pcs)	0	0	0	0	0	0
SD300 con	nector (pcs)	0	0	0	0	0	0
Average weight (g) direct type	(band type: L size, w/ screw)	96	110	142	104	132	138.5
No	ote					* 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	-	1
	34.9	1	-
Note			* w/ Multi Clamp Band