


| | | | | | | | | |
|---|---|--|----------------------|---------------------------------|-------------------|------------------------|-----------|---------|
|  | WORK INSTRUCTION | | | | Effectivity Date: | March 19, 2025 | | |
| | Process Name/Title: TAPING ASSEMBLY PROCESS | | | | Validity Date: | n/a | | |
| | Model code/Part number: 559D / 75L475-0050 | | Customer: TRJ | Car Model: TOYOTA HI-ACE | Document No.: | WI-ENG-PDE-1190 | | |
| | Purpose: <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO | | | | Revision No.: | 1 | Page No.: | 1 of 17 |

| | | | | | | |
|--------|--------------|---------------|---|--|---|---|
| PARTS: | | | 1. Connector 1746872-1 (B); connector PBVP-10V-S (W); connector PBVP-12V-S (W);Wire AVSS 0.3 LG L=186±2mm; AVSS 0.3 R L=187±2mm; AVSS 0.3 GR L=188±2mm; AVSS 0.3 V L=191±2mm; AVSS 0.3 P L=193±2mm; AVSS 0.3 Y L=197±2mm; AVSS 0.3 G L=196±2mm; AVSS 0.3 B L=199±2mm; AVSS 0.3 W L=200±2mm; AVSS 0.3 L L=204±2mm; AVSS 0.3 GR/B L=360±2mm; AVSS 0.3 R/L L=360±2mm; AVSS 0.3 R/W L=370±2mm; AVSS 0.3 W/G L=376±2mm; AVSS 0.3 BR L=388±2mm;Black VM tube ø8 L=146±3mm; Green VM tube ø8 L=146±3mm | | JIG: | 1. Insertion jig |
| NO. | PROCESS NAME | | WORK PROCEDURE/ ILLUSTRATION | | TOOLS/PPE | QUALITY POINTERS |
| 1 | P1 | Table Lay-out | <div>TABLE LAY-OUT</div> <div></div> | | <div>Safety Instruction Be sure to wear required personal protective equipment during operation (gloves, finger cots, etc.)</div> <div>Housekeeping 1. Maintain and always practice 5's. 2. Personal things on the workplace is prohibited. Keep it in your locker.</div> <div>Alert level For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.</div> | 1. No deformed terminal 2. No wrong usage of parts |

| Revision History | | | | | | | | Prepared by | Checked by | Reviewed by | Approved by |
|------------------|---------|---|--|--|--|-------------|-----------|---|---|--|--|
| | | | | | | | |  A. Hernandez |  J. Loterte |  C. Villanueva |  A. Arañes |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| 03/19/25 | 1 | Change pre laucnh to mass pro and inclusion of table lay-out. Inclusion of permanent jig and table lay-out. | | | | A.Hernandez | J.Loterte | C. Villanueva | A. Arañes | | |
| 03/14/25 | 0 | Initial issue | | | | A.Hernandez | n/a | C. Villanueva | A. Arañes | | |
| Eff. Date | Rev. No | Details of Change | | | | Revised | Checked | Reviewed | Approved | Est. Date: | March 14, 2025 |

**WORK INSTRUCTION****TAPING ASSEMBLY PROCESS**

Process Name/Title:

Model code/Part number:

559D / 75L475-0050Customer: **TRJ**Car Model: **TOYOTA HI-ACE**

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Effectivity Date:

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Validity Date:

n/a

Document No.:

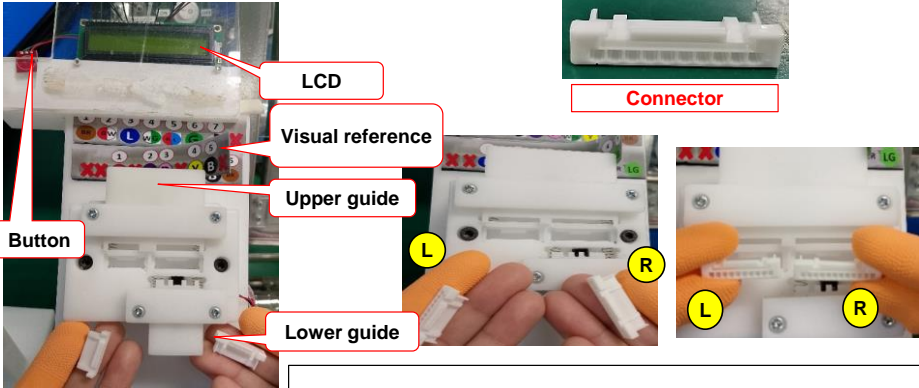
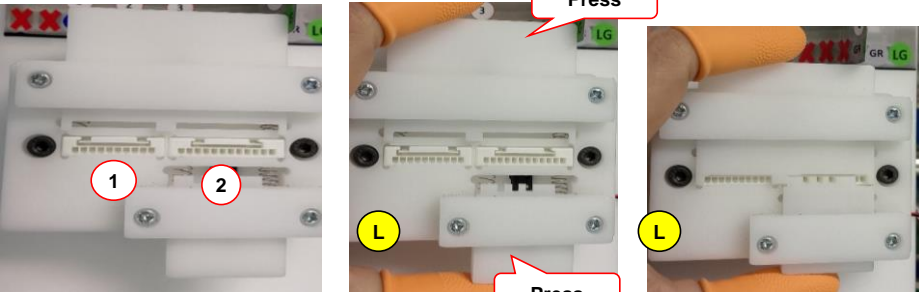
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| | | | | | |
|--------|--|---|--|-----------|--|
| PARTS: | | 1. Connector PBVP-10V-S (W) 2. Connector PBVP-12V-S (W) | | JIG: | 1. Insertion jig |
| NO. | PROCESS NAME | WORK PROCEDURE/ ILLUSTRATION | | TOOLS/PPE | QUALITY POINTERS |
| 2 | P1 Connector setting to insertion jig PBVP-10V-S (W) and PBVP-12V-S (W) | <div></div> <div>1. Get the 1 pc. of PBVP-8V-S (W) and 1 pc. of PBVP-10V-S connector using right and left hand. <i>Note: Follow the connector orientation.</i></div> <div></div> <div>2. Press the upper and lower guide using left hand in same timing. Holes that need to be insert are only open.</div> | | N/A | 1. Use the provided jig per model 2. No wrong usage of parts 3. No wrong orientation of connector 4. No damaged connector |

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WORK INSTRUCTION

TAPING ASSEMBLY PROCESS

Process Name/Title:

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Customer: TRJ

Car Model: TOYOTA HI-ACE

Purpose:

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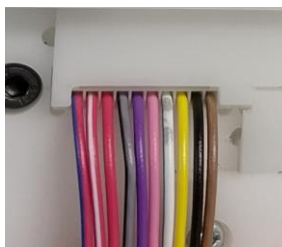
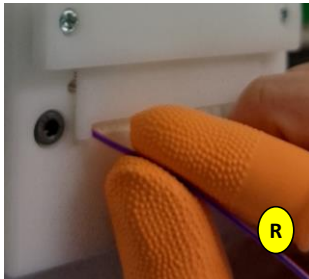

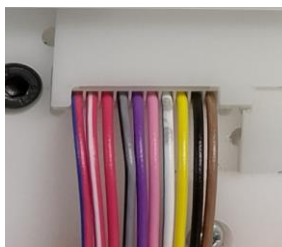




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|--------|--------------|---|------|-----|-----|-----|-----|-----|-----|---|----|-----------|---|---|---|---|---|---|---|---|----|-----|-----|---|------|---|---|-----|---|---|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|---|
| PARTS: | | 1. Wire AVSS 0.3 R L=187±2mm; AVSS 0.3 V L=191±2mm; AVSS 0.3 P L=193±2mm; AVSS 0.3 Y L=197±2mm; AVSS 0.3 B L=199±2mm; AVSS 0.3 GR/B L=360±2mm; AVSS 0.3 R/L L=360±2mm; AVSS 0.3 R/W L=370±2mm; AVSS 0.3 W/G L=376±2mm; AVSS 0.3 BR L=388±2mm; Black VM tube ø8 L=146±3mm | | | | | | | | | | JIG: | 1. Insertion jig | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NO. | PROCESS NAME | WORK PROCEDURE/ ILLUSTRATION | | | | | | | | | | TOOLS/PPE | QUALITY POINTERS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | P1 | <div>INSERTION SEQUENCE FROM LEFT TO RIGHT</div> <div><table><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr><tr><td>R/L</td><td>R/W</td><td>R</td><td>GR/B</td><td>V</td><td>P</td><td>W/G</td><td>Y</td><td>B</td><td>BR</td></tr><tr><td>360</td><td>370</td><td>187</td><td>360</td><td>191</td><td>193</td><td>376</td><td>197</td><td>199</td><td>388</td></tr></table><div></div><div>1. Get the R/L wire using right hand and insert to connector. Repeat the process for R/W-R-GR/B-V-P-W/G-Y-B-BR wires. Note: Follow the insertion sequence based on the illustration.</div></div> | | | | | | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | R/L | R/W | R | GR/B | V | P | W/G | Y | B | BR | 360 | 370 | 187 | 360 | 191 | 193 | 376 | 197 | 199 | 388 | <div>Terminal facing</div> <div></div> <div>WIRE INSERTION ILLUSTRATION</div> <div></div> <div>STEERING NAVIGATION(2 layer)</div> <div></div> <div>CONTROLLER</div> <div></div> | <div>1. Use provided jig per model</div> <div>2. No wrong usage of parts</div> <div>3. One by one insertion</div> <div>4. No wrong insertion</div> <div>5. No deformed terminal</div> <div>6. No stuck of terminal tip</div> <div>Important reminders/Note/s:</div> <div>1. Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.</div> <div>2. Please hold the wire near terminal during insertion.</div> <div>3. Follow the insertion sequence based on the illustration.</div> <div>Document references:</div> <div>1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</div> <div>2. Refer to WI-ENG-PDE-044 for Steering Navigation Controller procedure.</div> |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R/L | R/W | R | GR/B | V | P | W/G | Y | B | BR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 360 | 370 | 187 | 360 | 191 | 193 | 376 | 197 | 199 | 388 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | <div>Wire insertion to Black VM tube (sunprene) ø8 L=146±3mm</div> <div></div> <div>1. Get the Black VM tube (Sunprene) ø8 L=146±3mm using right hand. Hold the wires using left hand and insert the wires using right hand.</div> | | | | | | | | | | N/A | <div>1. No wrong usage of parts</div> <div>2. No deformed terminal</div> <div>3. No tangled wires</div> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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**WORK INSTRUCTION**

Process Name/Title:

TAPING ASSEMBLY PROCESS

Effectivity Date:

March 19, 2025

Validity Date:

n/a

Model code/Part number:

559D / 75L475-0050Customer: **TRJ**Car Model: **TOYOTA HI-ACE**

Document No.:

WI-ENG-PDE-1190

Purpose:

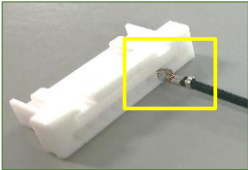
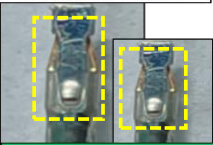

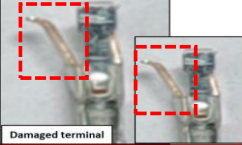


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|---------------|--|---|--|--|--|
| PARTS: | 1. Wire AVSS 0.3 R L=187±2mm; AVSS 0.3 V L=191±2mm; AVSS 0.3 P L=193±2mm; AVSS 0.3 Y L=197±2mm; AVSS 0.3 B L=199±2mm; AVSS 0.3 GR/B L=360±2mm; AVSS 0.3 R/L L=360±2mm; AVSS 0.3 R/W L=370±2mm; AVSS 0.3 W/G L=376±2mm; AVSS 0.3 BR L=388±2mm | | | JIG: | 1. Insertion jig |
| NO. | PROCESS NAME | WORK PROCEDURE/ ILLUSTRATION | | TOOLS/PPE | QUALITY POINTERS |
| 5 | P1 | Wire insertion to connector PBVP-10V-S (W) (Continuation) | | <div><div>Proper alignment of terminal to connector</div><div>BACK VIEW OF TERMINAL</div><div>GOOD Terminal condition</div><div>FRONT OF TERMINAL</div><div>GOOD Terminal condition</div><div>BACK VIEW OF TERMINAL</div><div>Damaged terminal</div><div>NO GOOD Terminal condition</div><div>FRONT VIEW OF TERMINAL</div><div>NO GOOD Terminal condition</div><div>Improper alignment of terminal to connector</div><div>Note: *Make sure the terminal was in proper alignment before insert. *Avoid hitting the terminal into the connector during wire insertion, if encountered abnormality stop the process and call the attention of Immediate superior and Automatically disposed and replace the unit.</div></div> | <div>1. Use provided jig per model 2. No wrong usage of parts 3. No wrong insertion 4. No deformed terminal 5. No stuck of terminal tip 6. One by one insertion</div> <div>Important reminders/Note/s:</div> <div>1. Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force. 2. Please hold the wires near terminal during insertion. 3. Automatically dispose and replace the unit if once encountered bend terminal, difficulty of insertion and half-locked connector. 4. Insertion of wires must be from left to right.</div> <div>Document reference/s:</div> <div>1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance. 2. Refer to WI-ENG-PDE-044 for Steering Navigation Controller procedure.. 3. Refer to GL-PRO-ASY-029 for Pull-Push procedure. 4. Refer to GL-PRO-ASY-025 for Inspection Standard for connector insertion.</div> |

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PARTS: 1. Wire AVSS 0.3 LG L=186±2mm; AVSS 0.3 W L=200±2mm; AVSS 0.3 L L=204±2mm; AVSS 0.3 G L=196±2mm; GR L=188±2mm

JIG:

1. Insertion jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

6

P1

Wire insertion to
Connector
PBVP-12V-S (W)

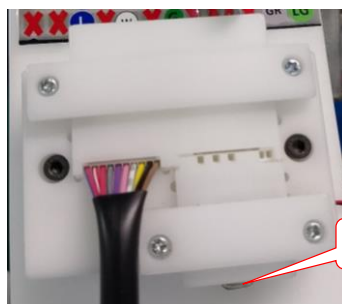
INSERTION SEQUENCE FROM LEFT TO



Terminal facing



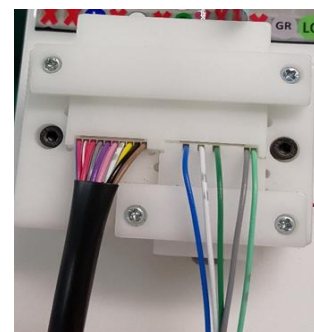
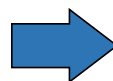
WIRE INSERTION ILLUSTRATION



Lower guide

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|-----|---|-----|---|-----|---|---|----|-----|-----|
| X | X | L | X | W | X | G | X | X | X | GR | LG |
| | | 204 | | 200 | | 196 | | | | 188 | 186 |

Note: Holes that need to be insert are only open.



1. Get the **L** wire using right hand and insert to connector. Repeat the process for **W-G-GR** wires.

Note: Follow the insertion sequence based on the illustration.

STEERING
NAVIGATION(2 layer)



CONTROLLER



1. Use provided jig per model
2. No wrong usage of parts
3. One by one insertion
4. No wrong insertion
5. No deformed terminal
6. No stuck of terminal tip

Important reminders/Note/s:

1. Please hold the wire near terminal during insertion.
2. Refer to **GL-PRO-ASY-029** for Pull-Push procedure.
3. Make sure wires are properly inserted. Conduct **Pull-Push-Pull-Push** after insertion. Do not exert extra force.
4. Follow the insertion sequence based on the above illustration.

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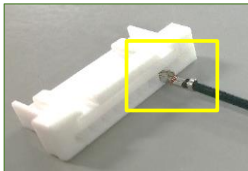
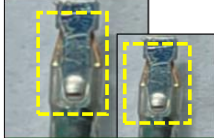


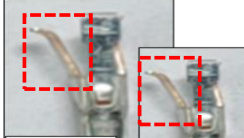

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| | | | | |
|--------|---|---|-----------|--|
| PARTS: | 1. Wire AVSS 0.3 LG L=186±2mm; AVSS 0.3 W L=200±2mm; AVSS 0.3 L L=204±2mm; AVSS 0.3 G L=196±2mm; GR L=188±2mm | | JIG: | 1. Insertion jig |
| NO. | PROCESS NAME | WORK PROCEDURE/ ILLUSTRATION | TOOLS/PPE | QUALITY POINTERS |
| 7 | P1 Wire insertion to connector PBVP-10V-S (W) (Continuation) | <div><div>Proper alignment of terminal to connector</div><div></div><div><div>BACK VIEW OF TERMINAL</div><div></div><div>GOOD Terminal condition</div></div><div><div>FRONT OF TERMINAL</div><div></div><div>GOOD Terminal condition</div></div></div> <div><div>Improper alignment of terminal to connector</div><div></div><div><div>BACK VIEW OF TERMINAL</div><div></div><div>Damaged terminal NO GOOD Terminal condition</div></div><div><div>FRONT VIEW OF TERMINAL</div><div></div><div>NO GOOD Terminal condition</div></div></div> <div>Note: <i>*Make sure the terminal was in proper alignment before insert.</i> <i>*Avoid hitting the terminal into the connector during wire insertion, if encountered abnormality stop the process and call the attention of Immediate superior and Automatically disposed and replace the unit.</i></div> | | <div>1. Use provided jig per model 2. No wrong usage of parts 3. No wrong insertion 4. No deformed terminal 5. No stuck of terminal tip 6. One by one insertion</div> <div>Important reminders/Note/s:</div> <div>1. Make sure wires are properly inserted. Conduct <u>Pull-Push-Pull-Push</u> after insertion. Do not exert extra force. 2. Please hold the wires near terminal during insertion. 3. Automatically dispose and replace the unit if once encountered bend terminal, difficulty of insertion and half-locked connector. 4. Insertion of wires must be from left to right.</div> <div>Document reference/s:</div> <div>1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance. 2. Refer to WI-ENG-PDE-044 for Steering Navigation Controller procedure.. 3. Refer to GL-PRO-ASY-029 for Pull-Push procedure. 4. Refer to GL-PRO-ASY-025 for Inspection Standard for connector insertion.</div> |

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Model code/Part number: 559D / 75L475-0050

Customer: TRJ

Car Model: TOYOTA HI-ACE

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

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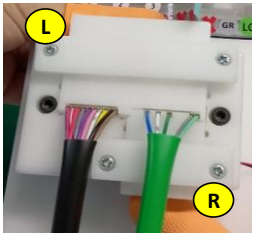
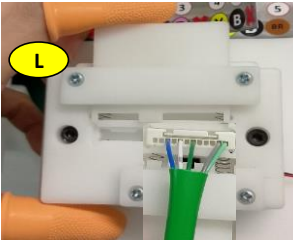
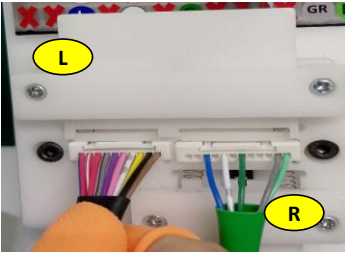

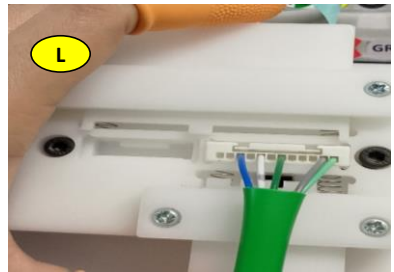

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| | | | | | |
|--------|--------------|--|--|-----------|--|
| PARTS: | | 1. Assy parts 2. Green VM tube (sunprene) ø8 L=146±3mm | | JIG: | 1. Insertion jig |
| NO. | PROCESS NAME | WORK PROCEDURE/ ILLUSTRATION | | TOOLS/PPE | QUALITY POINTERS |
| 8 | P1 | <div><div><p>1. Get the Green VM tube (Sunprene) ø8 L=146±3mm using right hand. Hold the wire using left hand then insert the wires.</p></div><div><p>2. Press the Upper and lower guide button using left and right hand.</p></div><div><p>3. Remove the 1st connector with inserted wires and Black VM tube (Sunprene) using right hand then press the upper guide using left hand. Check the wire insertion condition. Note: Second connector with inserted wire and Green VM tube (Sunprene) will stay in the jig.</p></div><div><p>4. Press the lower button using right hand. Holes that need to be inserted are only open.</p></div></div> | | | <div><p>1. No wrong usage of parts 2. No deformed terminal 3. No tangled wires</p><p>Terminal tip must be visible</p><p>Document References: 1. Refer to GL-PRO-ASY-025 for Inspection Standard for Coupler Insertion. 2. Refer to GL-PRO-ASY-043 for Verification of Fully Inserted Wires.</p></div> |

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559D / 75L475-0050Customer: **TRJ**Car Model: **TOYOTA HI-ACE**

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

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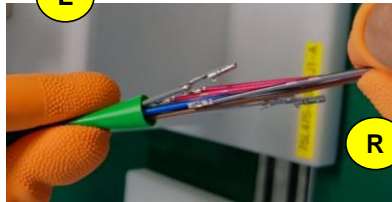

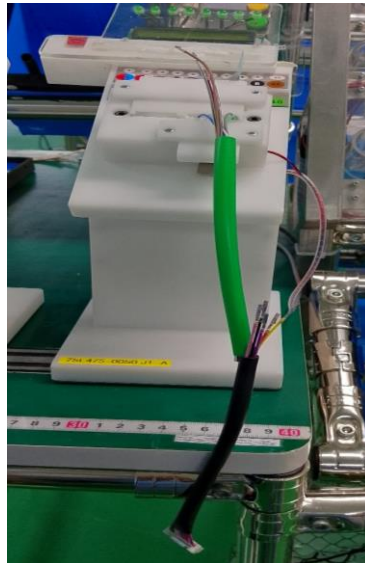
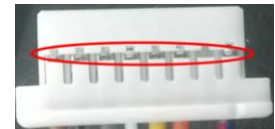
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Revision No.:

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| | | | | | |
|---------------|---------------------|--|--|------------------|---|
| PARTS: | | 1. Assy parts | | JIG: | 1. Insertion jig |
| NO. | PROCESS NAME | WORK PROCEDURE/ ILLUSTRATION | | TOOLS/PPE | QUALITY POINTERS |
| 9 | P1 | <div><div><div>L</div><div>R</div></div><div>1. Hold the Green VM tube (Sunprene) ø8 using left hand and insert the wires from Black VM tube (Sunprene) ø8 using right hand.</div><div></div><div></div></div> | | N/A | <div><div>Terminal tip must be visible</div><div>Document References: 1. Refer to GL-PRO-ASY-025 for Inspection Standard for Coupler Insertion. 2. Refer to GL-PRO-ASY-043 for Verification of Fully Inserted Wires.</div></div> |

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WORK INSTRUCTION

TAPING ASSEMBLY PROCESS

Process Name/Title:

Model code/Part number:

559D / 75L475-0050

Customer: TRJ

Car Model: TOYOTA HI-ACE

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Effectivity Date:

March 19, 2025

Validity Date:

n/a

Document No.:

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PARTS: 1. Assy parts

JIG:

1. Insertion jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

10

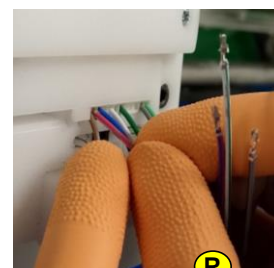
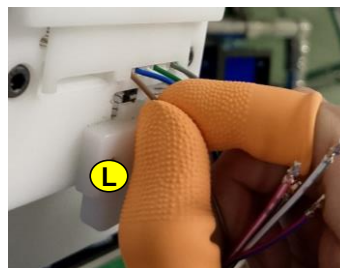
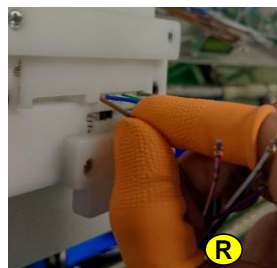
P1

Wire insertion to
Connector
PBVP-10V-S (W)

WIRE INSERTION ILLUSTRATION

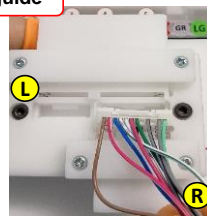
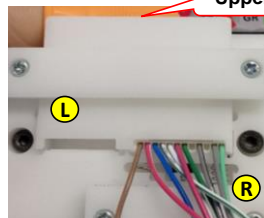
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|-----|-----|-----|-----|-----|-----|-----|---|------|----|-----|-----|
| BR | R/W | L | W/G | W | R/L | G | X | GR/B | X | GR | LG |
| 388 | 370 | 204 | 376 | 200 | 360 | 196 | | 360 | | 188 | 186 |

Terminal facing



2. Hold the **R/L wire** using right hand and support the wire by left index finger then insert to connector using right hand. Repeat the process on **R/W-GR/B-W/G-BR wires**. Check the wire after insertion
Note: Follow the insertion sequence based on the above illustration.

Upper guide



3. Press the Upper button using left hand then remove the assy part using right hand. Check the insertion condition.

STEERING
NAVIGATION(2 layer)



CONTROLLER



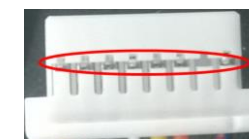
1. Use provided jig per model
2. No wrong usage of parts
3. One by one insertion
4. No wrong insertion
5. No deformed terminal
6. No stuck of terminal tip
7. No deformed terminals
8. No tangled wires
9. No wrong facing

Important reminders/Note/s:

1. Please hold the wire near terminal during insertion.
2. Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion.
Do not exert extra force.

Document References:

1. Refer to WI-ENG-PDE-044 for Steering Navigation Controller procedure.
2. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance
3. Refer to GL-PRO-ASY-028 for Pull-Push procedure.



Terminal tip must be visible

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**WORK INSTRUCTION****TAPING ASSEMBLY PROCESS**

Process Name/Title:

Model code/Part number:

559D / 75L475-0050Customer: **TRJ**Car Model: **TOYOTA HI-ACE**

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Effectivity Date:

March 19, 2025

Validity Date:

n/a

Document No.:

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| | | | | | |
|---------------|---------------------|--|--|------------------|---|
| PARTS: | | 1. Assy parts | | JIG: | n/a |
| NO. | PROCESS NAME | WORK PROCEDURE/ ILLUSTRATION | | TOOLS/PPE | QUALITY POINTERS |
| 11 | P1 | <div><div><div></div><div><div>Connector 8V-S</div></div><div><div>Connector 8V-S</div></div></div><div><div></div><div><div>1. Hold the connector with Green VM tube (sunprene) ø8 and slightly bend the wire. Repeat the process to connector Black VM tube (sunprene) ø8. Checked the facing of both connector.</div></div></div></div> | | n/a | <div>1. No wrong orientation of connector 2. No deformed terminal 3. No wrong terminal facing 4. No damage lance 5. No wrong folding position</div> |

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WORK INSTRUCTION

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Car Model: TOYOTA HI-ACE

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☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

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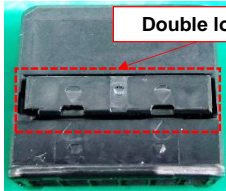


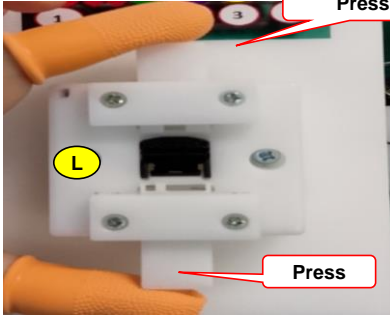
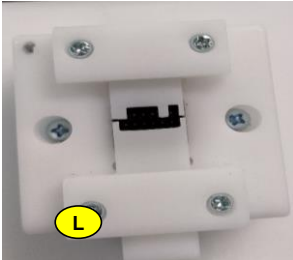
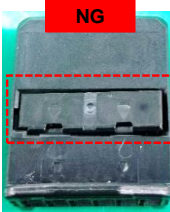



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1

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| PARTS: | | 1. Connector 1746872-1 (B) | | JIG: | 1. Insertion jig |
|--------|--------------|--|--|-----------|--|
| NO. | PROCESS NAME | WORK PROCEDURE/ ILLUSTRATION | | TOOLS/PPE | QUALITY POINTERS |
| 12 | P1 | <div><div>INSERTION JIG</div><div></div><div></div><div>CONNECTOR</div><div></div><div></div><div>1. Get the connector 1746872-1 (B) and insert to insertion jig using right hand. <i>Note: Follow the connector orientation</i></div><div></div><div>Press</div><div></div><div>Press</div><div>2. Press the upper and lower guide (same timing) using left hand. Holes that need to be insert are only open.</div></div> | | N/A | <div>1. Use the provided jig per model</div> <div>2. No wrong usage of parts</div> <div>3. No wrong orientation of connector</div> <div>4. No damaged connector</div> <div>CONNECTOR LOCK APPEARANCE CHECK</div> <div><div>GOOD</div><div>NG</div></div> <div></div> <div>UNLOCK</div> <div>HALF-LOCKED</div> <div>CONNECTOR ILLUSTRATION</div> <div><div>GOOD</div><div>NG</div></div> <div></div> <div>1746872-1 (B)</div> <div>1376675-1 (B)</div> <div>Important reminders/Note/s:</div> <div>1. Automatically dispose and replace the unit if once encountered bend terminal, difficulty of insertion and half-locked connector.</div> <div>2. Follow the connector orientation</div> <div>3. Check the connector before insertion.</div> |

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WORK INSTRUCTION

TAPING ASSEMBLY PROCESS

Process Name/Title:

Model code/Part number:

559D / 75L475-0050

Customer: TRJ

Car Model: TOYOTA HI-ACE

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Effectivity Date:

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PARTS: 1. Assy parts

JIG:

Insertion jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

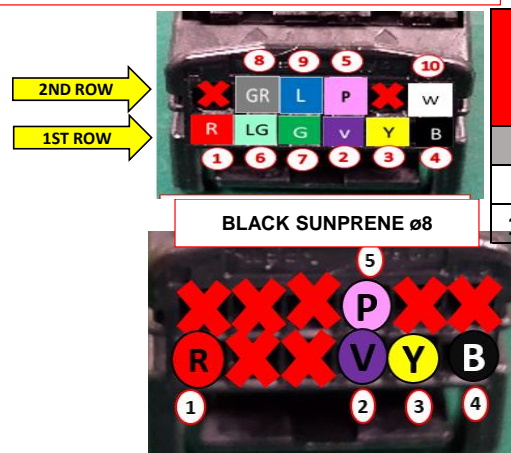
QUALITY POINTERS

13

P1

Connector setting to
insertion jig
1746872-1 (B)

INSERTION SEQUENCE FROM LEFT TO RIGHT

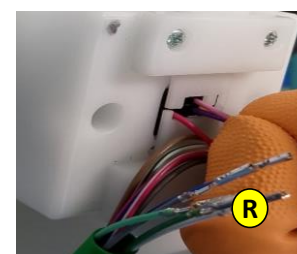
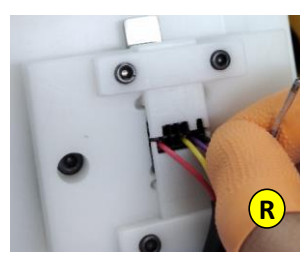
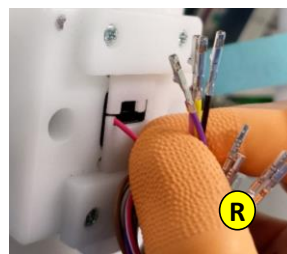


WIRE INSERTION ILLUSTRATION

| | | | | | |
|-----|-----|-----|-----|-----|-----|
| | 8 | 9 | 5 | | 10 |
| X | GR | L | P | X | W |
| | 188 | 204 | 193 | | 200 |
| 1 | 6 | 7 | 2 | 3 | 4 |
| R | LG | G | V | Y | B |
| 187 | 186 | 196 | 191 | 197 | 199 |



Terminal
Facing



1. Insert first the wires from **Black Sunprene tube**. Hold the **R wire** and insert to terminal slot 1 using right hand. Repeat the process for **V-Y-B wires**.
Note: Follow the insertion sequence based on the illustration stated above.

2. Hold the **P wire** and insert to terminal slot 5.
Note: Follow the insertion sequence based on the illustration stated above.

N/A

1. Use provided jig per model
2. No wrong usage of parts
3. One by one insertion
4. No wrong insertion
5. No deformed terminal
6. No stuck of terminal tip

Important reminders/Note/s:

1. Automatically dispose and replace the unit if once encountered bend terminal, difficulty of insertion and half-locked connector.
2. Make sure wires are properly inserted. Conduct **Pull-Push-Pull-Push** after insertion. Do not exert extra force.
3. Please hold the wire near terminal during insertion.
4. Follow the insertion sequence based on the illustration stated above.

Document references:

1. Refer to **GL-PRO-ASY-029** for Pull-Push procedure.
2. Refer to **WI-PRO-CNC-017** for Wire and Strip Length Tolerance

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WORK INSTRUCTION

TAPING ASSEMBLY PROCESS

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Customer: TRJ

Car Model: TOYOTA HI-ACE

Validity Date:

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Document No.:

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Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

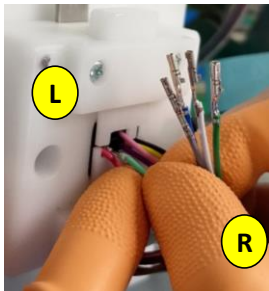
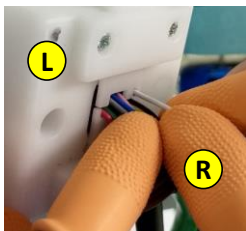
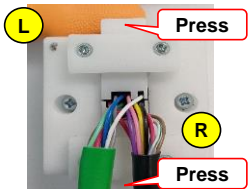
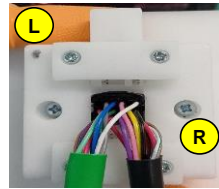

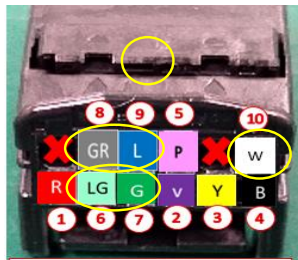
☒ MASSPRO

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| | | | | | |
|--------|---|--|--|-----------|--|
| PARTS: | | 1. Assy parts | | JIG: | 1. Insertion jig |
| NO. | PROCESS NAME | WORK PROCEDURE/ ILLUSTRATION | | TOOLS/PPE | QUALITY POINTERS |
| 13 | P1 Wire insertion to Connector 1746872-1 (B) (Continuation) | <div><div></div><div><p>3. Insert the wires from Green sunprene tube, hold the LG wire using right hand and support the wire by left index finger then insert to terminal slot 6 using right hand. Repeat the process for G-GR-L-W wire. <i>Note: Follow the insertion sequence based on the above illustration.</i></p></div><div></div><div><p>4. Hold the W wire and insert to terminal slot 10 using right hand. <i>Note: Follow the insertion sequence based on the illustration.</i></p></div><div><div></div><div></div><div><p>5. Press the upper and lower lever guide (same timing) using both hands.</p></div><div></div><div><p>6. Remove the assy parts using right hand.</p></div><div><div></div><p>BLACK SUNPRENE ø8</p></div></div></div> | | N/A | <div><div><p>1. Use provided jig per model</p><p>2. No wrong usage of parts</p><p>3. One by one insertion</p><p>4. No wrong insertion</p><p>5. No deformed terminal</p><p>6. No stuck of terminal tip</p></div><div><p>Important reminders/Note/s:</p><p>1. <i>Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.</i></p><p>2. <i>Please hold the wire near terminal during insertion.</i></p><p>3. <i>Follow the insertion sequence based on the above illustration.</i></p></div><div><p>Document references:</p><p>1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</p></div></div> |

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WORK INSTRUCTION

TAPING ASSEMBLY PROCESS

Process Name/Title:

Model code/Part number:

559D / 75L475-0050

Customer: TRJ

Car Model: TOYOTA HI-ACE

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Effectivity Date:

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Validity Date:

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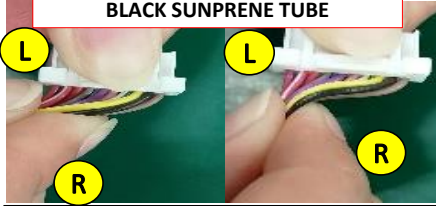

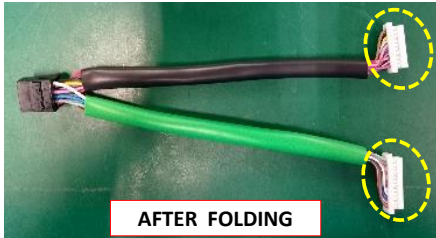
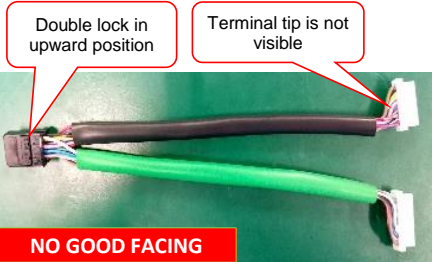
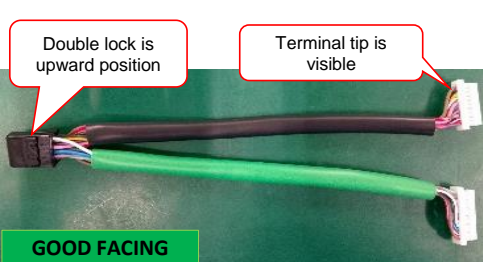
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| | | | | |
|--------|---------------|--|-----------|--|
| PARTS: | 1. Assy parts | | JIG: | n/a |
| NO. | PROCESS NAME | WORK PROCEDURE/ ILLUSTRATION | TOOLS/PPE | QUALITY POINTERS |
| 14 | P1 | <div>Wire Folding 2</div> <div><div><div>GREEN SUNPRENE TUBE</div><div></div><div>1. Hold the Connector PBVP-12V-S using right hand and slightly fold the wire from Green VM tube ø8 L=146±3mm (as illustrated above) using right hand.</div></div><div><div>BLACK SUNPRENE TUBE</div><div></div><div>2. Hold the Connector PBVP-10V-S using right hand and slightly fold the wire from Black VM tube ø8 L=146±3mm (as illustrated above) using right hand.</div></div><div><div></div><div>BEFORE FOLDING</div><div></div><div>AFTER FOLDING</div><div><div></div><div>NO GOOD FACING</div><div><div></div><div>GOOD FACING</div></div></div></div></div> | n/a | <div>1. No wrong orientation of connector.</div> <div>2. No tangled wires.</div> <div>3. Terminal backing out.</div> |

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**WORK INSTRUCTION****TAPING ASSEMBLY PROCESS**

Process Name/Title:

Model code/Part number:

559D / 75L475-0050Customer: **TRJ**Car Model: **TOYOTA HI-ACE**

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

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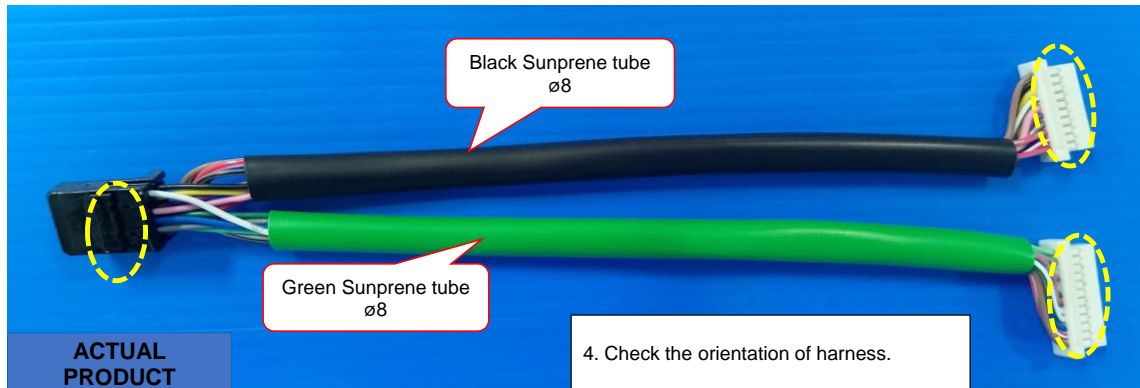


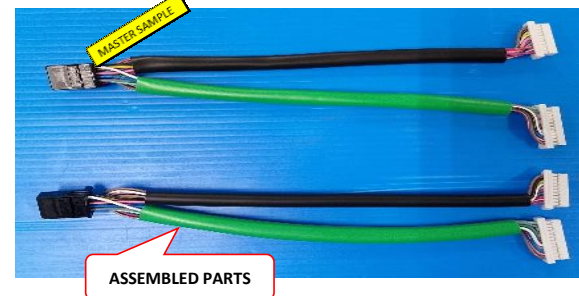
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| | | | | | |
|--------|--------------|-----------------------------------|---|-----------|--|
| PARTS: | | 1. Assy Parts 2. Master Sample | | JIG: | n/a |
| NO. | PROCESS NAME | WORK PROCEDURE/ ILLUSTRATION | | TOOLS/PPE | QUALITY POINTERS |
| 15 | P1 | Visual/By two's Inspection | <div>1. Check the Connector lock, locking of connector is included to Steering electrical test.</div> <div>2. Check the wire alignment. Make sure no tangled wires.</div> <div>3. Check the terminal if with backing out (not fully inserted) or deformed terminal.</div> <div></div> <div>4. Check the orientation of harness.</div> | | <p>Document reference/s:</p> <p>1. Refer to WI-QAD-QAC-252 Steering Electrical Test</p> <div>MASTER SAMPLE</div> <div></div> |
| | | | <div>5. Compare to Master sample by tapping.</div> <div></div> <div>MASTER SAMPLE</div> <div></div> <div>ASSEMBLED PARTS</div> | | |

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Model code/Part number:

559D / 75L475-0050Customer: **TRJ**Car Model: **TOYOTA HI-ACE**

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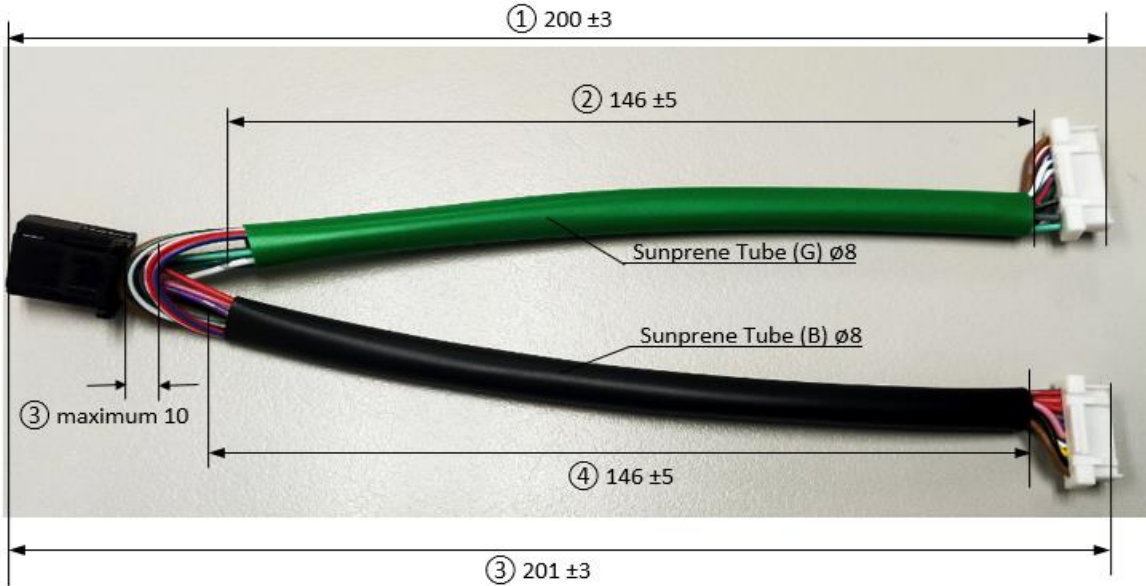
☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

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| | | | | |
|--------|---------------|---|-----------|---|
| PARTS: | 1. Assy parts | | JIG: | n/a |
| NO. | PROCESS NAME | WORK PROCEDURE/ ILLUSTRATION | TOOLS/PPE | QUALITY POINTERS |
| 16 | P1 | <div><div>MEASURING TAPE</div></div> | | Important reminders and note/s: 1. Please use calibrated/verified measuring tape when getting the measurement. 2. For Hatsumono, Nakamono and Owarimono. |
| | | | | Document reference/s: 1. Refer to WI-PRO-ASY-056 for Sub-assembly Hatsumono Nakamono Owarimono Inspection 1. No wrong dimension |

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559D / 75L475-0050

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Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

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Revision No.:

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PARTS:

n/a

JIG:

n/a

QUALITY CHECKPOINTS

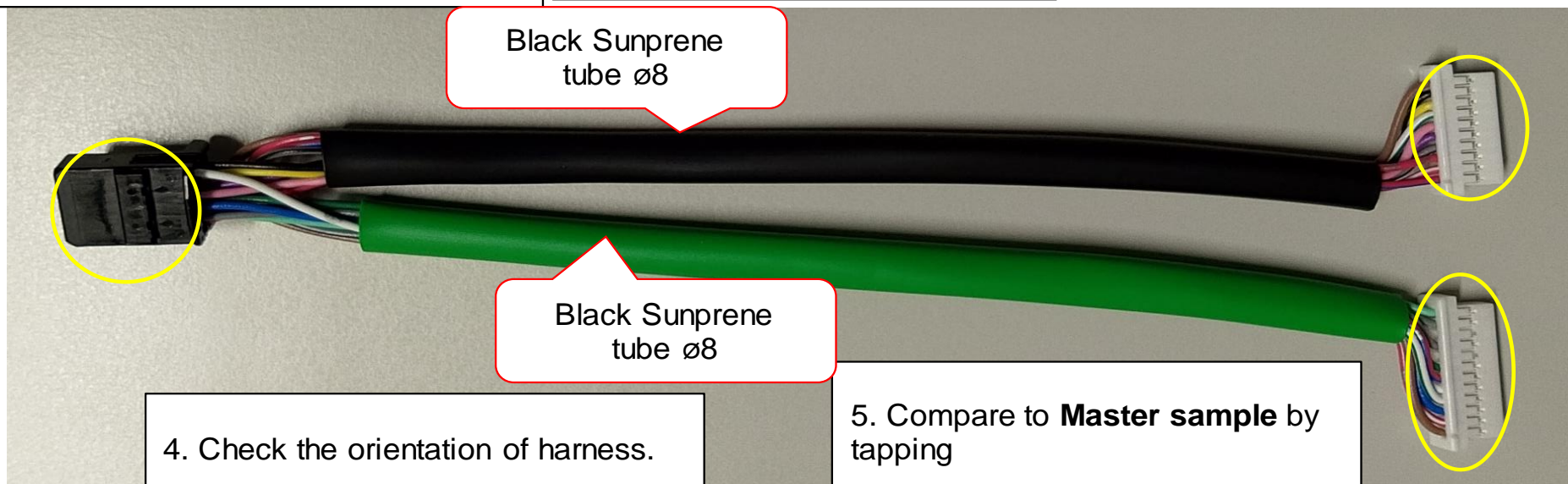
P1

75L475-0050

1. Check the connector lock. Locking of connector is included in Steering Electrical test.

2. Check the wire alignment. Must be no tangled wires.

3. Check the Terminal if with Backing out (Not fully inserted) or no deformed terminal.



4. Check the orientation of harness.

5. Compare to **Master sample** by tapping

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