



WORK INSTRUCTION
TAPING ASSEMBLY PROCESS

| | | | |
|-------------------|------------------|-----------|---------|
| Effectivity Date: | October 22, 2024 | | |
| Validity Date: | n/a | | |
| Document No.: | WI-ENG-PDE-1093A | | |
| Revision No.: | 1 | Page No.: | 1 of 10 |

| | | | |
|-------------------------|------------------------------------|-------------------------------------|---|
| Process Name/Title: | TAPING ASSEMBLY PROCESS | | |
| Model code/Part number: | 178D / 7N0128-7021C | Customer: | TRJ |
| Car Model: | TOYOTA-COROLLA | | |
| Purpose: | <input type="checkbox"/> PROTOTYPE | <input type="checkbox"/> PRE-LAUNCH | <input checked="" type="checkbox"/> MASSPRO |

| | | | |
|--------|--|------|---|
| PARTS: | 1. Connector 6188-0066 (GR); AVSSf 0.3 wires Y-OR L=364±2mm; Black Corrugated tube ø7 L=25±3mm (no slit); Connector 6189-1161 (B); Black Corrugated tube ø5 L=285±3mm (no slit); Black Corrugated tube ø7 L=532±5mm (no slit); Black tape; MRSW CP TVSSf 0.3 G-B/W wires L=655±3mm | JIG: | 1. Insertion jig with flip cover 2. Locking jig 3. Terminal cover jig |
|--------|--|------|---|

| NO. | PROCESS NAME | WORK PROCEDURE/ ILLUSTRATION | TOOLS/PPE | QUALITY POINTERS |
|-----|---------------------|--|---|--|
| 1 | P1 Table Lay-out | <p>TABLE LAY-OUT</p> <p>Connector 6188-0066 (GR)/ Connector tray</p> <p>Black Corrugated tube ø7 L= 25±3mm (no slit)</p> <p>Connector 6189-1161 (B)/ Connector tray</p> <p>Black Corrugated tube ø5 L= 285±3mm (no slit)</p> <p>AVSSf 0.3 wires Y L=364±2mm</p> <p>AVSSf 0.3 wires OR L=364±2mm</p> <p>Black Corrugated tube ø7 L=532±5mm (no slit)</p> <p>Insertion jig A with switch cover</p> <p>Insertion jig B</p> <p>MR SW CP TVSSf 0.3 G-B/W wires L=655±3mm</p> <p>Terminal cover jig</p> <p>Black tape/ Tape holder</p> <p>Locking jig</p> | <p>Safety Instruction Be sure to wear prescribed personal protective equipment during operation (gloves, finger cots, etc.)</p> <p>Housekeeping 1. Maintain and always practice 5's. 2. Personal things on the workplace is prohibited. Keep it in your locker.</p> <p>Alert level For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.</p> | <p>Document reference/s: <i>1.Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</i></p> <p>1. No missing parts/tools 2. No excess parts/tools</p> |

Revision History

| Eff. Date | Rev. No | Details of Change | Revised | Reviewed | Approved | Noted | Prepared by | Reviewed by | Approved by | Noted by |
|------------|---------|--|-----------|--------------|-----------|-------|------------------|--------------|-------------|----------|
| 10/22/24 | 1 | Change purpose form Pre-launch to Masspro. | M. Ariola | C.Villanueva | A. Arañes | n/a | M. Ariola | C.Villanueva | A. Arañes | n/a |
| 10/17/24 | 0 | Initial Issue. | M. Ariola | C.Villanueva | A. Arañes | n/a | M. Ariola | C.Villanueva | A. Arañes | n/a |
| Est. Date: | | | | | | | October 17, 2024 | | | |

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178D / 7N0128-7021C

Customer:

TRJ

Car Model: TOYOTA-COROLLA

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Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

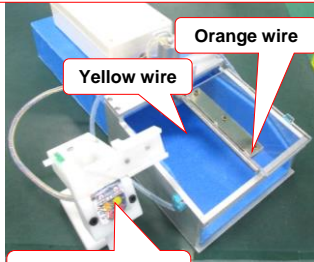
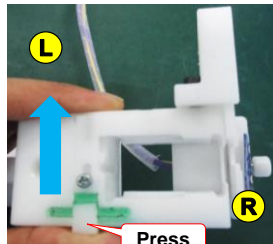
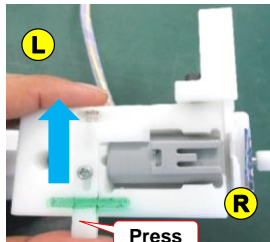
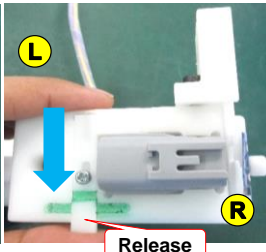
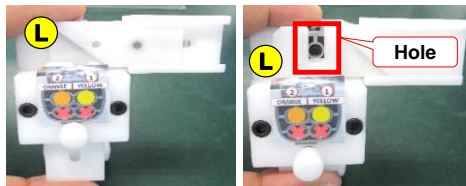

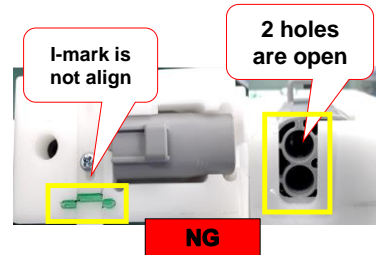
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Revision No.:

1

Page No.:

2 of 10

| | | | | | |
|--------|--|---|--|-----------|------------------------------------|
| PARTS: | | 1. Connector 6188-0066 (GR) | | JIG: | 1. Insertion jig with switch cover |
| NO. | PROCESS NAME | WORK PROCEDURE/ ILLUSTRATION | | TOOLS/PPE | QUALITY POINTERS |
| 2 | P1 Connector setting to insertion jig 6188-0066 (GR) | <div><div>Insertion jig with switch cover</div><div></div><div>Visual reference</div><div></div><div>1. Press the lock using left thumb.</div><div></div><div>2. Get the connector 6188-0066 (GR) using right hand and insert to insertion jig. Release the lock after insertion. Note: Follow the connector orientation.</div><div></div><div></div><div>3. Push the lower wire guide upward using left thumb. Slot for Y wire will be opened.</div><div>CONNECTOR ORIENTATION ILLUSTRATION</div><div></div><div></div></div> <div><div>n/a</div><div>1. Use the provided jig per model 2. No wrong orientation of connector 3. No wrong use of connector 4. No damaged connector</div></div> | | | |

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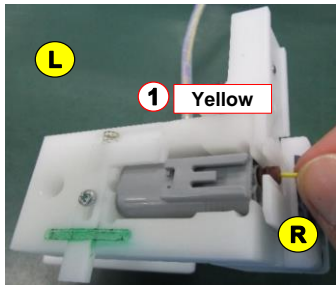
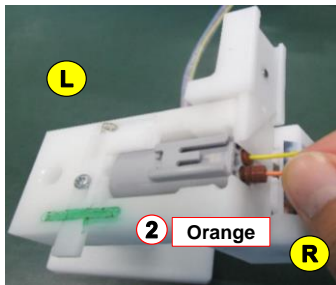
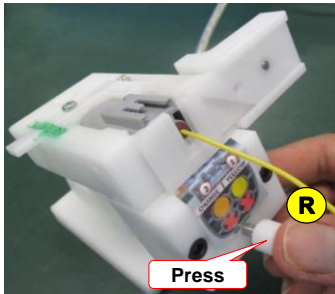
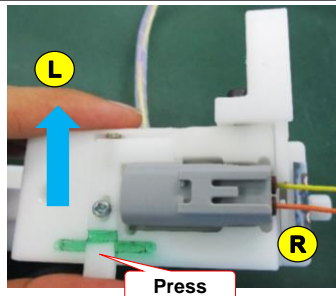
☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

1

Page No.:

3 of 10

| | | | | |
|--------|--|---|-----------|--|
| PARTS: | 1. AVSSf 0.3 wires Y L=364±2mm; OR L=364±2mm | | JIG: | 1. Insertion jig with switch cover |
| NO. | PROCESS NAME | WORK PROCEDURE/ ILLUSTRATION | TOOLS/PPE | QUALITY POINTERS |
| 3 | P1 | <div><div><div></div><div><div>1</div><div>Yellow</div></div></div><div><div></div><div><div>1. Hold the insertion jig using left hand. Get the Y wire then insert to terminal slot 1 using right hand.</div></div></div><div><div></div><div><div>3. Get the OR wire then insert to terminal slot 2 using right hand.</div></div></div></div> <div><div><div></div><div><div>2. Press the button using right thumb. The slot for OR wire will be opened.</div></div></div><div><div></div><div><div>4. After insertion, push the lock using left thumb and then hold the wires and gently pull out the connector from jig using right hand.</div></div></div></div> | n/a | <div><div>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deformed terminal 5. No wrong wire facing</div><div><div>Important reminders/Note/s:</div><div>1. Please hold the wire near terminal. 2. Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.</div></div><div><div>Document reference/s:</div><div>1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance 2. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</div></div></div> |

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☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

1

Page No.:

4 of 10

| | | | | | |
|---------------|---------------------|---|---|------------------|---|
| PARTS: | | 1. Assy parts | 3. Black corrugated tube (no slit) Ø5 L=285±3mm | JIG: | n/a |
| NO. | PROCESS NAME | WORK PROCEDURE/ ILLUSTRATION | | TOOLS/PPE | QUALITY POINTERS |
| 4 | P1 | Wire Insertion to Corrugated tube (no slit) Ø7 L=25±3mm |  <div>1. Hold the wires using left hand. Get the Corrugated tube (no slit) Ø7 L=25±3mm using right hand then insert the Yellow- Orange wires using left hand.</div> | n/a | 1. No wrong use of parts 2. No deformed terminal |
| 5 | | Wire insertion to Black corrugated tube (no slit) Ø5 L=285±3mm |  <div>1. Hold the wires using left hand. Get the Corrugated tube (no slit) Ø5 L=285±3mm using right hand then insert the Y-OR wires using left hand.</div> | n/a | 1. No wrong use of parts 2. No deformed terminal |

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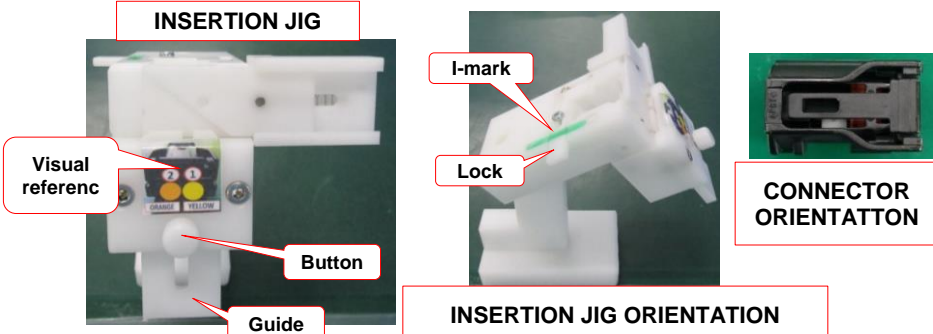
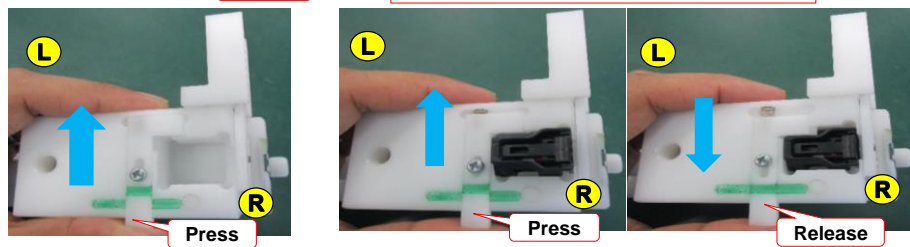
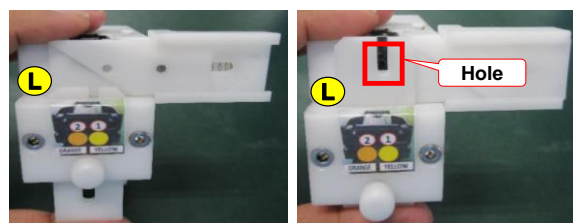
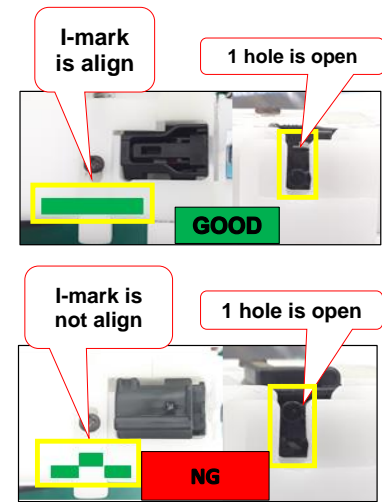
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Revision No.:

1

Page No.:

5 of 10

| PARTS: | | 1. Connector 6189-1161 (B) | | JIG: | 1. Insertion jig |
|--------|--------------|--|--|-----------|--|
| NO. | PROCESS NAME | WORK PROCEDURE/ ILLUSTRATION | | TOOLS/PPE | QUALITY POINTERS |
| 6 | P1 | <p>Connector setting to insertion jig 6189-1161 (B)</p>  <p>Visual reference</p> <p>I-mark</p> <p>Lock</p> <p>Button</p> <p>Guide</p> <p>CONNECTOR ORIENTATION</p> <p>INSERTION JIG ORIENTATION</p>  <p>L</p> <p>R</p> <p>Press</p> <p>Press</p> <p>Release</p> <p>1. Press the lock using left thumb.</p> <p>2. Get the connector 6189-1161 (B) using right hand and insert to insertion jig. Release the lock after insertion. Note: Follow the connector orientation.</p>  <p>L</p> <p>Hole</p> <p>3. Push the lower wire guide upward using left thumb. Slot for Y wire will be opened.</p> | | n/a | <p>CONNECTOR ORIENTATION ILLUSTRATION</p>  <p>I-mark is align</p> <p>1 hole is open</p> <p>GOOD</p> <p>I-mark is not align</p> <p>1 hole is open</p> <p>NG</p> <p>1. Use the provided jig per model 2. No wrong orientation of connector 3. No wrong use of connector 4. No damaged connector</p> |

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☐ PROTOTYPE

☐ PRE-LAUNCH


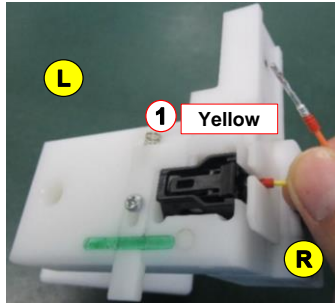
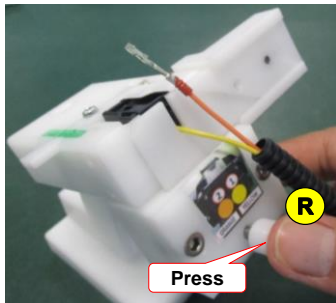
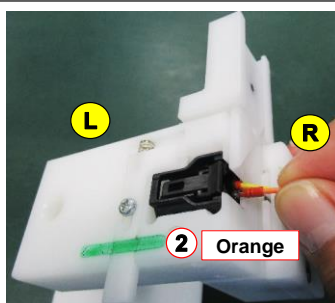
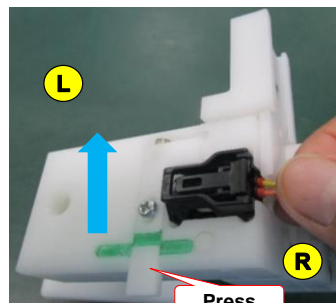
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Revision No.:

1

Page No.:

6 of 10

| | | | | |
|--------|---------------|--|-----------|--|
| PARTS: | 1. Assy parts | | JIG: | 1. Insertion jig |
| NO. | PROCESS NAME | WORK PROCEDURE/ ILLUSTRATION | TOOLS/PPE | QUALITY POINTERS |
| 7 | P1 | <div><div></div><div>TERMINAL FACING</div><div></div><div>1. Hold the insertion jig using left hand. Get the Y wire then insert to terminal slot 1 using right hand.</div><div></div><div>Press</div><div>2. Press the button using right thumb. The slot for Y wire will be opened.</div><div></div><div>2 Orange</div><div>3. Get the OR wire then insert to terminal slot 2 using right hand.</div><div></div><div>Press</div><div>4. After insertion, push the lock using left thumb and then hold the wires and gently pull out the connector from jig using right hand.</div></div> | n/a | <p>Important reminders /Note/s:</p> <p>1. Make sure wires are properly inserted. Conduct <u>Pull-Push-Pull-Push</u> after insertion. Do not exert extra force.</p> <p>Document reference/s:</p> <p>1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</p> <p>2. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</p> <p>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deformed terminal 5. No wrong wire facing</p> |

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☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

1

Page No.:

7 of 10

| | | | | |
|--------|---------------|------------------------------|-----------|---|
| PARTS: | 1. Assy parts | | JIG: | 1. Locking jig |
| NO. | PROCESS NAME | WORK PROCEDURE/ ILLUSTRATION | TOOLS/PPE | QUALITY POINTERS |
| 8 | P1 | Connector lock | n/a | <p>Important reminders /Note/s:</p> <p>1.Refer to GL-PRO-ASY-029 for Pull-Push procedure.</p> <p>2.Make sure wires are properly inserted.</p> <p>Conduct <u>Pull-Push-Pull-Push</u> after insertion.</p> <p>Do not exert extra force.</p> <p>1. No loose insertion</p> <p>2. No wrong insertion</p> <p>3. One by one insertion</p> <p>4. No deformed terminal</p> <p>5. No wrong wire facing</p> |

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☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

1

Page No.:

8 of 10

| PARTS: | 1. MRSW CP TVSSf 0.3 G-B/W wires L=655±3mm 2. Black Corrugated tube Ø7 L=532±5mm (no slit) | | JIG: | n/a |
|---------------|---|--|--|---|
| NO. | PROCESS NAME | WORK PROCEDURE/ ILLUSTRATION | TOOLS/PPE | QUALITY POINTERS |
| 9 | P1 Wire insertion to Black Corrugated tube (no slit) Ø7 L=532±5mm |  <div data-bbox="1043 469 1458 660">1. Get the MRSW CP TVSSf 0.3 G-B/W wires L=655±3mm using left hand, then get the terminal cover jig using right hand then insert to both terminals (G-B/W wires) using right hand.</div> | <div data-bbox="1514 767 1704 831">TERMINAL COVER JIG</div>  | 1. No wrong usage of parts 2. No damaged rubber seal |
| | |  <div data-bbox="1043 735 1458 900">2. Get the corrugated tube Ø7 L=532±5mm using right hand then insert the G-B/W wires using left hand.</div> | | |
| | |  <div data-bbox="1043 1038 1458 1225">3. After insertion, remove the cover jig using right hand.</div> | | |

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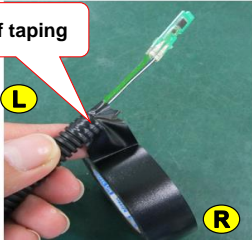
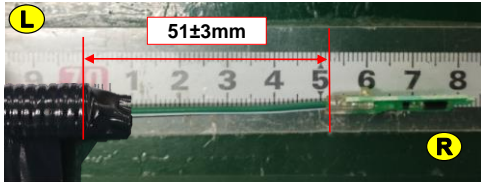
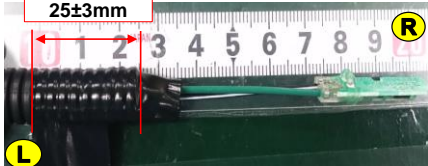
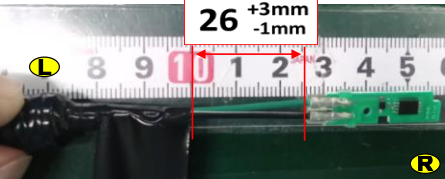
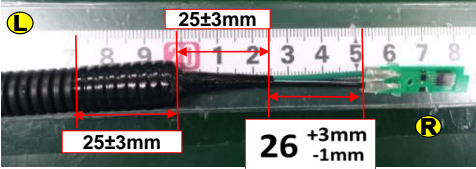
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Revision No.:

1

Page No.:

9 of 10

| PARTS: | | 1. Assy parts 2. Black tape | | JIG: | n/a |
|--------|--------------|---|--|-----------|--|
| NO. | PROCESS NAME | WORK PROCEDURE/ ILLUSTRATION | | TOOLS/PPE | QUALITY POINTERS |
| 10 | P1 | <div><div>Start of taping</div><div></div><div>1. Hold the assy parts using left hand, get Black tape then conduct pre-taping using both hands.</div><div></div><div>2. Measure from end of COT up to edge of hotmelted wires 51±3mm then continue the taping process using both hands</div><div></div><div>3. Confirm measurement of 25±3mm from end of tape up to end of COT then continue the taping process using both hands.</div><div></div><div>4. Confirm measurement of 26+3/-1mm from end of tape up to edge of PCB then continue the taping process using both hands.</div><div></div><div>5. After taping, check the measurement and taping condition.</div></div> | | n/a | <p>Important reminders and Note/s: 1. Please use calibrated/verified measuring tape when getting the measurement.</p> <p>Document reference/s: 1. Refer to WI-PRO-ASY-001 for taping procedure.</p> <p>1. No flip-out tape 2. No peel-off tape 3. No loose tape 4. No missing tape 5. No wrong dimension 6. No wrong use of tape</p> |

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Page No.:

10 of 10

PARTS:

1. Assy parts

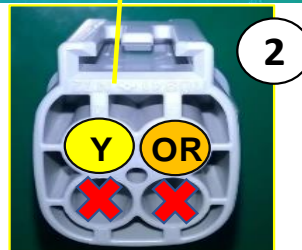
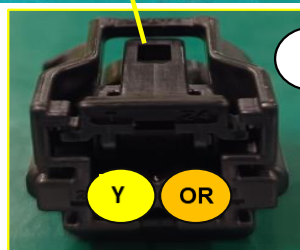
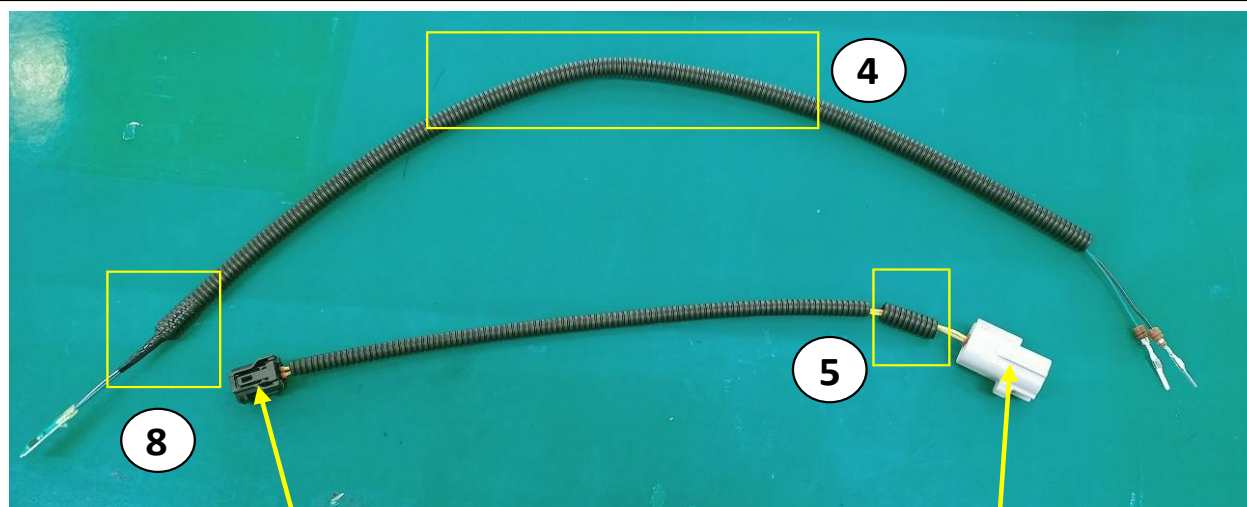
JIG:

n/a

VISUAL INSPECTION/ QUALITY CHECKPOINTS

TAPING - P1

7N0128-7021C



- 1 No Unlocked /Half-locked Connector
- 2 No Wrong Insert
- 3 No Missing COT
- 4 No Deformed Terminal
- 5 No Terminal Backing out
- 6 No Missing tape
- 7
- 8

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DCC Stamp