



WORK INSTRUCTION

TAPING ASSEMBLY PROCESS

Effectivity Date:

April 23, 2025

Process Name/Title:

Model code/Part number:

559D / 7N0238-7020C

Customer: TRJ

Car Model: TOYOTA HI-ACE

Validity Date:

n/a

Document No.:

WI-ENG-PDE-1253B

Purpose:

☐ PROTOTYPE☒ PRE-LAUNCH☐ MASSPRO

Revision No.:

0

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PARTS:

1. Assy Parts; Clamp 82712-1E360 (W).

JIG:

1. Insertion jig
2. Tesa tape cutter
3. Locking jig
4. Tape holder

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

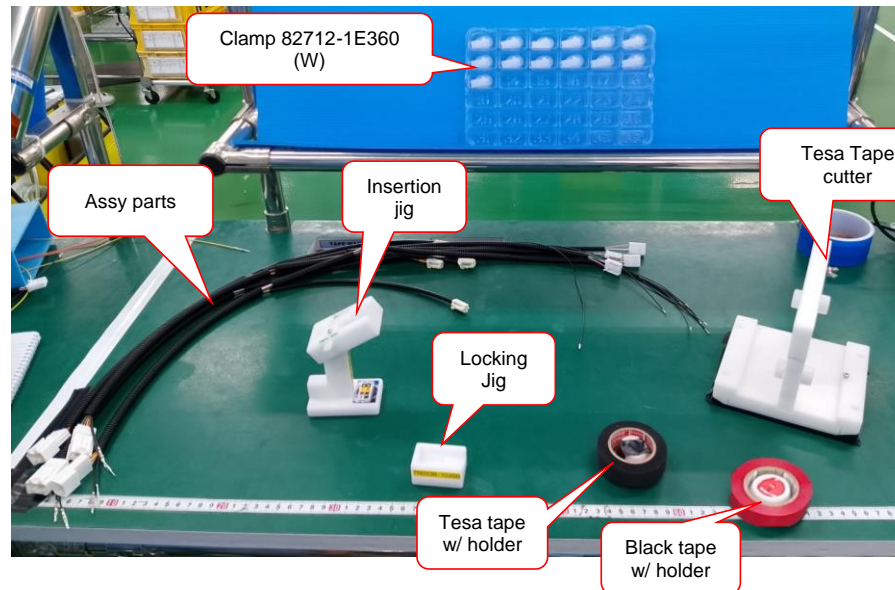
QUALITY POINTERS

1

P2

Table Lay-out

TABLE LAY-OUT

**Safety Instruction**

Be sure to wear prescribed personal protective equipment during operation (gloves, finger cots, etc.)

Housekeeping

1. Maintain and always practice 5's.
2. Personal things on the workplace is prohibited. Keep it in your locker.

Alert level

For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.

1. No missing parts/tools
2. No excess parts/tools

Revision History

Prepared by

Checked by

Reviewed by

Approved by

04/23/25 0 Initial issue.

A.Hernandez

J.Loterte

C.Villanueva

A.Arañes

A.Hernandez

J.Loterte

C.Villanueva

A.Arañes

Eff. Date

Rev. No

Details of Change

Revised

Checked

Reviewed

Approved

Est. Date:

April 23, 2025

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PARTS:		1. Assy Parts		JIG:	1. Insertion Jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
2	P2 Connector setting to insertion jig 7286-4097 (W)	<div><div></div><div></div><div></div><div></div></div>		n/a	<div><div></div><div><p>1. Use provided jig per model</p><p>2. No wrong usage of parts</p><p>3. No wrong orientation of connector</p><p>4. No damaged connector</p></div></div>

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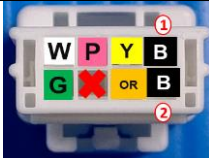



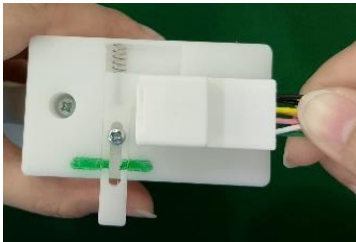
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PARTS:	1. Assy Parts		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
3	P2 Assy parts insertion to connector 7286-4097 (W)	<div><p>Visual reference</p></div> <div><p>Terminal facing</p></div> <div><p>1. Get the first Black wire and insert to slot 1. Conduct 2x push-pull after wire insertion.</p><p>2. Get the second Black wire and insert to slot 2. Conduct 2x push-pull after wire insertion.</p><div><p>3. After insertion, push the lock using left thumb and then hold the wires and gently pull-out the connector from jig using right hand.</p></div></div> <td>n/a</td> <td><p>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deform terminal 5. No wrong wire facing</p><p>Important reminders/Note/s: 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.</p><p>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</p></td>	n/a	<p>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deform terminal 5. No wrong wire facing</p> <p>Important reminders/Note/s: 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.</p> <p>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</p>

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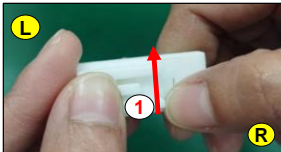


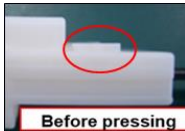



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PARTS:	1. Assy parts		JIG:	1. Locking Jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
4	P2 Connector lock	<div><div><p>1. Load the connector into the jig holding both side of the connector, tip first.</p></div><div><p>2. Press the lower part of connector to fully insert into the locking jig.</p></div><div><p>Right thumb-Lower Left thumb-middle</p><p>3. Press the lower parts of connector using right hand while left hand holding the middle.</p></div><div><p>Right thumb-upper thumb-middle Left</p><p>4. Press the upper part of connector using right hand while left hand holding the middle.</p></div><div><p>Right thumb-middle Left thumb-middle</p><p>5. Lift then press the connector in the middle using left and right hand.</p></div><div><p>6. Ensure that connector is in locked condition by slide touching the connector lock based on the sequence illustrated.</p></div><div></div></div> <div><div>LOCKING JIG</div></div> <div><div><p>Before pressing</p><p>After pressing</p></div><div><div><p>GOOD Full Lock</p><p>NG Half Lock</p></div></div></div>	<div>1. Use the provided jig per model</div> <div>2. No unlocked/half-locked connector</div> <div>Important reminders/Note/s:</div> <div>1. MANUAL LOCKING MAY CAUSE DAMAGED CONNECTOR LOCK</div> <div>2. Use provided jig tool per model to avoid damaged lock.</div> <div>Document references:</div> <div>1. Refer to GL-PRO-ASY-017 for the verification of connector lock.</div>	

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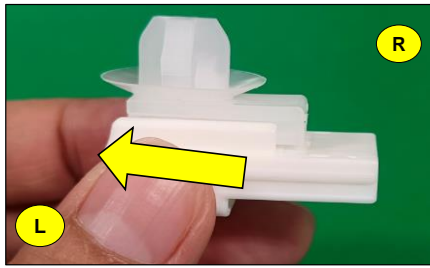
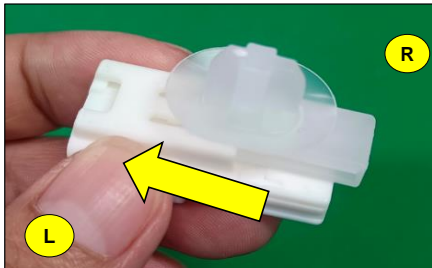
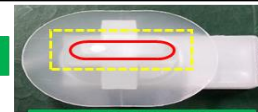

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PARTS:		1. Assy parts 2. Clamp 82711-1E360 (W)		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
5	P2	<div><p>CLAMP ORIENTATION</p><div></div><p>1. Hold the Connector using left hand, get the clip type clamp 82711-1E360 (W) then insert the clamp using right hand. Note: Sound will be heard if properly inserted.</p></div>		n/a	<div><p>CLIP CLAMP ILLUSTRATION</p><div><p>GOOD</p><p>82711-1E360 (W)</p></div><div><p>NG</p><p>82711-12B10 (W)</p></div></div> <p>1. No wrong used of clamp 2. No damaged clamp 3. No missing clamp</p>

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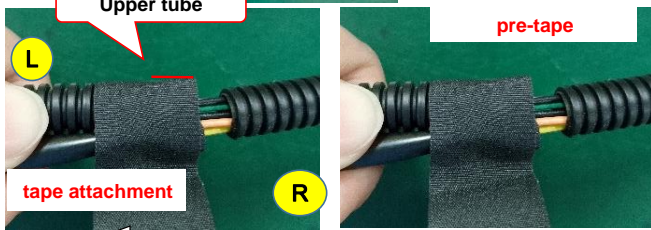
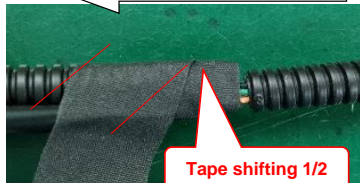
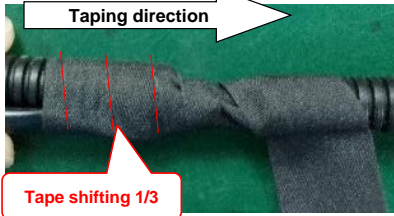
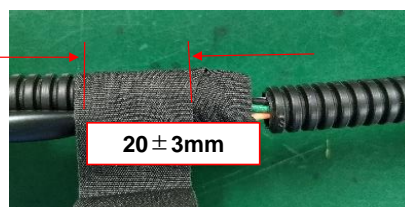
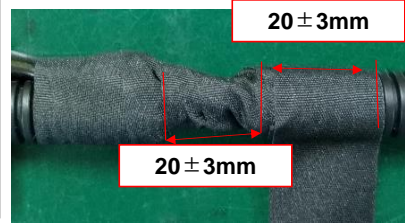
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PARTS:		1. Assy Parts 2. Black Tesa Tape		JIG:	1. Tesa Tape Cutter
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
6	P2 Taping 1 Y-Taping	<div><p>1. Fix the 3 corrugated tube. Note: Follow the correct facing. (If need to standard)</p></div> <div><p>2. Start taping at the middle of combined tubes, attach the tape on the upper tube. Then make pre-tape 2 windings. Note: Do not exert excessive force during pulling & winding of tape.</p></div> <div><p>3. Winding the tape 1/2 shifting going to the left side.</p></div> <div><p>5. Winding the tape 1/3 shifting going to the right side until reach the other side of tube.</p></div> <div><p>4. Make 2 windings, width must be - 20±2mm.</p></div> <div><p>6. Make 2 windings, width must be 20±3mm.</p></div>			<p>Document reference/s: 1. Refer to WI-PRO-ASY-001C for taping procedure (special).</p> <p>Important reminders/Note/s: 1. Use yellow tape for easy visualization of tape shifting, but actual should be BLACK TAPE. 2. Please use calibrated/verified measuring tape when getting the measurement.</p> <ul style="list-style-type: none">1. No loose tape2. No flip-out tape3. No peel-off tape4. No wrong use of tape5. No wrong dimension-out tape6. No exposed wire7. No gap between tubes

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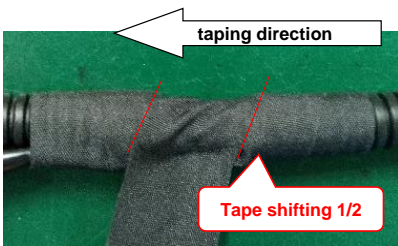

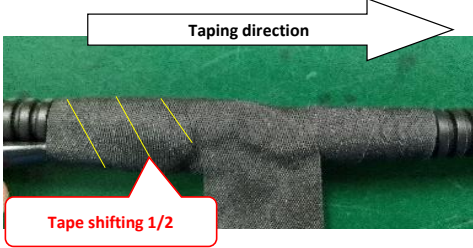
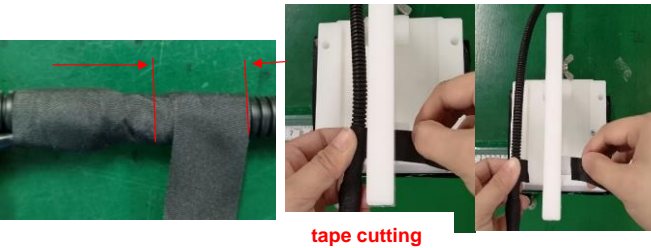



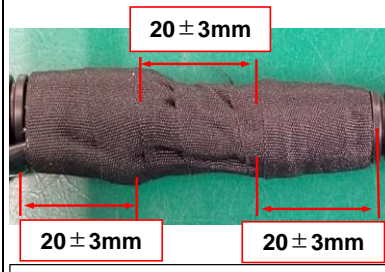
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PARTS:		1. Assy Parts 2. Black Tesa Tape		JIG:	1. Tesa Tape Cutter
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
6	P2 Taping 1 Y-Taping (continuation)	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div> <div><div>8. Make 2 windings, width must be - 20±3mm.</div><div>9. Winding the tape 1/2 shifting going to the right side until it reach the other side of tube</div><div>10. Make 3 winds, width must be 20±3mm. Then cut the tape.</div><div>11. conduct proper pressing of end tape using left hand (top part). Note: Reference only.</div><div>12. conduct proper pressing of end tape using left hand (Middle part). Note: Reference only.</div><div>13. conduct proper pressing of end tape using left hand (bottom part).</div><div>14. Check the Measurement and condition of tape.</div></div> <div><div>Document reference/s: 1. Refer to WI-PRO-ASY-001C for taping procedure (special).</div><div>Important reminders/Note/s: 1. Use yellow tape for easy visualization of tape shifting, but actual should be BLACK TAPE. 2. Please use calibrated/verified measuring tape when getting the measurement.</div><div>1. No loose tape 2. No flip-out tape 3. No peel-off tape 4. No wrong use of tape 5. No wrong dimension-out tape 6. No exposed wire 7. No gap between tubes</div></div>			

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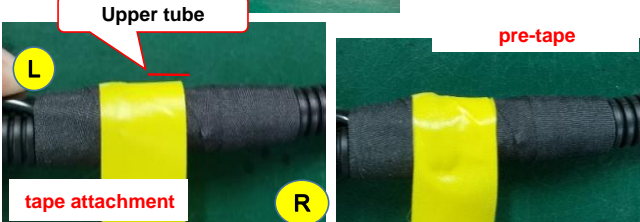
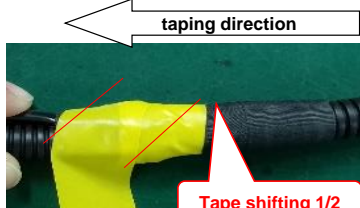
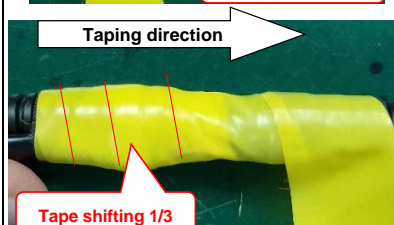
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PARTS:		1. Assy Parts 2. Black Tape		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
7	P2 Taping 2 Y-Taping	<div><p>1. Fix the 3 corrugated tube. Note: Follow the correct facing. (If need to standard)</p></div> <div><p>2. Start taping at the middle of combined tubes, attach the tape on the upper tube. Then make pre-tape 2 windings. Note: Do not exert excessive force during pulling & winding of tape.</p></div> <div><p>3. Winding the tape 1/2 shifting going to the left side.</p></div> <div><p>4. Make 2 windings, width must be - 20±2mm.</p><p>5. Winding the tape 1/3 shifting going to the right side until reach the other side of tube.</p><p>6. Make 2 windings, width must be 20±3mm.</p></div> <td></td> <td><p>Document reference/s: 1. Refer to WI-PRO-ASY-001C for taping procedure (special).</p><p>Important reminders/Note/s: 1. Use <u>yellow tape</u> for easy visualization of tape shifting, but actual should be BLACK TAPE. 2. Please use calibrated/verified measuring tape when getting the measurement.</p><ul style="list-style-type: none">1. No loose tape2. No flip-out tape3. No peel-off tape4. No wrong use of tape5. No wrong dimension-out tape6. No exposed wire7. No gap between tubes</td>			<p>Document reference/s: 1. Refer to WI-PRO-ASY-001C for taping procedure (special).</p> <p>Important reminders/Note/s: 1. Use <u>yellow tape</u> for easy visualization of tape shifting, but actual should be BLACK TAPE. 2. Please use calibrated/verified measuring tape when getting the measurement.</p> <ul style="list-style-type: none">1. No loose tape2. No flip-out tape3. No peel-off tape4. No wrong use of tape5. No wrong dimension-out tape6. No exposed wire7. No gap between tubes

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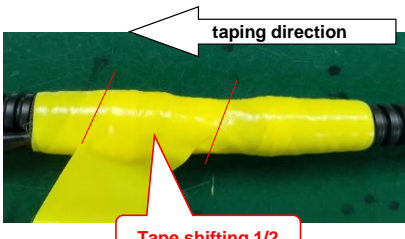
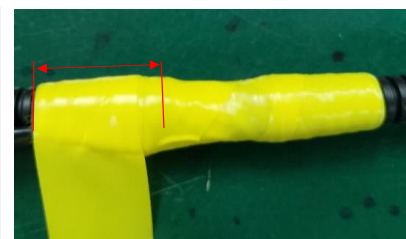
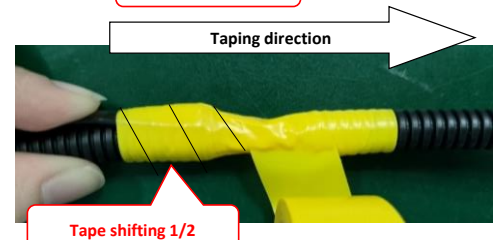
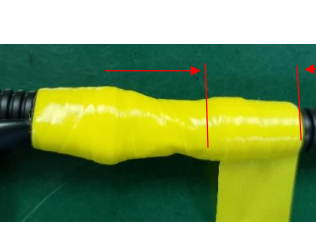
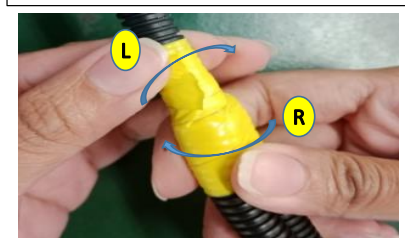

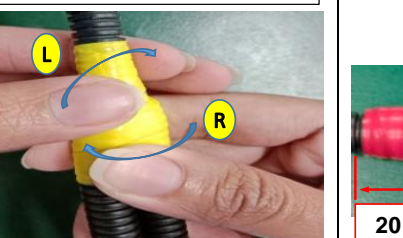
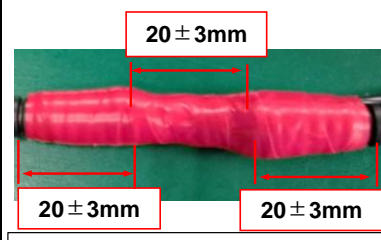
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PARTS:		1. Assy Parts 2. Red Tape		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
7	P2 Taping 2 Y-Taping (continuation)	<div><div><p>7. Winding the tape 1/2 shifting going to the left side.</p></div><div><p>8. Make 2 windings, width must be - 20±3mm.</p></div><div><p>9. Winding the tape 1/2 shifting going to the right side until it reach the other side of tube</p></div><div><p>10. Make 3 winds, width must be 20±3mm. Then cut the tape.</p></div><div><p>11. conduct proper pressing of end tape using left hand (top part). Note: Reference only.</p></div><div><p>12. conduct proper pressing of end tape using left hand (Middle part). Note: Reference only.</p></div><div><p>13. conduct proper pressing of end tape using left hand (bottom part).</p></div></div> <div><p>14. Check the Measurement and condition of tape.</p></div>			<p>Document reference/s: 1. Refer to WI-PRO-ASY-001C for taping procedure (special).</p> <p>Important reminders/Note/s: 1. Use yellow tape for easy visualization of tape shifting, but actual should be RED TAPE. 2. Please use calibrated/verified measuring tape when getting the measurement.</p> <ul style="list-style-type: none">1. No loose tape2. No flip-out tape3. No peel-off tape4. No wrong use of tape5. No wrong dimension-out tape6. No exposed wire7. No gap between tubes

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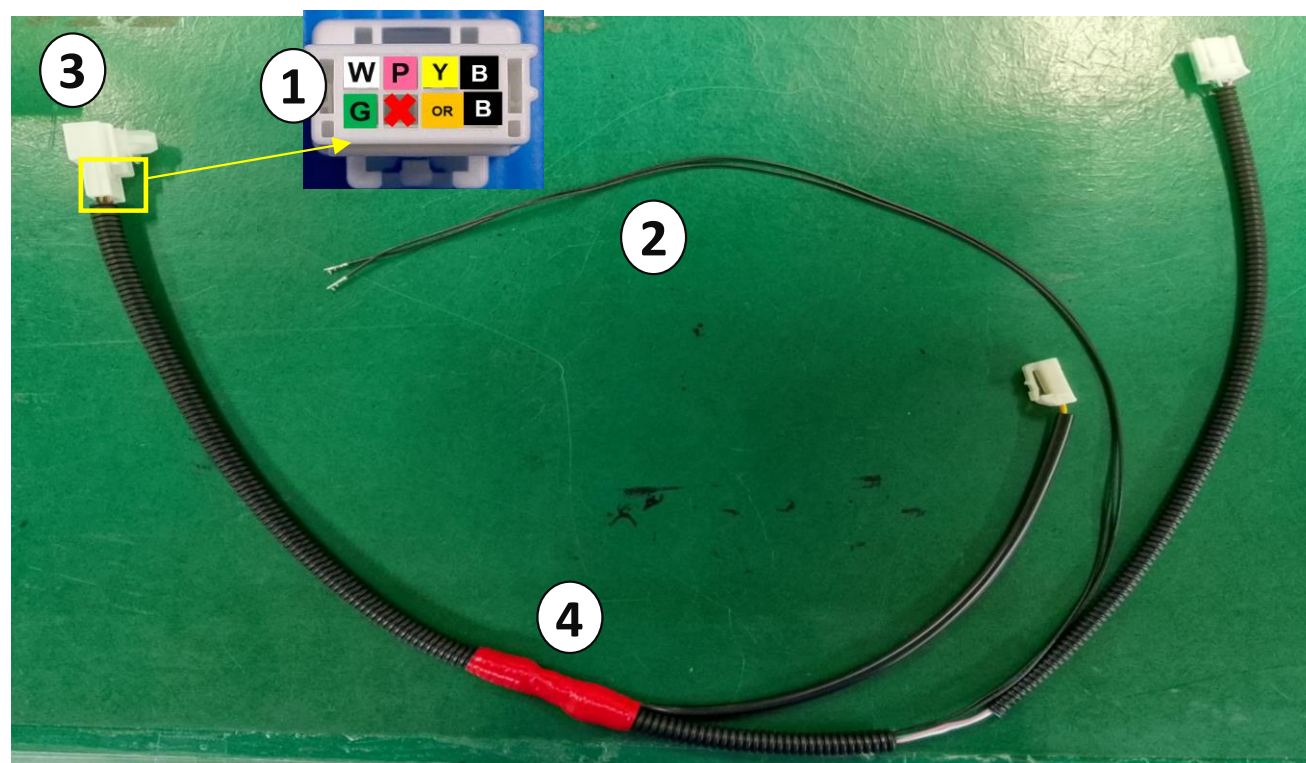
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PARTS:

1. Assy parts

JIG:

n/a

VISUAL INSPECTION/ QUALITY CHECKPOINTS**TAPING - P2****7N0238-7020C**

- ① No Unlocked/
Half-locked connector
- ② No Wrong Insert
- ③ No Missing Clip Clamp
- ④ No Missing Tesa Taping
- ⑤ No Wrong Facing of Y-
Taping
- ⑥ No Deformed terminal
- ⑦ No Terminal backing
out

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