



WORK INSTRUCTION

Process Name/Title:

TAPING ASSEMBLY PROCESS

Model code/Part number:

TP1

/ 7L0146-7020A

Customer: TRQSS

Car Model: SUBARU-ASCENT

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Effectivity Date:

October 9, 2023

Validity Date:

n/a

Document No.:

WI-ENG-PDE-726B

Revision No.:

1

Page No.:

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PARTS:

1. Assy parts; Black tape; Gray tape; Black Corrugated tube (no slit) Ø5 L=98±3mm; Gray Urethane foam t=4; 75mm X 30mm

JIG:

1. Continuity checker jig

NO.

PROCESS NAME



WORK PROCEDURE/ ILLUSTRATION

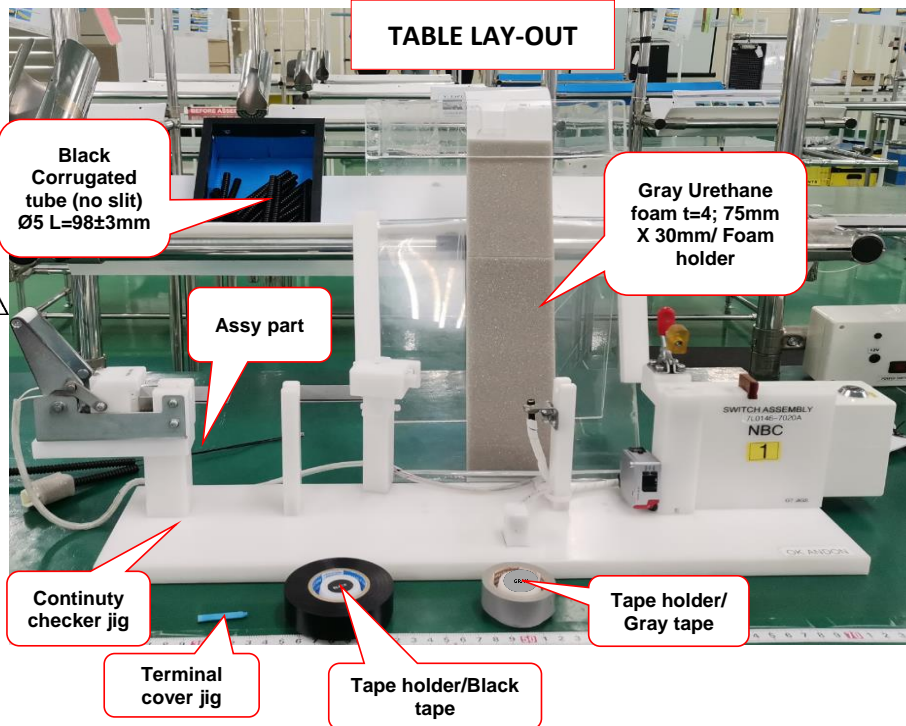
TOOLS/PPE

QUALITY POINTERS

1

P2

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 work place 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 deformed terminal
2. No wrong usage of parts

Revision History

Prepared by

Reviewed by

Approved by

Noted by

10/09/23

1

Change purpose from Pre-launch to Masspro. Additional table lay-out; Update Quality checkpoints; Inclusion of Continuity checking process.

M. Ariola

J. Loterte

C. Villanueva

A. Arañas

09/20/23

0

Initial issue.

M. Mañalac

J. Loterte

C. Villanueva

A. Arañas

Eff. Date

Rev. No

Details of Change

Revised

Reviewed

Approved

Noted

Est. Date:

September 20, 2023

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PARTS:		1. Assy parts 2. Black Corrugated tube (no slit) Ø5 L=98±3mm		JIG:	1. Terminal cover jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
2	P2	<div><div></div><div><div>1. Hold the wires using left hand, get the terminal cover jig using right hand then insert the B and B wires using left hand.</div></div></div> <div><div></div><div><div>2. Get the corrugated tube (no slit) Ø5 L=98±3mm using right hand then insert the B and B wires using left hand.</div></div></div> <div><div></div><div><div>3. After insertion, remove the terminal cover jig using right hand.</div></div></div>		<div><div>TERMINAL COVER JIG</div></div>	<div>1. No flip-out tape 2. No peel-off tape 3. No loose tape 4. No missing tape 5. No wrong use of tape 6. No wrong dimension</div>

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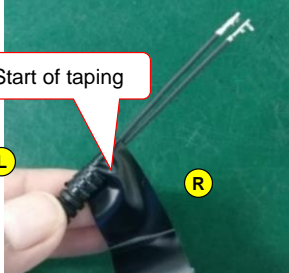
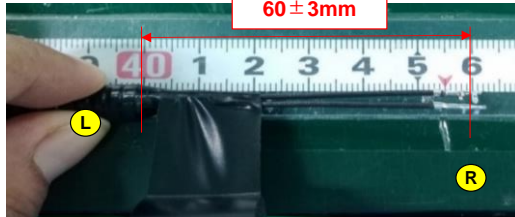

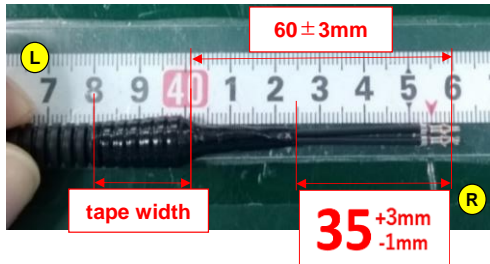

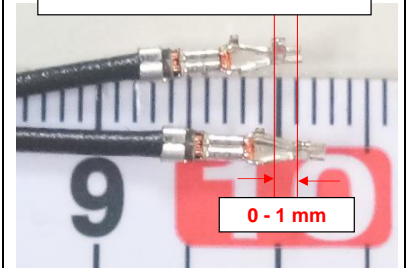
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PARTS:		1. Assy parts 2. Black tape		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
3	P2 Taping 2 Black corrugated tube to wire near terminal	<div><p>Start of taping</p><p>1. Hold the COT using left hand, get the Black tape using right hand then start pre-taping using both hands.</p></div> <div><p>60 ± 3mm</p><p>2. Measure from end of COT up to terminal pointed tip 60±3mm then continue the taping process using both hands.</p></div> <div><p>35 +3mm -1mm</p><p>3. Confirm measurement of 35+3/-1mm from end of tape up to terminal pointed tip then continue the taping process using both hands.</p></div> <div><p>60 ± 3mm</p><p>tape width</p><p>35 +3mm -1mm</p><p>4. After taping, check the measurement, taping condition and terminal appearance.</p></div>			 <p>Wire alignment tolerance</p> <p>0 - 1 mm</p> <p>1. No flip-out tape 2. No peel-off tape 3. No loose tape 4. No missing tape 5. No wrong use of tape 6. No wrong dimension</p> <p>Important reminders/Note/s:</p> <p>1. Please use calibrated/verified measuring tape when getting the measurement.</p>

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☐ PRE-LAUNCH

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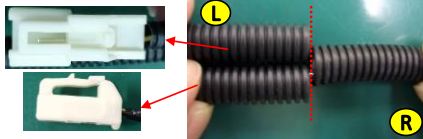


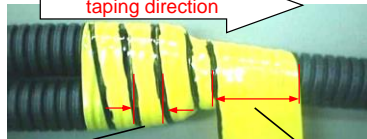
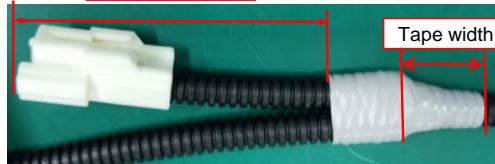

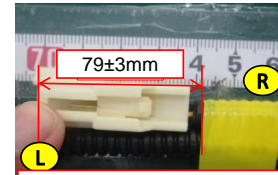

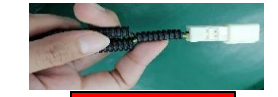
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PARTS:		1. Gray tape 2. Assy parts		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
4	P2	Y-taping			
		<div>No gap between Corrugated tubes</div> <div></div> <div>1. Fix the corrugated tube.</div> <div>Note: Do not exert excessive force during pulling & winding of tape</div> <div></div> <div></div> <div>tape width</div> <div>2. Start taping at the middle of combined Corrugated tubes, then wind the tape to left side , measurement from end of connector up to end of tape must be 79mm.</div> <div>taping direction</div> <div></div> <div>shifting 1/3 below</div> <div>Tape width</div> <div>3. Wind the tape 1/3 shifting until it reach the other side of corrugated tube (must be tape width)</div> <div>79±3mm</div> <div></div> <div>Tape width</div> <div>4. Wind the tape backward 1/2 shifting.</div> <div>5. Wind the tape 1/2 shifting going to other side of corrugated tube then cut the tape. After taping, check the condition of tape.</div>		<div>MEASURING TAPE</div> <div></div>	<div></div> <div>Good Measurement</div> <div></div> <div>GOOD FACING</div> <div></div> <div>NG FACING</div> <div>Important reminders/Note/s:</div> <div>1. Used Yellow tape for easy visualization of shifting lines , but actual should be GRAY TAPE.</div> <div>2. Please use calibrated/verified measuring tape when getting the measurement.</div> <div>1.No flip out tape</div> <div>2.No tape peeling</div> <div>3. No loose tape</div> <div>4. No wrong use of tape</div> <div>5. No gap between Corrugated tubes</div> <div>6. No exposed wire</div>

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☐ PRE-LAUNCH







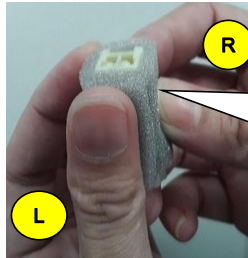
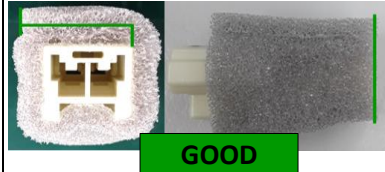

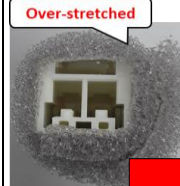
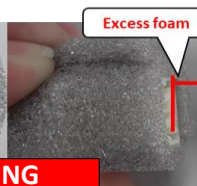

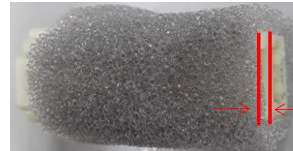
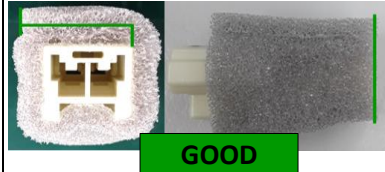

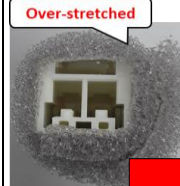
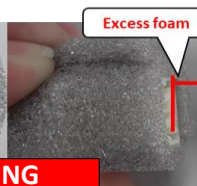

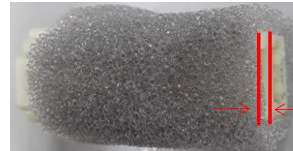
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PARTS:		1. Gray Urethane foam t=4; 75mm X 30mm 2. Assy parts		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
5	P2 Urethane foam manual attachment to connector	<div><div>Step 1: Identify the right facing to attached the foam</div><div></div><div>Step 2: Get the Urethane foam and begin the attachment. <i>Note: Foam and connector must be align</i></div><div></div><div>Step 3: Attached the foam in all sides of the connector. <i>Note: Follow the attachment sequence based on the illustration</i></div><div></div><div></div><div></div><div></div><div></div><div>Step 4: Press the Urethane foam side by side after attachment.</div></div> <td>N/A</td> <td><div><div>DO NOT STRETCH THE URETHANE FOAM</div><div></div><div></div><div></div><div></div><div></div><div></div><div>0~3mm tolerance from Urethane foam to Connector</div><div>1. No damaged Urethane foam 2. No missing Urethane foam 3. No stretched Urethane foam</div></div></td>		N/A	<div><div>DO NOT STRETCH THE URETHANE FOAM</div><div></div><div></div><div></div><div></div><div></div><div></div><div>0~3mm tolerance from Urethane foam to Connector</div><div>1. No damaged Urethane foam 2. No missing Urethane foam 3. No stretched Urethane foam</div></div>

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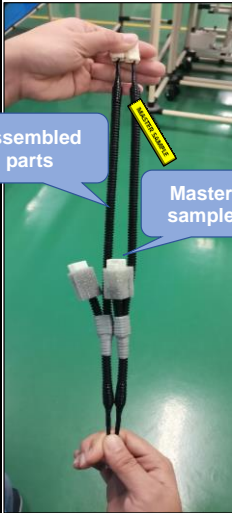
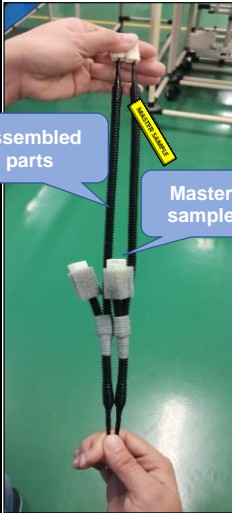
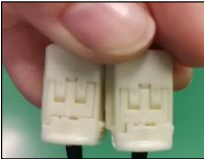






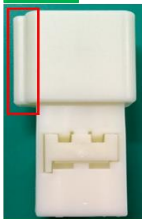
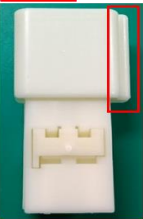

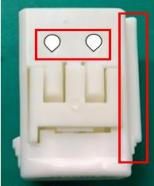
☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

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PARTS:		1. Assembled parts 2. Master sample		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
6	P2	Visual/By Two's Inspection		1. No skip checking during inspection.	
		<div><div><p>Assembled parts</p></div><div><p>Master sample</p></div><div><p>1. Conduct alignment of harness (Master sample vs. Assembled part) using right hands.</p></div><div><p>2. Check the connector lock condition, insertion and terminal.</p></div><div><p>3. Check the taping condition of COT to wire near connector</p></div><div><p>4. Check the presence of attached urethane foam.</p></div><div><p>5. Check the Y-taping condition. Color of tape must be <u>GRAY</u> only.</p></div><div><p>6. Check the taping condition from COT to wire near terminal</p></div><div><p>7. Check the terminal appearance. Must be <u>no deformed terminal.</u></p></div></div> <div><div><p>ACTUAL PRODUCTS</p></div><div><p>CONNECTOR ILLUSTRATION</p><div><div><p>GOOD</p><p>7282-1028 (W)</p></div><div><p>NG</p><p>7282-1020 (W)</p></div></div><p>CONNECTOR ILLUSTRATION</p><div><div><p>GOOD</p><p>7283-1020 (W)</p></div><div><p>NG</p><p>6520-0550 (W)</p></div></div></div></div>			

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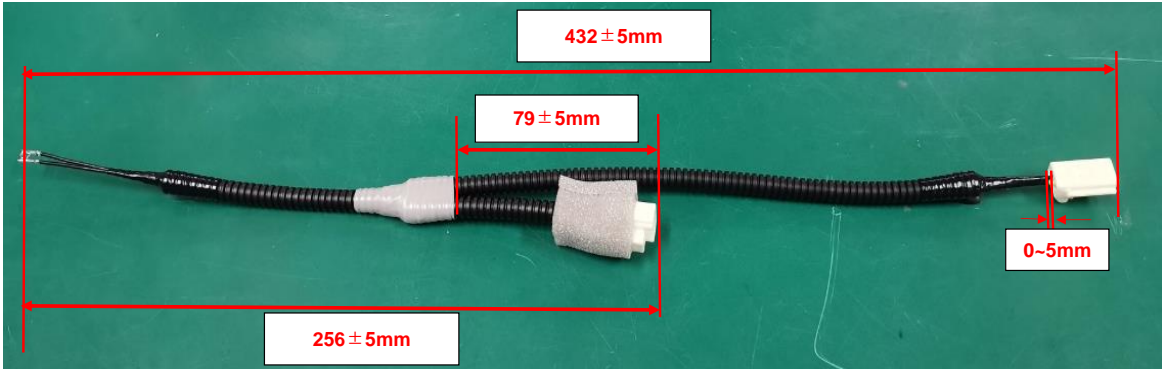
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PARTS:	n/a			JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
7	Measurement				1. No wrong dimension Important reminders/Note/s: 1. Please use calibrated/verified measuring tape when getting the measurement 2. For Hatsumono and Owarimono only
	P2				

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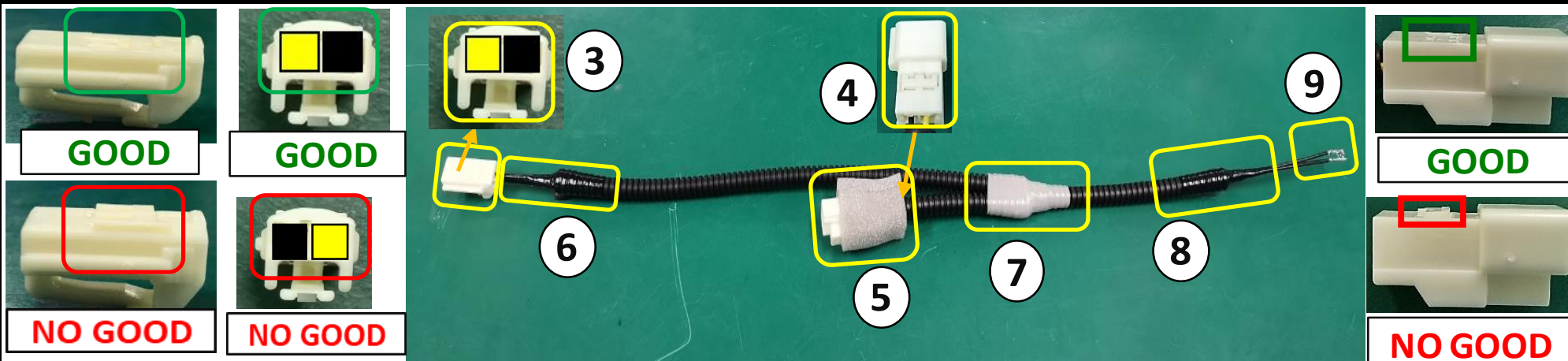
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PARTS:

n/a

JIG:

n/a

**QUALITY CHECKPOINTS****P2****7L0146-7020A**

① No **Unlock/Halflock Connector**
(on 2 connector)

② No **Terminal Backing out**

③ ④ No **Wrong Insert** (on 2 connector)

⑤ No **Missing sponge tape**

⑥ ⑦ ⑧ No **Missing Tape/ no wrong color of tape**

⑨ No **Deformed Terminal**

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