



WORK INSTRUCTION

Process Name/Title: TAPING ASSEMBLY PROCESS

Effectivity Date:

September 27, 2023

Model code/Part number: TM3 / 7L0114-7021A Customer: TRQSS Car Model: SUBARU-ASCENT

Validity Date:

n/a

Purpose: ☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Document No.:

WI-ENG-PDE-710A

Revision No.:

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PARTS:		1. Assy parts 2. Connector 7282-1028 (W) 3.AVSSf 0.3 Y wire L=341±2mm		4.AVSSf 0.3 B wire L=425±2mm 5.Black corrugated tube Ø5 L=38±3mm (no slit); 6.Pink tape		JIG:	1. Insertion jig
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
	P1	Table Lay-out	<div>Table Lay-out</div> <div>1</div> <div>Black Corrugated tube Ø5, L=38±3mm (no slit)</div> <div>Connector 7282-1028 (W)/ Connector Tray</div> <div>Wire AVSSf 0.3 B L=425±2mm</div> <div>Wire AVSSf 0.3 Y L=341±2mm</div> <div>Insertion jig B</div> <div>Insertion jig C</div> <div>Assy parts</div> <div>Tape holder/ Pink tape</div> <div>Pushing jig</div> <div>Terminal cover jig</div>			<div>Safety Instruction</div> <div>Be sure to wear prescribed personal protective equipment during operation (gloves, finger cots, etc.)</div> <div>Housekeeping</div> <div>1. Maintain and always practice 5's. 2. Personal things on the workplace is prohibited. Keep it in your locker.</div> <div>Alert level</div> <div>For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.</div>	<div>1. No deformed terminal 2. No wrong usage of parts</div> <div>Document references</div> <div>1. Refer to WI-ENG-PDE-709 for Offline assembly process 2. Refer to WI-PRO-CNC-017 for Wire and strip length tolerance</div> <div>CONNECTOR ILLUSTRATION</div> <div><div>GOOD</div><div>7283-1030 (W)</div><div>NG</div><div>7283-1138 (W)</div></div> <div>CONNECTOR ILLUSTRATION</div> <div><div>GOOD</div><div>7282-1028 (W)</div><div>NG</div><div>7282-1020 (W)</div></div>

Revision History

Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Prepared by	Reviewed by	Approved by	Noted by
09/27/23	1	Change pre-launch to mass pro. Inclusion of table lay-out	A. Hernandez	J. Loterte	C. Villanueva	A. Arañes	A. Hernandez	J. Loterte	C. Villanueva	A. Arañes
07/28/23	0	Initial issue.	D. Castillo	J. Loterte	C. Villanueva	A. Arañes	A. Hernandez	J. Loterte	C. Villanueva	A. Arañes

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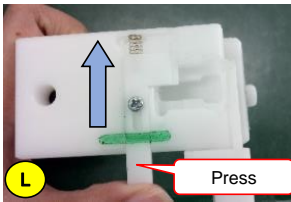
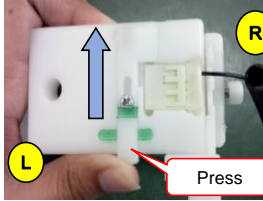
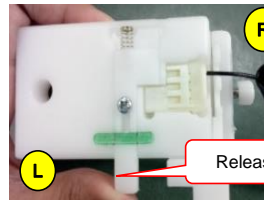
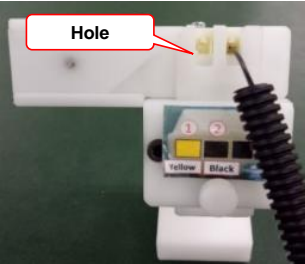
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PARTS:	1. Assy parts		JIG:	1. Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
2	P1 Connector Setting to insertion jig 7283-1030 (W) (Assy parts)	<div><div>Insertion jig</div><div>Insertion jig orientation</div><div>Connector Orientation</div><div>Visual reference</div><div>Slider</div><div>I-mark</div><div>Connector lock</div><div><div>Press</div></div><div><div>Press</div></div><div><div>Release</div></div><div><div>Hole</div></div><div>1. Push the lower wire guide using right hand.</div><div>2. Press the lock of insertion jig using left thumb.</div><div>3. Insert the connector 7283-1030 (W) into jig using right hand and release the lock. Note: Follow the connector orientation.</div><div>4. Check the hole/terminal slot for Yellow wire.</div></div> <div>n/a</div> <td><div><div>Connector Orientation Illustration</div><div>I-mark is align</div><div>1 hole were only open</div><div>GOOD</div><div>I-mark is NOT align</div><div>1 hole were open</div><div>NG</div><div>CONNECTOR ILLUSTRATION</div><div>GOOD</div><div>NG</div><div>7283-1030 (W)</div><div>7283-1138 (W)</div><div>1. Use 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></td>	<div><div>Connector Orientation Illustration</div><div>I-mark is align</div><div>1 hole were only open</div><div>GOOD</div><div>I-mark is NOT align</div><div>1 hole were open</div><div>NG</div><div>CONNECTOR ILLUSTRATION</div><div>GOOD</div><div>NG</div><div>7283-1030 (W)</div><div>7283-1138 (W)</div><div>1. Use 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>	

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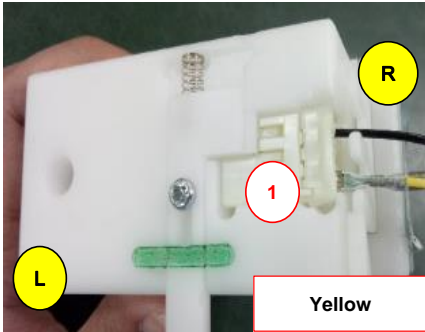
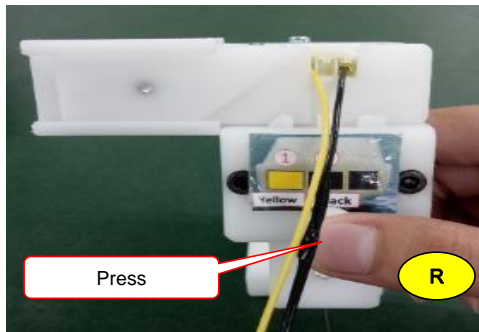
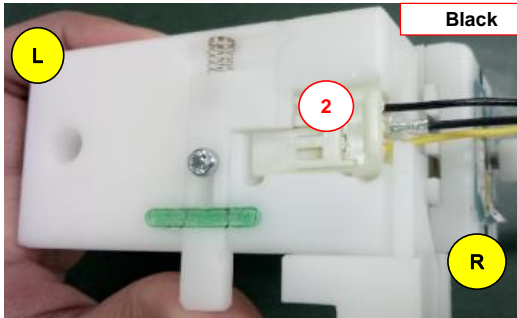


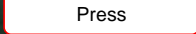
☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

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PARTS:	1. Wires AVSSf 0.3 B L=425±2mm 2. Wires AVSSf 0.3 Y L=341±2mm		3. Assy parts	JIG:	1. Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
3	P1 Wire insertion to connector 7283-1030(W) (Assy parts)	<div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div><p>1. Get the Yellow wire using right hand then insert to terminal slot 1 using right hand.</p><p>2. Press the button using right hand, the slot for Black wire will be opened.</p><p>3. Get the Black wire using right hand then insert to terminal slot 2 using right hand.</p></div>		n/a	<p>Important reminders/Note/s:</p> <p>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</p> <p>Document references:</p> <p>1. 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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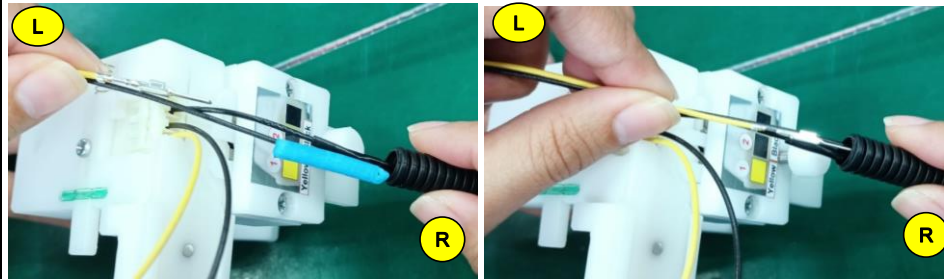
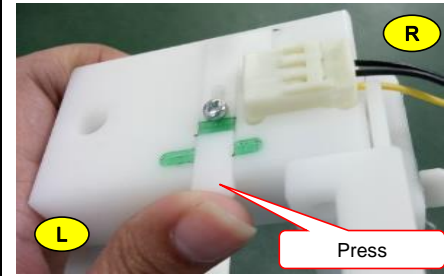

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PARTS:		1. Assy parts		JIG:	1. Terminal cover jig 2. Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
4	P1	<p>Wire insertion to corrugated tube Ø7, L=245±3mm (no slit) (Assy parts)</p>  <p>1. Hold the wires using left hand, get the terminal cover jig using right hand then insert the B wire using left hand.</p>  <p>2. Hold the corrugated tube (no slit) Ø5 L=245±3mm using right hand then insert the B and Y wires using left hand.</p>  <p>3. After insertion, press the lock using left thumb then hold the wires and gently pull out the connector from jig using right hand.</p>		<p>TERMINAL COVER JIG</p> 	1. No deformed terminal 2. No wrong usage of parts

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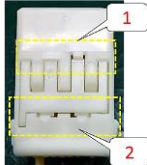
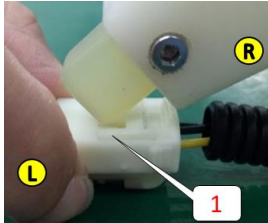
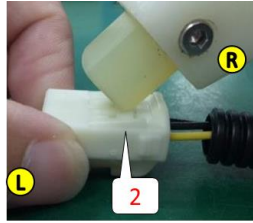


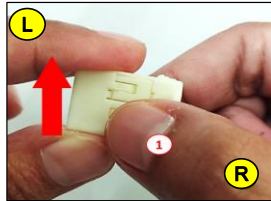
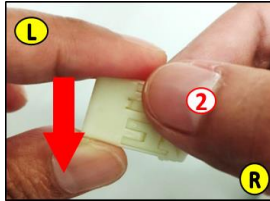




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PARTS:		1. Assy parts 2. Black corrugated tube Ø5 L=38±3mm (no slit)		JIG:	1. Pushing jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
4	P1 Connector lock	<div><div>LOCKING SEQUENCE</div><div></div><div></div><div></div><div>BEFORE PRESSING</div><div>AFTER PRESSING</div><div>1. Hold the connector using left hand and place on the table. Get the pushing jig using right hand and start the sequential locking based on above illustration. Push the lower part of the connector lock first and then push the upper part.</div><div></div><div></div><div>2. Ensure that connector is in locked condition by touching the connector lock based on the sequence illustrated.</div></div>		<div>PUSHING JIG</div> <div></div>	<div>1. No unlocked/half-locked connector 2. No damage connector</div> <div>Important reminders/Note/s:</div> <div>1. Manual locking may cause damaged connector lock.</div> <div>2. Position of pushing jig during locking must be slanted.</div> <div>LOCK CONDITION</div> <div><div>GOOD</div><div>NG</div></div>
5	Wire insertion to Corrugated tube Ø5 L=38±3mm (no slit)	<div></div> <div>1. Get the corrugated tube Ø5 L=38±3mm using right hand then insert the Yellow and Black jointed wire using left hand.</div>		n/a	<div>1. No wrong usage of parts 2. No deformed terminal</div>

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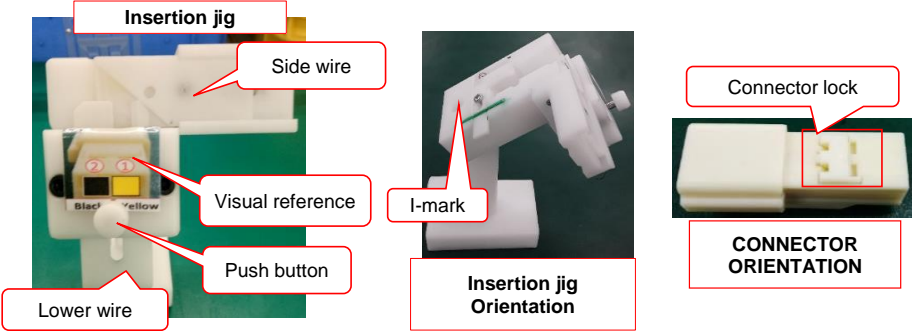
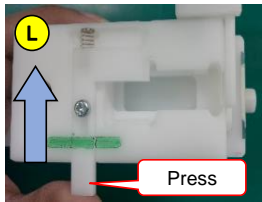
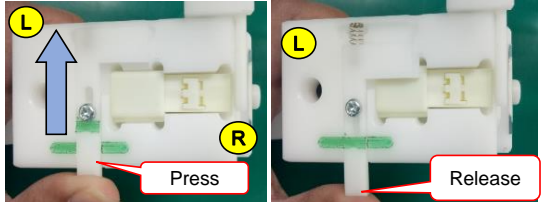
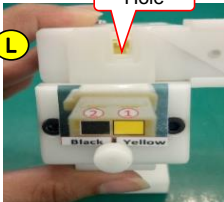
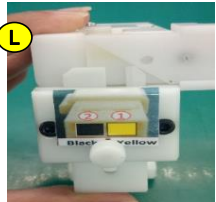

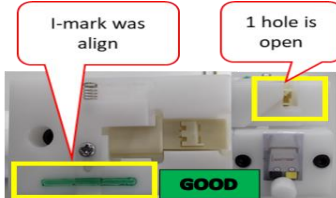
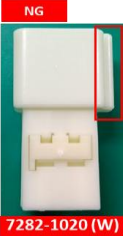
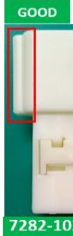
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PARTS:	1. Connector 7282-1028 (W)		JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
6	P1 Connector setting to Insertion jig 7282-1028 (W)	<div><div></div><div><p>1. Press the lock of insertion jig using left thumb.</p></div><div><p>2. Insert the connector 7282-1028 (W) into jig using right hand and release the lock. Note: Follow the connector orientation.</p></div><div><p>3. Push the lower guide using left thumb, the slot for Yellow wire will be opened.</p></div></div> <div>n/a</div> <div><div><div>Connector Orientation Illustration</div><div></div><div>CONNECTOR ILLUSTRATION</div><div></div></div><div>1. Use provided jig per model 2. No wrong usage of parts 3. No wrong orientation of connector 4. No damaged connector</div></div>		

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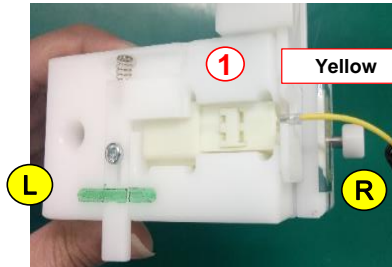

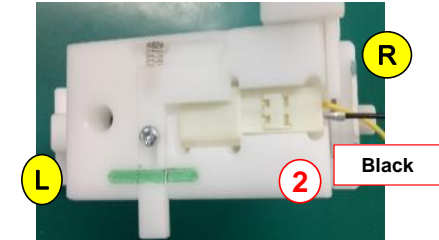
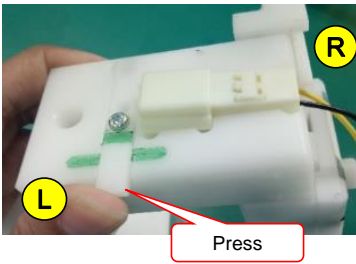
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PARTS:	1. Assy parts		JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
7	P1 Wire insertion to connector 7282-1028 (W)	<div><div>WIRE FACING</div></div> <div><div>1. Insert the Yellow wire using right hand then insert to terminal slot 1 using right hand.</div></div> <div><div>2. Press the button using right hand, the slot for Black wire will be opened.</div></div> <div><div>3. Get Black wire using right hand then insert to terminal slot 2 using right hand.</div></div> <div><div>4. After insertion, press the lock using left thumb 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. Manual locking may cause damaged connector lock.</p> <p>2. Please hold the wire near terminal during insertion.</p> <p>Document references:</p> <p>1. 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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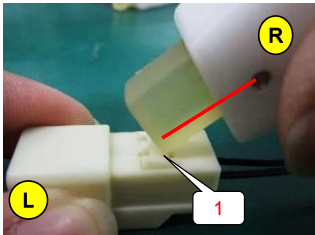
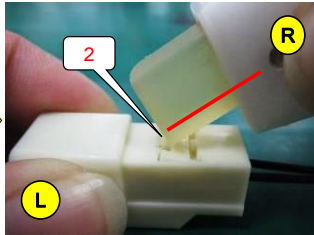
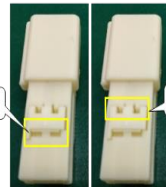
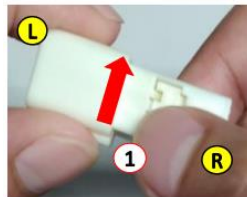
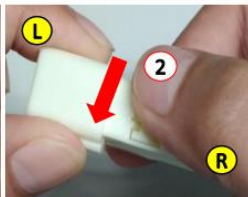




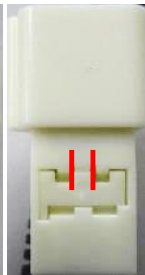
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PARTS:	1. Assy parts		JIG:	1. Pushing jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
8	P1	<div>Connector lock</div> <div><div><div></div><div></div><div><div>Pressing Sequence</div><div></div></div></div><div><div>1. Hold the connector using left hand and place on the table. Get the pushing jig using right hand and start the sequential locking based on the above illustration. Push the lower part of the connector lock first and then push the upper part.</div></div><div><div><div></div><div></div></div><div><div>2. Ensure that connector is in locked condition by touching the connector lock based on the sequence illustrated.</div></div><div><div><div>Before pressing</div><div></div></div><div><div>After pressing</div><div></div></div></div></div><div><div><div>PUSHING JIG</div><div></div></div></div></div>	<div><div>Important reminders/Note/s:</div><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>3. Position of pushing jig during locking must be slanted.</div></div></div> <div><div>LOCK CONDITION</div><div><div></div><div></div><div><div>GOOD</div><div>NG</div></div></div></div> <div><div>1. No unlocked/half-locked connector</div><div>2. No damage connector.</div></div>	

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Purpose:

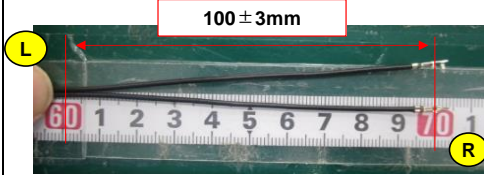
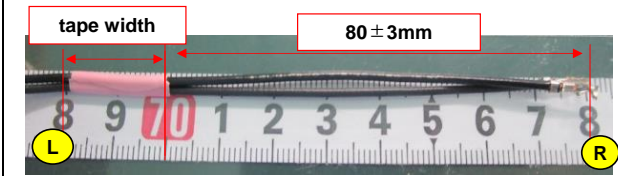
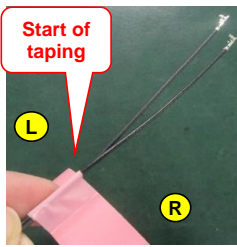

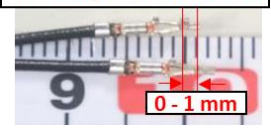
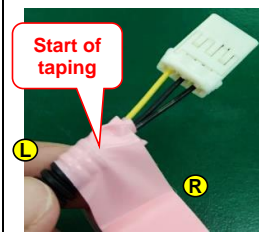
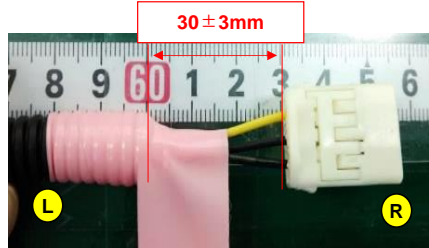
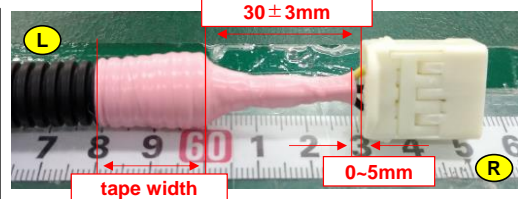

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

1

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PARTS:		1. Assy parts 2. Pink tape [1pc]		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
9	Taping 1 Spot taping	<div><p>1. Hold wires using left hand, measure the wire up to terminal tip 100±3mm.</p></div> <div><p>3. After taping, check the measurement and taping condition.</p></div> <div><p>2. Get the Pink tape, conduct 2x windings of tape then cut using both hand.</p></div>		<div>MEASURING TAPE</div> 	<p>Important reminders/Note/s:</p> <p>1. Please use calibrated/verified measuring tape when getting the measurement.</p> <p>2. Use PINK TAPE only.</p> <div><p>Wire alignment tolerance</p></div> <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>
10	Taping 2 Black COT to wire near connector	<div><p>1. Hold the COT using left hand, get the Pink tape using right hand then start pre-taping using both hands.</p></div> <div><p>2. Measure from end of COT up to edge of connector 30±3mm then continue the taping process using both hands.</p></div> <div><p>3. After taping, check the measurement and taping condition.</p></div>		<div>MEASURING TAPE</div> 	<p>Important reminders/Note/s:</p> <p>1. Please use calibrated/verified measuring tape when getting the measurement.</p> <p>2. Use PINK TAPE only.</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>

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**WORK INSTRUCTION**

Process Name/Title:

TAPING ASSEMBLY PROCESS

Effectivity Date:

September 27, 2023

Validity Date:

n/a

Model code/Part number:

TM3

/ 7L0114-7021A

Customer: TRQSS

Car Model: SUBARU-ASCENT

Document No.:

WI-ENG-PDE-710A

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

1

Page No.:

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PARTS:

n/a

JIG:

n/a

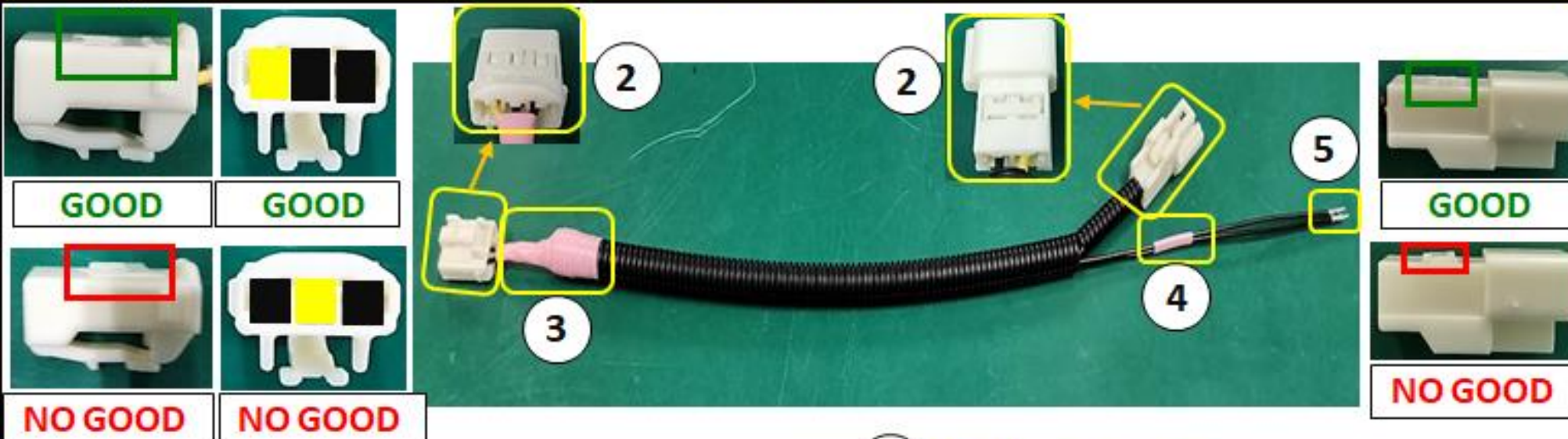
NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

P1**7L0114-7021A**

1 No Unlock/Halflock
Connector
(on 2 connector)

2 No Wrong Insert
(on 2 connector)

3 No Missing Tape

4 No Missing Spot tape

5 No Deformed Terminal

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