

**WORK INSTRUCTION**Process Name/Title: **TAPING ASSEMBLY PROCESS**

Effectivity Date:

December 07, 2021

Validity Date:

n/a

Model Code/ Part Number: **010B / 7L0030-7023**Customer: **TRQSS**

Document No.:

WI-ENG-PDE-169A

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

5

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PARTS:	1. Connector 6188-0407 (W) 2. TVSSf 0.3 wires GR L= 558±3mm 3. TVSSf 0.3 wires B/W L= 558±3mm	4. Black Sunprene tube Ø5 L=125±3mm 5. Black Corrugated tube Ø5 L=363±4mm (No slit) 6. Black tape	JIG:	1. Insertion jig 2. Locking jig 3. Terminal cover Jig
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NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
		<p>Connector 6188-0407/ Connector tray</p> <p>TABLE LAY-OUT</p> <p>Black Sunprene tube Ø5 L=125±3mm</p> <p>Switch cover</p> <p>TVSSf 0.3 WIRES B/W L=558±3mm</p> <p>Black Corrugated tube Ø5 L=363±4mm</p> <p>Insertion jig</p> <p>I-mark</p> <p>TVSSf 0.3 WIRES GR L= 558±3mm</p> <p>Locking Jig</p> <p>Tape holder/ black tape</p> <p>Terminal cover jig</p>	<p>Safety Instruction</p> <p>Be sure to wear prescribed personal protective equipment during operation (gloves, finger cots, etc.)</p> <p>Housekeeping</p> <p>1. Maintain and always practice 5's. 2. Personal things on the work place is prohibited. Keep it in your locker.</p> <p>Alert level</p> <p>For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.</p>	<p>Note: Refer to WI-PRO-CNC-017 for Wire and Strip Length tolerance</p> <p>1. No missing parts/tools 2. No excess parts/tools</p>

Revision History

Eff. Date	Rev. No	Details of Change	Revised	Check ed	Approved	Noted	Established Date:	Prepared by	Reviewed by	Approved by	Noted by
12/07/21	5	Change part number from 7L0030-7022 to 7L0030-7023 due to additional clamp (82711-52090(W)); Improve Work Procedure/Illustration; checkpoint in checking of wire tolerance (Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance); Additional table lay-out.	M.Ariola	J.Loterte	C.Villanueva	A. Arañes					
03/15/21	4	Change connector color in accordance with color standardization for plastic parts (GL-COM-003) Change 2x pulling to Pull-Push-Pull-Push on wire insertion quality pointers; Put assy parts on Pg.3-5 parts section; Change illustration of wire insertion to corrugated tube; Remove cycle time;	J. Loterte	R. Peñaloza	A. Shimamura	A. Arañes					
Established Date: July 10, 2017											

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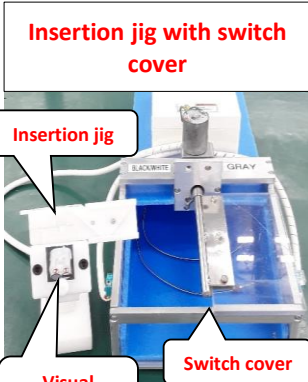
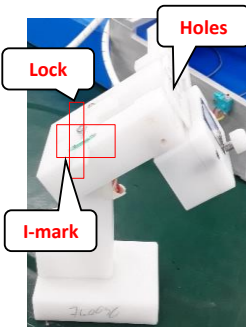

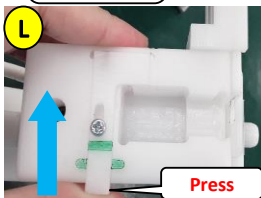
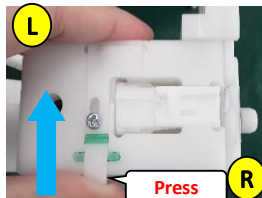
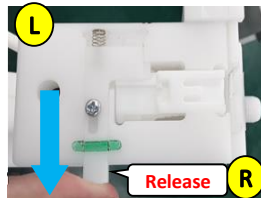
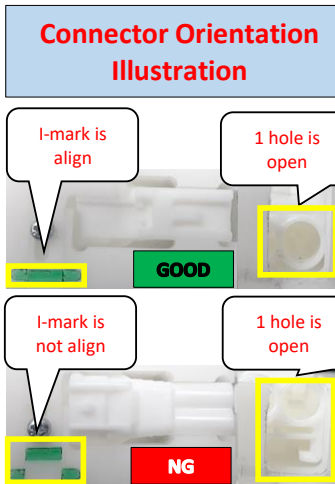
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PARTS:		1.Connector 6188-0407 (W)		JIG	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
2	P1	<div><div><div><p>Insertion jig with switch cover</p><p>Insertion jig</p><p>Visual reference</p><p>Switch cover</p></div><div><p>Lock</p><p>I-mark</p><p>Holes</p></div><div><p>Connector orientation</p></div></div><div><div><p>Press</p><p>1. Press the lock of insertion jig using left thumb.</p></div><div><p>Press</p><p>2. Insert the connector 6188-0407 (W) into jig using right hand and release the lock. <i>Note: Refer to above illustration for correct setting.</i></p></div><div><p>Release</p><p>3.Push the guide using right thumb. The slot for B/W wire will be opened.</p></div></div></div>		n/a	<div><div><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></div><p>1. Use provided jig for model. 2. No wrong orientation of connector.</p></div>

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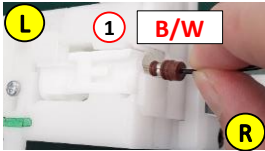
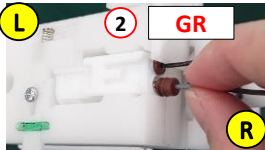

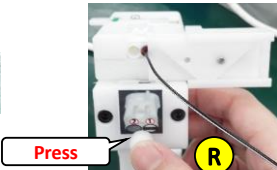
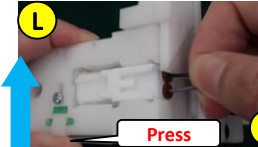




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PARTS:		JIG		
<div><div><div>5</div></div><div>1.TVSSf 0.3 wires GR L=558±3mm 2.TVSSf 0.3 wires B/W L=558±3mm</div></div>		1. Insertion jig 2. Locking jig		
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
3	P1 Wire Insertion to connector 6188-0407 (W)	<div><div><div><div><div>L</div><div>1</div><div>B/W</div></div><div></div><div>R</div></div><div><div>1. Get Black and white wire then insert to terminal slot ① using right hand.</div></div></div><div><div><div>2</div><div>GR</div></div><div></div><div>R</div></div><div><div>3. Get Gray wire then insert to terminal slot ② using right hand.</div></div></div> <div><div><div><div><div>Wire facing</div><div></div></div><div><div>Press</div><div></div></div></div><div><div>2. Push the button after insertion. Hole for Gray wire will be open.</div></div></div><div><div><div><div>L</div><div>4</div></div><div></div><div>R</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> <div>n/a</div> <td><div><div><div>5</div></div><div><div>NOTE: Refer to WI-PRO-CNC-017 Wire and Strip Length Tolerance</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>Make sure wires are properly inserted Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.</div></div></td>	<div><div><div>5</div></div><div><div>NOTE: Refer to WI-PRO-CNC-017 Wire and Strip Length Tolerance</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>Make sure wires are properly inserted Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.</div></div>	
4	Connector lock	<div><div><div><div></div><div>R</div></div><div><div>1. Put the connector into locking jig using right hand then press 2x using both hands. Touch the connector lock if properly locked.</div></div></div><div><div><div><div><div>Coupler Cross Sectional View</div><div><div>NG</div><div>NG</div><div>GOOD</div></div><div><div><div>Double</div><div>Double</div><div>Double</div></div><div><div>Unlock Condition</div><div>Half Lock Condition</div><div>Full Lock Condition</div></div></div><div><div></div><div></div></div><div><div>Before lock</div><div>After lock</div></div></div></div></div><div><div>LOCKING JIG</div><div></div></div><td><div><div>NOTE: MANUAL LOCKING MAY CAUSED DAMAGED LOCK</div><div>1. Use provided jig tool per model 2. No unlock/half-locked connector</div></div></td></div></div>	<div><div>NOTE: MANUAL LOCKING MAY CAUSED DAMAGED LOCK</div><div>1. Use provided jig tool per model 2. No unlock/half-locked connector</div></div>	

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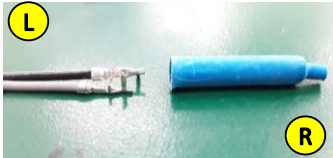

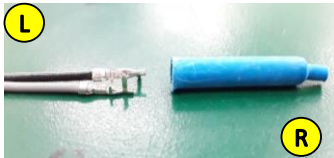


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PARTS:		1. Black Corrugated tube Ø5 L=363±4mm (no slit) 2. Black Sunprene tube Ø5 L=125±3mm		3. Assy parts	JIG	1. Terminal Cover jig
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
5	P1	Wire Insertion to Corrugated tube Ø5 L=363±4mm (no slit)	<div><div><p>1. Get the terminal cover jig using right hand then insert GR and B/W wires using left hand.</p></div><div><p>2. Get the Corrugated Ø5 L=363±4mm (no slit) using right hand and insert the GR and B/W wires using left hand</p></div><div><p>3. After insertion, remove the terminal cover jig using right hand.</p></div></div>		<div>LOCKING JIG</div> 	1. No wrong use of parts 2. No deformed terminal
6		Wire insertion to Sunprene tube Ø5 L=125±3mm	<div><p>5 1. Get the Sunprene tube Ø5 L=125±3mm using right hand then insert the Gray and Black/White wire using left hand.</p></div>		n/a	1. No wrong use of parts 2. No deformed terminal

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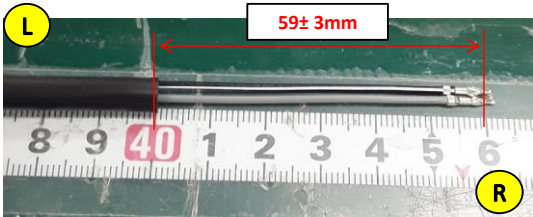
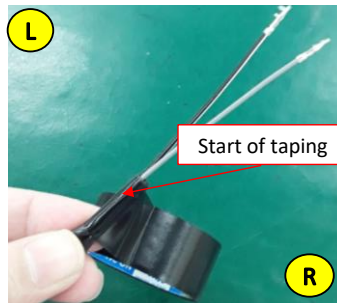
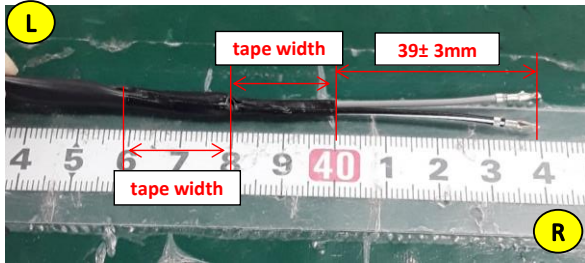

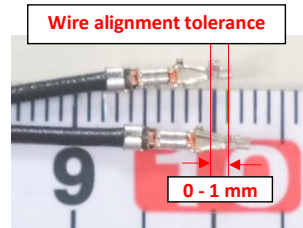
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PARTS:		1. Black tape 2. Assy parts	JIG	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
7	P1 Taping (1) Sunprene tube to wire near terminal	<div></div> <div></div> <div></div> <div>1. Measure the end of the sunprene tube up to the end of the terminal pointed tip 59mm using both hands.</div> <div>2. Get the Black tape using right hand. Hold the sunprene tube using left hand then start taping using both hands. <i>Note: Refer to WI-PRO-ASY-001 for taping procedure</i></div> <div>3. After taping, check the measurement, alignment and tape condition.</div>	MEASURING TAPE 	<div></div> <div>Wire alignment tolerance</div> <div>0 - 1 mm</div> <div>1. No loose tape 2. No peel-off tape 3. No flip-out tape 4. No wrong use of tape 5. No wrong dimension</div> <div><i>Note: Please use calibrated/verified measuring tape when getting the measurement.</i></div>

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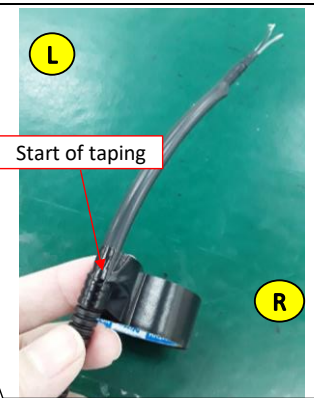
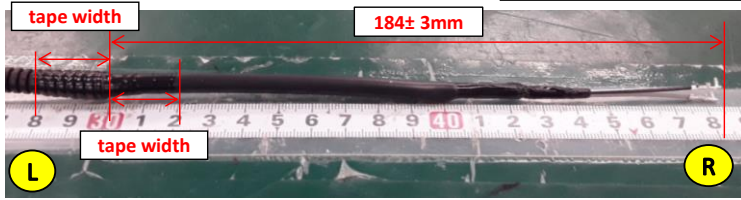

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PARTS:		1. Black tape 2. Assy parts	JIG	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
8	P1 Taping (2) Corrugated tube to sunprene tube	<div><p>1. Measure the end of the corrugated tube up to the end of the terminal pointed tip 184mm.</p></div> <div><p>2. Get the Black tape using right hand. Hold corrugated tube using left hand then start taping using both hand. <i>Note: Refer to WI-PRO-ASY-001 for taping procedure</i></p></div> <div><p>3. After taping, check the measurement, alignment and tape condition.</p></div>	<p>MEASURING TAPE</p> 	<p><i>Note:</i> Please use calibrated/verified measuring tape when getting the measurement.</p> <ol style="list-style-type: none">1. No loose tape2. No peel-off tape3. No flip-out tape4. No wrong use of tape5. No wrong dimension

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