

	WORK INSTRUCTION						Effectivity Date:		April 24, 2023	
	Taping Assembly Process						Validity Date:		n/a	
	Process Name/Title:				Model Code/Part Number: TM3 / 7L0112-7020		Customer: TRQSS		Document No.: WI-ENG-PDE-322B	
	Purpose:		<input type="checkbox"/> PROTOTYPE		<input type="checkbox"/> PRE-LAUNCH		<input checked="" type="checkbox"/> MASSPRO		Revision No.: 3 Page No.: 1 of 8	

PARTS:		1. Assy parts; Black corrugated tube Ø5, L=63±3mm (no slit); Black tape; Gray Urethane foam t=4; 75mm X 30mm				JIG:		1. Continuity checker jig 2. Terminal cover jig							
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION				TOOLS/PPE		QUALITY POINTERS							
1	P2 Table lay-out	<div style="text-align: center;"> Table Lay-out </div>				<div style="border: 1px dashed red; padding: 5px; margin-bottom: 5px;"> Safety Instruction Be sure to wear prescribed personal protective equipment during operation (gloves, finger cots, etc.) </div> <div style="border: 1px dashed red; padding: 5px; margin-bottom: 5px;"> Housekeeping 1. Maintain and always practice 5's. 2. Personal things on the work place is prohibited. Keep it in your locker. </div> <div style="border: 1px dashed red; padding: 5px; margin-bottom: 5px;"> Alert level For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action. </div> <div style="border: 1px dashed red; padding: 5px;"> Terminal cover jig </div>		1. No missing parts/tools 2. No excess parts/tools							
2	Wire insertion to Black corrugated tube (no slit) Ø5 L=63±3mm	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> L R </div> <div style="text-align: center;"> L R </div> <div style="text-align: center;"> L R </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div style="width: 30%;"> 1. Hold the wires using left hand, get the terminal cover jig using right hand then insert the terminals using left hand. </div> <div style="width: 30%;"> 2. Get the corrugated tube (no slit) Ø5 L=63±3mm using right hand then insert using left hand. </div> <div style="width: 30%;"> 3. After insertion, remove the terminal cover jig using right hand. </div> </div>								1. No deformed terminal 2. No wrong usage of parts					
Revision History															
						Prepared by		Reviewed by		Approved by		Noted by			
04/24/23		3		Inclusion of quality checkpoints				J. Loterte		C. Villanueva		A. Arañes		n/a	
10/07/22		2		Change tolerance from 35+/-3mm to 35+3/-1mm as countermeasure of encountered NG dimension from end of tape up to terminal tip. Improve quality pointers: Reminders/notes and references on page no. 2,3,4, and 7 due to document. Improve Work procedure/Illustration on process no. 7-Visual/by two's inspection.				M. Ariola		J. Loterte		C. Villanueva		A. Arañes	
08/26/21		1		Change from Pre-launch to Masspro.				D.Castillo		C.Villanueva		A.Shimamura		A. Arañes	
08/10/21		0		Initial issue.				D.Castillo		C.Villanueva		A.Shimamura		A. Arañes	
Eff. Date		Rev. No		Details of Change				Revise		Review		Approve		Noted	
								J. Loterte		C. Villanueva		A. Arañes		n/a	
								Est. Date:		August 10, 2021					

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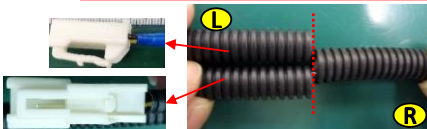


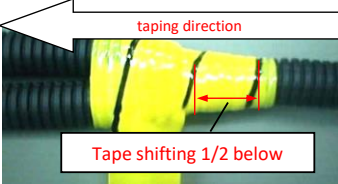



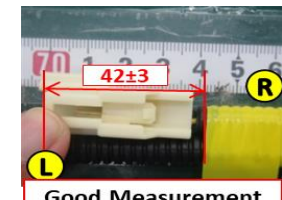
☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

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PARTS:		1. Black tape 2. Assy parts	JIG	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
3	P2 Y-taping	<p>No gap between Corrugated tubes</p>  <p>1. Fix the corrugated tube.</p> <p>Note: Do not exert excessive force during pulling & winding of tape</p>  <p>tape width</p>  <p>43±3mm</p> <p>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 43mm.</p>  <p>taping direction</p> <p>shifting 1/3 below</p> <p>Tape width</p> <p>3. Wind the tape 1/3 shifting until it reach the other side of corrugated tube (must be tape width)</p>  <p>Tape shifting 9mm below</p> <p>Tape width</p> <p>Tape width</p> <p>4. Wind the tape backward 1/2 shifting.</p> <p>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.</p>  <p>MEASURING TAPE</p>  <p>42±3</p> <p>Good Measurement</p> <p>Y-TAPING ORIENTATION</p>  <p>GOOD FACING</p> <p>NG FACING</p>		<p>1.No flip out tape 2.No tape peeling 3. No loose tape 4. No wrong use of tape 5. No wide interval between COT 6. No exposed wire</p> <p>Important reminders/Note/s:</p> <p>1. Used YELLOW TAPE for easy visualization of shifting lines, but in actual should be BLACK TAPE.</p> <p>2. Must be no gap between corrugated tubes.</p> <p>3. Do not exert excessive force during pulling & winding of tape.</p>

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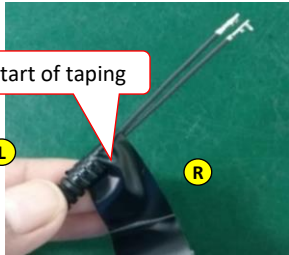
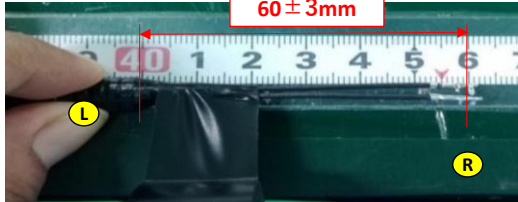

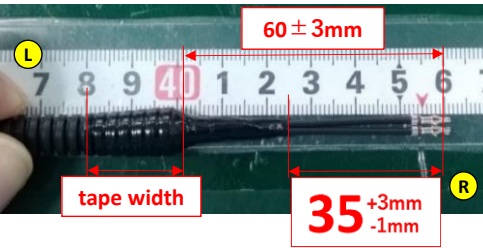

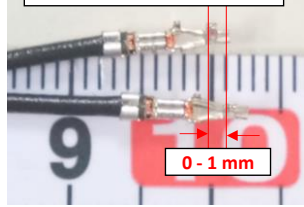
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PARTS:		1. Black tape 2. Assy parts	JIG	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
4	P2 Taping 3 COT to wire near terminal	<div><p>Start of taping</p></div> <div><p>60 ± 3mm</p></div> <div><p>1. Hold the COT using left hand, get the Black tape using right hand then start pre-taping using both hands.</p></div> <div><p>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></div> <div><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></div> <div><p>4. After taping, check the measurement, taping condition and terminal appearance.</p></div>	<div><p>MEASURING TAPE</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> <p>Important reminders/Note/s:</p> <p>1. Please use calibrated/verified measuring tape when getting the measurement.</p> <p>2. For Hatsumono and Owarimono.</p> <div><p>Wire alignment tolerance</p><p>0 - 1 mm</p></div>

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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	<p>Urethane foam manual attachment to connector</p> <p>Step 1: Identify the right facing to attached the foam</p> <p>Step 2: Get the Urethane foam and begin the attachment.</p> <p>Step 3: Attached the foam in all sides of the connector.</p> <p>Step 4: Press the Urethane foam side by side after attachment.</p>	n/a	<p>1. No damaged Urethane foam 2. No missing Urethane foam 3. No stretched Urethane foam</p> <p>Important reminders/Note/s:</p> <p>1. Foam and connector must be align. 2. Follow the attachment sequence based on the illustration. 3. Tolerance from Urethane foam to connector.</p> <p>URETHANE FOAM CONDITION</p> <p>GOOD</p> <p>Over-stretched</p> <p>Excess foam</p> <p>NG</p> <p>0~3mm</p>

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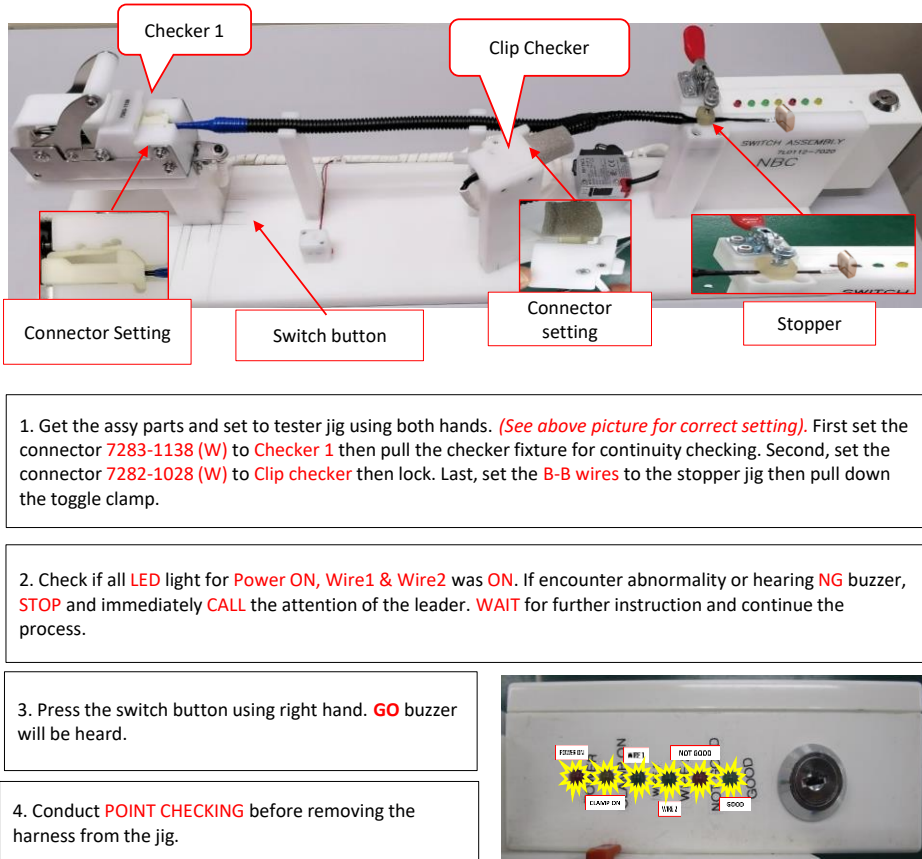
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PARTS:		1. Assy parts			JIG	1. Continuity checker jig
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
6	P2	Continuity Test			n/a	1. No wrong insert 2. No wrong orientation of connector

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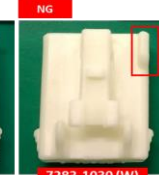
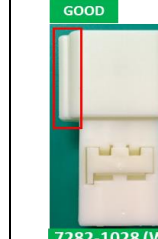
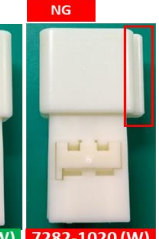
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PARTS:		1. Assembled parts 2. Master sample	JIG	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
7	P2	Visual/By Two's Inspection		<div>Master sample</div>  <div>1. No skip checking during the inspection.</div> <div>CONNECTOR ILLUSTRATION</div> <div><div>GOOD</div><div>7283-1138 (W)</div><div>NG</div><div>7283-1030 (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>

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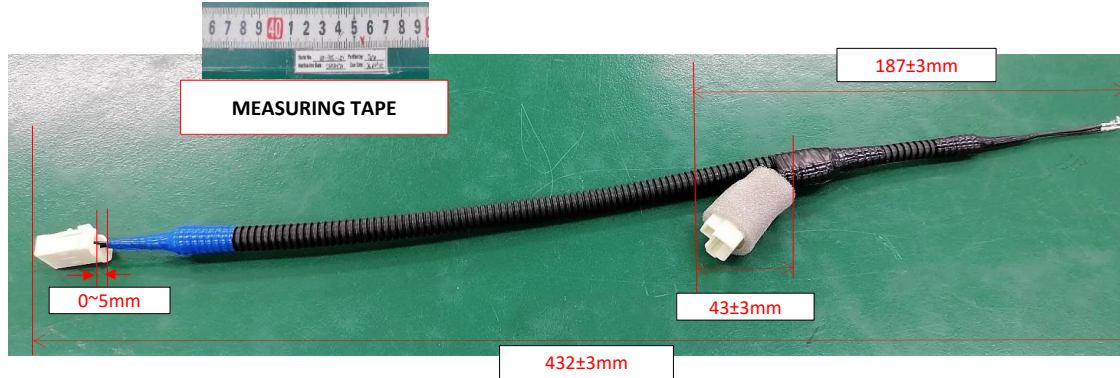
☒ MASSPRO

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

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PARTS:

n/a

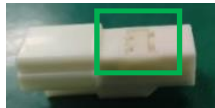
JIG

n/a

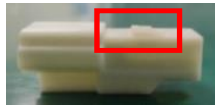
3 QUALITY CHECKPOINTS

P2

7L0112-7020



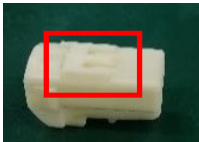
GOOD



NO GOOD



GOOD



NO GOOD



① **No Unlocked/ Half Locked Connector**

② **No Missing Sponge**

③④ **No Missing Tape**

⑤ **No Deformed Terminal**

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