

	<b>WORK INSTRUCTION</b>					Effectivity Date:		April 24, 2023		
	<b>TAPING ASSEMBLY PROCESS</b>					Validity Date:		n/a		
	Process Name/Title:					Document No.:		WI-ENG-PDE-542A		
	Model Code/Part Number:		<b>780B / 7R0103-7023A</b>			Customer:		TRMX		
Purpose:					<input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO		Revision No.:		3     Page No.:     1 of 10	

<b>PARTS:</b>	1. All parts: Connector 6189-1142 (W); AVSSf 0.3 Y-OR wire L=490±2mm; Black COT (no slit) ø7 L=208±3mm; Black vinyl tube ø5 L=233±3mm; Connector 6189-1161 (B); Black sunprene tube ø5 L=135±3mm; Black COT (no slit) ø7 L=355±3mm; MRSW-CP TVSSf 0.3 G-B/W wire L=757±3mm; Blue tape [1pc.]				JIG:	1. Insertion jig with switch cover 2. Locking jig 3. Terminal cover jig	
<b>NO.</b>	<b>PROCESS NAME</b>	<b>WORK PROCEDURE/ ILLUSTRATION</b>				<b>TOOLS/PPE</b>	<b>QUALITY POINTERS</b>
1	P1	<div style="text-align: center;"> <b>Table Lay-out</b> </div>				<div style="border: 1px dashed red; padding: 5px; margin-bottom: 10px;"> <b>Safety Instruction</b>          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: 10px;"> <b>Housekeeping</b>          1. Maintain and always practice 5's.          2. Personal things on the workplace is prohibited. Keep it in your locker.       </div> <div style="border: 1px dashed red; padding: 5px;"> <b>Alert level</b>          For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.       </div>	<b>Document reference/s:</b> 1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance 2. WI-PRO-KIT-005 Wire Taping without Vinyl Tube  1. No missing parts/tools 2. No excess parts/tools

Revision History								Prepared by		Reviewed by		Approved by		Noted by	
04/24/2023	3	Inclusion of quality checkpoints				J. Loterte	C. Villanueva	A. Arañes	n/a			n/a			
10/07/2022	2	Improve quality pointers and notes in process no.1,3,7,8,9,10,14, 15 due to document improvement.				M. Catapang	J. Loterte	C. Villanueva	A. Arañes						
07/28/2022	1	Change document status from pre-launch to masspro.				M. Catapang	J. Loterte	C. Villanueva	A. Arañes						
07/26/2022	0	Initial issue QR code label 7V4020-0020 direction				M. Catapang	J. Loterte	C. Villanueva	A. Arañes						
Eff. Date	Rev. No	Details of Change				Revised	Reviewed	Approved	Noted	Est. Date:		July 26, 2022			

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Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

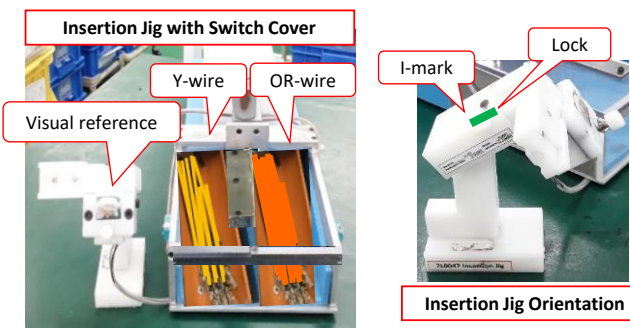
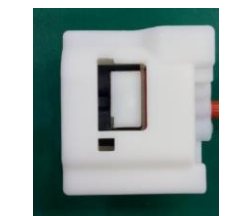




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Revision No.:

3

Page No.:

2 of 10

PARTS:		1. Connector 6189-1142 (W)		JIG	1. Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
2	P1	<div><div><p>Insertion Jig with Switch Cover</p><p>Insertion Jig Orientation</p></div><div><p>Connector Orientation</p></div></div> <div><div><p>Press</p><p>1. Press the insertion jig lock using left hand.</p></div><div><p>Press</p><p>2. Get the connector <b>6189-1142 (W)</b> using right hand and insert to insertion jig. Release the lock after insertion. <b>Note: Follow the connector orientation.</b></p></div><div><p>Release</p><p>3. Push the guide using right hand. The slot for <b>Y wire</b> will be opened.</p></div></div>		n/a	<div><p><b>CONNECTOR ORIENTATION ILLUSTRATION</b></p><p><b>GOOD</b></p><p>1. Use the provided jig per model 2. No wrong orientation of connector 3. No wrong use of connector 4. No damaged connector</p></div>

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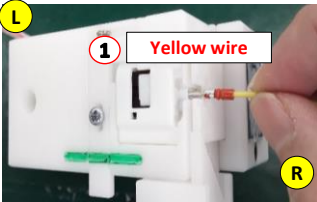
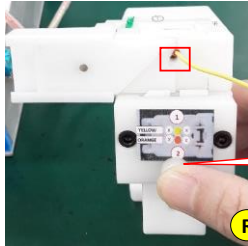
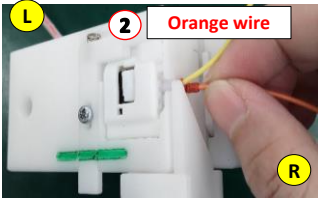
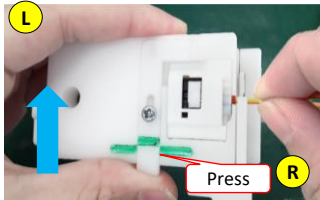


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Revision No.:

3

Page No.:

3 of 10

PARTS:		JIG		
1. AVSSf 0.3 wire Y-OR L=490±2mm 2. Black Corrugated tube ø7 L=208±3mm (no slit)		1. Insertion jig with switch cover		
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
3	P1  Wire Insertion to connector 6189-1142 (W)	<div><p>Wire facing</p></div> <div><p>1. Hold the insertion jig using left hand. Get the <b>Yellow wire</b> then insert to terminal slot <b>1</b> using right hand.</p></div> <div><p>2. Press the button using right thumb. Slot for <b>Orange wire</b> will be opened.</p></div> <div><p>3. Get the <b>Orange wire</b> then insert to terminal slot <b>2</b> using right hand.</p></div> <div><p>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.</p></div>	n/a	<div><p>Note: During insertion, hold the wire not <b>rubber seal</b> to prevent sagging.</p></div> <div><p>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deformed terminal 5. No wrong wire facing</p><p><b>Important reminders/Note/s:</b> <b>1. Please hold the wire near terminal.</b> <b>2. Make sure wires are properly inserted.</b> <b>Conduct Pull-Push-Pull-Push after insertion.</b> <b>Do not exert extra force.</b></p><p><b>Document references:</b> <b>1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</b></p></div>
4	Wire insertion to COT ø7 L=208±3mm (no slit)	<div><p>1. Get the corrugated tube <b>ø7 L=208±3mm</b> using right hand then insert the <b>Y-OR wire</b> using left hand.</p></div>	n/a	<p>1. No wrong use of parts 2. No deformed terminal</p>

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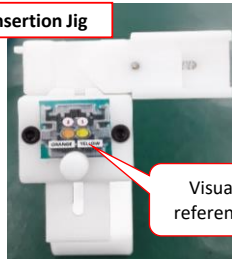

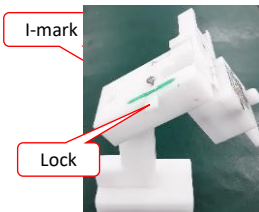

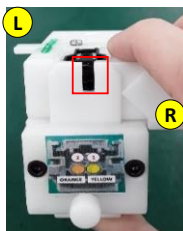


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Revision No.:

3

Page No.:

4 of 10

PARTS:		1. Black Vinyl tube $\phi 5$ L=233 $\pm$ 3mm 2. Connector 6189-1161 (B)			JIG	1. Insertion jig
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
5	Wire insertion to Black Vinyl tube $\phi 5$ L=233 $\pm$ 3mm		<div><div></div><div>1. Get the Vinyl tube <math>\phi 5</math> L=233<math>\pm</math>3mm using right hand then insert the <b>Y-OR wire</b> using left hand.</div></div>		n/a	1. No wrong use of parts 2. No deformed terminal
6	P1	Connector setting to Insertion jig 6189-1161 (B)	<div><div><div><div></div><div></div></div><div><div></div><div></div></div><div><div>1. Press the insertion jig lock using left hand.</div><div></div></div><div><div>2. Get the connector 6189-1161 (B) using right hand and insert to insertion jig. Release the lock after insertion. <b>Note: Follow the connector orientation.</b></div><div><div>3. Push the guide using right hand. The slot for <b>Y wire</b> will be opened.</div></div></div></div></div>		n/a	<div><div><b>CONNECTOR ORIENTATION ILLUSTRATION</b></div><div><div></div><div></div></div><div>1. Use the provided jig per model 2. No wrong orientation of connector 3. No wrong use of connector 4. No damaged connector</div></div>

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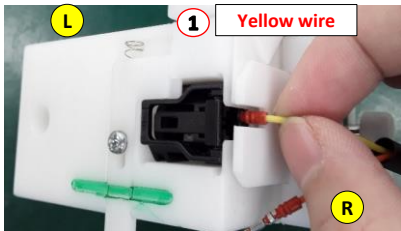
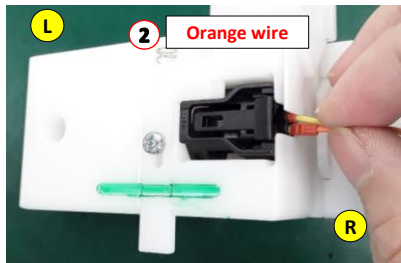

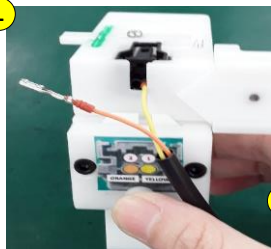
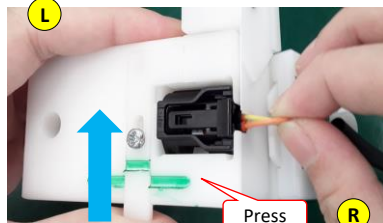
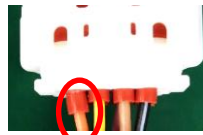
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Revision No.:

3

Page No.:

5 of 10

PARTS:		1. Assy parts			JIG	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
7	P1	<div><div><p>1. Hold the insertion jig using left hand. Get the <b>Yellow wire</b> then insert to terminal slot <b>1</b> using right hand.</p></div><div><p>3. Get the <b>Orange wire</b> then insert to terminal slot <b>2</b> using right hand.</p></div></div> <div><div><p>Wire facing</p></div><div><p>2. Press the button using right thumb. Slot for <b>Orange wire</b> will be opened.</p></div><div><p>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.</p></div></div>			n/a	<div>Note: During insertion, hold the wire not rubber seal to prevent sagging.</div> <div></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><b>Important reminders/Note/s:</b> <b>1. Please hold the wire near terminal.</b> <b>2. Make sure wires are properly inserted.</b> <b>Conduct Pull-Push-Pull-Push after insertion.</b> <b>Do not exert extra force.</b></div> <div><b>Document references:</b> <b>1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</b></div>

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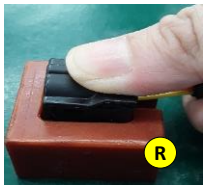
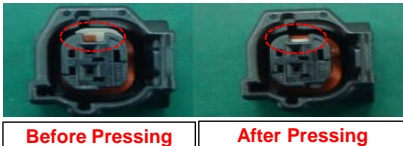



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Revision No.:

**3**

Page No.:

**6 of 10**

PARTS:		1. Assy parts 2. Black Sunprene tube $\varnothing 5$ L=135 $\pm$ 3mm		3. MR SW CP TVSSf 0.3 wires G-B/W L=757 $\pm$ 3mm		JIG	1. Locking jig
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
8	P1	Connector lock	<div><p>Put the connector into locking jig using right hand then press <b>2x</b>. Check the connector lock if properly lock.</p></div> <div><div></div></div>			<b>Locking Jig</b> 	<b>Important reminders/Note/s:</b> <b>1. MANUAL LOCKING MAY CAUSE DAMAGED CONNECTOR</b>  1. Use the provided locking jig per model 2. No unlock/half-lock connector 3. No damaged connector
9	P1	Wire insertion to Sunprene tube $\varnothing 5$ L=135 $\pm$ 3mm	<div><p>1. Get the sunprene tube <math>\varnothing 5</math> L=135<math>\pm</math>3mm using left hand then insert the <b>G-B/W hot melted wires (MR SW CP)</b> by using right hand.</p></div>			n/a	<b>Document reference/s:</b> <b>1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</b> <b>2. WI-PRO-KIT-005 Wire Taping without Vinyl Tube</b>  1. No wrong use of parts 2. No deformed terminal

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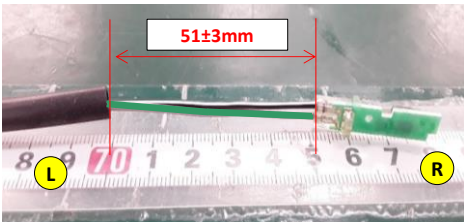
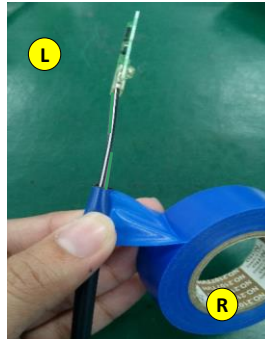
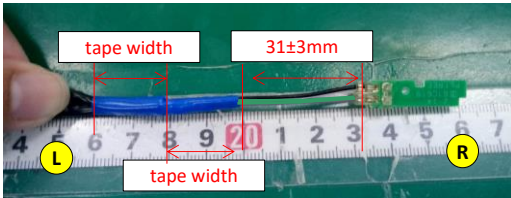



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Revision No.:

3

Page No.:

7 of 10

PARTS:		1. Blue tape 2. Assy parts 3. Black Corrugated tube $\phi 7$ L=355 $\pm$ 3mm (no slit)			JIG	1. Terminal cover jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
10	P1 Taping 1 Sunprene tube to wire near PCB	 1. Hold the Sunprene tube using left hand. Measure the end of Sunprene up to the edge of hot melted wires <b>51<math>\pm</math>3mm</b> using right hand.  2. Hold the Sunprene tube using left hand. Get the <b>Blue tape</b> using right hand then start taping process using both hands.  3. After taping, check the measurement and taping condition.				<b>Important reminders/Note/s:</b> <b>1. Use BLUE TAPE only.</b> <b>2. Please use calibrated/verified measuring tape when getting the measurement.</b> 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
11	Wire insertion to COT $\phi 7$ L=355 $\pm$ 3mm (no slit)	 1. Hold the assy parts using left hand, get the corrugated tube $\phi 7$ L=355 $\pm$ 3mm using right hand then insert the assy parts (MRSW CP) using left hand. 			n/a	1. No wrong use of parts 2. No deformed terminal

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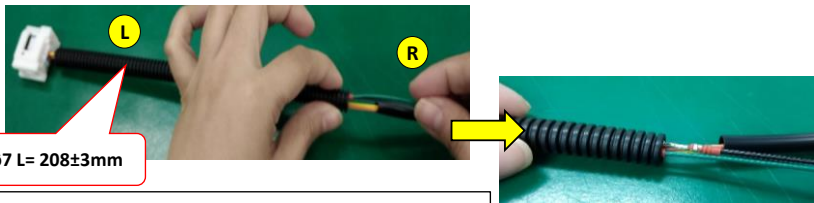
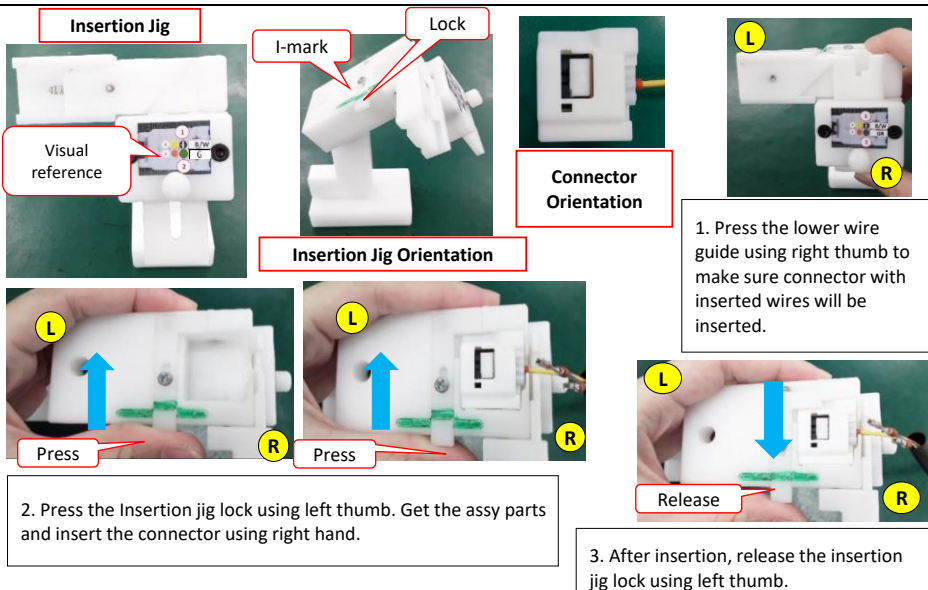
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Revision No.:

3

Page No.:

8 of 10

PARTS:		1. Assy parts			JIG	1. Insertion jig 2. Terminal cover jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
12	Wire insertion to Assy parts	 <p>1. Get the assy parts using left hand. Insert the assy parts <b>G-B/W wire</b> to corrugated tube <b>Ø7 L=208±3mm</b> using right hand.</p>			n/a	1. No wrong use of parts 2. No deformed terminal
13	Connector setting to Insertion jig 6189-1142 (W)	 <p><b>Insertion Jig</b></p> <p><b>Visual reference</b></p> <p><b>I-mark</b></p> <p><b>Lock</b></p> <p><b>Connector Orientation</b></p> <p><b>Insertion Jig Orientation</b></p> <p><b>Press</b></p> <p><b>Release</b></p> <p>1. Press the lower wire guide using right thumb to make sure connector with inserted wires will be inserted.</p> <p>2. Press the Insertion jig lock using left thumb. Get the assy parts and insert the connector using right hand.</p> <p>3. After insertion, release the insertion jig lock using left thumb.</p>			n/a	<p><b>CONNECTOR ORIENTATION ILLUSTRATION</b></p> <p><b>I-mark is align</b></p> <p><b>1 hole is open</b></p> <p><b>GOOD</b></p> <p>1. Use the provided jig per model 2. No wrong orientation of connector 3. No wrong use of connector 4. No damaged connector</p>

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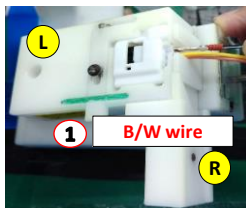
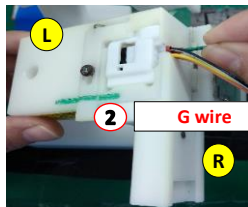
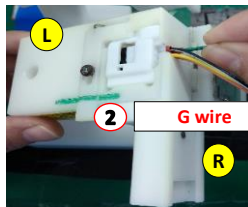
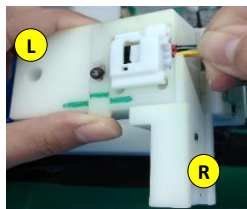


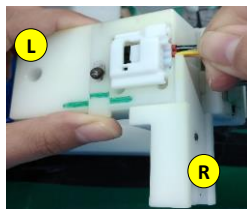
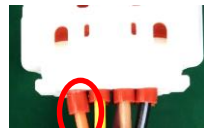
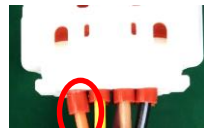

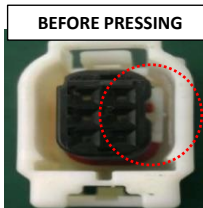
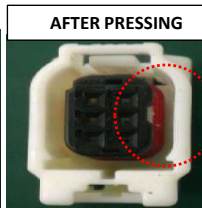

☒ MASSPRO

Revision No.:

3

Page No.:

9 of 10

PARTS:		1. Assy parts		JIG	1. Insertion jig 2. Locking jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
14	P1  Wire insertion to Connector (Assy parts)	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div><p>1. Hold the insertion jig using left hand. Get the <b>Yellow wire</b> then insert to terminal slot <b>1</b> using right hand.</p></div><div><p>2. Press the button using right thumb. Slot for <b>Orange wire</b> will be opened.</p></div><div><p>3. Get the <b>Orange wire</b> then insert to terminal slot <b>2</b> using right hand.</p></div><div><p>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.</p></div></div> <td>n/a</td> <td><div><p>Note: During insertion, hold the wire not <b>rubber seal</b> to prevent sagging.</p></div><div></div><div><p>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deformed terminal 5. No wrong wire facing</p></div><div><p><b>Important reminders/Note/s:</b> <b>1. Please hold the wire near terminal.</b> <b>2. Make sure wires are properly inserted.</b> <b>Conduct Pull-Push-Pull-Push after insertion.</b> <b>Do not exert extra force.</b></p></div><div><p><b>Document references:</b> <b>1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</b></p></div></td>		n/a	<div><p>Note: During insertion, hold the wire not <b>rubber seal</b> to prevent sagging.</p></div> <div></div> <div><p>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deformed terminal 5. No wrong wire facing</p></div> <div><p><b>Important reminders/Note/s:</b> <b>1. Please hold the wire near terminal.</b> <b>2. Make sure wires are properly inserted.</b> <b>Conduct Pull-Push-Pull-Push after insertion.</b> <b>Do not exert extra force.</b></p></div> <div><p><b>Document references:</b> <b>1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</b></p></div>
15	Connector lock	<div></div> <div></div> <div></div> <div><p>Put the connector into locking jig using right hand then press <b>2x</b>. Check the connector lock if properly lock.</p></div>		<b>Locking Jig</b> 	<div><p><b>Important reminders/Note/s:</b> <b>1. MANUAL LOCKING MAY CAUSE DAMAGED CONNECTOR</b></p></div> <div><p>1. Use the provided locking jig per model 2. No unlock/half-lock connector 3. No damaged connector</p></div>

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# WORK INSTRUCTION

Effectivity Date:

April 24, 2023

Process Name/Title:

## TAPING ASSEMBLY PROCESS

Validity Date:

n/a

Model Code/Part Number: **780B / 7R0103-7023A**

Customer:

**TRMX**

Document No.:

**WI-ENG-PDE-542A**

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Revision No.:

3

Page No.:

10 of 10

**PARTS:**

1. Assy parts

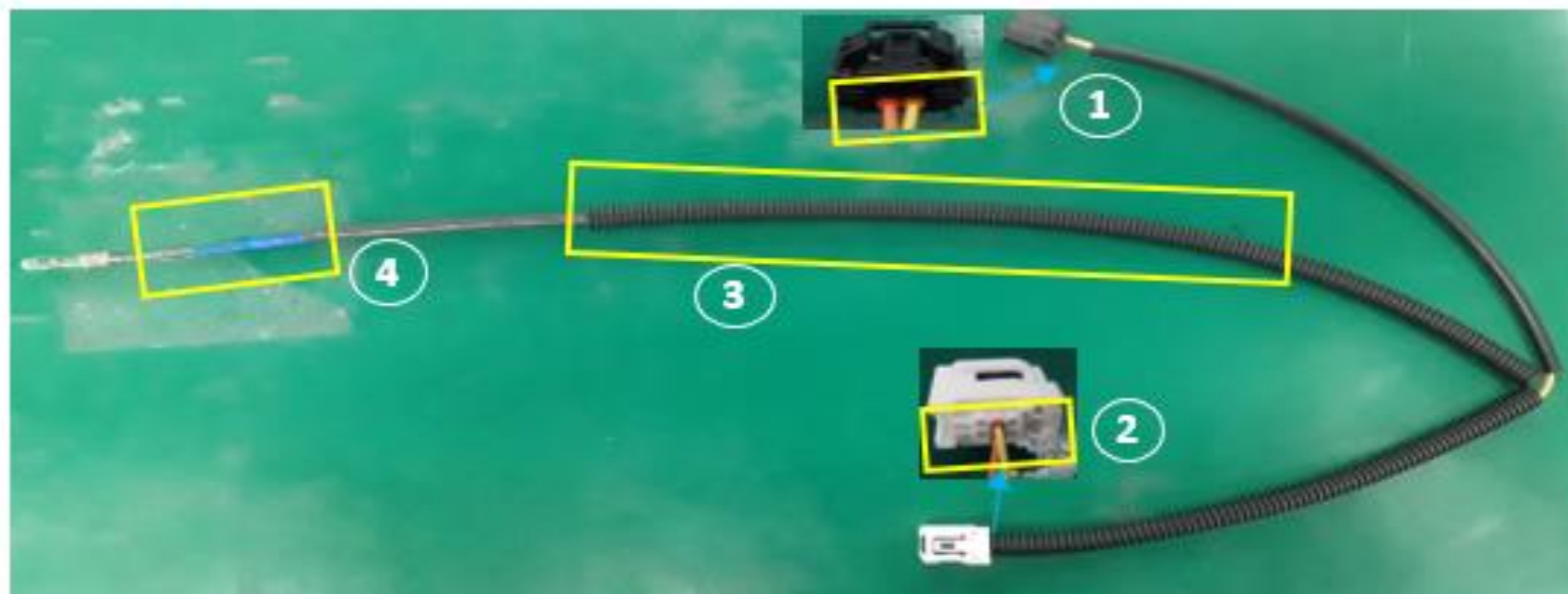
**JIG**

n/a

### 3 QUALITY CHECKPOINTS

**P1**

**7R0103-7023A**



**NO GOOD**



**GOOD**

① ②

③ **NO MISSING COT**

④ **NO MISSING TAPE**

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