



WORK INSTRUCTION

TAPING ASSEMBLY PROCESS

Effectivity Date:

March 10, 2023

Process Name/Title:

Validity Date:

n/a

Model Code/Part Number: 920B / 7R0117-7021

Customer:

TRMX

Document No.:

WI-ENG-PDE-646A

Purpose:

☐ PROTOTYPE☒ PRE-LAUNCH☐ MASSPRO

Revision No.:

0

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PARTS:		1. Connector 6189-1142 (W); AVSSf 0.3 wires Y-OR L=404±2mm; Black COT (no slit) ø5 L=56±3mm; Black COT (no slit) ø5 L=371±3mm; Black tape; Blue tape; Black VM tube (Sunprene) ø5 L=125±3mm; Black COT (no slit)ø5 L=371±3mm; MRSW CP TVSSf 0.3 wire G-B/W L=645±3mm				JIG:		1. Insertion jig with switch cover 2. Insertion jig 3. Locking jig							
NO.		PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION				TOOLS/PPE		QUALITY POINTERS					
1		P1		Table Lay-out				<div><div>Safety Instruction Be sure to wear prescribed personal protective equipment during operation (gloves, finger cots, etc.)</div><div>Housekeeping 1. Maintain and always practice 5's. 2. Personal things on the workplace is prohibited. Keep it in your locker.</div><div>Alert level For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.</div></div>		<div>Document reference/s: 1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance 2. WI-PRO-KIT-005 Wire Taping without Vinyl Tube</div> 1. No missing parts/tools 2. No excess parts/tools					
<div><div>Connector 6189-1142 (W)/ Connector tray</div><div>Table Lay-out</div><div>Black COT (no slit) ø5 L=56±3mm</div><div>Black COT (no slit) ø5 L=299±3mm</div><div>Connector 6189-1161 (B)/ Connector tray</div><div>Black VM tube (Sunprene) ø5 L=125±3mm</div><div>Black COT (no slit) ø5 L=371±3mm</div><div>AVSSf 0.3 wires Y-OR L=404±2mm</div><div>Insertion jig A</div><div>Insertion jig B</div><div>Insertion jig C</div><div>Blue tape</div><div>Black tape</div><div>Locking jig</div><div>MRSW CP TVSSf 0.3 wire G-B/W L=645±3mm</div></div>															
Revision History						Prepared by		Reviewed by		Approved by		Noted by			
03/10/23		0		Initial issue. Wire length from L=624mm to L=645mm ; COT length from L=350mm to L=371mm.				M. Ariola		J. Loterte		C. Villanueva		A. Arañes	
Eff. Date		Rev. No		Details of Change				Revised		Reviewed		Approved		Noted	
												Est. Date:		March 10, 2023	

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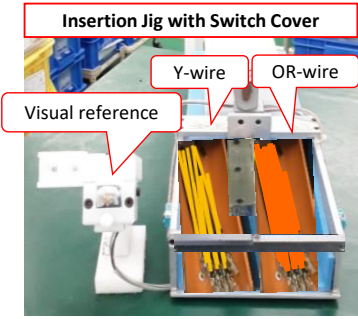


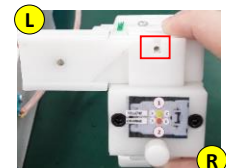

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PARTS:		JIG		
1. Connector 6189-1142 (W) 2. AVSSf 0.3 wires Y-OR L=404±2mm		1. Insertion jig with switch cover		
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
2	P1 Connector setting to Insertion jig 6189-1142 (W)	<div><div><p>Insertion Jig with Switch Cover</p><p>Y-wire</p><p>OR-wire</p><p>Visual reference</p><p>Lock</p><p>I-mark</p><p>Insertion Jig Orientation</p><p>Connector Orientation</p></div><div><p>1. Press the insertion jig lock using left hand.</p></div><div><div><p>2. Get the connector 6189-1142 (W) using right hand and insert to insertion jig. Release the lock after insertion.</p><p><i>Note: Follow the connector orientation.</i></p></div><div><p>3. Push the guide using right hand. The slot for Y wire will be opened.</p></div></div></div> <div><div><p>I-mark is align</p><p>1 hole is open</p><p>GOOD</p></div><div><p>1. Use the provided jig per model</p><p>2. No wrong orientation of connector</p><p>3. No wrong use of connector</p><p>4. No damaged connector</p></div><div><p>Document reference/s:</p><p>1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</p></div></div>	n/a	

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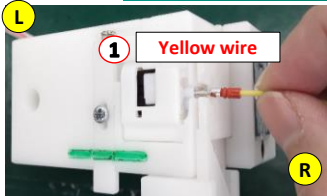
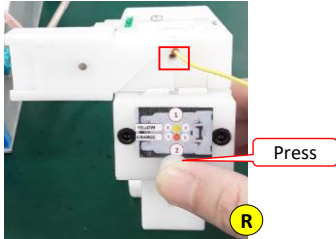
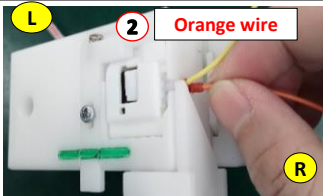
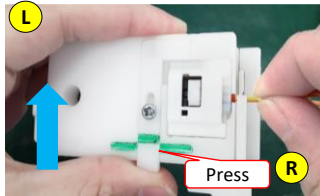
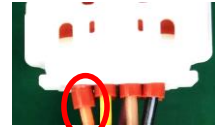


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PARTS:		1. Assy parts 2. Black Corrugated tube (no slit) $\phi 5$ L=56 \pm 3mm 3. Black Corrugated tube (no slit) $\phi 5$ L=299 \pm 3mm		JIG	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
3	P1 Wire Insertion to connector 6189-1142 (W)	<div> Wire facing</div> <div> 1. Hold the insertion jig using left hand. Get the Yellow wire then insert to terminal slot 1 using right hand.</div> <div> 2. Press the button using right thumb. Slot for Orange wire will be opened.</div> <div> 3. Get the Orange wire then insert to terminal slot 2 using right hand.</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>		n/a	<div> Note: During insertion, hold the wire not rubber seal to prevent sagging.</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>Important reminders/Note/s: 1. Please hold the wire near terminal. 2. Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.</div> <div>Document references: 1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</div>
4	Wire insertion to COT (no slit) $\phi 5$ L=56 \pm 3mm $\phi 5$ L=299 \pm 3mm	<div> 1. Get the Corrugated tube $\phi 5$ L=56\pm3mm (no slit) using right hand then insert the Y-OR wires.</div> <div> 2. Get the Corrugated tube $\phi 5$ L=299\pm3mm (no slit) using right hand then insert the Y-OR wires.</div>		n/a	<div>1. No wrong use of parts 2. No deformed terminal</div>

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PARTS:

1. Connector 6189-1161 (B)

JIG

1. Insertion jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

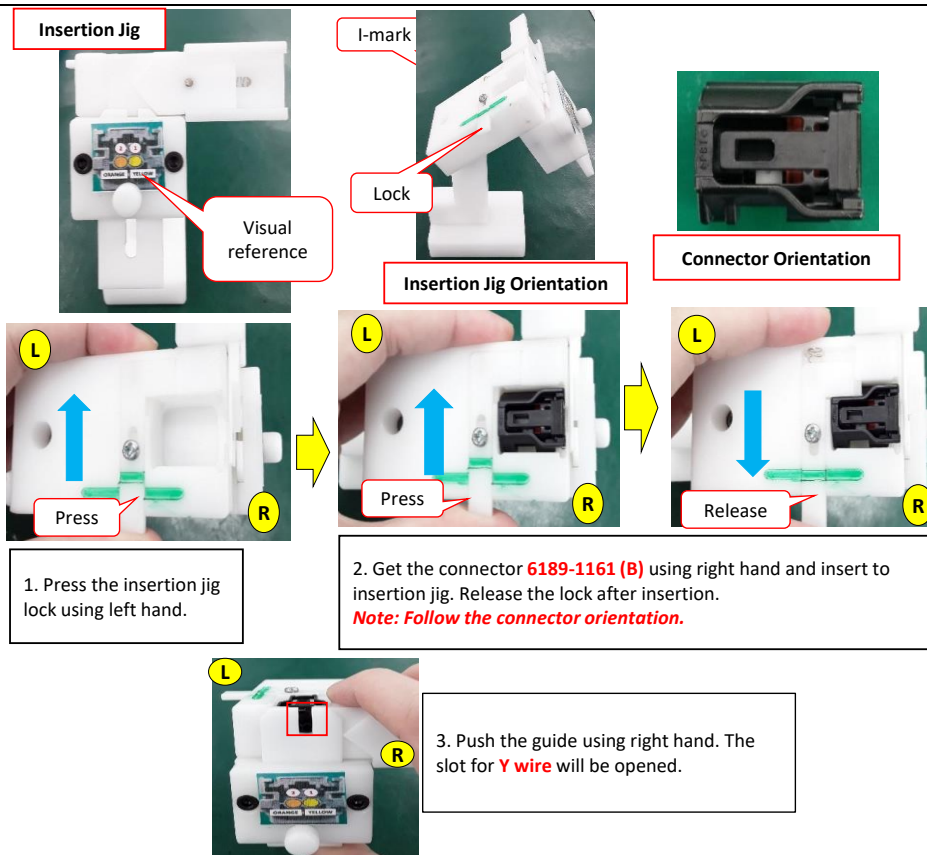
TOOLS/PPE

QUALITY POINTERS

5

P1

Connector setting to
Insertion jig
6189-1161 (B)



n/a

CONNECTOR ORIENTATION ILLUSTRATION



1. Use the provided jig per model
2. No wrong orientation of connector
3. No wrong use of connector
4. No damaged connector

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PARTS:

1. Assy parts

JIG

1. Insertion jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION


TOOLS/PPE

QUALITY POINTERS

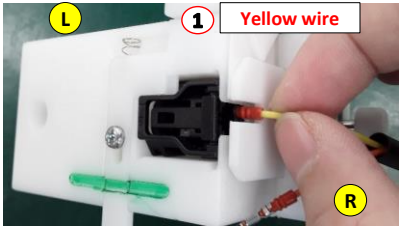
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P1

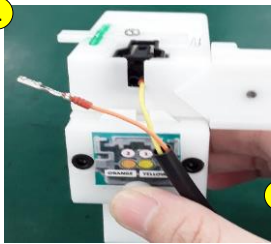
Wire insertion to connector
6189-1161 (B)



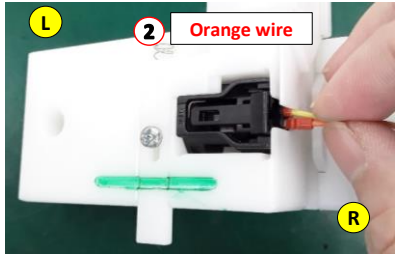
Wire facing



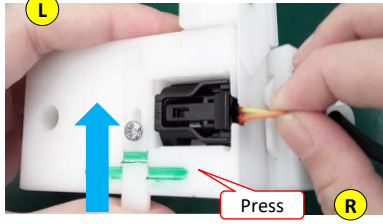
1. Hold the insertion jig using left hand. Get the **Yellow wire** then insert to terminal slot **1** using right hand.



2. Press the button using right thumb. Slot for **Orange wire** will be opened.



3. Get the **Orange wire** then insert to terminal slot **2** using right hand.



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.

n/a

Note: During insertion, hold the wire not rubber seal to prevent sagging.



1. No loose insertion
2. No wrong insertion
3. One by one insertion
4. No deformed terminal
5. No wrong wire facing

Important reminders/Note/s:

1. Please hold the wire near terminal.
 2. Make sure wires are properly inserted.
- Conduct Pull-Push-Pull-Push after insertion.
Do not exert extra force.

Document references:

1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.

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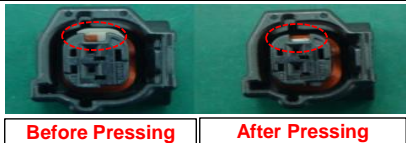



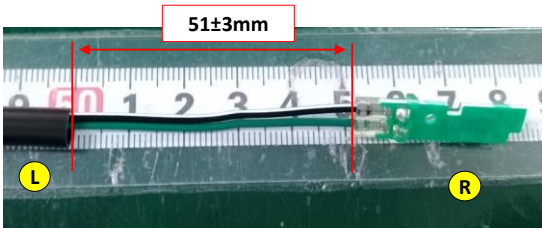
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PARTS:		1. Assy parts 2. Black VM tube (Sunprene) $\phi 5$ L=125 \pm 3mm	3. MRSW CP TVSSf 0.3 wire G-B/W L=645 \pm 3mm	JIG	1. Locking jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
7	P1	Connector lock	   <p>Put the connector into locking jig using right hand then press 2x using both hands. Check the connector lock if properly lock.</p>	LOCKING JIG 	Important reminders/Note/s: 1. MANUAL LOCKING MAY CAUSE DAMAGED CONNECTOR 1. Use the provided jig per connector 2. No unlock/half-locked connector
8		Wire insertion to Black VM tube (Sunprene) $\phi 5$ L=125 \pm 3mm	 <p>1. Get the VM tube (Sunprene) $\phi 5$ L=125\pm3mm using right hand then insert the MRSW CP TVSSf 0.3 wire G-B/W L=645\pm3mm using left hand.</p>	n/a	Document reference/s: 1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance 1. No wrong usage of parts
9		Taping 1 Black VM tube (Sunprene) to wire near PCB	 <p>1. Hold the sunprene tube using left hand then measure from end of VM tube (Sunprene) up to edge of PCB 51\pm3mm using both hands.</p>	n/a	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 Important reminders/Note/s: 1. Please use calibrated/verified measuring tape when getting the measurement.

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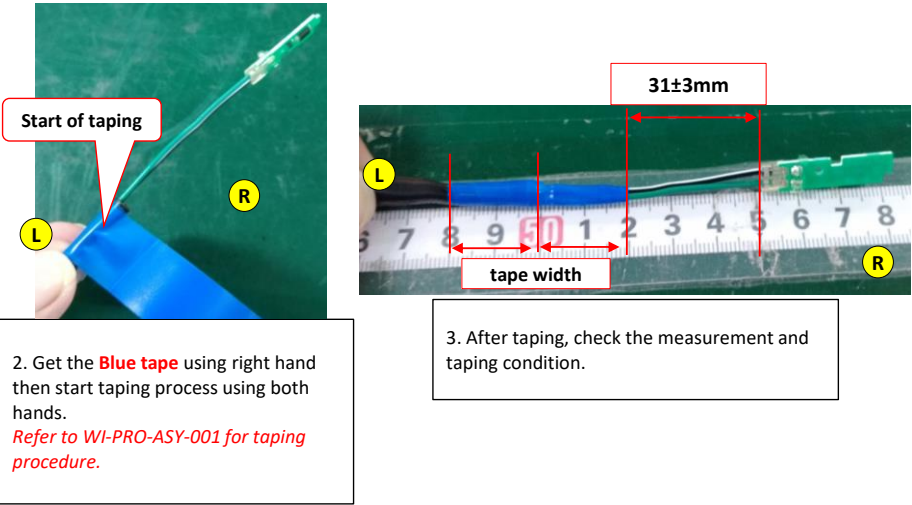


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PARTS:		1. Assy parts 2. Blue tape	3. Black Corrugated tube (no slit) $\phi 5$ L=371 \pm 3mm	JIG	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
9	P1 Taping 1 Black VM tube (Sunprene) to wire near PCB (Continuation)	 <p>Start of taping</p> <p>31\pm3mm</p> <p>tape width</p> <p>2. Get the Blue tape using right hand then start taping process using both hands. <i>Refer to WI-PRO-ASY-001 for taping procedure.</i></p> <p>3. After taping, check the measurement and taping condition.</p>		 <p>MEASURING TAPE</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 Important reminders/Note/s: 1. Use BLUE TAPE only 2. Please use calibrated/verified measuring tape when getting the measurement.
10	Wire insertion to COT (no slit) $\phi 5$ L=371 \pm 3mm	 <p>1. Get the corrugated tube (no slit) $\phi 5$ L=371\pm3mm using right hand then insert the G-B/W wires using left hand.</p>		n/a	1. No wrong use of parts 2. No deformed terminal

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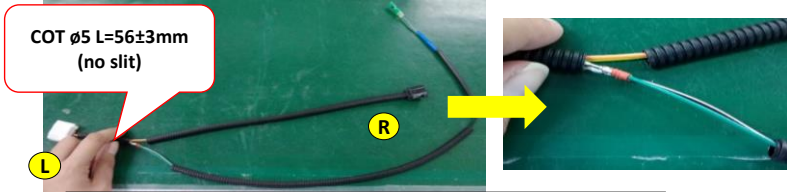
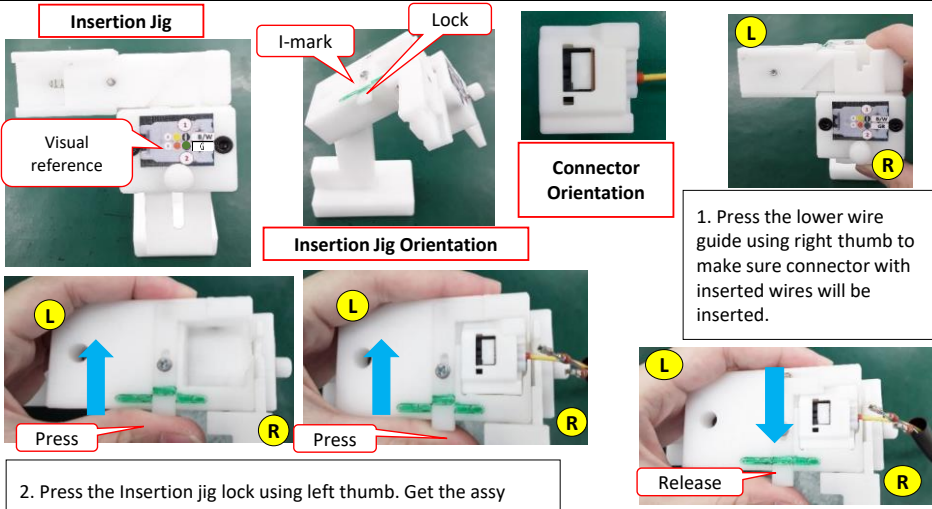

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PARTS:		1. Assy parts		JIG	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
11	Wire insertion to assy parts	 <p>1. Get the assy parts using left hand then insert the G-B/W wires to COT (no slit) Ø5 L=56±3mm using right hand.</p>		n/a	1. No wrong insertion 2. No deformed terminal
12	Connector setting to Insertion jig 6189-1142 (W) (Assy parts)	 <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	CONNECTOR ORIENTATION ILLUSTRATION  <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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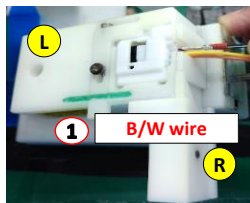
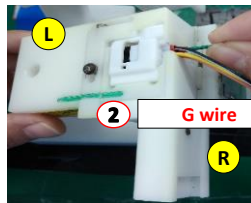

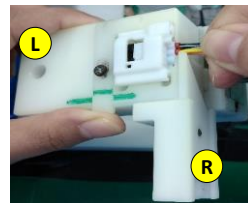
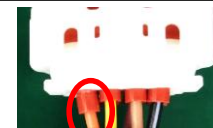

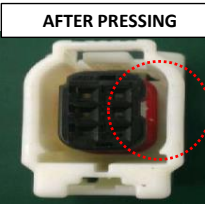
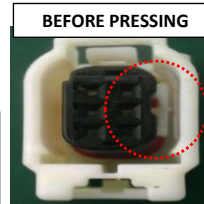

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PARTS:		1. Assy parts		JIG	1. Insertion jig	
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
13	P1	Wire insertion to Connector (Assy parts)	<div><div><p>1. Hold the insertion jig using left hand. Get the Yellow wire then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

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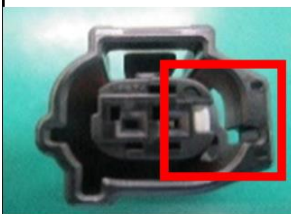
JIG

n/a

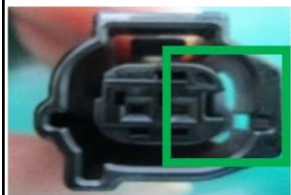
QUALITY CHECKPOINTS

P1

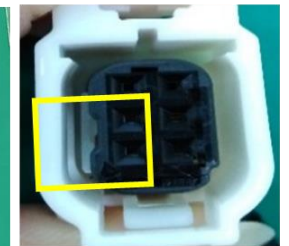
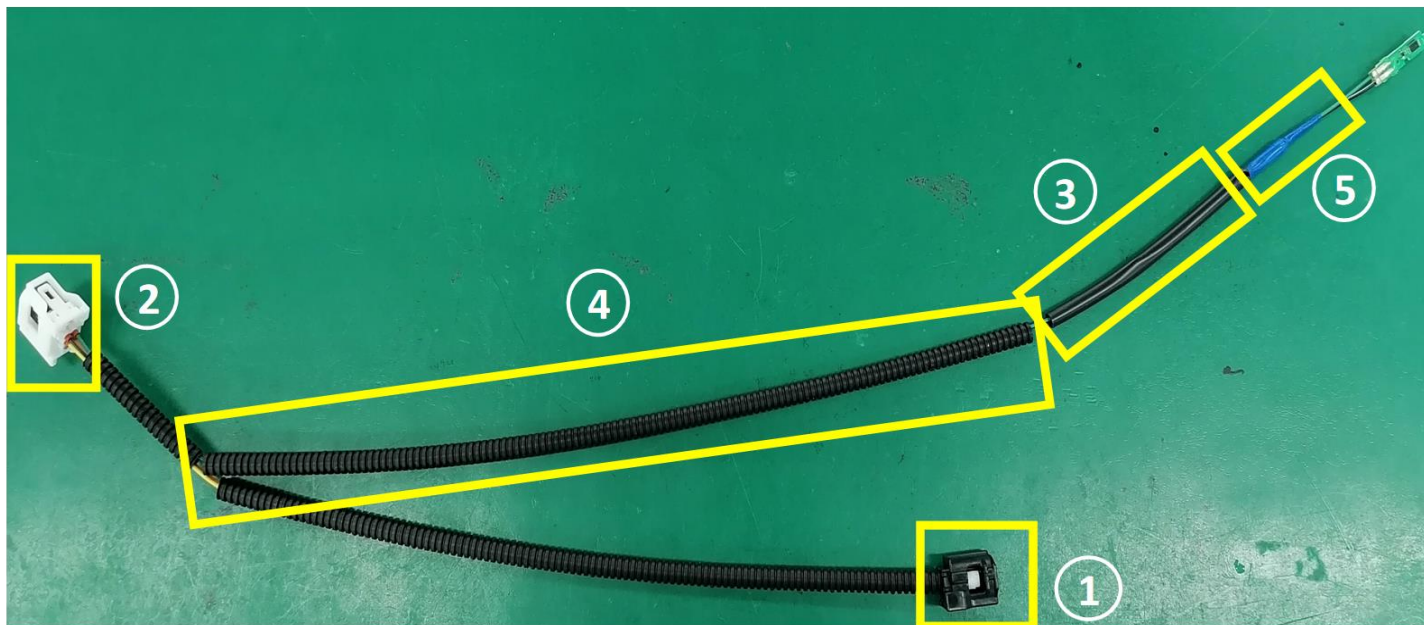
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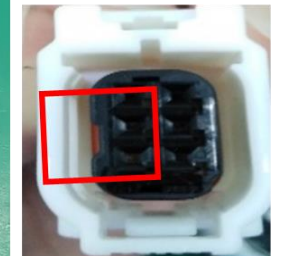
NO GOOD



GOOD



GOOD



NO GOOD

① ② No **WRONG INSERT**
No **TERMINAL BACKING OUT**

③ No **MISSING VINYL**
⑤ No **MISSING TAPE**

④ No **MISSING COT**

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