



WORK INSTRUCTION

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

Effectivity Date:

December 09, 2022

Model Code/Part Number: **920B / 7R0117-7020A** Customer: **TRMX**

Validity Date:

n/a

Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ☒ MASSPRO

Document No.:

WI-ENG-PDE-551A

Revision No.:

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PARTS:

1. All parts: 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=299±3mm; Connector 6189-1161 (B); Black sunprene tube ø5 L=125±3mm; Black COT (no slit) ø5 L=350±3mm; MRSW CP TVSSf 0.3 wire G-B/W L=624±3mm; Black tape; Blue tape

JIG:

1. Insertion jig with switch cover
2. Insertion jig
3. Locking jig

NO.

PROCESS NAME

1 WORK PROCEDURE/ ILLUSTRATION

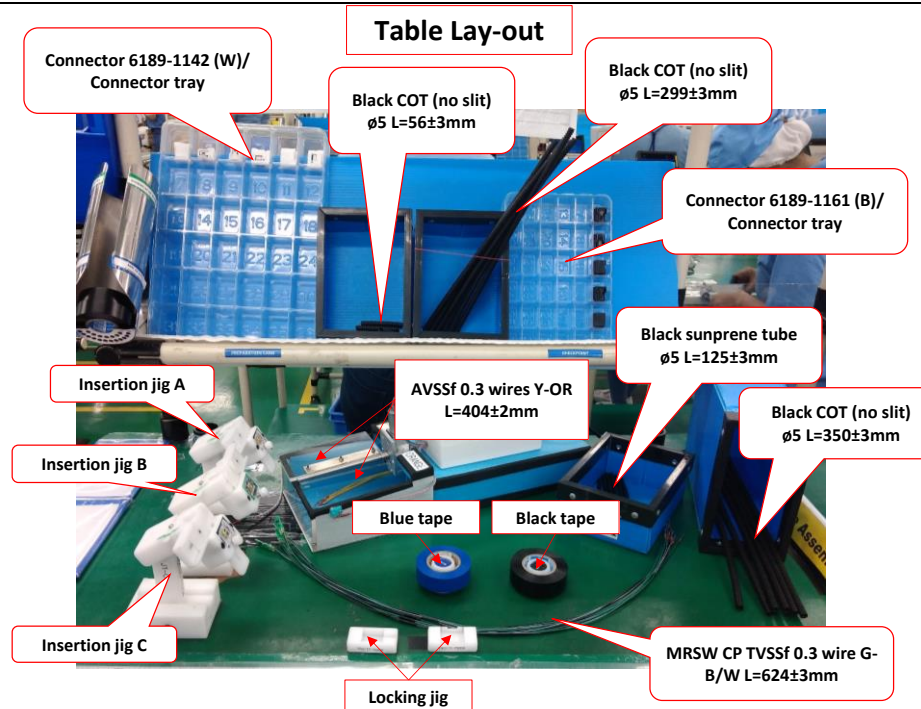
TOOLS/PPE

1 QUALITY POINTERS

1

P1

Table Lay-out



Safety Instruction

Be sure to wear prescribed personal protective equipment during operation (gloves, finger cots, etc.)

Housekeeping

1. Maintain and always practice 5's.
2. Personal things on the workplace is prohibited. Keep it in your locker.

Alert level

For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.

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

1. No missing parts/tools
2. No excess parts/tools

Revision History

Eff. Date	Rev. No	Details of Change	Prepared by	Reviewed by	Approved by	Noted by
12/09/22	1	Additional table lay-out ; Quality checkpoints - as improvement of documentation and process. Improve work procedure/illustration/quality pointers in all process. Provide tools: Insertion and locking jig	M. Catapang	J. Loterte	C. Villanueva	A. Arañes
06/21/22	0	Initial issue	M. Catapang	J. Loterte	C. Villanueva	A. Arañes
			Revised	Reviewed	Approved	Noted

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PARTS:

1. Connector 6189-1142 (W)
2. AVSSf 0.3 wires Y-OR L=404±2mm

JIG

1. Insertion jig with switch cover

NO.

PROCESS NAME

1 WORK PROCEDURE/ ILLUSTRATION

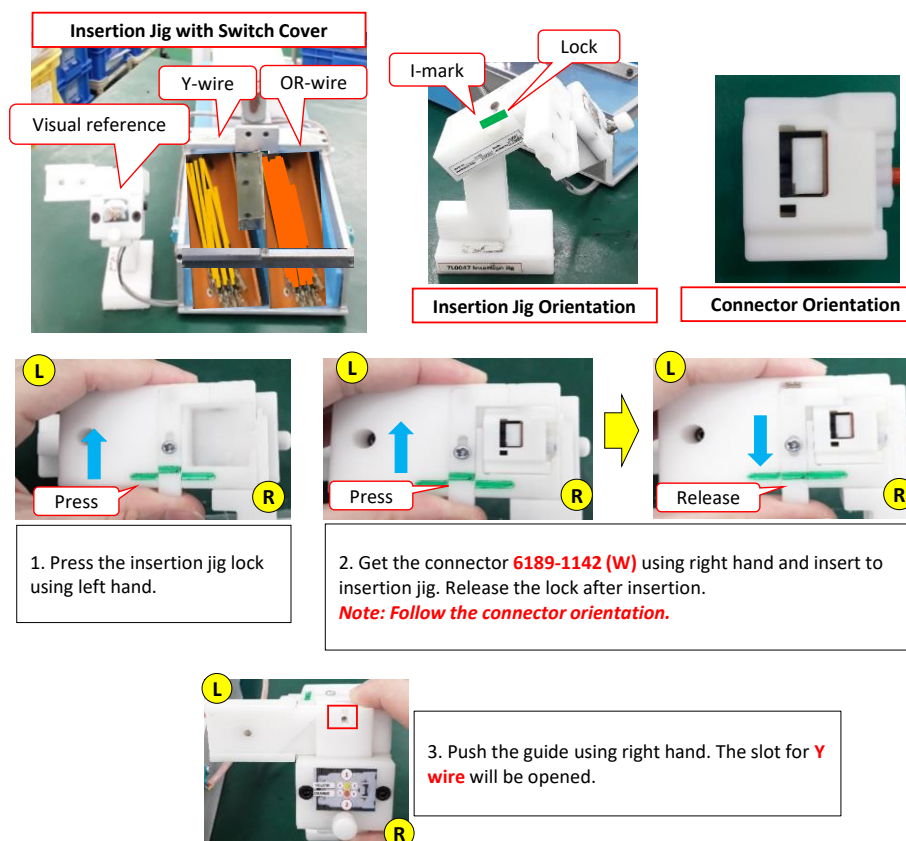
TOOLS/PPE

1 QUALITY POINTERS

2

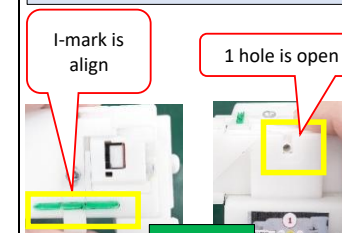
P1

Connector setting to
Insertion jig
6189-1142 (W)



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

Document reference/s:

1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance

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PARTS:		1. Assy parts 2. Black Corrugated tube (no slit) $\varnothing 5$ L=56 \pm 3mm 3. Black Corrugated tube (no slit) $\varnothing 5$ L=299 \pm 3mm	JIG	1. Insertion jig
NO.	PROCESS NAME	1 WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	1 QUALITY POINTERS
3	Wire Insertion to connector 6189-1142 (W)	<p>1. Hold the insertion jig using left hand. Get the Yellow wire then insert to terminal slot 1 using right hand.</p> <p>2. Press the button using right thumb. Slot for Orange wire will be opened.</p> <p>3. Get the Orange wire then insert to terminal slot 2 using right hand.</p> <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>	n/a	<p>Note: During insertion, hold the wire not rubber seal to prevent sagging.</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> <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>
4	Wire insertion to COT (no slit) $\varnothing 5$ L=56 \pm 3mm $\varnothing 5$ L=299 \pm 3mm	<p>1. Get the Corrugated tube $\varnothing 5$ L=56\pm3mm (no slit) using right hand then insert the Y-OR wires.</p> <p>2. Get the Corrugated tube $\varnothing 5$ L=299\pm3mm (no slit) using right hand then insert the Y-OR wires.</p>	n/a	<p>1. No wrong use of parts 2. No deformed terminal</p>

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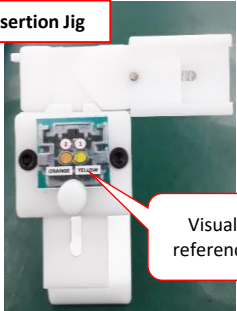
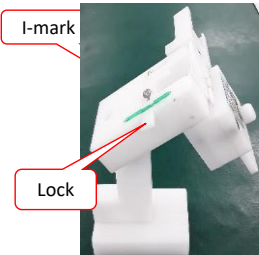

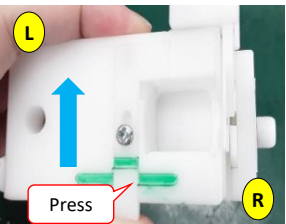
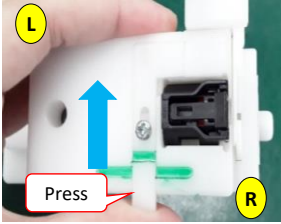
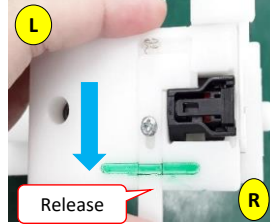
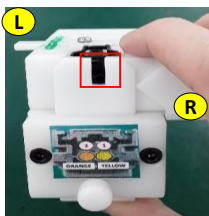


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PARTS:		1. Connector 6189-1161 (B)		JIG	1. Insertion jig
NO.	PROCESS NAME	1 WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	1 QUALITY POINTERS
5	P1	<div><div><div>Insertion Jig</div><div>Visual reference</div></div><div><div>Lock</div><div>Insertion Jig Orientation</div></div><div><div>Connector Orientation</div></div><div><div>L</div><div>Press</div></div><div><div>L</div><div>Press</div></div><div><div>L</div><div>Release</div></div><div><div>1. Press the insertion jig lock using left hand.</div></div><div><div>2. Get the connector 6189-1161 (B) using right hand and insert to insertion jig. Release the lock after insertion. Note: Follow the connector orientation.</div></div><div><div>L</div><div>3. Push the guide using right hand. The slot for Y wire will be opened.</div></div></div>		n/a	<div><div>CONNECTOR ORIENTATION ILLUSTRATION</div><div><div>I-mark is align</div><div>1 hole is open</div><div>GOOD</div></div><div><div>I-mark is not align</div><div>1 hole is open</div><div>NG</div></div><div><div>1. Use the provided jig per model</div><div>2. No wrong orientation of connector</div><div>3. No wrong use of connector</div><div>4. No damaged connector</div></div></div>

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PARTS:

1. Assy parts

JIG

1. Insertion jig

NO.

PROCESS NAME

1 WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

1 QUALITY POINTERS

6

P1

Wire insertion to connector
6189-1161 (B)

Wire facing

1 Yellow wire

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

2 Orange wire

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

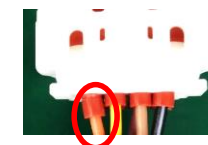
2. Press the button using right thumb. Slot for **Orange wire** will be opened.

Press

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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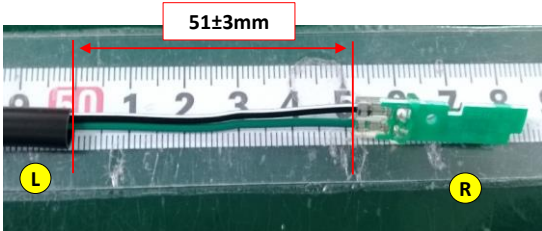
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PARTS:		1. Assy parts 2. Black sunprene tube $\phi 5$ L=125 \pm 3mm			3. MRSW CP TVSSf 0.3 wire G-B/W L=624 \pm 3mm	JIG	1. Locking jig
NO.	PROCESS NAME		1 WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE		1 QUALITY POINTERS
7	P1	Connector lock	<div><div></div><div>Put the connector into locking jig using right hand then press 2x using both hands. Check the connector lock if properly lock.</div></div> <div><div></div><div>Before Pressing</div><div></div><div>After Pressing</div><div><div></div><div>Unlock Condition</div><div></div><div>Half lock Condition</div><div></div><div>Full lock Condition</div></div></div>			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 sunprene tube $\phi 5$ L=125 \pm 3mm	<div><div></div><div>1. Get the sunprene tube $\phi 5$ L=125\pm3mm using right hand then insert the MRSW CP TVSSf 0.3 wire G-B/W L=624\pm3mm using left hand.</div></div>	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 sunprene tube to wire near PCB	<div><div></div><div>51\pm3mm</div><div>1. Hold the sunprene tube using left hand then measure from end of sunprene tube up to edge of PCB 51\pm3mm using both hands.</div></div>	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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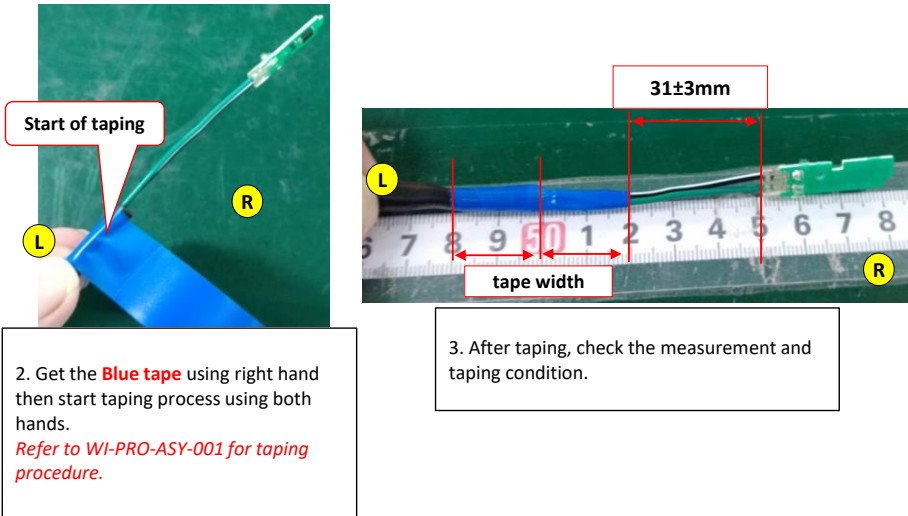


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PARTS:		1. Assy parts 2. Blue tape	3. Black Corrugated tube (no slit) $\varnothing 5$ L=350 \pm 3mm	JIG	n/a
NO.	PROCESS NAME	1 WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	1 QUALITY POINTERS
9	P1 Taping 1 Black sunprene tube to wire near PCB (Continuation)	 <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>	<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: 1. Use BLUE TAPE only 2. Please use calibrated/verified measuring tape when getting the measurement.</p>
10	Wire insertion to COT (no slit) $\varnothing 5$ L=350 \pm 3mm	 <p>1. Get the corrugated tube (no slit) $\varnothing 5$ L=350\pm3mm using right hand then insert the G-B/W wires using left hand.</p>		n/a	<p>1. No wrong use of parts 2. No deformed terminal</p>

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PARTS:

1. Assy parts

JIG

n/a

NO.**PROCESS NAME****1 WORK PROCEDURE/ ILLUSTRATION****TOOLS/PPE****1 QUALITY POINTERS**

11

Wire insertion to assy parts

COT $\phi 5$ L=56 \pm 3mm
(no slit)

L

R

1. Get the assy parts using left hand then insert the **G-B/W** wires to COT (no slit) $\phi 5$ L=56 \pm 3mm using right hand.

n/a

1. No wrong insertion
2. No deformed terminal

12

P1

1Connector setting to
Insertion jig
6189-1142 (W)
(Assy parts)**Insertion Jig**Visual
reference

I-mark

Lock

**Connector
Orientation****Insertion Jig Orientation**

L

L

R

Press

Press

2. Press the Insertion jig lock using left thumb. Get the assy parts and insert the connector using right hand.

1. Press the lower wire guide using right thumb to make sure connector with inserted wires will be inserted.

L

Release

3. After insertion, release the insertion jig lock using left thumb.

n/a

**CONNECTOR ORIENTATION
ILLUSTRATION**I-mark is
align

1 hole is open

GOOD

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	1 WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	1 QUALITY POINTERS
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1. Assy parts

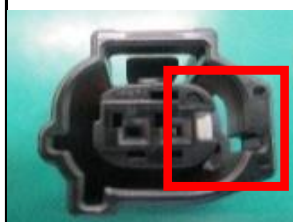
JIG

n/a

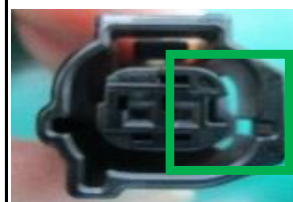
1 QUALITY CHECKPOINTS

P1

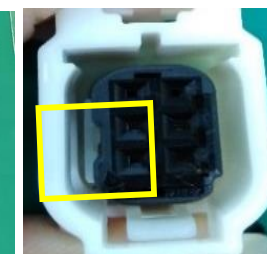
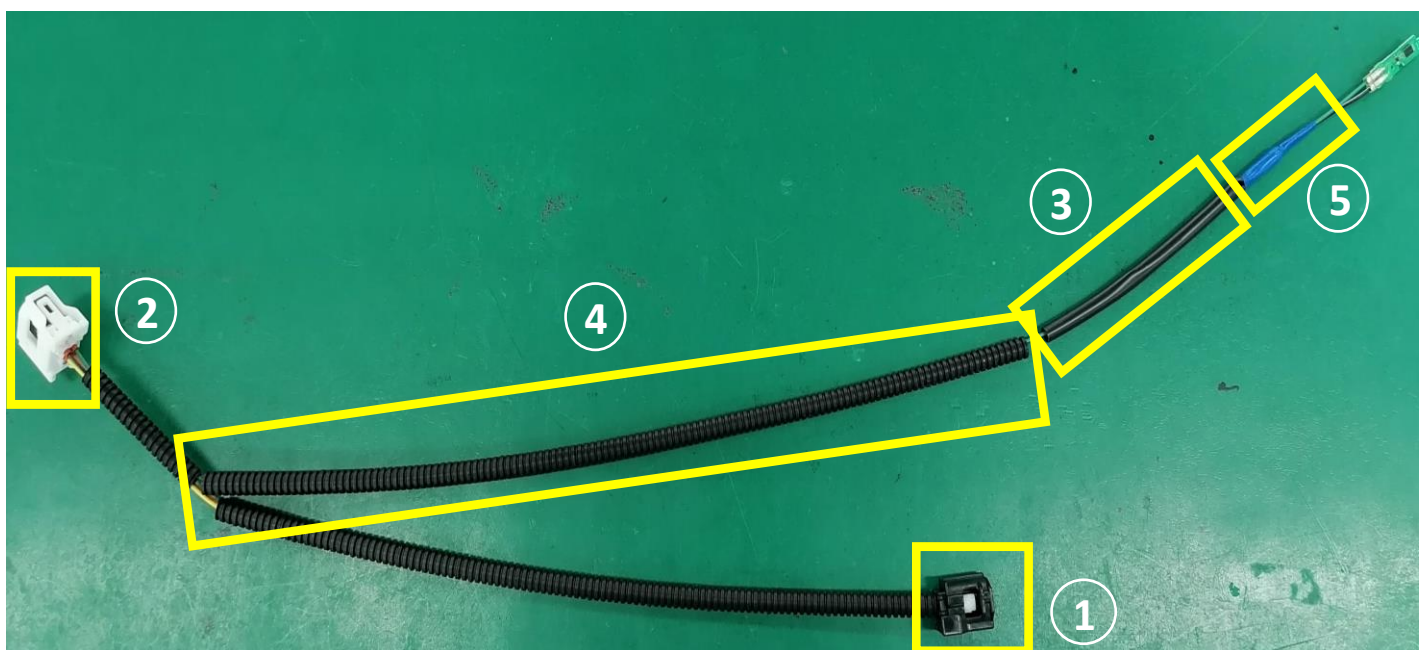
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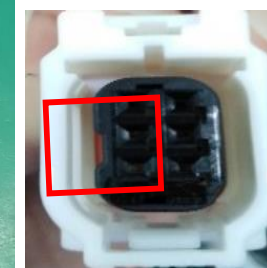
NO GOOD



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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