

	<b>WORK INSTRUCTION</b>				Effectivity Date:		April 24, 2023	
	<b>TAPING ASSEMBLY PROCESS</b>				Validity Date:		n/a	
	Process Name/Title:		Model Code/Part Number: <b>011B / 7M0365-7021</b>		Customer: <b>TRJ</b>		Document No.: <b>WI-ENG-PDE-418A</b>	
	Purpose:		<input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO		Revision No.:		2	Page No.: 1 of 11

<b>PARTS:</b>	1. All parts: Connector 6189-0451 (W); AVSSf 0.3 wires Y-OR L=387±2mm; AVSSf 0.3 wires G-B/W L=826±3mm; Black COT (no slit) Ø7 L=87±3mm; Black COT (no slit) Ø7 L=208±3mm; Connector 6188-0066 (GR); Black 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	Table Lay-out			<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  1. No missing parts/tools 2. No excess parts/tools

Revision History								Prepared by		Reviewed by		Approved by		Noted by	
04/24/23	2	Inclusion of quality checkpoints				J. Loterte	C. Villanueva	A. Arañes	n/a				n/a		
11/07/22	1	Improve quality pointers: Reminders/notes and references in process no.1,3,4,6,8,10,12 and 13 due to document improvement.				M. Catapang	J. Loterte	C. Villanueva	A. Arañes						
02/22/22	0	Initial issue				M. Catapang	J. Loterte	C. Villanueva	A. Arañes						
Eff. Date	Rev. No	Details of Change				Revised	Reviewed	Approved	Noted	Est. Date:		February 22, 2022			

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Purpose: ☐ PROTOTYPE

☐ PRE-LAUNCH

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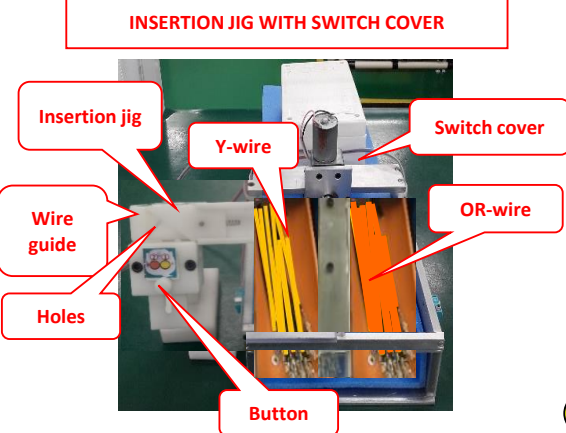
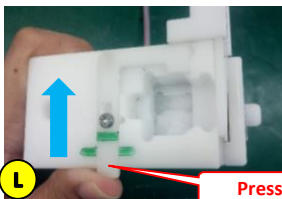
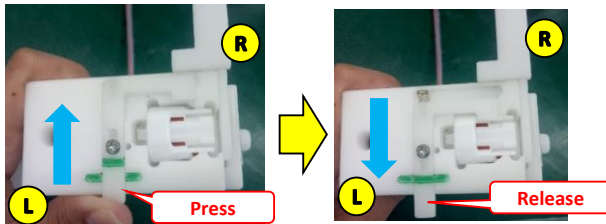
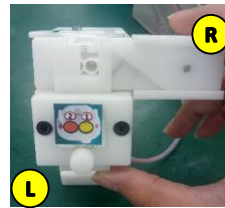

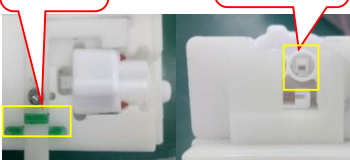
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### PARTS:

- Connector 6189-0451 (W)
- AVSSf 0.3 wires Y-OR L=387±2mm

### JIG

- Insertion jig w/ switch cover

NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
2	P1 Connector setting to insertion jig 6189-0451 (W)	<p><b>INSERTION JIG WITH SWITCH COVER</b></p>  <p><b>CONNECTOR ORIENTATION</b></p>  <p>1. Press the lock of insertion jig using left thumb.</p>  <p>2. Insert the connector <b>6189-0451 (W)</b> into jig using right hand and release the lock.</p>  <p>3. Push the wire guide upward, slot for <b>Y wire</b> will be opened.</p>	n/a	<p><b>Connector Orientation Illustration</b></p>  <p><b>GOOD</b></p>  <p><b>NG</b></p> <ol style="list-style-type: none"><li>Use the provided jig per model</li><li>No wrong orientation of connector</li><li>No wrong use of connector</li><li>No damaged connector</li></ol>

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☐ PRE-LAUNCH


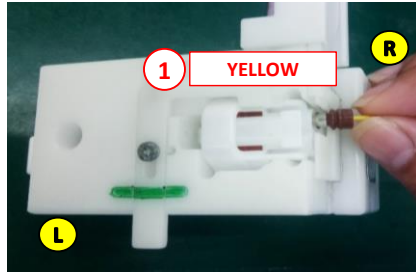
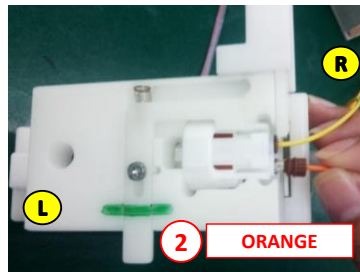
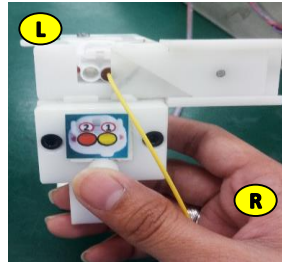
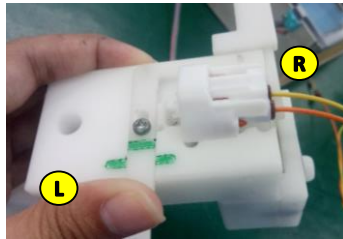
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PARTS:	n/a			JIG	1. Insertion jig w/switch cover
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
3	P1	Wire insertion to Connector 6189-0451 (W)	<div><p>WIRE FACING</p></div> <div><p>1. Get the <b>Y</b> wire using right hand then insert to terminal slot <b>1</b> of using right hand.</p></div> <div><p>2. Get the <b>OR</b> wire using right hand then insert to terminal slot <b>2</b> using right hand.</p></div> <div><p>3. Press the button using right thumb after insertion. The slot for <b>OR</b> 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>	n/a	<div>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deform 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> <b>2. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</b></div>

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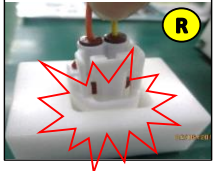











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PARTS:		1. Assy parts 2. Black corrugated tube (no slit) Ø7 L=87±3mm 3. Black corrugated tube (no slit) Ø7 L=208±3mm		JIG	1. Locking jig 2. Terminal cover jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
4	Connector Lock	 1. Put the connector into locking jig using right hand then push <b>2x</b> . Check the connector if properly locked.  <b>BEFORE PRESSING</b>  <b>AFTER PRESSING</b>  <b>GOOD</b>  <b>NG</b> Check the double lock deformation		<b>LOCKING JIG</b> 	<b>Important reminders/Note/s:</b> <b>1. MANUAL LOCKING MAY CAUSE DAMAGED CONNECTOR</b>  1. No half-locked and unlock 2. No lock deformation 3. Use provided jig tool to lock the connector
5	P1  Wire insertion to Black corrugated tube (no slit) Ø7 L=87±3mm Ø7 L=208±3mm	 1. Get the terminal cover jig using right hand then insert to both terminals ( <b>Y-OR wires</b> ) using right hand.  2. Hold the COT ( <b>no slit</b> ) Ø7 L=87±3mm using right hand then insert the <b>Y-OR wires</b> using left hand.  3. Hold the COT Ø7 L=208±3mm using right hand then insert the <b>Y-OR wires</b> using left hand.  4. After insertion, remove the cover jig using right hand. 		<b>TERMINAL COVER JIG</b> 	1. No wrong usage of parts 2. No damaged rubber seal

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### PARTS:

1. Assy parts
2. Black tape

JIG

n/a

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

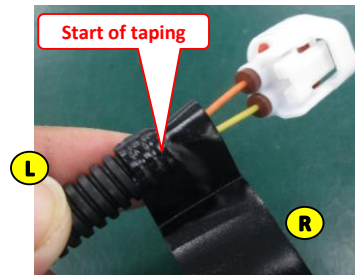
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QUALITY POINTERS

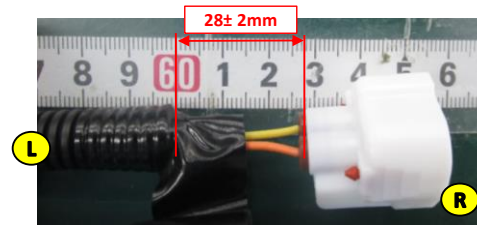
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P1

Taping 1  
Black corrugated tube to  
wire near connector



1. Hold the corrugated tube using left hand get the **Black tape** then start taping using right hand.

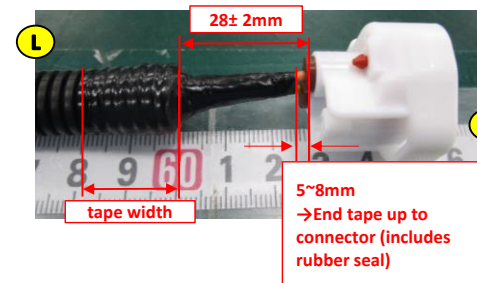


2. Measure the end of the corrugated tube up to the edge of connector **28±2mm** and then continue the taping process using both hands.

MEASURING TAPE



1. No flip-out tape
2. No peel-off tape
3. No loose tape
4. No missing tape
5. No wrong dimension
6. No wrong use of tape



3. After taping, check the measurement and taping condition.

**Important reminders/Note/s:**  
**1. Please use calibrated/verified measuring tape when getting the measurement.**

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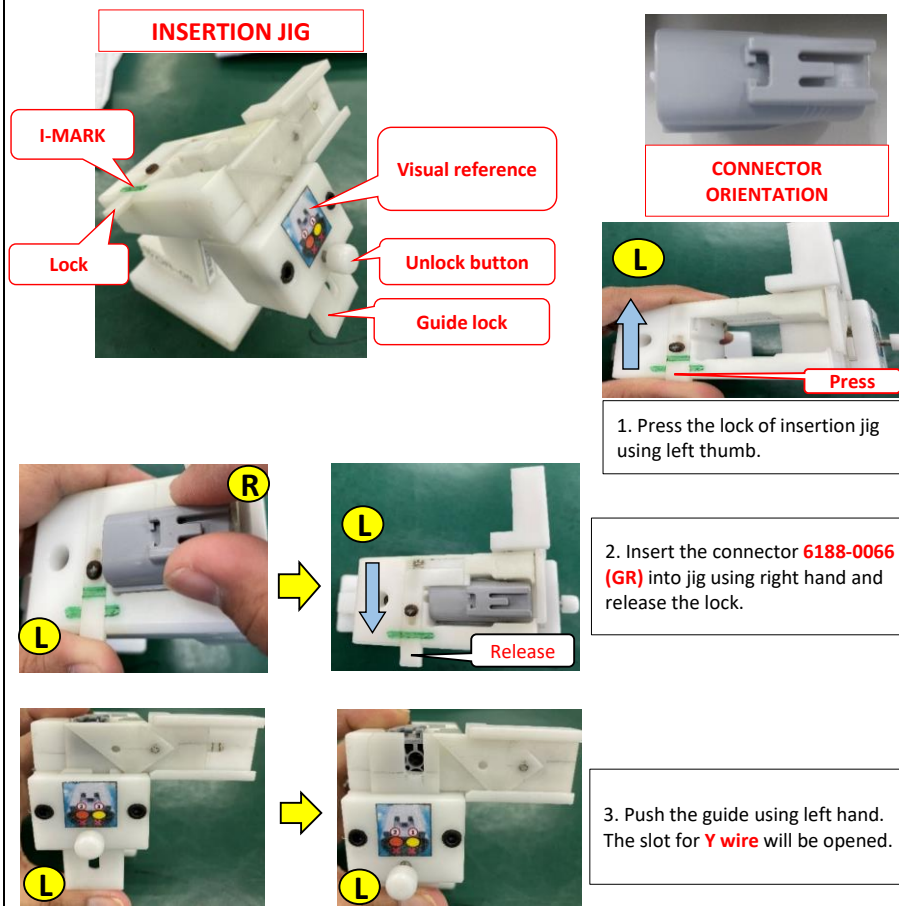
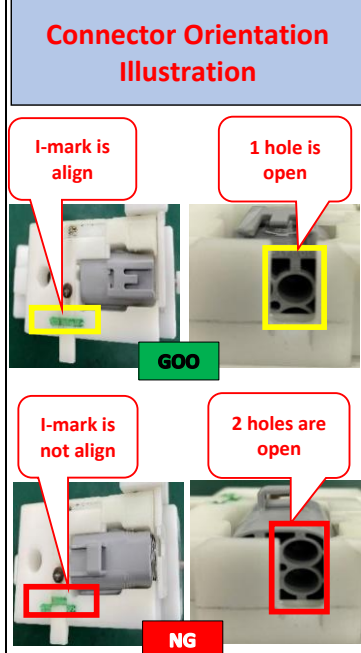
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PARTS:		1. Connector 6188-0066 (GR)		JIG	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
7	P1	<p>Connector setting to insertion jig 6188-0066 (GR)</p> 		n/a	<p><b>Connector Orientation Illustration</b></p>  <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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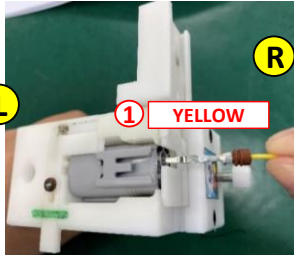

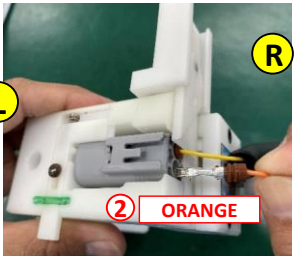
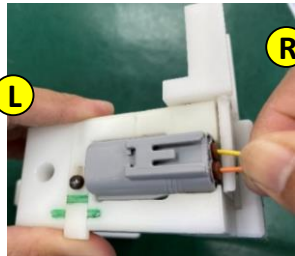
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PARTS:		1. Assy parts		JIG	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
8	P1	<div><p>WIRE FACING</p><p>1. Get the <b>Y</b> wire then insert to terminal slot <b>1</b> using right hand.</p><p>2. After insertion of <b>Y</b> wire press the button using right thumb. The slot for <b>OR</b> wire will be opened.</p><p>3. Get the <b>OR</b> wire then insert to terminal slot <b>2</b> 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></div>		n/a	<div>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deform 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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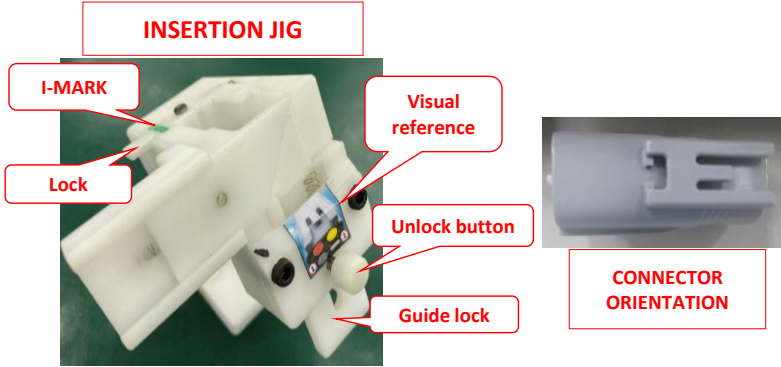
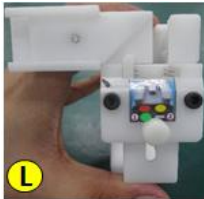
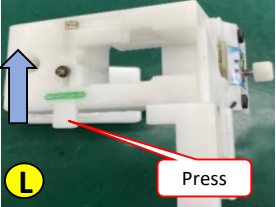
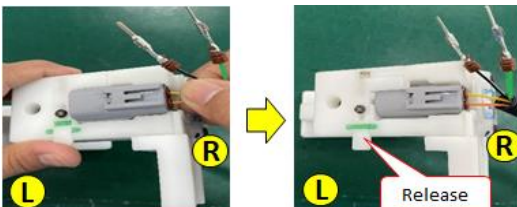
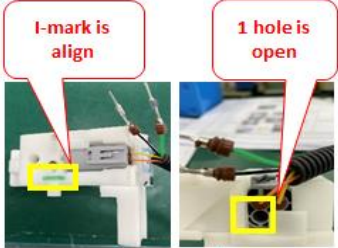
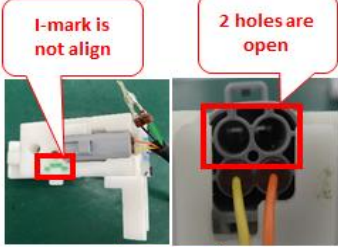
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PARTS:		1. Assy parts		JIG	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
9	P1	<p>Connector setting to insertion jig 6188-0066 (GR) (Assy parts)</p>     <p>1. Push the guide lock using left thumb. The hole for <b>G wire</b> will be opened.</p> <p>2. Press the lock of insertion jig using left thumb.</p> <p>3. Insert the connector <b>6188-0066 (GR)</b> into jig using right hand and release the lock.</p>		n/a	<p><b>Connector Orientation Illustration</b></p>  <p><b>GOOD</b></p>  <p><b>NG</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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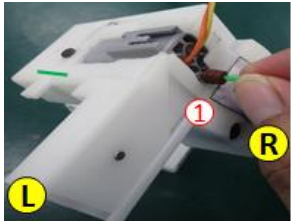
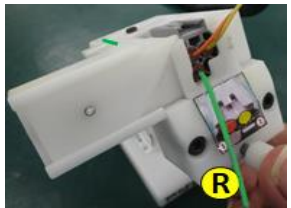


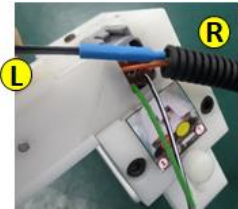

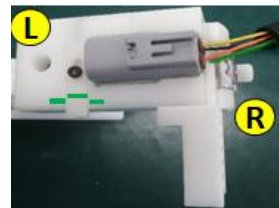

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PARTS:		JIG		
1. Assy parts 2. TVSSf 0.3 G-B/W wires L=826±3mm		1. Insertion jig 2. Terminal cover jig		
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
10	P1  Wire insertion to connector 6188-0066 (GR)	<div><p>1. Hold the <b>G wire</b> then insert to terminal slot ① using right hand.</p></div> <div><p>2. After insertion of <b>G wire</b> press the button using right thumb. The slot for <b>B/W wire</b> will be opened.</p></div> <div><p>3. Hold the <b>B/W wire</b> then insert to terminal slot ② using right hand.</p></div>	n/a	1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deformed terminal 5. No wrong wire facing  <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>  <b>Document references:</b> <b>1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</b>
11	P1  Wire insertion to Black corrugated tube (no slit) Ø7 L=208±3mm (Assy parts)	<div><p>1. Get the terminal cover jig using right hand then insert to both terminals (<b>G-B/W wires</b>) using right hand.</p></div> <div><p>2. Hold the COT <b>Ø7 L=208±3mm</b> using right hand then insert the <b>G-B/W wires</b> using left hand.</p></div> <div><p>3. After insertion, remove the cover jig using right hand.</p></div> <div><p>4. Press the insertion jig lock using left hand and gently remove the harness from jig using right hand.</p></div>	<div>TERMINAL COVER JIG</div> 	1. No wrong insertion 2. No deformed terminal

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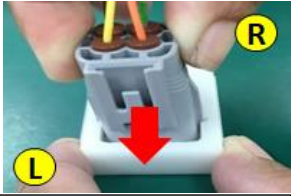








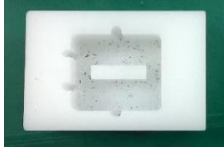




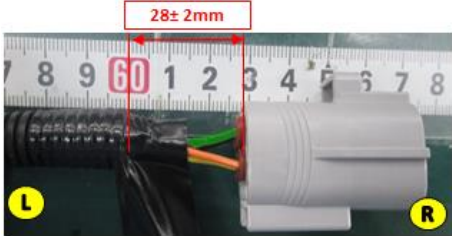
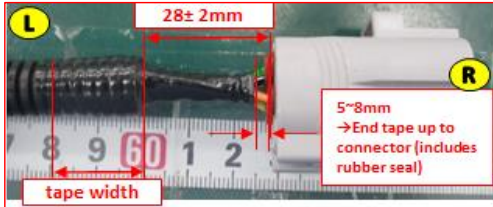

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PARTS:		1. Assy parts 2. Black tape		JIG	1. Locking jig									
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS									
12	Connector Lock	<div><div><p>1. Put the connector into locking jig using right hand then push <b>2x</b>. Check the connector if properly locked.</p></div><div><p>Before pressing</p><p>After pressing</p></div><div><p>Connector Cross Sectional View</p><table><tr><td>NG</td><td>NG</td><td>GOOD</td></tr><tr><td></td><td></td><td></td></tr><tr><td>Unlock Condition</td><td>Half Lock Condition</td><td>Full Lock Condition</td></tr></table></div></div>		NG	NG	GOOD				Unlock Condition	Half Lock Condition	Full Lock Condition	<div>LOCKING JIG</div> 	<p><b>Important reminders/Note/s:</b></p> <p><b>1. MANUAL LOCKING MAY CAUSE DAMAGED CONNECTOR</b></p> <p>1. No half-locked and unlock 2. No lock deformation 3. Use provided jig tool to lock the connector</p>
NG	NG	GOOD												
														
Unlock Condition	Half Lock Condition	Full Lock Condition												
13	P1  Taping 2 Black corrugated tube to wire near connector	<div><div><p>1. Hold the corrugated tube using left hand and start taping using right hand.</p></div><div><p>2. Measure the end of the corrugated tube up to the edge of connector <b>28±2mm</b> and then continue the taping process using both hands.</p></div><div><p>3. After taping, check the measurement and taping condition.</p></div></div>		<div>MEASURING TAPE</div> 	<p>1. No flip-out tape 2. No peel-off tape 3. No loose tape 4. No missing tape 5. No wrong dimension 6. No wrong use of tape</p> <p><b>Important reminders/Note/s:</b></p> <p><b>1. Please use calibrated/verified measuring tape when getting the measurement.</b></p>									

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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: **011B / 7M0365-7021**

Customer:

**TRJ**

Document No.:

**WI-ENG-PDE-418A**

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

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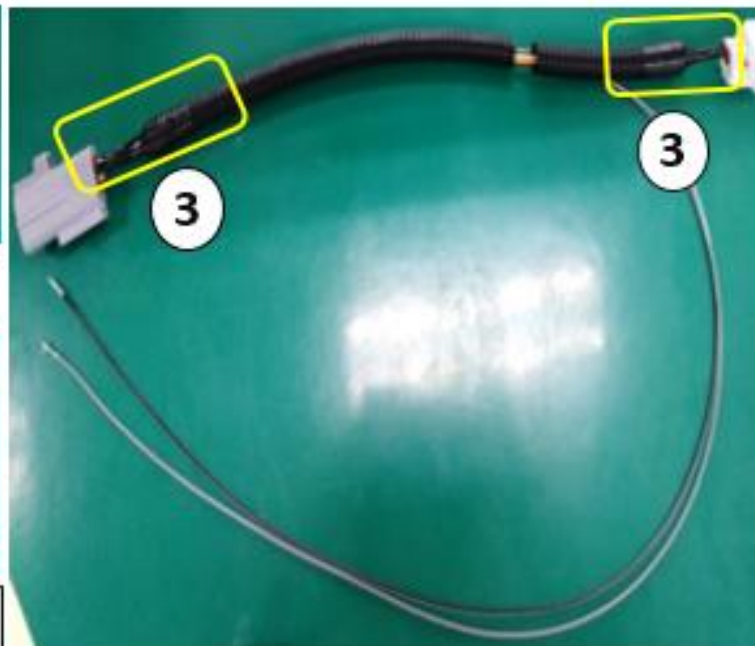
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**PARTS:**

1. Assy parts

**JIG**

n/a

**2 QUALITY CHECKPOINTS****P1****7M0365-7021****GOOD****GOOD****GOOD****GOOD****NO****NO****NO****NO**

① **No Unlock/Halflock Connector**  
(on 2 connector)

② **No Wrong Insert**  
(on 2 connector)

③ **No Missing Tape**

④ **No Terminal**

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