



## WORK INSTRUCTION

Process Name/Title:

## TAPING ASSEMBLY PROCESS

Model Code/Part Number:

240B / 7M0516-7021

Customer:

TRJ

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Effectivity Date:

June 28, 2023

Validity Date:

n/a

Document No.:

WI-ENG-PDE-387A

Revision No.:

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## PARTS:

1. All parts: Connector 6098-2220 (W); Connector 6188-0779 (GR); Black COT (no slit)  $\phi 5$  L=275 $\pm$ 3mm; Black COT (no slit)  $\phi 7$  L=408 $\pm$ 4mm; AVSSf 0.3 Y-OR wire L=730 $\pm$ 3mm; MRSW CP TVSSf 0.3 G-B/W L=814 $\pm$ 3mm; AVSSf 0.3 G-V-B wires L=809 $\pm$ 3mm

JIG:

1. Terminal cover jig  
2. Locking jig 6098-2220 (W)

NO.

PROCESS NAME

2

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

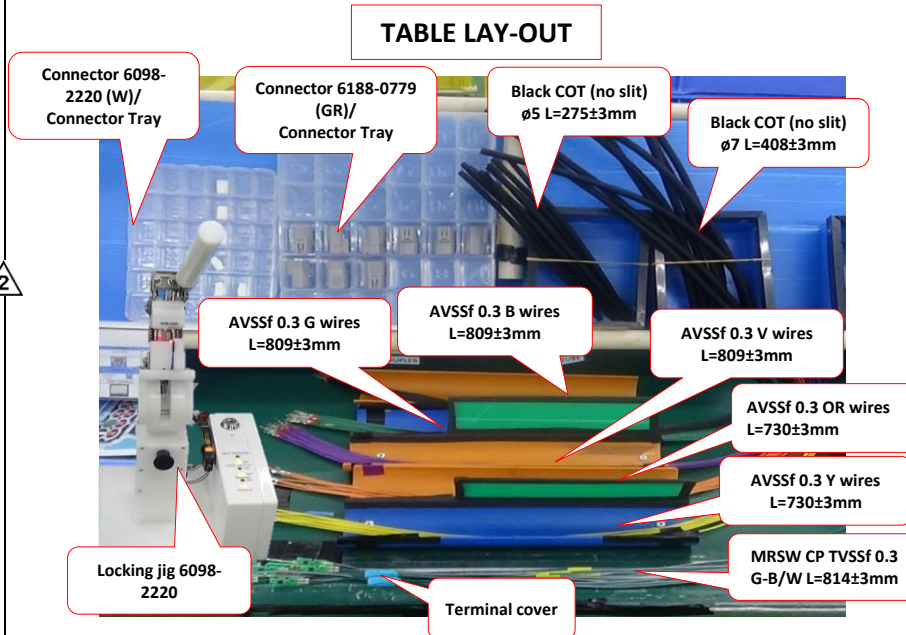
QUALITY POINTERS

1

P1

Table Lay-out

2

**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 references:**

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	Revised	Reviewed	Approved	Noted	Prepared by	Reviewed by	Approved by	Noted by
06/28/23	2	Excluded process no.2-7 from OFFLINE ASSEMBLY PROCESS transferred to P1. Removed and Transferred process of Wire insertion to connector 6188-0779 (GR); Connector lock; Taping 1 and 2; Wire insertion to COT (with slit) $\phi 5$ L=237 $\pm$ 3mm and Taping 3 from P1 to P2 due to new process distribution; Changed table lay-out; Inclusion of Quality Checkpoints (page 10); Inclusion of Locking process-Connector 6098-2220 (W).	M. Ariola	J. Loterte	C. Villanueva	A. Arañes				
09/23/22	1	Improve quality pointers; Reminders/notes and references in process 1,2,3,4,5,6 and 8 due to process improvement. Table lay-out due to removal of other parts. Additional process no.8 from P2 to P1- Taping of COT (w/slit) to wire near terminal and PCB.	M. Catapang	J. Loterte	C. Villanueva	A. Arañes				
02/14/22	0	Initial Issue. Wire color from Gray (GR) to Green (G) (MR CP TVSSf 0.3 from GR-B/W) to MR CP TVSSf 0.3 from G-B/W) Refert to WI-ENG-PDE-399; CL-ENG-PDE-283B	M. Catapang	J. Loterte	C. Villanueva	A. Arañes				
Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Est. Date:	February 14, 2022		

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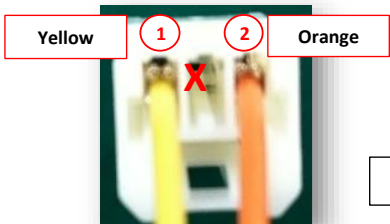
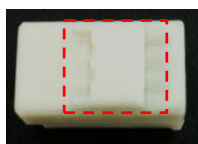

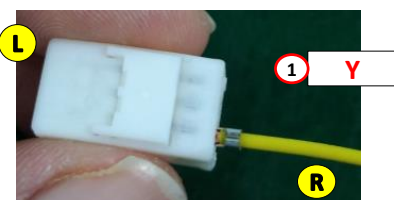
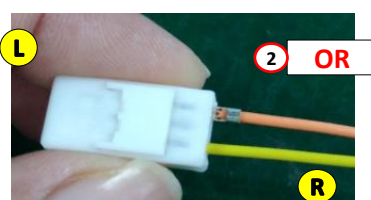
☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

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PARTS:		1. Connector 6098-2220 (W) 2. AVSSf 0.3 Y-OR wires L=730±3mm	JIG	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
2	P1	Wire insertion to Connector 6098-2220 (W)       <p>1. Hold the connector <b>6098-2220 (W)</b> using left hand then insert the <b>Yellow wire</b> to terminal <b>slot 1</b> using right hand.</p> <p>2. Hold the connector <b>6098-2220 (W)</b> using left hand then insert the <b>Orange wire</b> to terminal <b>slot 2</b> using right hand.</p>	n/a	<p>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deformed terminal 5. No wrong wire facing 6. No wrong orientation of connector</p> <p><b>Important reminders/Note/s:</b></p> <p><b>1. Please hold the wire near terminal.</b></p> <p><b>2. Make sure wires are properly inserted.</b></p> <p><b>Conduct Pull-Push-Pull-Push after insertion.</b></p> <p><b>Do not exert extra force.</b></p> <p><b>Document references:</b></p> <p><b>1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</b></p> <p><b>2. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</b></p>

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WORK INSTRUCTION  
TAPING ASSEMBLY PROCESS

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Validity date	n/a		
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Process Name/Title: **TAPING ASSEMBLY PROCESS**

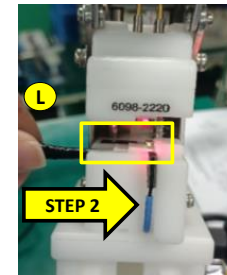
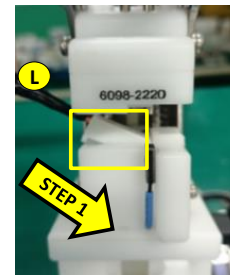
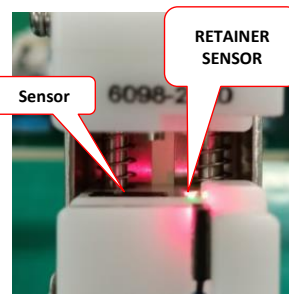
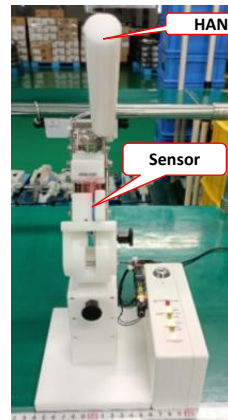
Model Code/Part Number: **240B / 7M0516-7021** Customer: **TRJ**

Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ☒ MASSPRO

PARTS:		1. Assy parts	JIG	1. Locking jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
3	P1	Connector lock		<p>1. Maintain 10mm proper holding of wire to connector</p> <p>2. Connector must be fully inserted to connector slot.</p> <p>3. Make sure no offset setting before locking process.</p> <p>4. No wrong setting of connector.</p> <p>5. No damaged connector lock</p> <p>6. No unlocked/ half-locked connector.</p> <p><b>Important reminders/Note/s:</b></p> <p><b>1. Incomplete locking process will alarm the jig.</b></p> <p><b>2. No retainer in connector cannot proceed.</b></p> <p><b>3. If encountered abnormality, STOP and immediately CALL the attention of the leader. WAIT for further instruction and continue the process.</b></p>

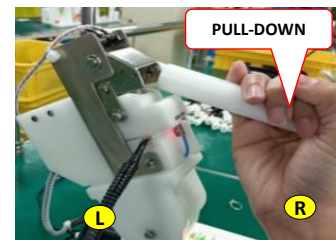


WORK PROCEDURE/ ILLUSTRATION



1. Hold the assy parts using left hand and insert into connector locking jig based on the direction of arrow. Make sure the connector touch the sensor. Sound will be heard if properly lock.

**NOTE: CONNECTOR LOCKING JIG WILL NOT FUNCTION IF CONNECTOR NOT REACH THE SENSOR.**



2. Hold the handle of the connector locking jig using right hand then gently pull down and bring back to original position after locking. Note: Pull down one time only.

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Customer: **TRJ**

Purpose: ☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Effectivity Date:

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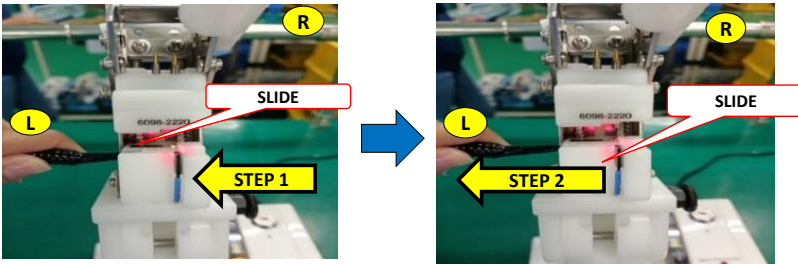

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PARTS:		1. Assy parts		JIG	1. Locking jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS	
3	P1 Connector Lock	<div></div> <div></div> <div>4. Ensure that connector is in locked condition by slide touching the connector lock based on the sequence illustrated.</div>		<div>3. Remove the locked connector using left hand based on the illustration, follow the direction of arrow.</div> <div><b>Important reminders/Note/s:</b> <b>1. Incomplete locking process will alarm the jig.</b> <b>2. No retainer in connector cannot proceed.</b> <b>3. If encountered abnormality, STOP and immediately CALL the attention of the leader. WAIT for further instruction and continue the process.</b></div>	

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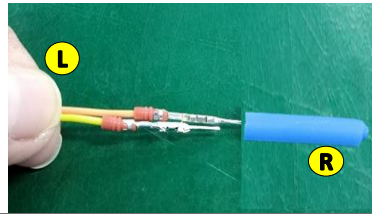

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PARTS:		1. Assy parts 2. Black COT (no slit) $\varnothing 5$ L=275 $\pm$ 3mm 3. Black COT (no slit) $\varnothing 7$ L=408 $\pm$ 4mm		JIG	1. Terminal cover jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
4	P1	<div><p>1. Hold the wires using left hand, get the terminal cover jig using right hand then insert the <b>Y-OR wire</b> using left hand.</p></div> <div><p>2. Get the corrugated tube <b><math>\varnothing 5</math> L=275<math>\pm</math>3mm (no slit)</b> using right hand then insert the <b>Y-OR wire</b> using left hand.</p></div> <div><p>3. Get the corrugated tube <b><math>\varnothing 7</math> L=408<math>\pm</math>4mm (no slit)</b> using right hand then insert the <b>Y-OR wire</b> using left hand.</p></div> <div><p>4. After insertion, remove the terminal cover jig using right hand.</p></div>		<div><b>TERMINAL COVER JIG</b></div> 	1. No wrong use of parts 2. No deformed terminal

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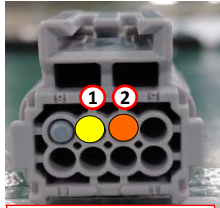


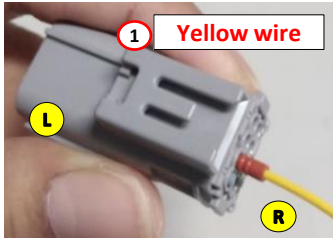
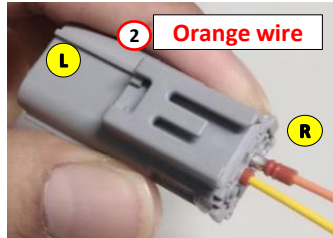
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PARTS:		1. Assy parts			JIG	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
5	P1	<div><p>VISUAL REFERENCE</p></div> <div><p>CONNECTOR ORIENTATION</p></div> <div><p>WIRE FACING</p></div> <div><p>1. Hold the connector <b>6188-0779 (GR)</b> using left hand, get the <b>Y wire</b> then insert to terminal slot <b>1</b> beside dummy seal using right hand.</p></div> <div><p>2. Hold the connector <b>6188-0779 (GR)</b> using left hand, get the <b>OR wire</b> then insert to terminal slot <b>2</b> beside Yellow wire using right hand.</p></div>			n/a	<p>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deformed terminal 5. No wrong wire facing 6. No wrong orientation of connector</p> <p><b>Important reminders/Note/s:</b></p> <p><b>1. Please hold the wire near terminal.</b></p> <p><b>2. Make sure wires are properly inserted.</b></p> <p><b>Conduct Pull-Push-Pull-Push after insertion.</b></p> <p><b>Do not exert extra force.</b></p> <p><b>Document references:</b></p> <p><b>1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</b></p>

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PARTS:		1. Assy parts 2. MRSW CP TVSSf 0.3 G-B/W L=814±3mm			JIG	1. Terminal cover jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
6	P1	<div></div> <div><p>1. Hold the wires using left hand and insert the terminal cover jig using right hand.</p></div> <div></div> <div><p>2. Get the assy parts, hold the corrugated tube <math>\phi 7</math> L=408±4mm using left hand then insert the wires using right hand.</p></div> <div></div> <div><p>3. After insertion, remove the terminal cover jig using left hand.</p></div>			<div><b>TERMINAL COVER JIG</b></div> 	<p>1. No wrong use of parts 2. No deformed terminal</p>

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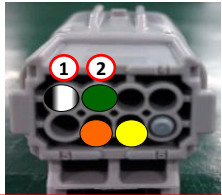


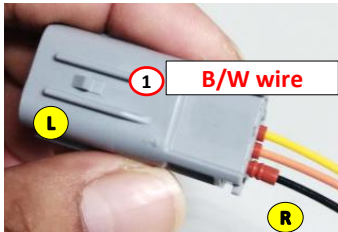
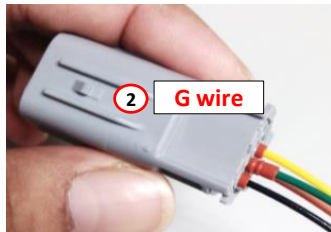
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PARTS:		1. Assy parts			JIG	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
7	P1  Wire insertion to Connector 6188-0779 (GR) (Assy parts)	<div><p>VISUAL REFERENCE</p></div> <div><p>CONNECTOR ORIENTATION</p></div> <div><p>WIRE FACING</p></div> <div><p>1. Hold the connector <b>6188-0779 (GR)</b> using left hand, get the <b>B/W wire</b> then insert to terminal slot <b>1</b> using right hand.</p></div> <div><p>2. Hold the connector <b>6188-0779 (GR)</b> using left hand, get the <b>G wire</b> then insert to terminal slot <b>2</b> using right hand.</p></div>			n/a	<p>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deformed terminal 5. No wrong wire facing 6. No wrong orientation of connector</p> <p><b>Important reminders/Note/s:</b></p> <p><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></p> <p><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></p>

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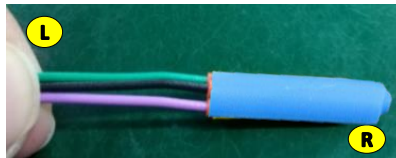
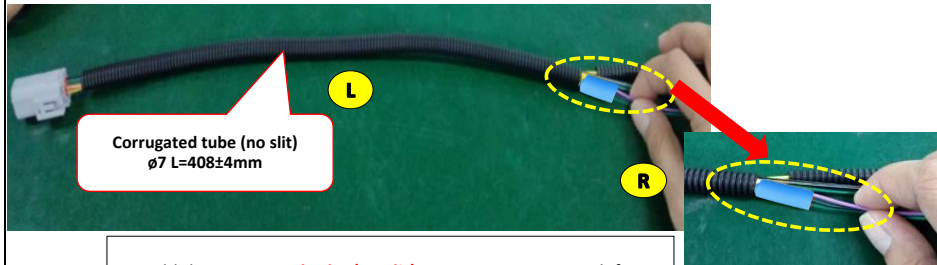


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PARTS:		1. Assy parts 2. AVSSf 0.3 wires G L=809±3mm ; V L=809±3mm; B L=809±3mm			JIG	1. Terminal cover jig
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
8	P1	Wire insertion to assy parts	<div><p>1. Get the <b>V-G-B wires</b> using right hand then hold using left hand and insert the terminal cover jig using right hand.</p></div> <div><p>Corrugated tube (no slit) ø7 L=408±4mm</p><p>2. Hold the <b>corrugated tube (no slit) ø7 L=408±4mm</b> using left hand then insert the <b>V-G-B wires</b> using right hand.</p><div><p>3. After insertion, remove the terminal cover jig using right hand.</p></div></div> <div><div>TERMINAL COVER JIG</div></div> <div><p><b>Document reference/s:</b></p><p><b>1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</b></p><p>1. No wrong use of parts 2. No wrong insertion to assy 3. No deformed terminal</p></div>			

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PARTS:

JIG

### 2 QUALITY CHECKPOINTS

# P1

# 7M0516-7021



GOOD



NO GOOD



1 No **WRONG INSERT**  
No **TBO**

2 No **UNLOCK/HALFLOCK CONNECTOR**  
3 No **INCOMPLETE WIRE (V,G,B)**

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