

	WORK INSTRUCTION				Effectivity Date:		March 7, 2023	
	TAPING ASSEMBLY PROCESS				Validity Date:		n/a	
	Process Name/Title:		Model Code/Part Number: 177D / 7L0128-7020A		Customer: TRQSS		Document No.: WI-ENG-PDE-352A	
	Purpose:		<input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO		Revision No.:		2	Page No.: 1 of 10

PARTS:	1. All parts: Connector 6188-0066 (GR); AVSSf 0.3 wires Y-OR L=384±2mm; Black Corrugated tube ø7 L=212±3mm (no slit); Black Corrugated tube ø7 L=115±3mm (no slit); Connector 6189-0451 (W); TVSSf 0.3 G-B/W L=822±3mm; Black Corrugated tube ø5 L=512±2mm (no slit); Black tape			JIG:	1. Insertion jig with switch cover 2. Locking jig 3. Terminal cover jig		
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS			
1	P1	Table Lay-out			<div style="border: 1px dashed red; padding: 5px; margin-bottom: 10px;"> Safety Instruction Be sure to wear required personal protective equipment during operation (gloves, finger cots, etc.) </div> <div style="border: 1px dashed red; padding: 5px; margin-bottom: 10px;"> Housekeeping 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;"> Alert level For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action. </div>		<div style="text-align: right; margin-bottom: 10px;"> </div> Document reference/s: 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
03/07/23	2	Work instruction improvement. Change of tolerance from 34+/-3mm to 34 (+3/-1mm) as countermeasure for encountered NG dimension from end of tape up to terminal tip. Improve work procedure/ Illustration and Quality pointers. Inclusion of Quality checkpoints (Page 10).	D. Castillo	J. Loterte	C. Villanueva	A. Arañes	 D. Castillo	 J. Loterte	 C. Villanueva	 A. Arañes	
01/17/22	1	Change from Pre-launch to Masspro. Additional Table Lay-out; Change part number from 7L0128-7020 to 7L0128-7020A due to change in COT length from ø5 L=517±5mm to ø5 L=512±2mm due to removal of tolerance from COT to MR SW.	K. Doria	J. Loterte	C. Villanueva	A. Arañes					
10/13/21	0	Initial issue	K. Doria	J. Loterte	C. Villanueva	A. Arañes					
Eff. Date	Rev. No	Details of Change		Revised	Reviewed	Approved	Noted	Est. Date:	October 13, 2021		

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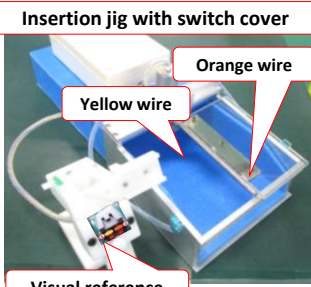
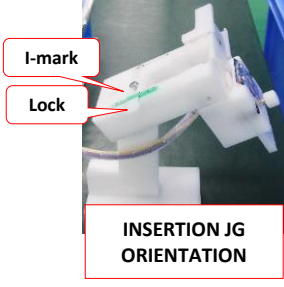

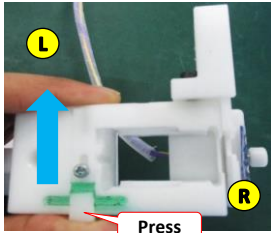
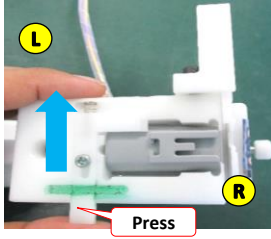
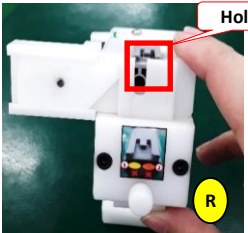

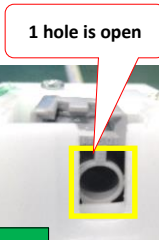

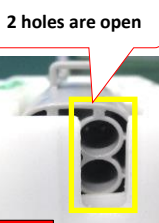
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PARTS:		1. Connector 6188-0066 (GR)		JIG	1. Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
2	P1 Connector setting to insertion jig 6188-0066 (GR)	<div><div><p>Insertion jig with switch cover</p><p>Orange wire</p><p>Yellow wire</p><p>Visual reference</p></div><div><p>I-mark</p><p>Lock</p><p>INSERTION JG ORIENTATION</p></div><div><p>CONNECTOR ORIENTATION</p></div><div><p>Press</p></div><div><p>Release</p></div><div><p>Hole</p></div><div><p>1. Press the lock using left thumb.</p><p>2. Get the connector 6188-0066 (GR) using right hand and insert to insertion jig. Release the lock after insertion. <i>Note: Follow the connector orientation.</i></p><p>3. Push the lower wire guide upward using left thumb. Slot for Yellow wire will be opened.</p></div></div>		n/a	<div><p>CONNECTOR ORIENTATION ILLUSTRATION</p><div><p>I-mark is align</p></div><div><p>1 hole is open</p></div><p>GOOD</p><div><p>I-mark is not align</p></div><div><p>2 holes are open</p></div><p>NG</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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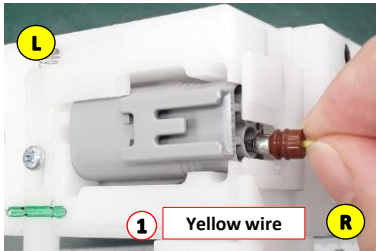
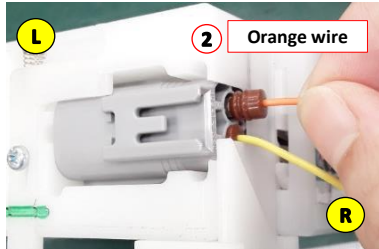
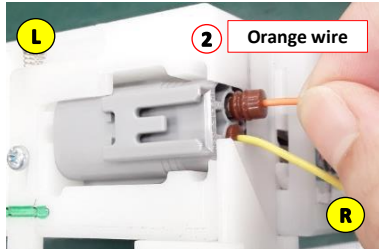
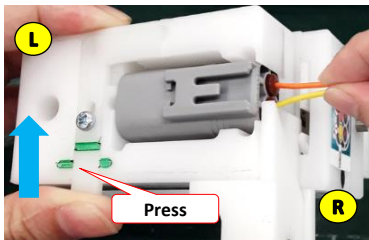
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PARTS:		1. AVSSf 0.3 wires Y L=384±2mm; OR L=384±2mm		JIG	1. Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
3	P1	<div><p>WIRE FACING</p></div> <div><p>1. Hold the insertion jig using left hand. Get the Yellow wire then insert to terminal slot 1 using right hand.</p></div> <div><p>2. Press the button using right thumb. The slot for Orange wire will be opened.</p></div> <div><p>3. Get the Orange wire then insert to terminal slot 2 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>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>2</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. 2. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</p></div>

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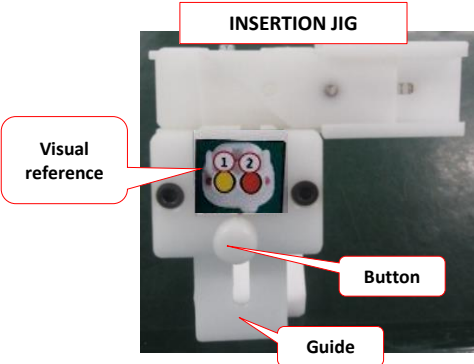
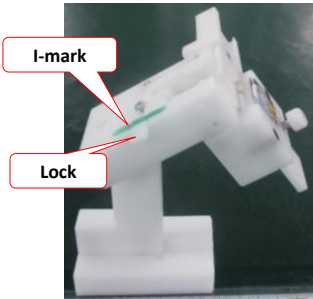
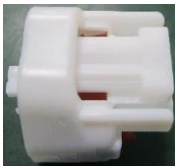
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PARTS:		1. Black Corrugated tube $\phi 7$ L= 212 \pm 3mm (no slit) 2. Black Corrugated tube $\phi 7$ L= 115 \pm 3mm (no slit) 3. Assy parts			JIG	1. Insertion jig
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
4	P1	Wire insertion to COT (no slit) $\phi 7$ L= 212 \pm 3mm (1ST) $\phi 7$ L= 115 \pm 3mm (2ND)	<div><p>1. Hold the wires using left hand. Get the Corrugated tube (no slit) $\phi 7$ L=212\pm3mm using right hand then insert the Y-OR wires using left hand.</p></div> <div><p>2. Hold the wires using left hand. Get the Corrugated tube (no slit) $\phi 7$ L=115\pm3mm using right hand then insert the Y-OR wires using left hand.</p></div>		n/a	1. No wrong use of parts 2. No deformed terminal
5		Connector setting to insertion jig 6189-0451 (W)	<div><p>Visual reference</p><p>INSERTION JIG</p><p>Button</p><p>Guide</p></div> <div><p>I-mark</p><p>Lock</p><p>INSERTION JIG ORIENTATION</p></div> <div><p>CONNECTOR ORIENTATTON</p></div>		n/a	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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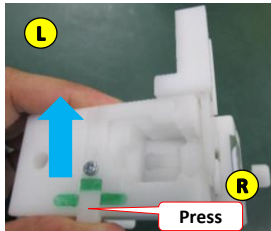
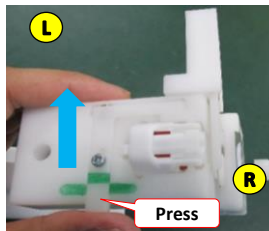
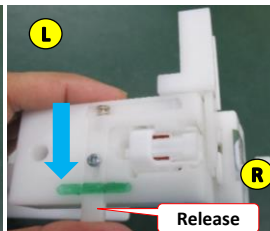
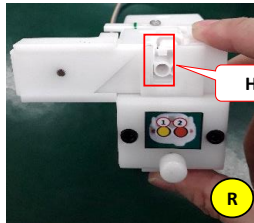
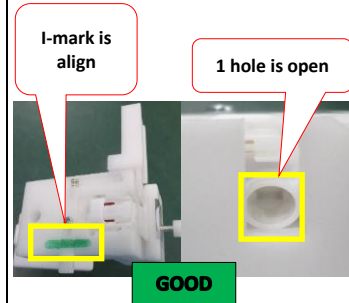
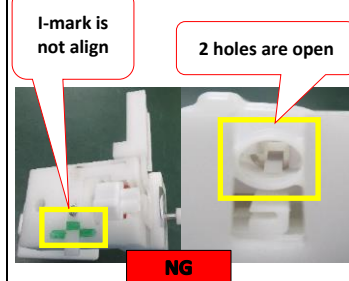
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PARTS:		1. Connector 6189-0451 (W)		JIG	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
5	P1 Connector setting to insertion jig 6189-0451 (W) (Continuation)	<div><div><p>1. Press the lock using left thumb.</p></div><div><div><p>2. Get the connector 6189-0451 (W) using right hand and insert to insertion jig. Release the lock after insertion. <i>Note: Follow the connector orientation.</i></p></div><div><div><p>Release</p></div><div><div><p>Hole</p></div><p>3. Push the lower wire guide upward using left thumb. Slot for Yellow wire will be opened.</p></div></div></div></div>		n/a	<div>CONNECTOR ORIENTATION ILLUSTRATION</div> <div><div><p>GOOD</p></div><div><p>NG</p></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>

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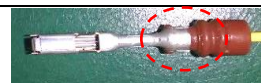
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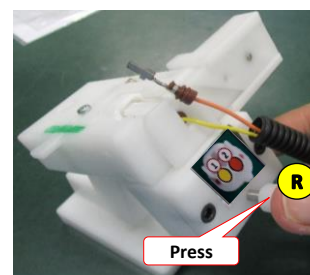
PARTS:		1. Assy parts		JIG	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
6	P1	Wire insertion to connector 6189-0451 (W)		n/a	<div>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deformed terminal 5. No wrong wire facing</div> <div>2</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. 2. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</div>



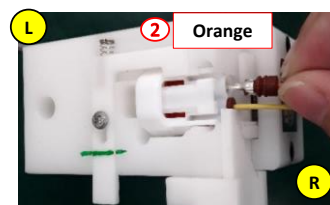
WIRE FACING



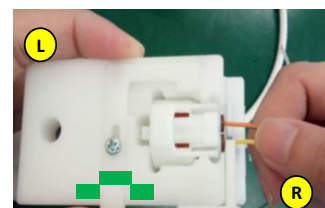
1. Hold the insertion jig using left hand. Get the **Yellow wire** then insert to terminal slot **1** using right hand.



2. Press the button using right thumb. The 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.

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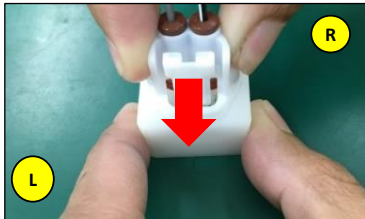
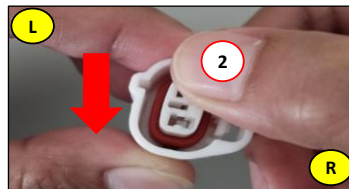






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PARTS:		1. Assy parts			JIG	1. Locking jig
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
4	P1	Connector lock	<div><div><p>1. Put the connector into locking jig using right hand. Then press to lock 2x using both hands.</p></div><div><p>2. Ensure that connector is in locked condition by slide touching the connector lock based on the sequence illustrated.</p></div><div><div><p>BEFORE PRESSING</p><p>AFTER PRESSING</p></div><div><p>GOOD</p><p>NG</p></div><div>Check the double lock deformation</div></div></div>		<div>LOCKING JIG</div> 	<div>1. No wrong usage of parts</div> <div>2. No deformed terminal</div> <div><div>2</div><div>Document references:</div><div>1. Manual locking may cause damaged connector lock</div></div>

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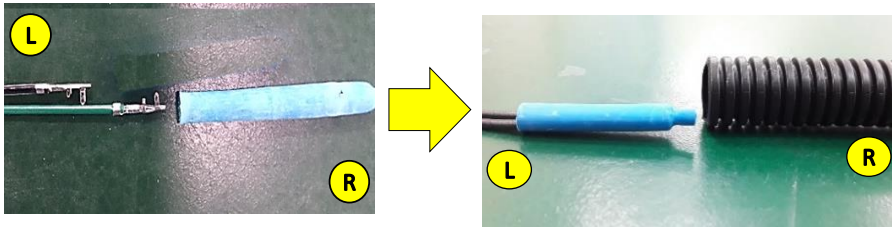

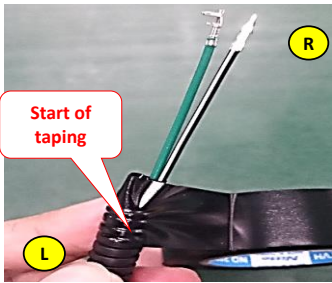

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PARTS:		1. Black corrugated tube $\phi 5$ L= 512 \pm 2mm (no slit) 2. TVSSf 0.3 G-B/W L=822 \pm 3mm		3. Black tape	JIG	1. Terminal cover jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
5	P1	Wire insertion to corrugated tube $\phi 5$ L=512 \pm 2mm (no slit)	 1. Get the terminal cover jig using right hand then insert the G-B/W wires using left hand. 2. Get the Black Corrugated tube $\phi 5$ L=512 \pm 2mm (no slit) using right hand and insert to G-B/W wires using left hand. 3. After insertion, remove the terminal cover jig using right hand.			 1. No wrong usage of parts 2. No deformed terminal
6	2	Taping 1 Black COT to wire near terminal	 1. Hold the COT using left hand, get the black tape using right hand then start pre-taping using both hands. <i>Note:</i>			 1. No peel-off tape 2. No flip out tape 3. No loose tape 4. No wrong use of tape 5. No wrong dimension 6. No missing tape Important reminders/Note/s: 1. Please use calibrated/verified measuring tape when getting the measurement. Document reference/s: 1. Please refer to WI-PRO-ASY-001 for taping procedure.

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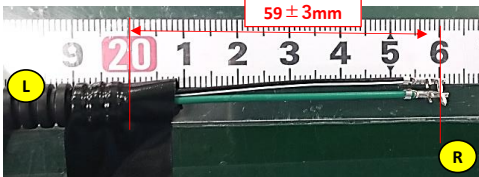


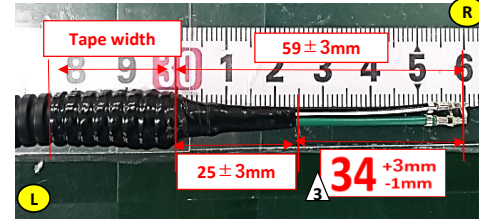

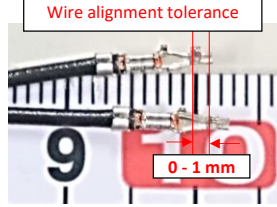
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PARTS:		1. Assy parts 2. Black tape	JIG	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
7	P1 Taping 1 Black COT to wire near terminal (Continuation)	 <p>2. Measure from end of COT up to terminal pointed tip $59 \pm 3\text{mm}$ then continue the taping process using both hands.</p>  <p>3. Confirm measurement from end of tape up to end of COT $25 \pm 3\text{mm}$ then continue the taping process using both hands.</p>  <p>4. Measure from end of tape up to terminal pointed tip $34 (+3/-1)\text{mm}$ then continue the taping process using both hands.</p>  <p>5. After taping, check the measurement, wire alignment and taping condition.</p>	MEASURING TAPE 	<p>1. No peel-off tape 2. No flip out tape 3. No loose tape 4. No wrong use of tape 5. No wrong dimension 6. No missing tape</p> <p>Important reminders/Note/s: 1. Please use calibrated/verified measuring tape when getting the measurement.</p> <p>Document reference/s: 1. Please refer to WI-PRO-ASY-001 for taping procedure.</p> 

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PROTOTYPE



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MASSPRO

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2

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PARTS:

n/a

JIG

n/a



QUALITY CHECKPOINTS

P1

7L0128-7020A



GOOD



NO GOOD



5



GOOD



NO GOOD

1 No Unlock/ Half Lock Connector

2 3 No Wrong Insert

4 No Missing Tape

5 No Terminal Backing Out

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