

**WORK INSTRUCTION**

Process Name/Title:

TAPING ASSEMBLY PROCESS

Effectivity Date:

March 20, 2021

Product Name/Code:

948B / 7L0097-7021

Customer:

TRQSS

Document No.:

WI-ENG-PDE-069A

Purpose:


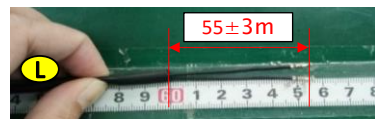
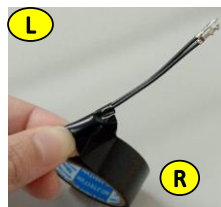
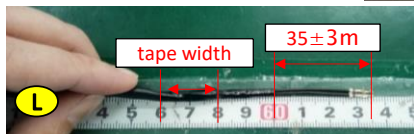
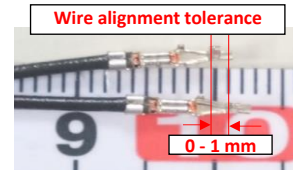







☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

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PARTS:		1. AVSSf 0.3 wires B L=374mm [2pcs] 2. Black Vinyl tube $\phi 4$ L=22 \pm 3mm		<div>3</div> <div>3. Black Corrugated tube $\phi 5$ L=174\pm3mm (no slit) 4. Assy parts</div>	<div>3</div>	JIG:	n/a						
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE		QUALITY POINTERS						
1	<div>3</div>	Wire Insertion to Vinyl tube $\phi 4$ L=22 \pm 3mm	<div><div><div>L</div><div>R</div></div><div>1. Get the Vinyl tube $\phi 4$ L=22\pm3mm using right hand then insert the two (2) Black wires.</div></div>		<div><div>Safety Instruction</div><div>Be sure to wear prescribed personal protective equipment during operation (gloves, finger cots, etc.)</div></div>		1. No wrong usage of parts 2. No deformed terminal						
2	<div>3</div> P1	Taping 1 Vinyl tube to wire near terminal	<div><div><div><div>L</div><div>R</div></div><div>1. Measure from Vinyl tube up to terminal tip 55\pm3mm using both hands.</div></div><div><div><div>L</div><div>R</div></div><div>2. Hold the Vinyl tube using left hand and get Black tape using right hand then begin taping process. <i>Note: No folding required for $\phi 4$ vinyl tube. Begin taping process between Vinyl tube and wire.</i></div></div><div><div><div>L</div><div>R</div></div><div>3. After taping, check the measurement, terminal appearance and taping condition.</div></div></div>		<div><div>Housekeeping</div><div>1. Maintain and always practice 5's. 2. Personal things on the workplace is prohibited. Keep it in your locker.</div></div> <div><div>Alert level</div><div>For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.</div></div>		<div><div>Wire alignment tolerance</div><div>0 - 1 mm</div></div> <div>1.No flip out tape 2.No tape peeling 3. No loose tape 4. No wrong use of tape 5. No wrong dimesion</div>						
3	<div>3</div>	Wire Insertion to Corrugated tube $\phi 5$ L=174 \pm 3mm (no slit)	<div><div><div>L</div><div>R</div></div><div>1. Get the Corrugated tube $\phi 5$ L=174\pm3mm using right hand and insert the Black wires (n=2) using left hand.</div></div> <div></div>		<div><div>MEASURING TAPE</div></div>		<div>Note: Please use calibrated/verified measuring tape when getting the measurement.</div> <div>1. No wrong usage of parts 2. No deformed terminal</div>						
Revision History							Prepared by	Reviewed by	Approved by	Noted by			
03/20/21	3	Remove cycle time; Put assy parts on Parts section of Pg. 1, 2, 3 and 5; Change 2x pulling to Pull-Push-Pull-Push on insertion quality pointers; Change connector colors in accordance with color standardization for plastic parts (Please refer to GL-COM-003)				J. Loterte	C. Villanueva	A. Shimamura	A. Arañes				
07/30/20	2	Updated cycle time; Changed effective and validity date; Added additional information on No. 2 and No.5				J. Loterte	R. Peñafoza	A. Shimamura	A. Arañes				
05/20/20	1	Changed cycle time.				D. Castillo	J. Loterte	A. Shimamura	A. Arañes	J. Loterte	C. Villanueva	A. Shimamura	A. Arañes
Eff. Date	Rev. No	Details of Change				Prepared	Checked	Approved	Noted	Est. Date:	April 25, 2020		

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PARTS:


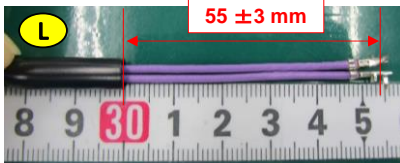
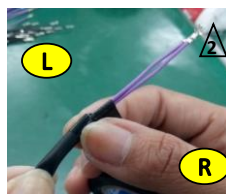
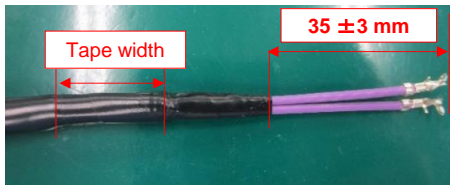

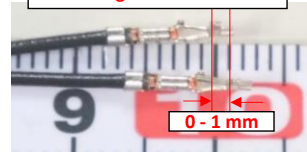
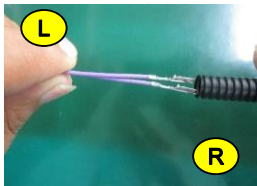

1. AVSSf 0.3 wires V L=418mm [2pcs]
2. Black Vinyl tube $\phi 4$ L=65 \pm 3mm



3. Black Corrugated tube $\phi 5$ L=174 \pm 3mm (no slit)
4. Assy parts

JIG

N/A

NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
4	Wire Insertion to Vinyl tube $\phi 4$ L=65 \pm 3mm	 <p>Get the Vinyl tube $\phi 4$ L=65\pm3 using right hand then insert the two (2) Violet wires.</p>	N/A	<ol style="list-style-type: none">1. No wrong usage of parts2. No deformed terminal
5	Taping 2 Vinyl to wire near terminal	 <p>1. Measure from Vinyl tube up to terminal tip 55\pm3mm using both hands.</p>  <p>2. Hold the Vinyl tube using left hand and get Black tape using right hand then begin taping process. <i>Note: No folding required for $\phi 4$ vinyl tube. Begin taping process between Vinyl tube and wire.</i></p>  <p>3. After taping, check the measurement, alignment and taping condition.</p>	<p>MEASURING TAPE</p>  <p><i>Note: Please use calibrated/verified measuring tape when getting the measurement.</i></p>	<p>Wire alignment tolerance</p>  <ol style="list-style-type: none">1. No flip out tape2. No tape peeling3. No loose tape4. No wrong use of tape5. No wrong dimension
6	Wire Insertion to Corrugated tube $\phi 5$ L=174 \pm 3mm (no slit)	<p>1. Get the Corrugated tube $\phi 5$ L=174\pm3mm (no slit) using right hand and insert the Violet wires (n=2) using left hand.</p>  	N/A	<ol style="list-style-type: none">1. No wrong usage of parts2. No deformed terminal

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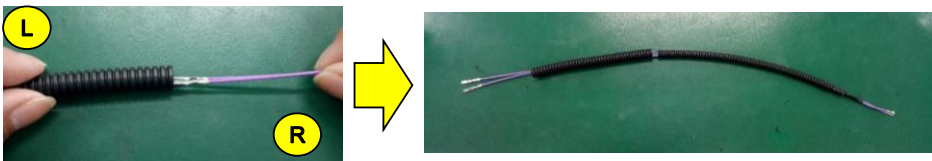


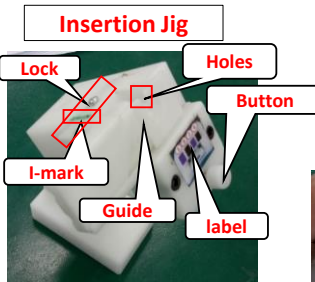
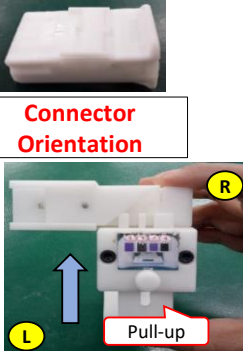
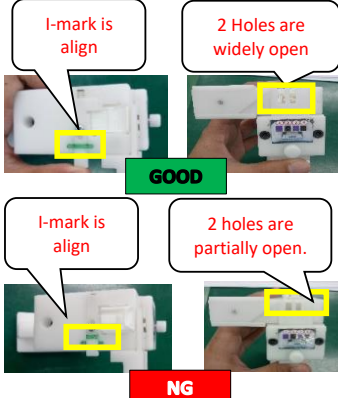
PARTS: 

1. Black Corrugated tube $\phi 7$ L=115 \pm 3mm (no slit)
2. Connector 6098-5677 (W)

 3. Assy parts

JIG

1. Insertion jig

NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
7	 Wire Insertion to Corrugated tube $\phi 7$ L=115 \pm 3mm (no slit)	 <p>Get the corrugated tube $\phi 7$ L=115\pm3 (no slit) using right hand then insert the two (2) Violet wires.</p>	N/A	<ol style="list-style-type: none">1. No wrong usage of parts2. No deformed terminal
8	P1  Connector setting to insertion jig 6098-5677 (W) 	<p>Insertion Jig</p>  <p>Connector Orientation</p>  <p>1. Press the lock of insertion jig using left thumb.</p> <p>2. Insert the connector 6098-5677 into jig using right hand and release the lock.</p> <p>3. Pull-up the wire guide using right thumb to show the holes/terminal slot.</p> <p>4. Check the holes/terminal slot for V/V wires.</p>	N/A	<p>Connector Orientation Illustration</p>  <p>GOOD</p> <p>NG</p> <ol style="list-style-type: none">1. Use provided jig per model2. No wrong usage of parts3. No wrong orientation of connector4. No damaged connector

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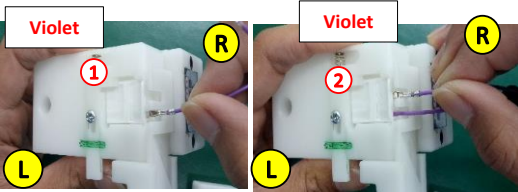
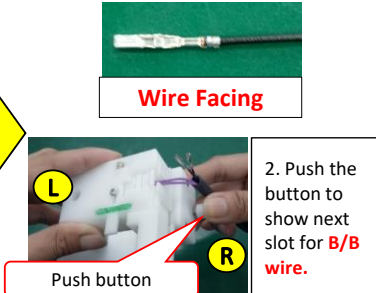
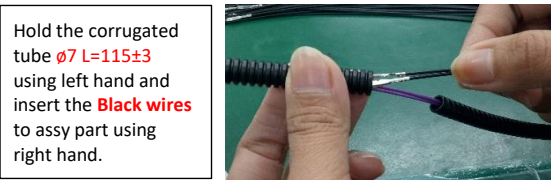

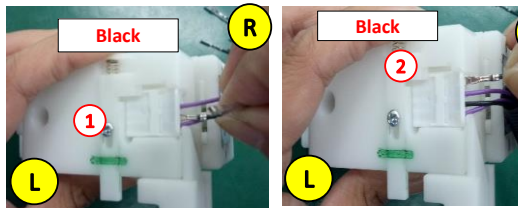
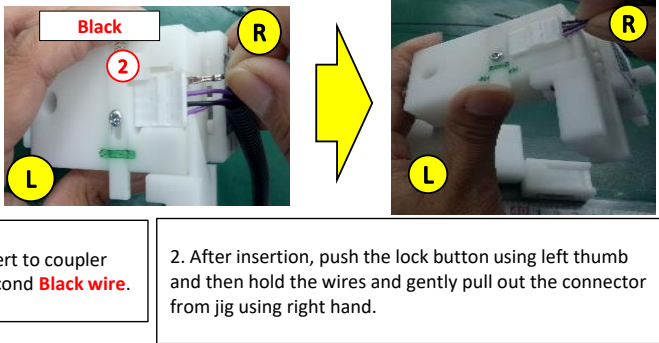
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PARTS:

1. Assy parts

JIG

1. Insertion jig

NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
9	Wire insertion to connector 6098-5677 (W)	 <p>1. Get the assy part and hold first Violet wire and insert to coupler using right hand then insert second Violet wire.</p>  <p>2. Push the button to show next slot for B/B wire.</p>	N/A	1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deformed terminal 5. No wrong wire facing Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.
10	Wire insertion to assy part	 <p>Hold the corrugated tube $\varnothing 7$ L=115±3 using left hand and insert the Black wires to assy part using right hand.</p> 	N/A	1. No wrong usage of parts 2. No deformed terminal
11	Wire insertion to connector 6098-5677 (W) (Continuation)	 <p>1. Hold first Black wire and insert to coupler using right hand then insert second Black wire.</p>  <p>2. After insertion, push the lock button using left thumb and then hold the wires and gently pull out the connector from jig using right hand.</p>	N/A	1. No loose insertion 2. No wrong dimension 3. One by one insertion 4. No deformed terminal 5. No wrong wire facing Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.

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PARTS:

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1. Black tape
2. Assy parts

JIG

1. Locking jig

NO.

PROCESS NAME

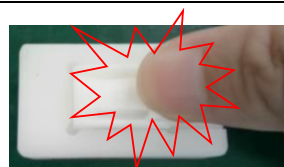
WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

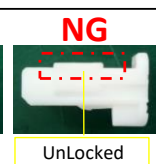
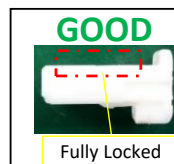
QUALITY POINTERS

12

Connector lock



1. Put the connector into locking jig using right hand then press 2X to lock.
NOTE: Please refer to GL-PRO-ASY-017 for the Verification of Coupler lock



LOCKING JIG



1. No unlocked/half-locked connector

NOTE: MANUAL LOCKING MAY CAUSE DAMAGED CONNECTOR LOCK

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Taping 3
Corrugated tube to vinyl
tube



1. Measure from corrugated tube up to terminal tip of Black wires 77±3mm using both hands.



2. Hold the corrugated tube using left hand and get **Black tape** using right hand then begin taping process.
Note: Refer to WI-PRO-ASY-001 for taping procedure.

MEASURING TAPE



- 1.No flip out tape
- 2.No tape peeling
3. No loose tape
4. No wrong use of tape
5. No wrong dimesion

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

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