



WORK INSTRUCTION TAPING ASSEMBLY PROCESS

Efec September 17, 2021

September 17, 2021

Process Name/Title:

Validity Date:

n/a

Product Name/Code: 922B / 7L0123-7021

Customer: TRQSS

Document No.:

WI-ENG-PDE-265A

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

1

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PARTS:

1. All parts (Connector 6189-0451 (W); AVSSf 0.3 Y-OR wires L=328±2mm; Black vinyl tube Ø7 L=57±3mm; Black vinyl tube Ø7 L=189±3mm; Connector 6188-0066 (GR); Black COT tube (no slit) Ø7 L=397±3mm; MRSW CP B/W-G wires L=807±3mm)

JIG:

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

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

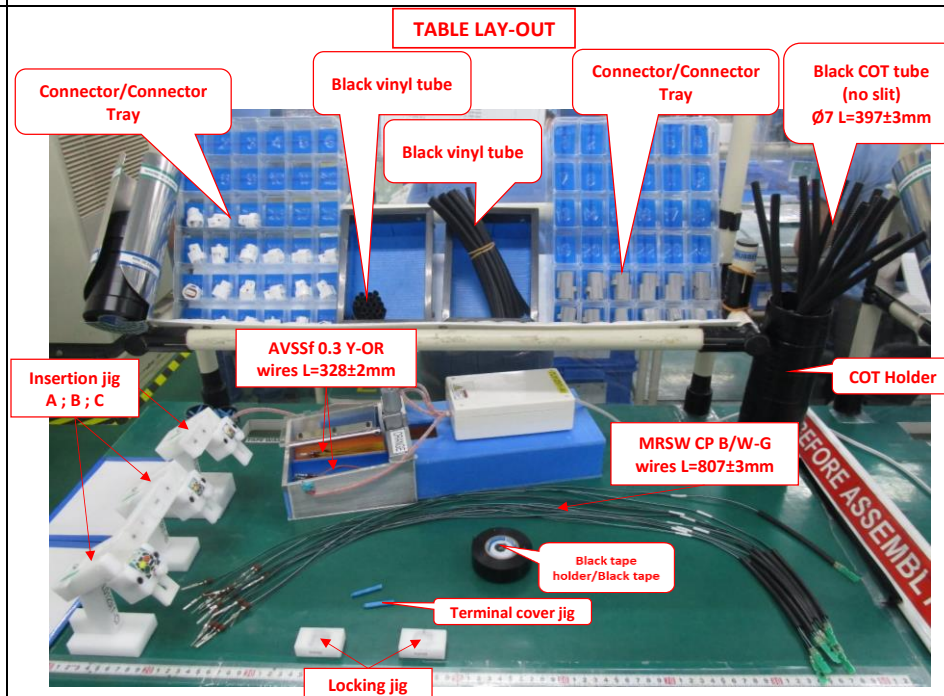
TOOLS/PPE

QUALITY POINTERS

1

P1

Table Lay-out

**Safety Instruction**

Be sure to wear required 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

Alert level

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

1. No missing parts/tools
2. No excess parts/tools
3. No wrong position of parts/tools

Revision History

Eff. Date	Rev. No	Details of Change	Prepared	Checked	Checked	Approved	Prepared by	Reviewed by	Reviewed by	Noted by
09/17/21	1	Revise due to additional quality pointers on wire insertion process; Change pre-launch to masspro.	M. Catapang	C. Villanueva	A. Shimamura	A. Arañes	M. Catapang	C. Villanueva	A. Shimamura	A. Arañes
06/04/21	0	Initial issue	M. Catapang	C. Villanueva	A. Shimamura	A. Arañes	M. Catapang	C. Villanueva	A. Shimamura	A. Arañes

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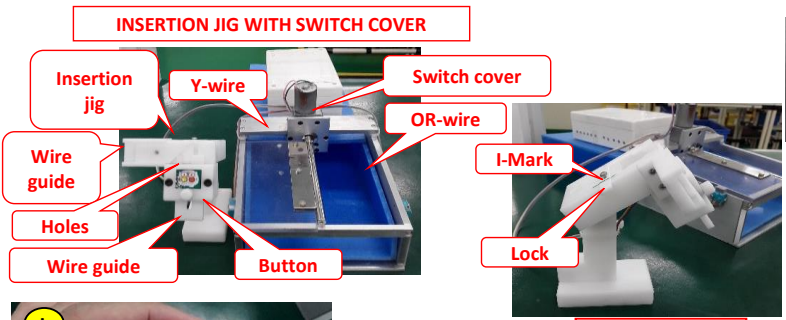
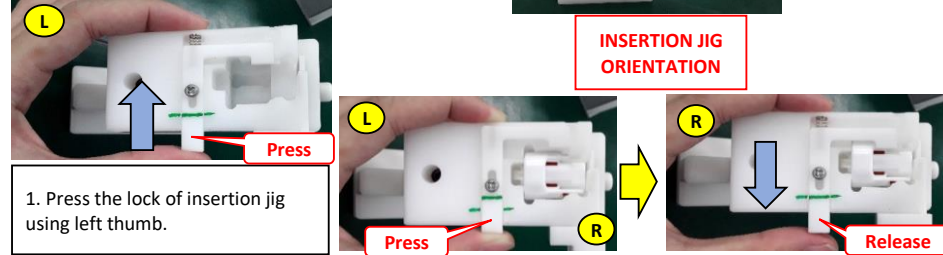
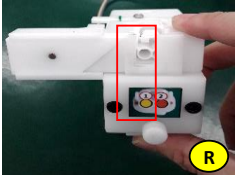
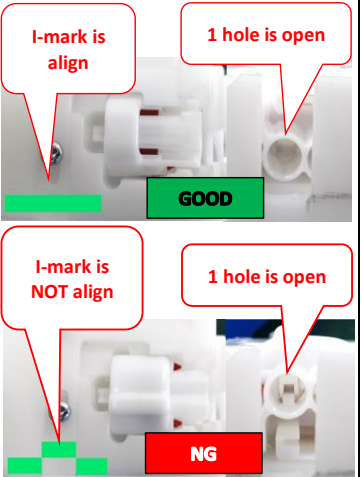
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PARTS:		1. Connector 6189-0451 (W)		JIG	1. Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
2	P1	<p>Connector setting to insertion jig 6189-0451 (W)</p>  <p>INSERTION JIG ORIENTATION</p>  <p>1. Press the lock of insertion jig using left thumb.</p> <p>2. Insert the connector 6189-0451 (W) into jig using right hand then release the lock using left thumb. <i>Note: Follow the connector orientation.</i></p>  <p>3. Push the guide using right hand. The slot for Yellow wire will be opened.</p>		n/a	<p>Connector Orientation Illustration</p>  <p>GOOD</p> <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>

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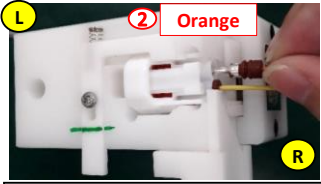
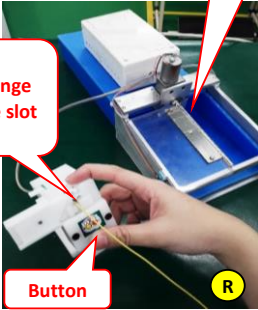
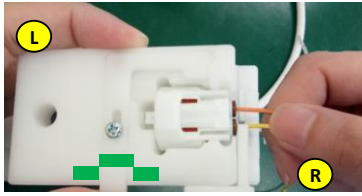
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PARTS:		1. AVSSf wires Y and OR L=328±2mm			JIG	1. Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
3	P1	<div><p>WIRE FACING</p></div> <div><p>1. Hold the insertion jig using left hand, get Yellow wire and insert to connector slot 1 using right hand.</p></div> <div><p>3. Hold the insertion jig using left hand, get Orange wire and insert to connector slot 2 using right hand.</p></div> <div><p>2. Press the button using right thumb, slot for Orange 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 deformed terminal 5. No wrong wire facing</div> <div>Note: Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.</div> <div>Note: Refer to GL-PRO-ASY-029 for Pull-Push procedure.</div>

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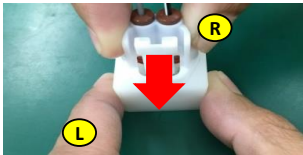








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PARTS:		1. Assy parts 2. Black vinyl tube Ø7 L=57±3mm 3. Black vinyl tube Ø7 L=189±3mm			JIG	1. Locking jig 2. Terminal cover jig
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
4		Connector lock	<div></div> <div><p>1. Put the connector into locking jig using right hand then press 2x. Touch the connector lock if properly locked.</p></div> <div></div>		<div>LOCKING JIG</div> 	<div>NOTE: MANUAL LOCKING MAY CAUSE</div> <div>1. Use the provided locking jig per model 2. No unlock/half-lock connector</div>
5	P1	Wire insertion to Black vinyl tube Ø7 L=57±3mm Ø7 L=189±3mm	<div></div> <div><p>1. Get the cover jig then insert to Y-OR wires using right hand.</p></div> <div></div> <div><p>2. Get the vinyl tube Ø7 L=57±3mm using right hand then insert the Y-OR wires using left hand.</p></div> <div></div> <div><p>3. Get the vinyl tube Ø7 L=189±3mm using right hand then insert the Y-OR wires using left hand.</p></div> <div></div> <div><p>4. After insertion, remove the cover jig using right hand.</p></div>		<div>TERMINAL COVER JIG</div> 	<div>1. No wrong usage of parts 2. No damaged rubber seal</div>

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PARTS:		1. Connector 6188-0066 (GR)		JIG	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
6	P1	<div><div><div>INSERTION JIG FOR Y/OR</div><div>Wire guide</div><div>Holes</div><div>Wire guide</div><div>Visual Reference</div><div>Button</div></div><div><div>INSERTION JIG ORIENTATION</div><div>I-MARK</div><div>Lock</div><div>CONNECTOR ORIENTATION</div></div></div> <div><div><div>L</div><div>Press</div><div>1. Press the lock of insertion jig using left thumb.</div></div><div><div>L</div><div>Press</div><div>2. Insert the connector 6188-0066 (GR) into jig using right hand then release the lock. <i>Note: Follow the connector orientation.</i></div></div><div><div>L</div><div>Release</div><div>3. Push the guide using right thumb. 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>2 holes are open</div><div>NG</div></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>

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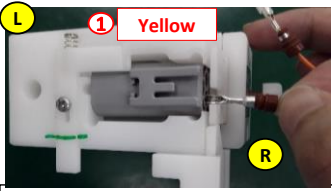
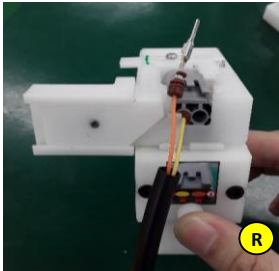
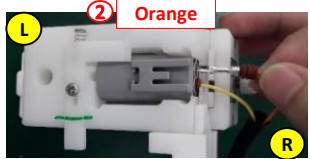
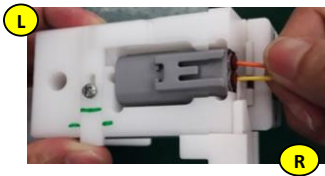

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PARTS:		1. Assy parts			JIG	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
7	P1	<div><p>WIRE FACING</p></div> <div><p>1. Hold the insertion jig using left hand. Get the assy parts, insert the Yellow wire to connector slot 1 using right hand.</p></div> <div><p>2. Press the button using right thumb, slot for Orange wire will be opened.</p></div> <div><p>3. Get Orange wire then insert to connector 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> <div></div>			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>Note: Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.</div> <div>1 Note: Refer to GL-PRO-ASY-029 for Pull-Push procedure.</div>

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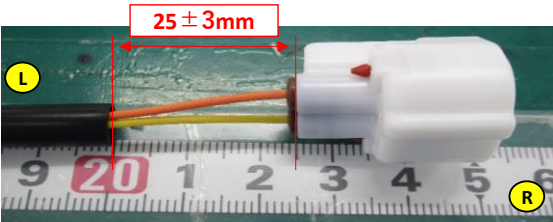
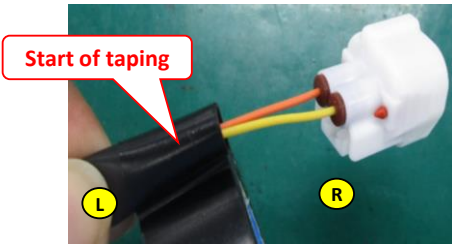
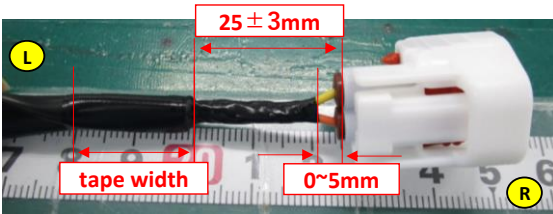

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PARTS:		1. Assy parts 2. Black tape	JIG	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
8	P1 Taping 1 Black vinyl tube to wire near connector	<div><p>1. Measure from end of vinyl tube up to edge of connector 25±3mm using both hands.</p></div> <div><p>2. Get the Black tape using right hand then start taping process using both hands. <i>Note: Please refer to WI-PRO-ASY-001 for taping procedure.</i></p></div> <div><p>3. After taping, check the measurement, wire alignment and taping condition.</p></div>	<div>MEASURING TAPE</div> 	<p>Note: Please use calibrated/verified measuring tape when getting the measurement.</p> <ol style="list-style-type: none">1. No flip-out tape2. No peel-off tape3. No loose tape4. No missing tape5. No wrong use of tape6. No wrong dimension

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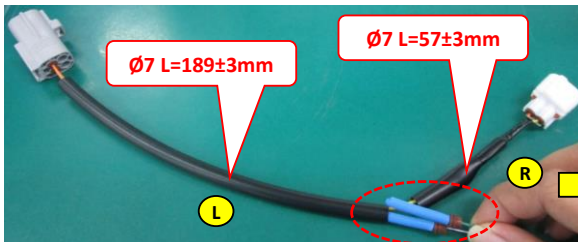


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PARTS:		1. Assy parts 2. MRSW CP TVSSf wires B/W-G wires L=807±3mm; Black sunprene tube Ø5 L=106±3mm 3. Black corrugated tube (no slit) Ø7 L=397±3mm			JIG	1. Terminal cover jig
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
9	P1	Wire insertion to Black corrugated tube (no slit) Ø7 L=397±3mm	<div><p>1. Get the cover jig then insert to B/W-G wires using right hand.</p></div> <div><p>2. Get the corrugated tube Ø7 L=397±3mm (no slit) using right hand then insert the B/W-G wires using left hand.</p></div>			
10		Wire insertion to assy parts	<div><p>1. Hold the vinyl tube Ø7 L=189±3mm using left hand then insert the assy parts using right hand.</p></div> <div><p>2. After insertion, remove the terminal cover jig using right hand.</p></div>		<div>TERMINAL COVER JIG</div> 	1. No wrong usage of parts 2. No damaged rubber seal 3. No wrong insertion

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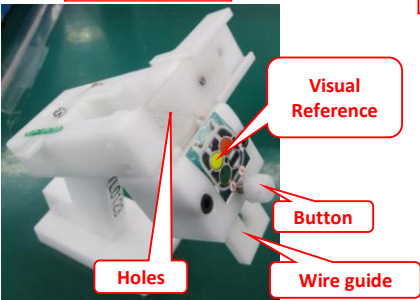

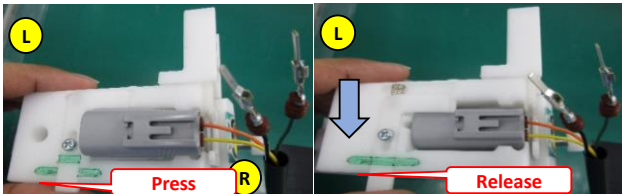

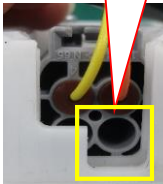
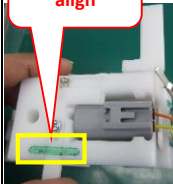
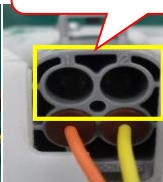
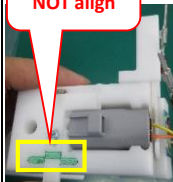
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NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
11	P1	Connector setting to insertion jig 6188-0066 (GR) (Assy parts)	<div><div><div>INSERTION JIG</div></div><div><div>INSERTION JIG ORIENTATION</div></div><div></div><div><div>1. Push the guide using left thumb. The slot for Black/white wire will be opened.</div><div>2. Press the lock of insertion jig using left thumb.</div><div>3. Insert the connector 6188-0066 (GR) into jig using right hand then release the lock. <i>Note: Follow the connector orientation.</i></div></div></div>		n/a	<div><div>Connector Orientation Illustration</div><div><div>I-mark is align</div></div><div><div>GOOD</div><div>I-mark is NOT align</div></div><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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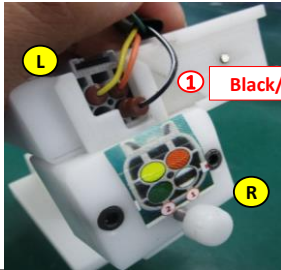
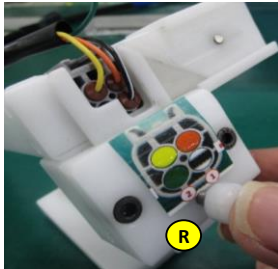
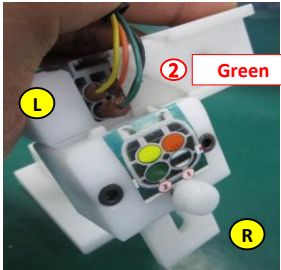
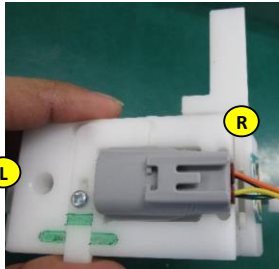
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PARTS:		1. Assy parts		JIG	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
12	P1 Wire insertion to connector 6188-0066 (GR) (Assy parts)	<div><p>WIRE FACING</p></div> <div><p>1. Hold the insertion jig using left hand, get Black/white wire then insert to connector slot 1 using right hand.</p></div> <div><p>2. Press the button using right hand, slot for Green wire will be opened.</p></div> <div><p>3. Hold the insertion jig using left hand, get Green wire then insert to connector 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>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deformed terminal 5. No wrong wire facing</div> <div>Note: Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.</div> <div>Note: Refer to GL-PRO-ASY-029 for Pull-Push procedure.</div>

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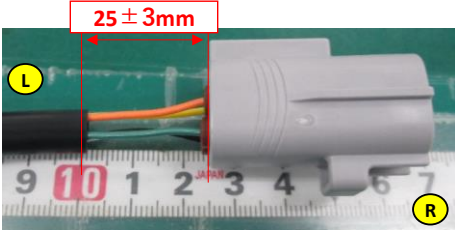
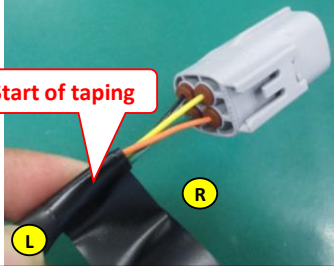
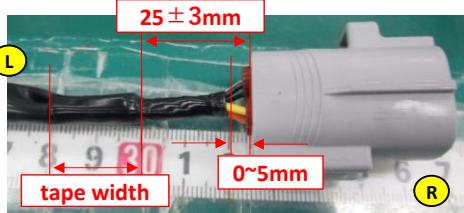

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PARTS:		1. Assy parts 2. Black tape		JIG	1. Locking jig	
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
13	Connector lock	<div><div><p>L R</p></div><div><p>Before pressing</p></div><div><p>After pressing</p></div><div><p>1. Put the connector into locking jig using right hand then press 2x. Touch the connector lock if properly locked.</p></div></div> <div><div><p>Connector Cross Sectional View</p><p>NG NG GOOD</p><p>Unlock Condition</p><p>Half Lock Condition</p><p>Full Lock Condition</p></div></div>			<div><p>LOCKING JIG</p></div>	<div><p>NOTE: MANUAL LOCKING MAY CAUSE DAMAGED LOCK.</p><p>1. Use the provided locking jig per model 2. No unlock/half-lock connector</p></div>
14	P1 Taping 2 Black vinyl tube to wire near connector	<div><div><p>L R</p><p>25 ± 3mm</p><p>1. Measure from end of vinyl tube up to edge of connector 25±3mm using both hands.</p></div><div><p>L R</p><p>Start of taping</p><p>2. Get the Black tape using right hand then start taping process using both hands. Note: Please refer to WI-PRO-ASY-001 for taping procedure.</p></div><div><p>L R</p><p>25 ± 3mm</p><p>tape width</p><p>0~5mm</p><p>3. After taping, check the measurement and taping condition.</p></div></div>			<div><p>MEASURING TAPE</p></div>	<div><p>Note: Please use calibrated/verified measuring tape when getting the measurement.</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></div>

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