



WORK INSTRUCTION

TAPING ASSEMBLY PROCESS

Effectivity Date:

January 18, 2022

Process Name/Title:

Model Code/Part Number:

150B

/ 2

7L0059-7022

Customer:

TRQSS

Validity Date:

n/a

Document No.:

WI-ENG-PDE-291A

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

2

Page No.:

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PARTS:

2

1. All parts: Connector 6189-0451 (W); Connector 6188-0066 (GR); AVSSf 0.3 wires Y-OR L=387±2mm; TVSSf 0.3 wires GR-B/W L=831±3mm; Black corrugated tube Ø7 L=87±3mm (no slit); Black tape [1pc.]

JIG:

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

NO.

PROCESS NAME

2

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

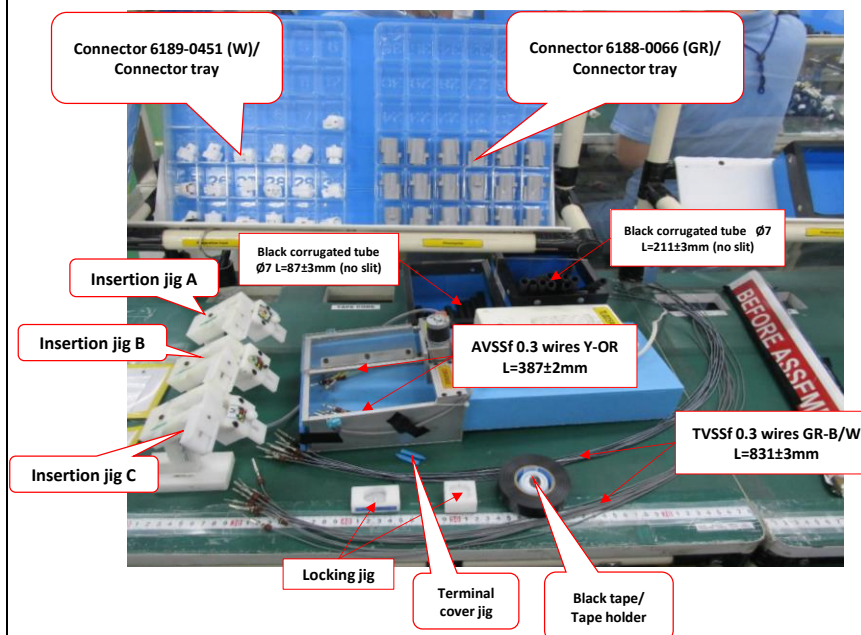
1

P1

2

Table Lay-out

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 your locker.

Alert level

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

2 Note: Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance

1. No missing parts/tools
2. No excess parts/tools

Revision History

Eff. Date	Rev. No	Details of Change	Prepared by	Reviewed by	Approved by	Noted by
01/18/22	2	Change part number from 7L0059-7021 to 7L0059-7022 due to additional quantity of clamp (82711-52090 (W)) (Refer to WI-ENG-PDE-291C). Improve work procedure and illustration. Additional table lay-out, checkpoint in checking of wire tolerance (Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance). Change taping measurement of COT to wire near connector from 25±3mm to 28±2mm due to encountered peel off tape.	M. Catapang	J. Loterte	C. Villanueva	A. Arañes
08/05/21	1	Transfer process owner from Production WI (WI-PRO-ASY-150A) to Engineering WI (WI-ENG-PDE-291A). Improve process illustration and quality pointers.	J. Loterte	C. Villanueva	A. Shimamura	A. Arañes
08/10/19	0	Previously established in Production. Initial issue.	J. Silang	W. Carbillon	O. Merin	n/a
Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted
			Est. Date:	August 10, 2019		

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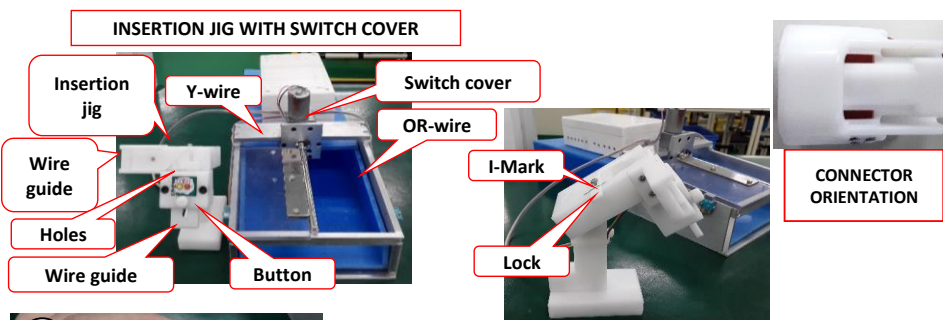
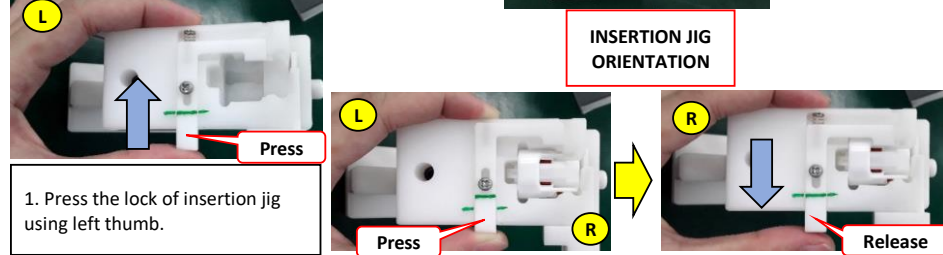
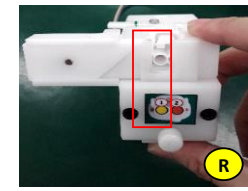


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PARTS:	1. Connector 6189-0451 (W)			JIG	1. Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
2	P1	<p>Connector setting to insertion jig 6189-0451 (W)</p>  <p>1. Press the lock of insertion jig using left thumb.</p>  <p>2. Insert the connector 6189-0451 (W) into jig using right hand then release the lock using left thumb. Note: Follow the connector orientation.</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>I-mark is align</p> <p>1 hole is open</p> <p>GOOD</p>  <p>I-mark is NOT align</p> <p>1 hole is open</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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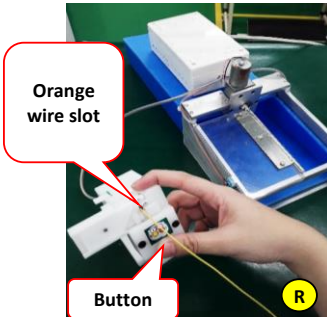
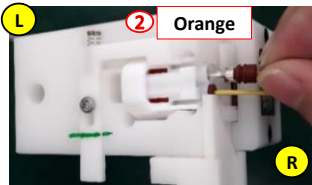
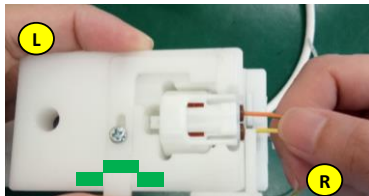
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PARTS:		1. AVSSf 0.3 wires Y L=387±2mm; OR L=387±2mm			JIG	1. Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
3	P1	<div><p>WIRE FACING</p></div> <div><p>1. Hold the insertion jig using left hand, get Yellow wire and insert to terminal slot 1 using right hand.</p></div> <div><p>Orange wire slot</p><p>2. Press the button using right thumb, slot for Orange wire will be opened.</p><p>Button</p></div> <div><p>3. Hold the insertion jig using left hand, get Orange wire and 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	<p><i>Note: Please hold the wire near terminal during insertion.</i></p> <p><i>Note: Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</i></p> <p>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deformed terminal 5. No wrong wire facing</p> <p>Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.</p> <p><i>Note: Refer to GL-PRO-ASY-029 for Pull-Push procedure.</i></p>

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Purpose: ☐ PROTOTYPE

☐ PRE-LAUNCH

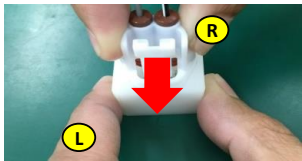








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PARTS:		1. Black Corrugated tube Ø7 L=87±3mm (no slit) 2. Black Corrugated tube Ø7 L=211±3mm (no slit) 3. Assy parts			JIG	1. Terminal cover jig 2. Locking jig
NO.	PROCESS NAME	2 WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE		QUALITY POINTERS
4	Connector lock	 1. Put the connector into locking jig using right hand then press 2x. Touch the connector lock if properly locked.		 Before pressing  After pressing  LOCKING JIG		2 NOTE: MANUAL LOCKING MAY CAUSE DAMAGED LOCK. 1. Use the provided locking jig per model 2. No unlock/half-locked connector 3. No damaged lock
5	P1 Wire insertion to Black corrugated tube (no slit) Ø7 L=87±3mm Ø7 L=211±3mm	 1. Get the cover jig then insert to Y-OR wires using right hand.  2. Get the corrugated tube (no slit) Ø7 L=87±3mm using right hand then insert the Y-OR wires using left hand.  3. Get the corrugated tube (no slit) Ø7 L=211±3mm using right hand then insert the Y-OR wires using left hand.  4. After insertion, remove the cover jig using right hand.		 TERMINAL COVER JIG		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

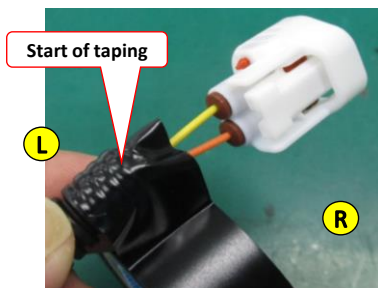
TOOLS/PPE

QUALITY POINTERS

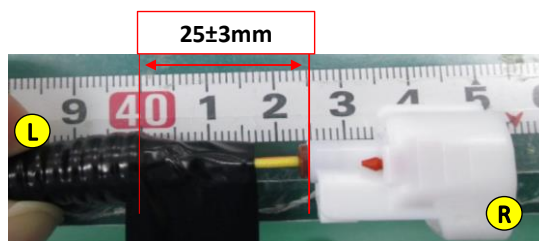
6

P1

Taping 1
Black corrugated tube (no
slit) to wire near connector

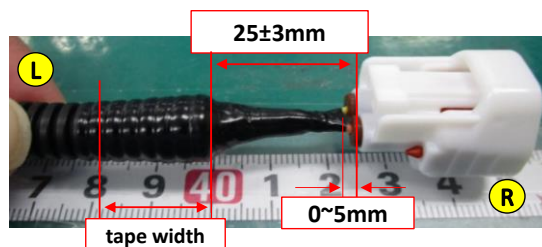


1. Hold the corrugated tube using left hand then start pre-taping using right hand.



2. Measure from end of the corrugated tube up to connector **25±3mm** then continue the taping process using both hands.

Note: Refer to WI-PRO-ASY-001 for taping procedure



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

MEASURING TAPE



Note:
Please use calibrated/verified measuring tape when getting the measurement.

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

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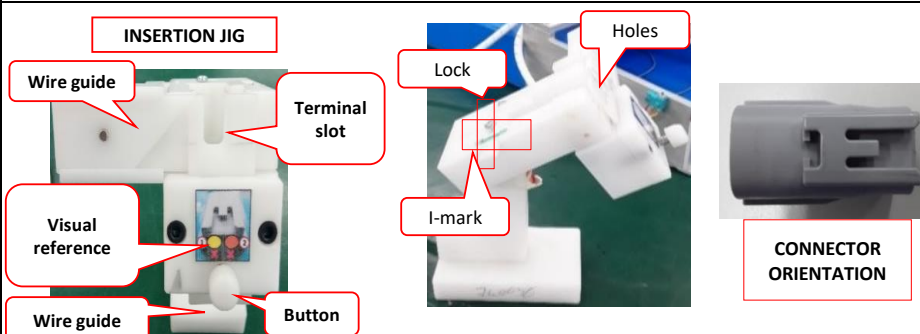
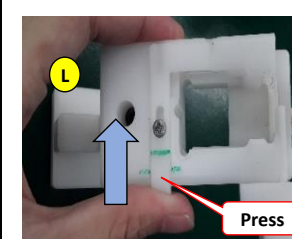
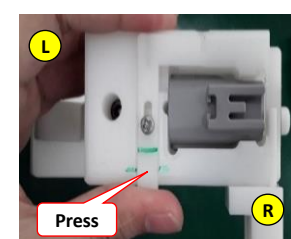
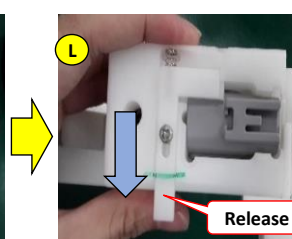
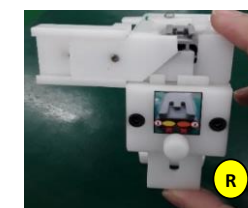
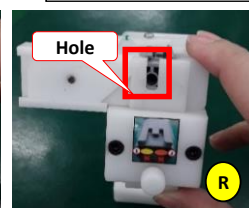
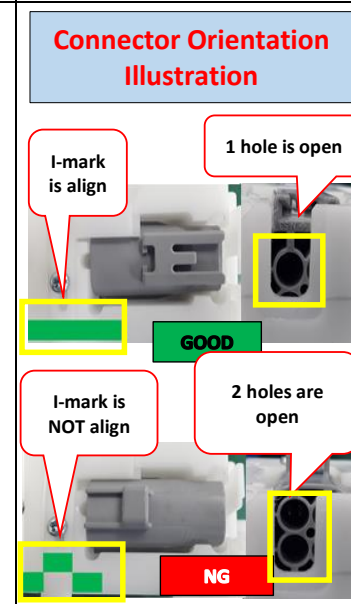


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PARTS:		1. Connector 6188-0066 (GR)			JIG	1. Insertion jig	
NO.	PROCESS NAME		2 WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE		QUALITY POINTERS
7	P1	Connector setting to insertion jig 6188-0066 (GR)	<div><div><div><div><div>INSERTION JIG</div><div></div></div></div><div><div><div><div><div></div><div>1. Press the lock of insertion jig using left thumb.</div></div><div><div><div><div><div></div><div>2. Insert the connector 6188-0066 (GR) into jig using right hand then release the lock.</div></div><div><div><div><div><div></div><div>Note: Follow the connector orientation.</div></div></div></div></div><div><div><div><div><div></div><div>3. Push the guide using right thumb. The slot for Y wire will be opened.</div></div><div><div><div><div></div></div></div></div></div></div></div><div><div><div><div><div></div></div></div></div></div></div></div></div></div></div></div></div></div>		n/a	<div><div><div><div><div>Connector Orientation Illustration</div><div><div><div><div><div></div><div>GOOD</div></div></div><div><div><div><div></div><div>NG</div></div></div></div></div></div><div><div>1. Use provided jig per model</div><div>2. No wrong usage of parts</div><div>3. No wrong orientation of connector</div><div>4. No damaged connector</div></div></div></div></div></div>	

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PARTS:

1. Assy parts

JIG

1. Insertion jig

NO.

PROCESS NAME

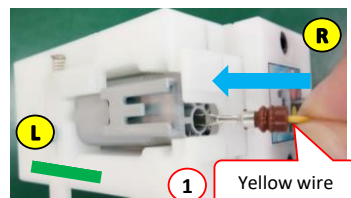
WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

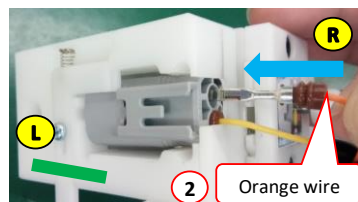
QUALITY POINTERS

8

P1

Wire Insertion to
Connector
6188-0066 (GR)

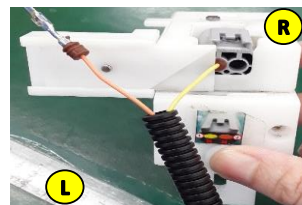
1. Hold the insertion jig using left hand.
Get the assy parts, insert the **Yellow wire**
to terminal slot **1** using right hand.



3. Get the **Orange wire** then insert
to terminal slot **2** using right hand.



Wire facing



2. Press the button using right thumb, slot
for **Orange wire** will be opened.



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.

**NOTE: SET ASIDE THE
ASSY PARTS**

n/a

*Note: Please hold the wire near
terminal during insertion.*

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.

*Note: Refer to GL-PRO-ASY-029
for Pull-Push procedure.*

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PARTS:

1. Assy parts
2. TVSSf 0.3 wires GR L=831±3mm; B/W L=831±3mm

JIG

1. Terminal cover jig

NO.

PROCESS NAME

2 WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

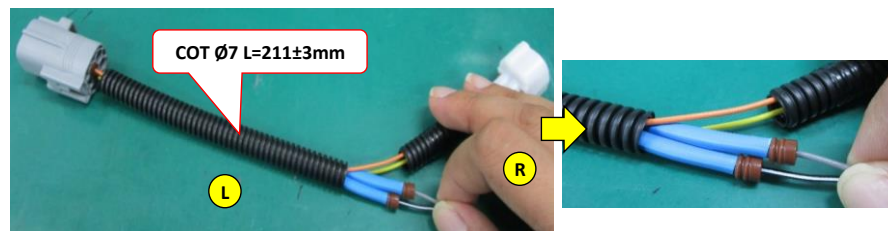
9

P1

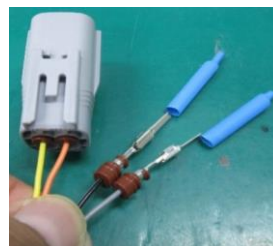
Wire insertion to assy parts



1. Get the cover jig then insert to GR-B/W wires using right hand.



2. Get the assy parts then hold the corrugated tube (no slit) Ø7 L=211±3mm using left hand then insert GR-B/W wires using right hand.



3. After insertion, remove the cover jig using right hand.

TERMINAL COVER JIG

2 Note: Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance

1. No wrong usage of parts
2. No damaged rubber seal

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PARTS:

1. Assy parts

JIG

1. Insertion Jig

NO.

PROCESS NAME

2

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

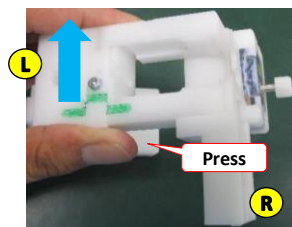
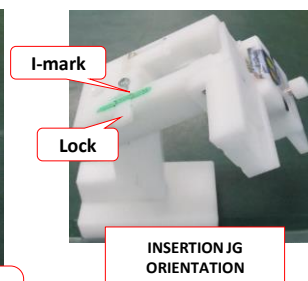
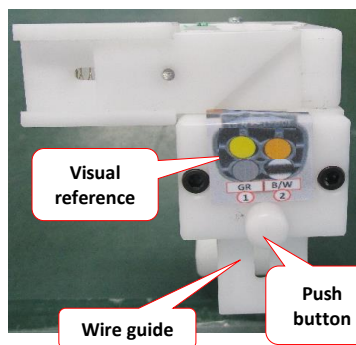
QUALITY POINTERS

10

P1

Connector setting to
insertion jig
6188-0066 (GR)
(Assy parts)

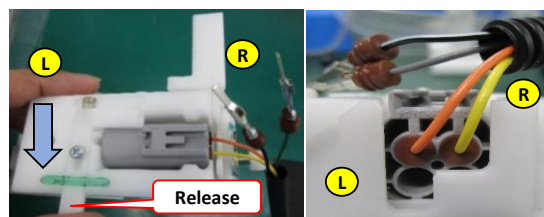
2



2. Press the lock using left thumb.



1. Push the lower wire guide upward using right thumb. Slot for Gray wire will be opened.



3. Insert the connector 6188-0066 (GR) into jig using right hand then release the lock. Flip the Assy parts to make way during insertion of wires.

Note: Follow the connector orientation.

n/a

Connector Orientation Illustration



1. Use provided jig per model
2. No wrong usage of parts
3. No wrong orientation of connector
4. No damaged connector

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PARTS:

1. Assy parts

JIG

1. Insertion Jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

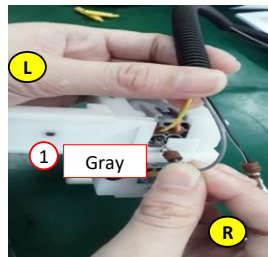
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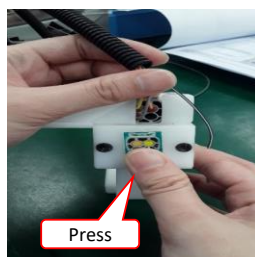
Wire insertion to connector 6188-0066 (GR) (Assy parts)



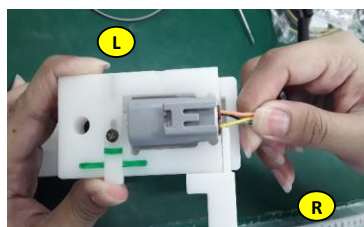
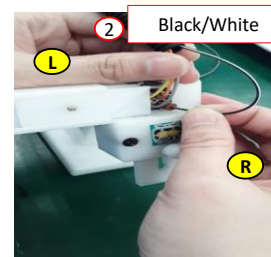
WIRE FACING



1. Hold the insertion jig using left hand, get **Gray wire** then insert to terminal slot **1** using right hand.



2. Press the button using right hand, slot for **Black/White wire** will be opened. Get the **Black/White wire** then insert to terminal slot **2** using right hand.



3. After insertion, push the lock using left thumb and then hold the wires and gently pull out the connector from jig using right hand.

n/a

Note: Please hold the wire near terminal during insertion.

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.

Note: Refer to GL-PRO-ASY-029 for Pull-Push procedure.

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Customer: **TRQSS**

Purpose: ☐ PROTOTYPE

☐ PRE-LAUNCH

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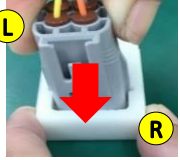




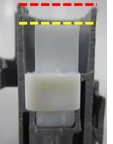
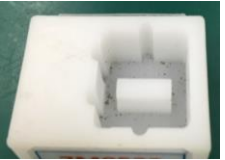
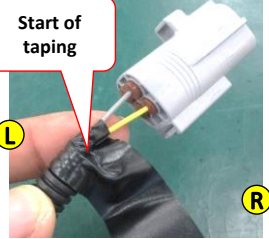
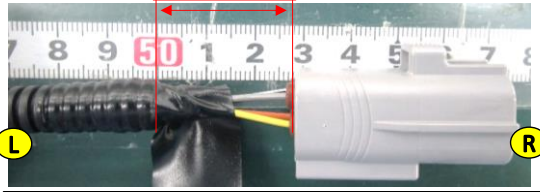
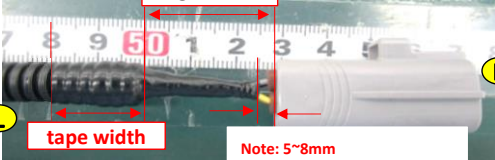

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PARTS:

1. Assy parts
2. Black tape

JIG

1. Locking Jig

NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
12	Connector lock	 <p>1. Put the connector into locking jig using right hand then press 2x. Touch the connector lock if properly locked.</p>  <p>Before pressing</p>  <p>After pressing</p> <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>	LOCKING JIG 	<p>NOTE: MANUAL LOCKING MAY CAUSE DAMAGED LOCK.</p> <ol style="list-style-type: none">1. Use the provided locking jig per model2. No unlock/half-locked connector3. No damaged lock
13	Taping 2 COT to wire near connector	<p>Start of taping</p>  <p>1. Hold the corrugated tube using left hand then start taping using right hand.</p> <p>28±2mm</p>  <p>2. Measure from end of the corrugated tube up to connector 28±2mm. Note: Refer to WI-PRO-ASY-001 for taping procedure</p> <p>28±2mm</p>  <p>tape width</p> <p>Note: 5~8mm → End tape up to connector (includes rubber seal)</p> <p>3. After taping, check the measurement and tape condition.</p>	MEASURING TAPE 	<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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