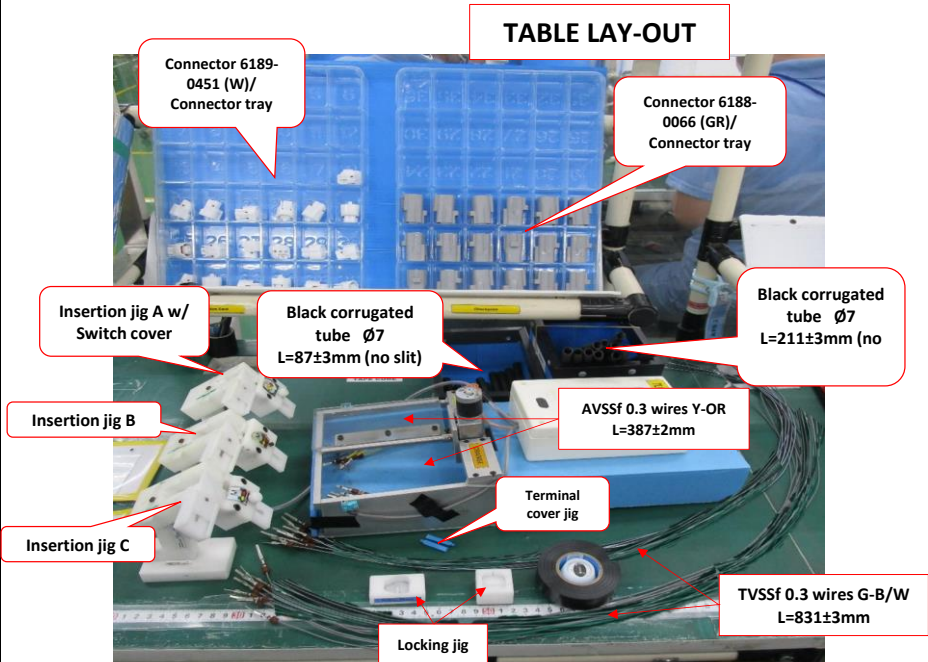



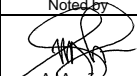
	WORK INSTRUCTION				Effectivity Date: December 17, 2022	
	Process Name/Title: TAPING ASSEMBLY PROCESS				Validity Date: n/a	
	Model Code/Part Number: 150B / 7L0059-7023		Customer: TRQSS		Document No.: WI-ENG-PDE-435A	
	Purpose: <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO		Revision No.: 2		Page No.: 1 of 12	

PARTS: Connector 6189-0451 (W); Connector 6188-0066 (GR); AVSSf 0.3 wires Y-OR L=387±2mm; TVSSf 0.3 wires G-B/W L=831±3mm; Black corrugated tube Ø7 L=87±3mm (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
1	P1	Table Lay-out	<div> <div> TABLE LAY-OUT  </div> <div> Safety Instruction Be sure to wear required personal protective equipment during operation (gloves, finger cots, etc.) </div> <div> Housekeeping 1. Maintain and always practice 5's. 2. Personal things on the workplace is prohibited. Keep it in your locker. </div> <div> Alert level For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action. </div> </div>
		QUALITY POINTERS	
		Document references: 2 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	
12/17/22	2	Improve Quality pointers: Reminders/notes and references on pages no.1,3,4,5,7,9,10 and 11 due to document improvement. Inclusion of Quality checkpoints.				M. Ariola	J. Loterte	C. Villanueva	A. Arañes		
05/23/22	1	Change from Pre-Launch to Masspro.				M. Ariola	J. Loterte	C. Villanueva	A. Arañes		
Eff. Date	Rev. No	Details of Change				Revised	Reviewed	Approved	Noted	Est. Date:	February 24, 2022

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WORK INSTRUCTION

TAPING ASSEMBLY PROCESS

Process Name/Title:

Model Code/Part Number: **150B / 7L0059-7023**

Customer: **TRQSS**

Purpose: ☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Effectivity Date:

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n/a

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PARTS:

1. Connector 6189-0451 (W)

JIG

1. Insertion jig with switch cover

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

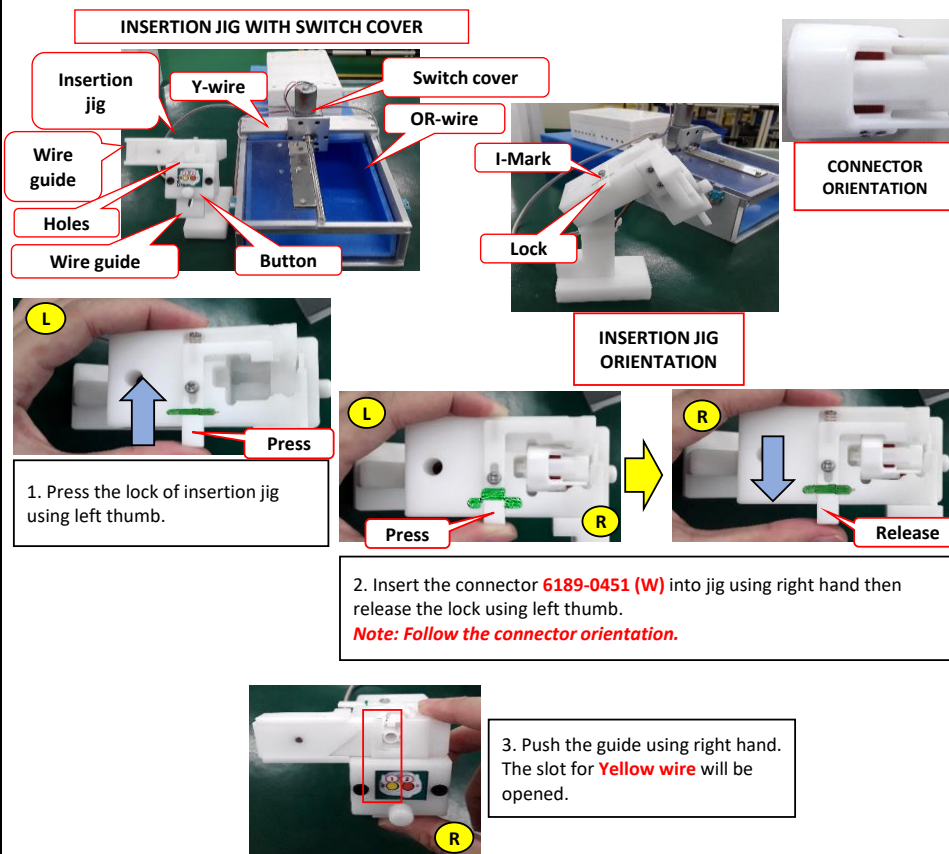
TOOLS/PPE

QUALITY POINTERS

2

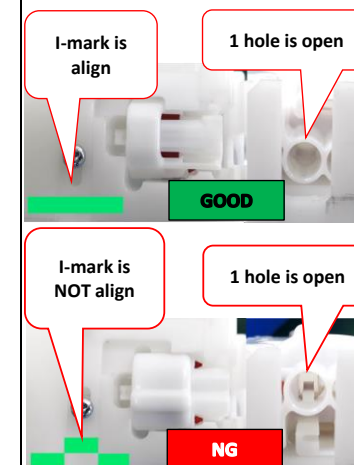
P1

Connector setting to
insertion jig
6189-0451 (W)



n/a

Connector Orientation Illustration



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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Purpose: ☐ PROTOTYPE

☐ PRE-LAUNCH

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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

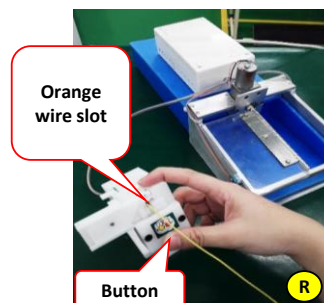
Wire Insertion to
Connector
6189-0451 (W)



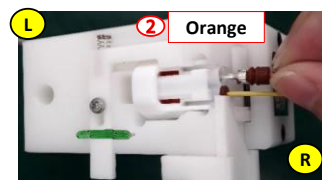
WIRE FACING



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



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



3. Hold the insertion jig using left hand, get **Orange wire** and 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.

n/a

1. No loose insertion
2. No wrong insertion
3. One by one insertion
4. No deformed terminal
5. No wrong wire facing

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.

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

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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

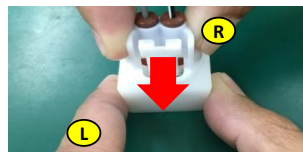
WORK PROCEDURE/ ILLUSTRATION

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.



LOCKING JIG



2

Important reminders/Note/s:

1. **Manual locking may cause damaged connector 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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Purpose: ☐ PROTOTYPE

☐ PRE-LAUNCH

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PARTS:

1. Assy parts
2. Black tape

JIG

n/a

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

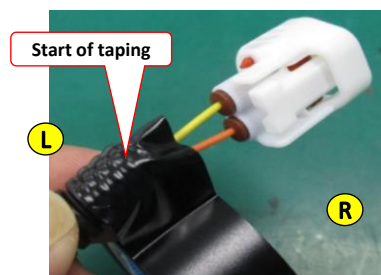
TOOLS/PPE

QUALITY POINTERS

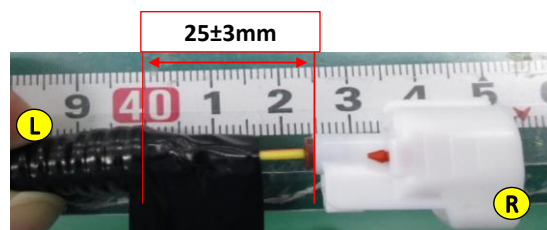
6

P1

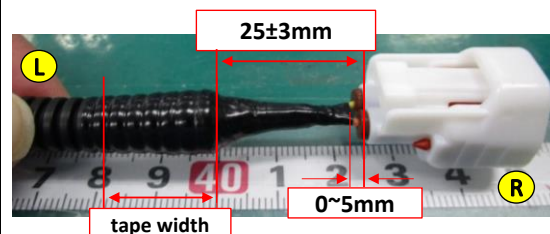
Taping 1
Black corrugated tube (no slit) to wire near connector



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.



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

MEASURING TAPE



2 Important reminders/Note/s:

1. 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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Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

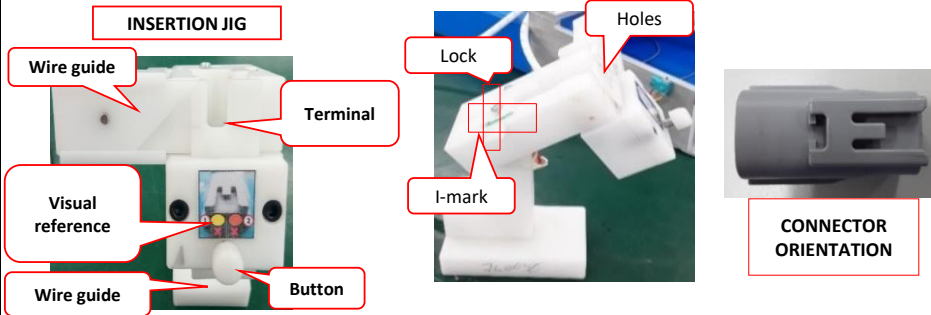
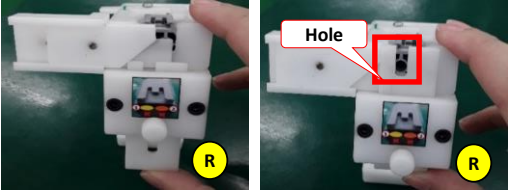
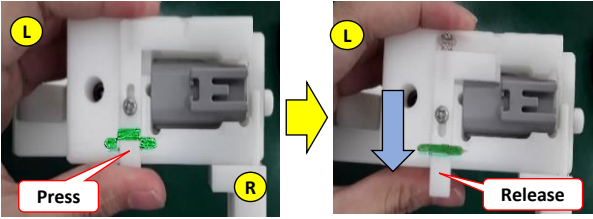
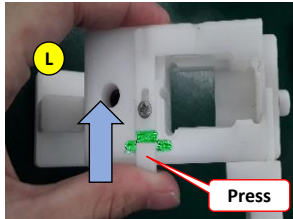
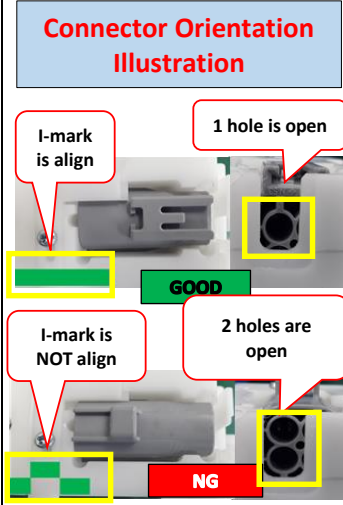
☒ MASSPRO

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

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Purpose: ☐ PROTOTYPE

☐ PRE-LAUNCH

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PARTS:

1. Assy parts

JIG

1. Insertion jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION


TOOLS/PPE

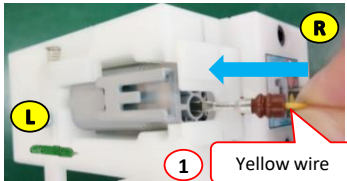
QUALITY POINTERS

8


P1

Wire Insertion to
Connector
6188-0066 (GR)

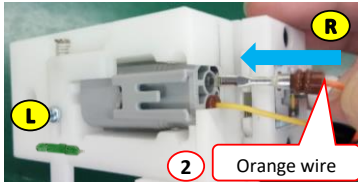
 Wire facing

 **1** Yellow wire


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

 **2**

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

 **2** Orange wire

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

 **4**

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

1. No loose insertion
2. No wrong insertion
3. One by one insertion
4. No deformed terminal
5. No wrong wire facing

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.

Document references:

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

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☐ PROTOTYPE

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PARTS:

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

JIG

1. Terminal cover jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

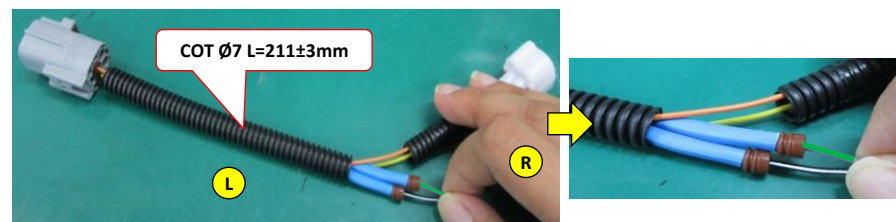
9

P1

Wire insertion to assy parts



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



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

TERMINAL COVER JIG



2. Document reference/s:
1. 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

WORK PROCEDURE/ ILLUSTRATION

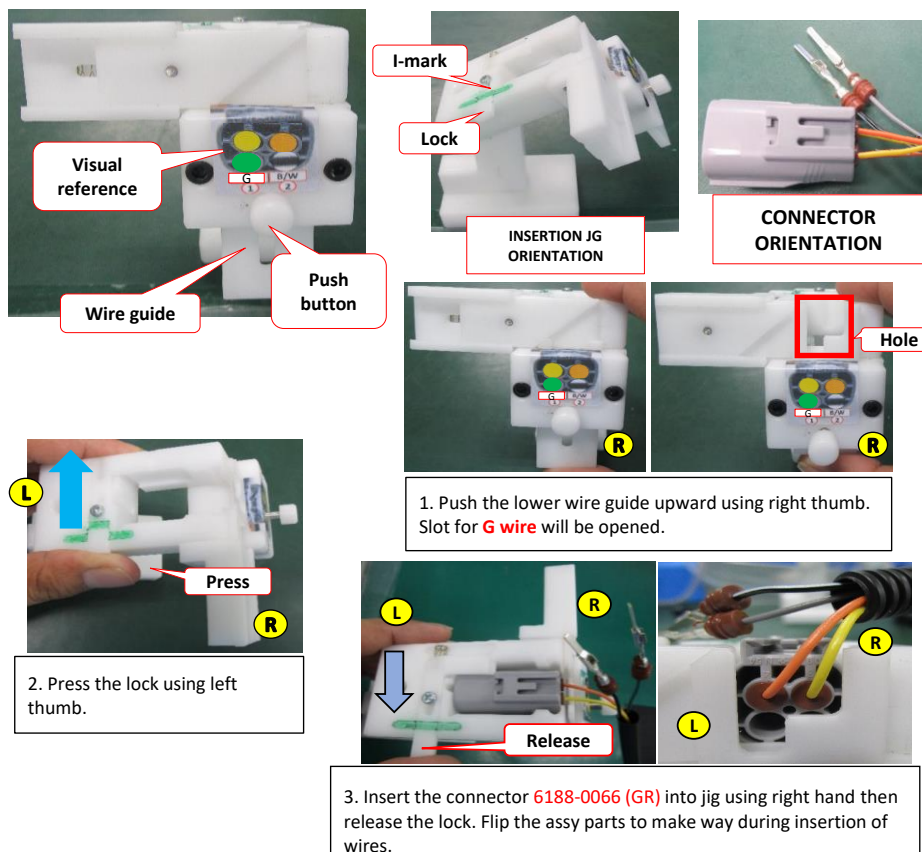
TOOLS/PPE

QUALITY POINTERS

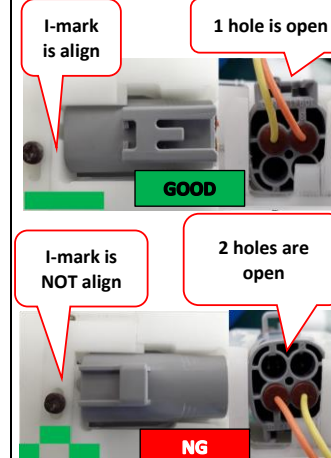
10

P1

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



Connector Orientation Illustration



n/a

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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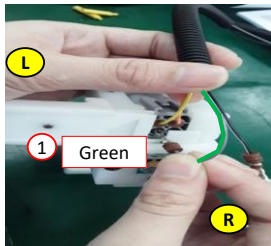
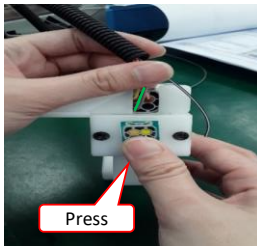
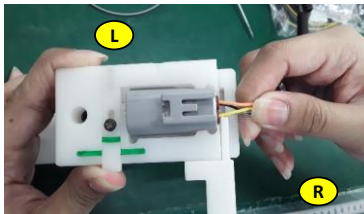
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PARTS:		1. Assy parts			JIG	1. Insertion Jig	
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS	
11	P1	Wire insertion to connector 6188-0066 (GR) (Assy parts)	<div><div><p>WIRE FACING</p></div><div><p>1 Green</p></div><div><p>Press</p></div><div><p>L R</p></div></div> <div><p>1. Hold the insertion jig using left hand, get Green wire then insert to terminal slot 1 using right hand.</p><p>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.</p><p>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.</p></div> <td>n/a</td> <td colspan="2"><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><p>2 Important reminders/Note/s: 1. Please hold the wire near terminal. 2. Insertion of wire must be from left to right. 2. Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.</p><p>2 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></td>		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><p>2 Important reminders/Note/s: 1. Please hold the wire near terminal. 2. Insertion of wire must be from left to right. 2. Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.</p><p>2 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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Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

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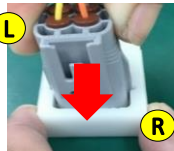








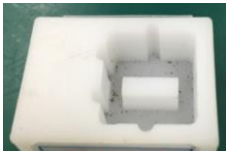





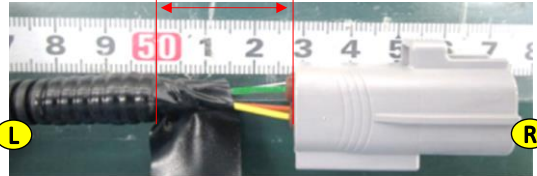
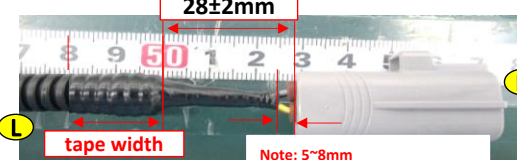


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PARTS:		1. Assy parts 2. Black tape		JIG	1. Locking Jig										
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS									
12	Connector lock	<div><div></div><div> Before pressing</div><div> After pressing</div><div><h3>Connector Cross Sectional View</h3><table><tr><td>NG</td><td>NG</td><td>GOOD</td></tr><tr><td></td><td></td><td></td></tr><tr><td>Unlock Condition</td><td>Half Lock Condition</td><td>Full Lock Condition</td></tr></table></div><div>1. Put the connector into locking jig using right hand then press 2x. Touch the connector lock if properly locked.</div></div>			NG	NG	GOOD				Unlock Condition	Half Lock Condition	Full Lock Condition	LOCKING JIG	 <div>1. Use the provided locking jig per model 2. No unlock/half-locked connector 3. No damaged lock</div> <div>Important reminders/Note/s:  1. Manual locking may cause damaged connector lock.</div>
NG	NG	GOOD													
															
Unlock Condition	Half Lock Condition	Full Lock Condition													
13	P1 Taping 2 COT to wire near connector	<div><div></div><div> 28±2mm</div><div> 28±2mm tape width Note: 5~8mm → End tape up to connector (includes rubber seal)</div><div>3. After taping, check the measurement and tape condition.</div></div> <div>1. Hold the corrugated tube using left hand then start taping using right hand. 2. Measure from end of the corrugated tube up to connector 28±2mm.</div>			MEASURING TAPE	 <div>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</div> <div>Important reminders/Note/s:  1. Please use calibrated/verified measuring tape when getting the measurement.</div>									

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**WORK INSTRUCTION****TAPING ASSEMBLY PROCESS**

Process Name/Title:

Model Code/Part Number: **150B / 7L0059-7023**

Customer:

TRQSS

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Effectivity Date:

December 17, 2022

Validity Date:

n/a

Document No.:

WI-ENG-PDE-435A

Revision No.:

2

Page No.:

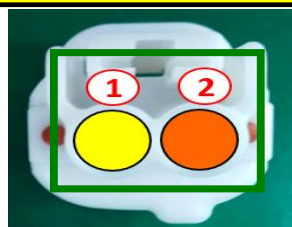
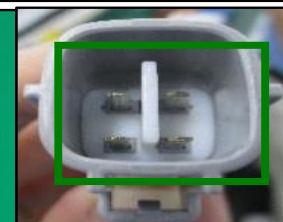
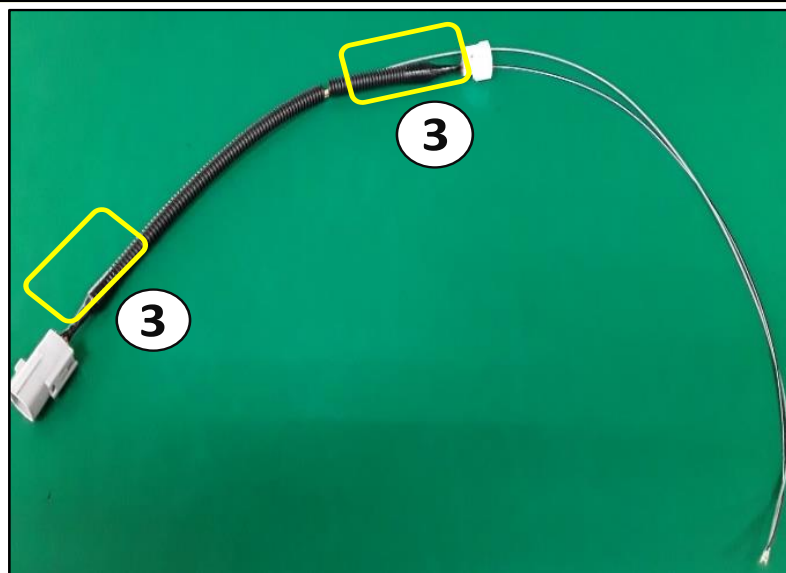
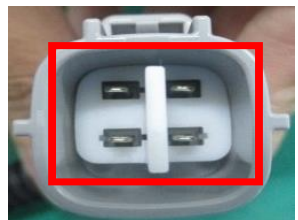
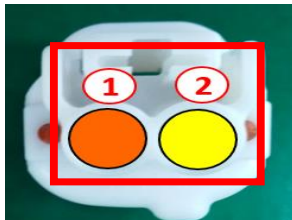
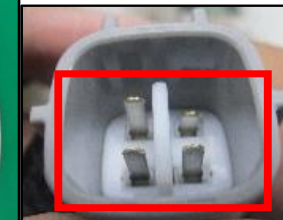
12 of 12**PARTS:**

1. Assy parts
2. Black tape

JIG

1. Locking Jig

NO.	PROCESS NAME	2 WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
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P1**7L0059-7023****GOOD****GOOD****GOOD****GOOD****NO GOOD****NO GOOD****NO GOOD****NO GOOD**

- 1 No **Unlock/Halflock Connector** (on 2 connector)
- 2 No **Wrong Insert** (on 2 connector)
- 3 No **Missing Tape**
- 4 No **Terminal Backing Out**

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