

**WORK INSTRUCTION**Process Name/Title: **TAPING ASSEMBLY PROCESS**

Effectivity Date:

**February 22, 2023**Model Code/Part Number: **150B / 7L0060-7023**

Customer:

**TRQSS**

Validity Date:

**n/a**

Purpose:



PROTOTYPE



PRE-LAUNCH



MASSPRO

Document No.:

**WI-ENG-PDE-385A**

Revision No.:

**1**

Page No.:

**1 of 7****PARTS:**

1. All parts; Connector 6189-0451 (W); Black corrugated tube (No slit)  $\phi 5$  L=352 $\pm$ 3mm; Black VM tube (Sunprene)  $\phi 5$  L=101 $\pm$ 3mm; TVSSf 0.3 B/W wire L=548 $\pm$ 3mm; TVSSf 0.3 G wire L=548 $\pm$ 3mm; Black tape

JIG:

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

NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
1	P1	Table Lay-out	<div><b>Safety Instruction</b> Be sure to wear prescribed personal protective equipment during operation (gloves, finger cots, etc.)</div> <div><b>Housekeeping</b> 1. Maintain and always practice 5's. 2. Personal things on the workplace is prohibited. Keep it in your locker.</div> <div><b>Alert level</b> For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.</div>	<ol style="list-style-type: none"><li>1. No missing parts/tools</li><li>2. No excess parts/tools</li><li>3. No wrong positions of parts/tools</li></ol> <p><b>Document references:</b></p> <p><b>1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</b></p>

## Revision History

Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Established Date:	Prepared by	Reviewed	Approved by	Noted by
02/22/23	1	Work instruction improvement. Improved quality pointers and inclusion of Quality checkpoints (Page 7). Change term Black sunprene tube to Black VM tube (Sunprene).	D.Castillo	J. Loterte	C. Villanueva	A.Arañes					
01/29/22	0	Initial Issue.	K. Doria	J. Loterte	C. Villanueva	A.Arañes					
		Change of PCB from 2 chips (61C619-0002) to 1 chip (7N0994-7060); Change wire color from Gray (GR) to Green (G).									

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### PARTS:

1. Connector 6189-0451 (W)

### JIG

1. Insertion jig with switch cover

### NO.

### PROCESS NAME

### WORK PROCEDURE/ ILLUSTRATION

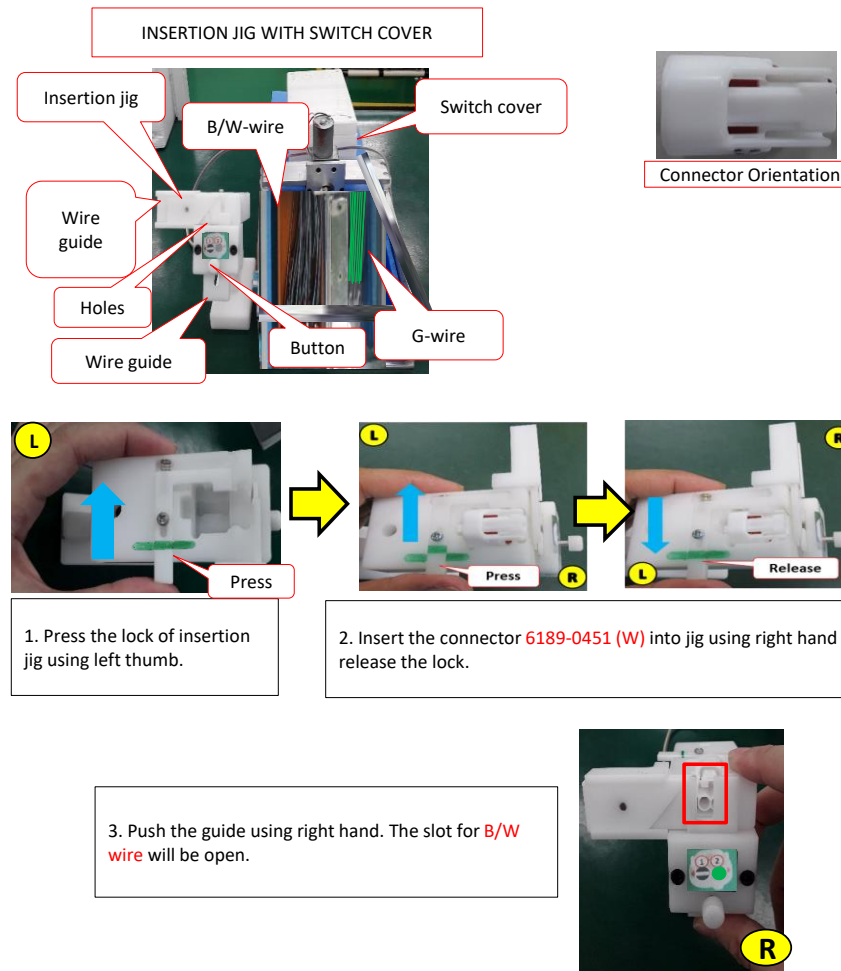
### TOOLS/PPE

### QUALITY POINTERS

2

P1

Connector setting to  
insertion jig  
6189-0451 (W)



n/a

### Connector Orientation Illustration

I-mark is  
align

1 hole is open

GOOD

I-mark is  
NOT align

1 hole is open

NG

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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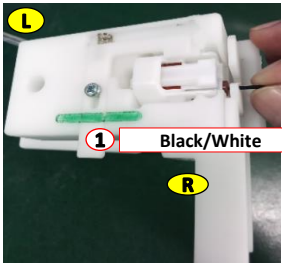


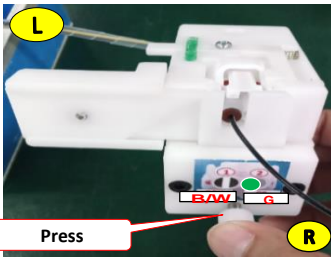


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PARTS:		1. TVSSf 0.3 Wires G L=548±3mm; B/W L=548±3mm			JIG	1. Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS	
3	P1	<div><div><p>1. Get the B/W wire then insert to terminal slot ① using right hand.</p></div><div><p>3. Get the G wire then insert to terminal slot ② using right hand.</p></div></div> <div><div><p>2. After insertion of B/W wire press the button using right hand. The slot for G wire will be open.</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>		n/a	<div><div><p><b>Important reminder/ Note/s:</b></p><p>1. Make sure wires are properly inserted. Conduct <u>Pull-Push-Pull-Push</u> after insertion. Do not exert extra force.</p></div><div><p><b>Document references:</b></p><p>1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance 2. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</p></div></div>	

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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><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> <div><p>1. No wrong usage of parts 2. No deformed terminal</p><p> <b>Document references:</b> 1. Manual locking may cause damaged connector lock</p></div>		

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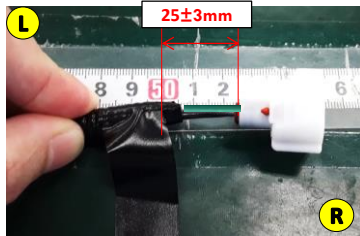
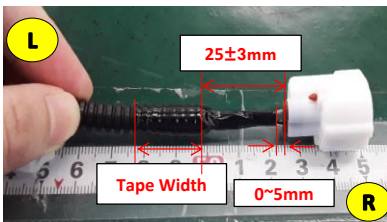

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PARTS:		1. Black Corrugated tube (no slit) $\phi 5$ L=352 $\pm$ 3mm 2.Black tape		3. Assy Parts	JIG	1. Terminal cover jig	
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS	
5		Wire insertion to corrugated tube $\phi 5$ L= 352 $\pm$ 3mm (no slit)	<div></div> <div>1. Get the terminal cover jig using right hand then insert the <b>Green-Black/white wires</b> using left hand</div> <div>2. Get the Corrugated tube <math>\phi 5</math> L= 352<math>\pm</math>3mm using right hand and insert the <b>Green-Black/White wires</b> using left hand .</div> <div>3. After insertion, remove the terminal cover jig using right hand.</div>			<div>TERMINAL COVER JIG</div> 	1.No wrong use of corrugated tube 2. No deformed terminal
6	P1 Taping 1 COT to wire near connector	<div><div>Start of taping</div><div>1. Hold the corrugated using left hand. Get <b>Black tape</b> using right hand and start pre-taping using both hands.</div><div>25<math>\pm</math>3mm</div><div>2. Measure the corrugated tube up to connector <b>25<math>\pm</math>3mm</b> using left hand then proceed to taping.</div><div>25<math>\pm</math>3mm</div><div>Tape Width</div><div>0~5mm</div><div>Note: 0 - 5mm → End tape up to connector (includes rubber seal)</div><div>3. After taping, check the measurement and taping condition.</div></div> <div><div>MEASURING TAPE</div><div>1</div><div>Important reminders/ Note/s: 1. Please use calibrated/verified measuring tape when getting the measurement. 2. Refer to WI-PRO-ASY-001 for taping procedure.</div></div> <td>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</td>	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				

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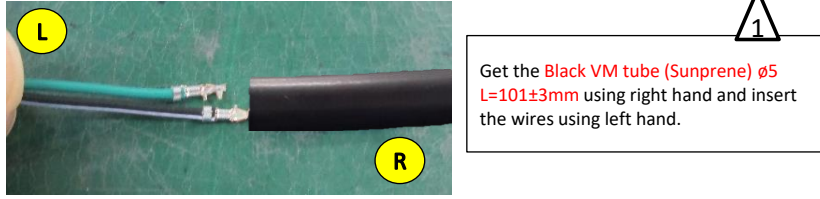



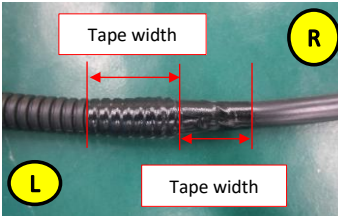



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PARTS:		1. Black tape 2. Assy parts	 3. Black VM tube (Sunprene) ø5 L=101±3mm	JIG	N/A
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
7	 Wire insertion to Black VM tube (Sunprene) ø5 L=101±3mm			n/a	1. No missing parts/tools 2. No excess parts/tools
8	P1  Taping 2 Black Corrugated tube to Black VM tube (Sunprene)	  		   <b>Important reminders/ Note/s:</b> 1. Please use calibrated/verified measuring tape when getting the measurement. 2. Refer to WI-PRO-ASY-001 for taping procedure.	1. No flip out tape 2. No tape peeling 3. No loose tape 4. No wrong use of tape 5. No wrong dimension 6. No missing tape

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PARTS:

n/a

JIG

n/a



## QUALITY CHECKPOINTS

**P1**

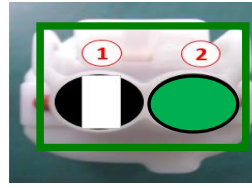
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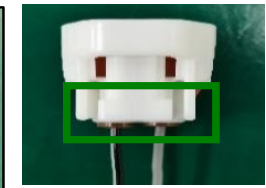
**GOOD**



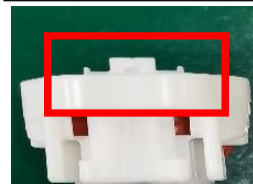
**GOOD**



**GOOD**



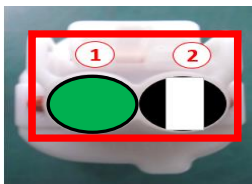
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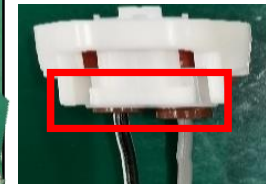
**NO GOOD**



**NO GOOD**



**NO GOOD**



**NO GOOD**

**1 No Unlock/Halflock Connector**

**2 Checking of Double Lock Deformation**

**3 No Wrong Insert**

**4 No Missing Tape**

**5 No Terminal Backing Out**

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