



# WORK INSTRUCTION

Process Name/Title:

## TAPING ASSEMBLY PROCESS

Product Name/Code:

014B

/

17J924-7051Y

Customer:

NBS

Purpose:



PROTOTYPE



PRE-LAUNCH



MASSPRO

Effectivity Date:

May 05, 2022

Validity Date:

n/a

Document No.:

WI-ENG-PDE-493C

Revision No.:

1

Page No.:

1 of 4

### PARTS:

1. Connector 4F1640-000 (W)

JIG:

1. Insertion jig

### NO.

### PROCESS NAME

### WORK PROCEDURE/ ILLUSTRATION

### TOOLS/PPE

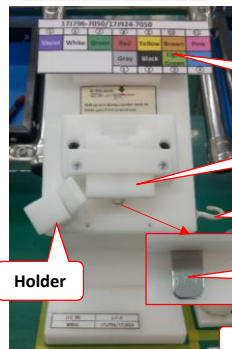
### QUALITY POINTERS

1

P3

Connector Setting to  
Insertion jig  
(Assy parts)  
4F1640-000 (W)

#### INSERTION JIG



Visual reference

Lower guide

Hook

Lever

Slot

Holder

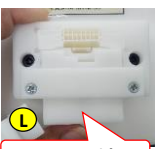
#### CONNECTOR ORIENTATION



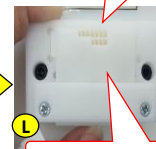
Note: Check the  
connector before  
insertion.

1. Get the connector **4F1640-000 (W)** using right hand then set to  
insertion jig.

Note: Follow the connector orientation.

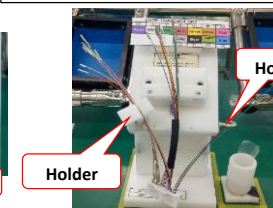


BEFORE PRESSING



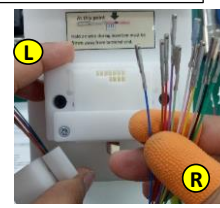
AFTER PRESSING

2. Press the lower guide using left  
thumb finger.



Holder

3. Separate **Group 1 (12pcs)** and **Group 3  
wires (3pcs)**. Set the **Group 1 wires (12pcs)**  
to holder using both hands and set the  
**Group 3 wires (3pcs)** to hook using right



Hook

Holder

4. Hold the **Group 2 wires  
(11pcs)** using right hand for  
insertion.

#### Safety Instruction

Be sure to wear  
prescribed 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.

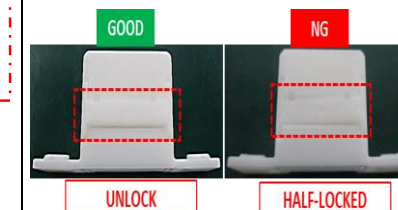
#### Finger COTS



1. No wrong wire inserted
2. No terminal backing out
3. No deformed terminal
4. Make sure wires are properly inserted.
5. Must have slight MOVEMENT after insertion
6. No bend terminal/wires

Note: Automatically dispose and replace the  
unit if once encountered Bend terminal,  
Difficulty of insertion, Half-locked connector.

Note: If encountered abnormality, **STOP**  
and immediately **CALL** the attention of  
the leader. **WAIT** for further instruction  
and continue the process.  
Do not attempt to repair.



### Revision History

Eff. Date	Rev. No	Details of Change	Revised	Checked	Approved	Noted	Prepared by	Reviewed by	Approved by	Noted by
05/02/22	1	Change document purpose from pre-launch to masspro	M. Catapang	J. Loterte	C. Villanueva	A. Arañes	M. Catapang	J. Loterte	C. Villanueva	A. Arañes
04/28/22	0	Initial issue	M. Catapang	J. Loterte	C. Villanueva	A. Arañes	M. Catapang	J. Loterte	C. Villanueva	A. Arañes

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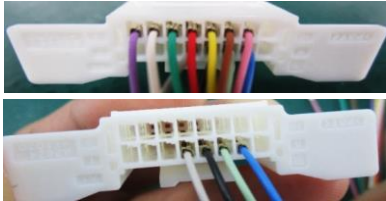

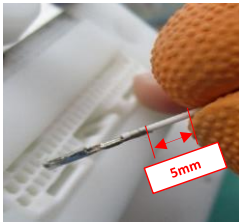





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**PARTS:**

1. Assy parts

**JIG**

1. Insertion jig

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION				TOOLS/PPE	QUALITY POINTERS																																				
2	P3	Wire insertion to connector (Group 2 wires) 4F1640-000 (W)	<div>WIRE INSERTION ILLUSTRATION</div> <div></div>		<div>WIRE FACING</div> <table><tr><td>SECOND ROW TO INSERT</td><td>V</td><td>W</td><td>G</td><td>R</td><td>Y</td><td>BR</td><td>P</td><td>X</td></tr><tr><td></td><td>185</td><td>183</td><td>181</td><td>178</td><td>178</td><td>176</td><td>175</td><td>-</td></tr><tr><td>FIRST ROW TO INSERT</td><td>X</td><td>X</td><td>X</td><td>GR</td><td>B</td><td>LG</td><td>L</td><td>X</td></tr><tr><td></td><td>-</td><td>-</td><td>-</td><td>179</td><td>179</td><td>176</td><td>175</td><td>-</td></tr></table>		SECOND ROW TO INSERT	V	W	G	R	Y	BR	P	X		185	183	181	178	178	176	175	-	FIRST ROW TO INSERT	X	X	X	GR	B	LG	L	X		-	-	-	179	179	176	175	-	<div>Finger COTS</div> <div></div>	1. No wrong wire insertion 2. No terminal backing out 3. No deformed terminal 4. Make sure wires are properly inserted. 5. Must have slight MOVEMENT after insertion 6. No bend terminal/wires
			SECOND ROW TO INSERT	V	W	G	R	Y	BR	P	X																																	
	185	183	181	178	178	176	175	-																																				
FIRST ROW TO INSERT	X	X	X	GR	B	LG	L	X																																				
	-	-	-	179	179	176	175	-																																				
<div><div><div>5mm</div></div><div>Note: Hold on wire during insertion must be <b>5mm</b> away from terminal end.</div><div><div>1. Get the wire and hold it <b>5mm</b> away from terminal.</div><div>2. Half insert the wire.</div><div>3. Release wire to check the color.</div><div>4. Hold again <b>5mm</b> away from terminal</div><div>5. Fully inserted wires (avoid bending during insertion)</div><div>Note: Follow the insertion sequence based on the visual reference</div></div><div><div></div><div>12345</div></div></div>	<div>Note: Make sure wires are properly inserted. Conduct <b>Pull-Push-Pull-Push</b> after insertion. Do not exert extra force.</div> <div>Note: Automatically dispose and replace the unit if once encountered Bend terminal, Difficulty of insertion, Half-locked connector.</div> <div>Note: If encountered abnormality, <b>STOP</b> and immediately <b>CALL</b> the attention of the leader. <b>WAIT</b> for further instruction and continue the process. Do not attempt to repair.</div>																																											

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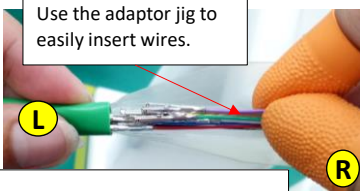
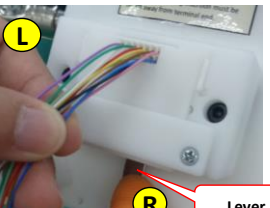








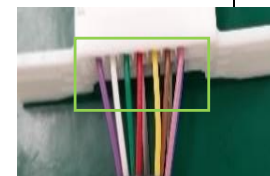
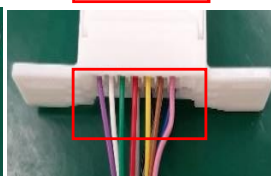
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**PARTS:**

1. Assy parts
2. Green Sunprene tube  $\phi 7$  L=55 $\pm$ 5mm

**JIG**

1. Adaptor jig

NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
3	P3 Wire insertion to Green Sunprene tube $\phi 7$ L=55 $\pm$ 5mm	<div><p>1. Get the <b>Green sunprene tube <math>\phi 7</math> L=55<math>\pm</math>5mm</b> using left hand then insert the adaptor jig using right hand.</p></div> <div><p>2. Release the <b>Group 1 wires (12pcs)</b> using right hand.</p></div> <div><p>3. Insert the wires to <b>Green sunprene tube</b> using right hand.</p></div> <div><p>4. Press the lever using right thumb.</p></div> <div><p>5. Hold the wires using left hand then gently pull the connector from jig. Check the insertion condition.</p></div> <div><p>Use the adaptor jig to easily insert wires.</p></div>	<div><p><b>Adaptor jig</b></p></div> <div><p><b>Finger COTS</b></p></div>	<div><p><b>GOOD</b></p></div> <div><p><b>NG</b></p></div> <div><p><b>GOOD</b></p></div> <div><p><b>NG</b></p></div> <div><p><b>GOOD</b></p></div> <div><p><b>NG</b></p></div> <div><p>1. No wrong use of parts. 2. No mixed wires between Group 1 and Group 3 3. No cut tube</p><p><b>STANDARD TUBE APPEARANCE</b></p></div>

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PARTS:

1. Assy parts

JIG

1. Locking jig
2. WIP Holder

NO.

PROCESS NAME

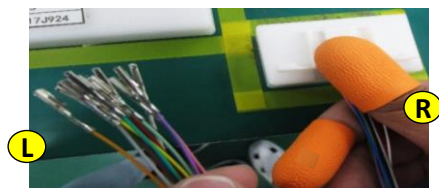
WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

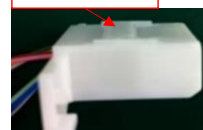
4

Connector Lock

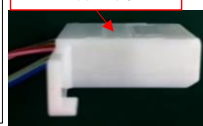


1. Put the connector to locking jig using left hand and press down the connector to locking jig **2x** using right thumb.
  2. Touch the connector lock after locking.
- Note: Please refer to GL-PRO-ASY-017 for the verification of connector lock.**

Before lock



After lock



Locking jig

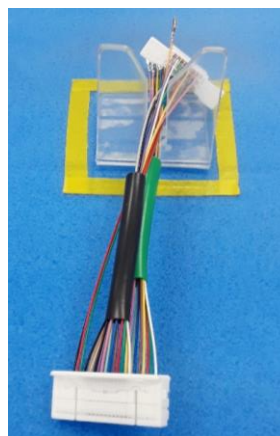
**NOTE: MANUAL LOCKING MAY CAUSED DAMAGED LOCK.**

1. No damaged double lock.
2. No halfed lock connector

5

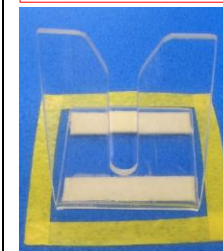
P3

Pass WIP to P4



1. Pass WIP to WIP Holder.
- Note: One piece flow.**

WIP HOLDER



1. No WIP overflow

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