



WORK INSTRUCTION

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

Product Name/Code: **100B / 7M0593-7020B** Customer: **TRJ**

Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ☒ MASSPRO

Effectivity Date:

April 17, 2021

Validity Date:

n/a

Document No.:

WI-ENG-PDE-154D

Revision No.:

3

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PARTS:

1. Clamp 82711-16830 (B)
2. Clamp 82711-48210 (B)
3. Clamp 82711-35730 (B)

4. Clamp 82711-52090 (W) [2pcs.] **3**
5. Black tape [4pcs.] **3**
6. Red tape [1pc.] **3**

JIG:

1. Clamp Assembly Jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

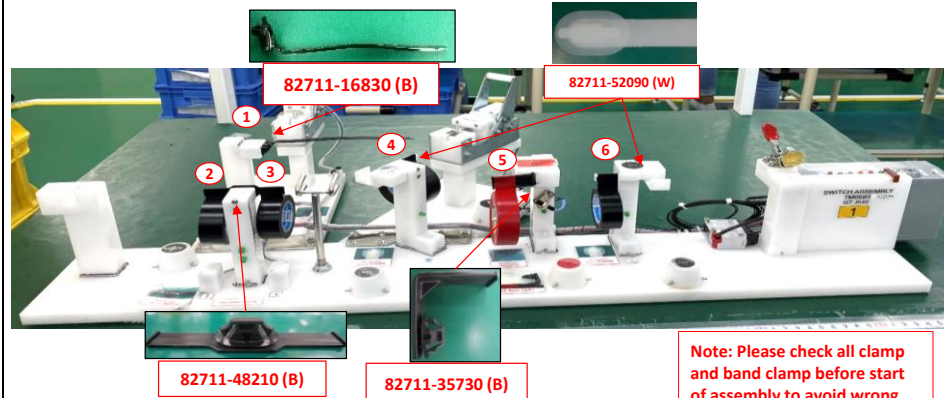
TOOLS/PPE

QUALITY POINTERS

1

P4

Clamp setting



1. Get **1pc.** of clamp **82711-52090 (W)** using right hand then insert to clamp location **4** using both hands.

2. Get **1pc.** of clamp **82711-52090 (W)** using right hand then insert to clamp location **6** using both hands.

3. Get **1pc.** of clamp **82711-16830 (B)** using right hand then insert to clamp location **1** using both hands.

4. Get **1pc.** of clamp **82711-48210 (B)** using right hand then insert to clamp location **2 and 3** using both hands.

5. Get **1pc.** of clamp **82711-35730 (B)** using right hand then insert to clamp location **5** using both hands.

6. Initially attach **Black tape** on clamp location **2, 3, 4 and 6** using both hands.

7. Initially attach **Red tape** on clamp location **5** using both hands.

Note: Please check all clamp and band clamp before start of assembly to avoid wrong use of parts.

Safety Instruction

Be sure to wear required personal protective equipment during operation (gloves, finger cots, etc.)

Housekeeping

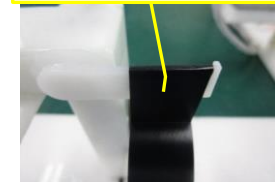
1. Maintain and always practice 5's.
2. Personal things on the workplace is prohibited. Keep it in your locker.

Alert level

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

STANDARD TAPING FOR CLAMP

One side tape under clamp



1. No damaged clamp
2. No wrong use of parts
3. No wrong use of tape

Revision History

Eff. Date	Rev. No	Details of Change	Revised	Checked	Approved	Noted	Prepared by	Reviewed by	Approved by	Noted by
04/17/21	3	Revise due to standardize the color of clamp in accordance with color standardization of plastic parts (Please refer to GL-COM-003 for Color Standardization for Plastic Parts). Apply some improvements.	M. Catapang	C. Villanueva	A. Shimamura	A. Arañes				
09/30/20	2	Changed effectivity and validity date. Remove cycle time.	M. Catapang	R. Peñaloza	A. Shimamura	A. Arañes				
04/10/18	0	Previously established as Engineering instruction. Initial issue	J. Loterte	R. Alcantara	A. Arañes	n/a				

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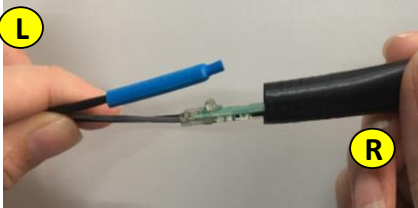
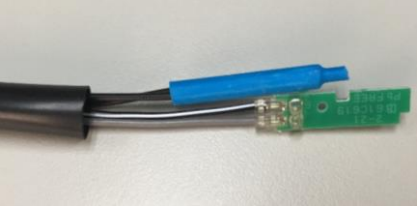

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

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PARTS:		1. Assy parts 2. Black Sunprene tube $\varnothing 9$ L=93 \pm 3mm			JIG	1. Terminal cover jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
2	P4 Wire insertion to Black Sunprene tube $\varnothing 9$ L=93 \pm 3mm	   <p>1. Get the terminal cover jig using right hand then insert the terminal B/B wires using left hand.</p> <p>2. Hold the Black Sunprene tube $\varnothing 9$ L=93\pm3mm using right hand then Insert first the hotmelted wires and then next the B/B wires with cover jig using left hand.</p> <p>3. After insertion, remove the terminal cover jig using right hand.</p>				1. No wrong use of parts 2. No deformed terminal

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☐ PROTOTYPE

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PARTS:

1. Assy parts
2. Black tape

JIG

n/a

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

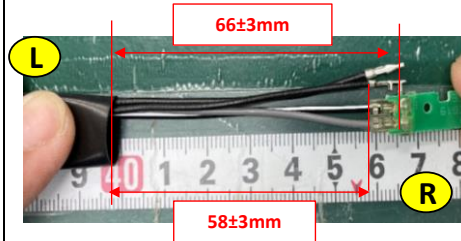
TOOLS/PPE

QUALITY POINTERS

3

P4

Taping 1
Black Corrugated tube
to
Black Sunprene tube



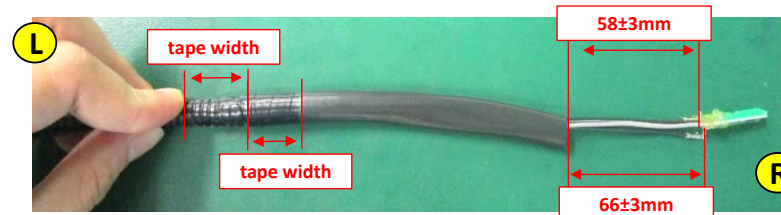
1. Measure from end of the sunprene tube up to the edge of hotmelt **58±3mm** and sunprene tube up to terminal tip **66±3mm**.



2. Hold the sunprene tube using left hand then start taping using right hand.

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

MEASURING TAPE



3. After taping, check the dimension, terminal appearance and taping condition.

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

1. No peel-off tape
2. No flip out tape
3. No loose tape
4. No wrong use of tape
5. No wrong dimension

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Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

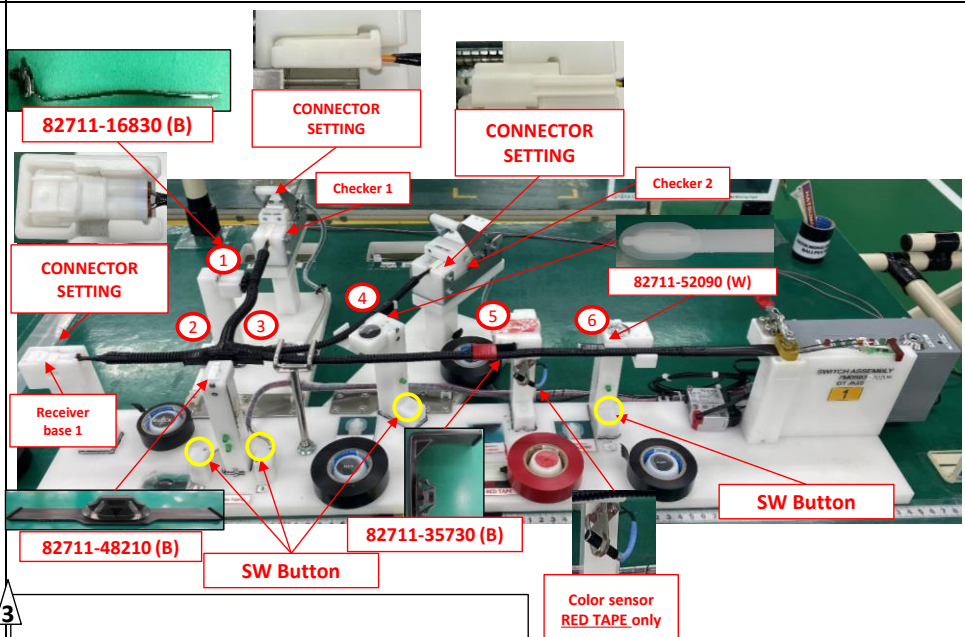
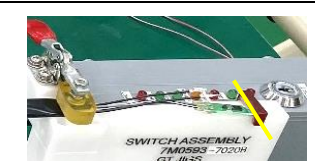
☒ MASSPRO

PARTS:

- 3 1. Assy parts
2. Black tape

JIG

1. Clamp Assembly jig

NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
4	P4 Clamp Assembly	 <p>3</p> <p>1. Put the assy into jig. (See above picture for the correct setting). First, set the white connector 6188-0407 (W) to Receiver base 1. Second, set the next white connector 6098-2220 (W) to Checker 1 and then pull the checker fixture for continuity checking. Third, set the white connector 6098-3802 (W) to Checker 2 then pull the checker fixture for continuity checking. Continue to set the harness in jig. Last, set the hotmelted wire and B/B wires together within stopper then press by toggle clamp. Continue if the sequence light in location 1 was ON.</p> <p>2. Check if all LED light for POWER ON, WIRE1, WIRE2 and CLAMP ON was ON. If encountered abnormality, STOP and immediately CALL the attention of the leader. WAIT for further instruction and continue the process.</p>	n/a	 <p>Note: Make sure no gap between stopper jig and hotmelted terminals.</p> <p>1. No loose/tight clamp attached 2. No damage clamp 3. No missed tape 4. No missing parts 5. Make sure no clearance between PCB and stopper jig</p>

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PARTS:

3

1. Assy parts
2. Black tape

JIG

1. Clamp Assembly jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

4

P4

Clamp Assembly
(Continuation)

3. Initially tighten the band clamp on clamp location **1** using both hands.

4. Get the bando gun using right hand then cut the band clamp on location **1**. Press the **SW button** after taping. Continue if the sequence light on location **2** was **ON**.

BANDO GUN ALIGNMENT

VERTICAL
OK NG NG

Note: Setting of band clamp cutter depends on the size of the COT/Vinyl tube.
For: $\phi 5 - 1 \sim 2$, $\phi 7 - 3 \sim 4$

BANDO GUN



Note: Make sure no gap between stopper jig and hotmelted terminals.

1. No loose/tight clamp attached
2. No damage clamp
3. No missed tape
4. No missing parts
5. Make sure no clearance between PCB and stopper jig

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PARTS:

3

1. Assy parts
2. Black tape

JIG

1. Clamp Assembly jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

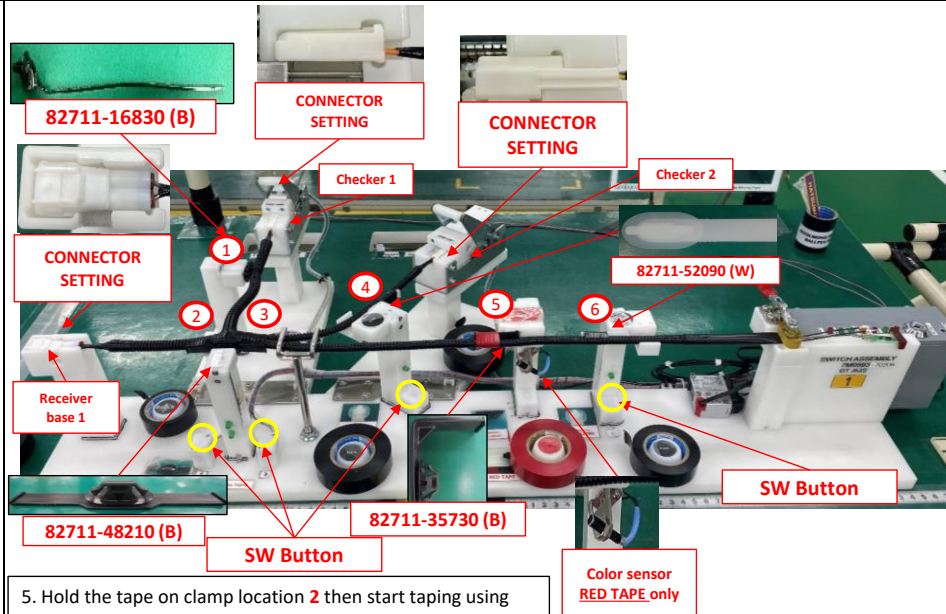
TOOLS/PPE

QUALITY POINTERS

4

P4

Clamp Assembly
(Continuation)



5. Hold the tape on clamp location **2** then start taping using both hands. Make **3 windings** of tape then cut the tape. Press the **SW button** after taping. Continue if sequence light in location **3** was **ON**.

6. Hold the tape on clamp location **3** then start taping using both hands. Make **3 windings** of tape then cut the tape. Press the **SW button** after taping. Continue if sequence light in location **4** was **ON**.

7. Hold the tape on clamp location **4** then start taping using both hands. Make **3 windings** of tape then cut the tape. Press the **SW button** after taping. Continue if sequence light in location **5** was **ON**.

8. Hold the tape on clamp location **5** then start taping using both hands. Make **3 windings** of tape then cut the tape. . **(Note: Color sensor light will beep/buzz if sensor detects Red tape on the first winding of tape).** Press the **SW button** after taping. Continue if sequence light in location **6** was **ON**.

n/a



Note: Make sure no gap between stopper jig and hotmelted terminals.

1. No loose/tight clamp attached
2. No damage clamp
3. No missed tape
4. No missing parts
5. Make sure no clearance between PCB and stopper jig

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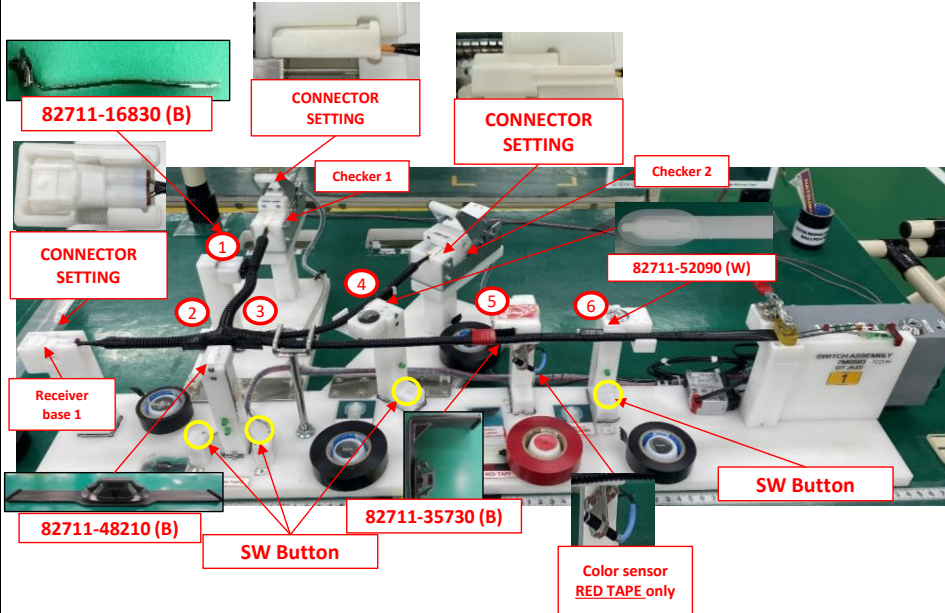
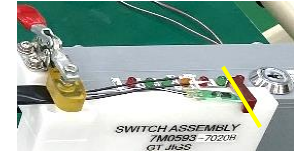
PARTS:

3

1. Assy parts
2. Black tape

JIG

1. Clamp Assembly jig

NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
4	P4 Clamp Assembly (Continuation)	 <p>82711-16830 (B)</p> <p>CONNECTOR SETTING</p> <p>Checker 1</p> <p>Checker 2</p> <p>CONNECTOR SETTING</p> <p>82711-52090 (W)</p> <p>Receiver base 1</p> <p>82711-48210 (B)</p> <p>SW Button</p> <p>82711-35730 (B)</p> <p>Color sensor RED TAPE only</p> <p>SW Button</p> <p>9. Hold the tape on clamp location 6 then start taping using both hands. Make 3 windings of tape then cut the tape. Press the SW button after taping. GO sound will be heard.</p> <p>10. After taping, conduct POINT CHECKING before removing the harness in jig.</p>	n/a	 <p>Note: Make sure no gap between stopper jig and hotmelted terminals.</p> <ol style="list-style-type: none">1. No loose/tight clamp attached2. No damage clamp3. No missed tape4. No missing parts5. Make sure no clearance between PCB and stopper jig

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NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
5	P4	<div>3</div> <div>Visual Inspection</div> <div><div>1. Check the connector lock.</div><div>2. Check the taping condition and bending of 2 sides clamp.</div><div>3. Check the clamp attachment and taping condition.</div><div>4. Check terminal appearance. Make sure no deformed terminal.</div><div>5. Using a steel rule, check if the band cut measurement is within the required dimension (0~2mm) and should not exceed the maximum value.</div><div>6. Compare to Master Sample <i>Note: Please refer to GL-PRO-ASY-007 for By Two's Inspection of Sub-Assy</i></div></div>		<div>MASTER SAMPLE</div> <div></div>
6		<div>3</div> <div>Measurement</div> <div><div><div>MEASURING TAPE</div><div><i>Note: Please use calibrated/verified measuring tape when getting the measurement.</i></div></div><div><div>208±3mm</div><div>126±3mm</div><div>209±3mm</div><div>160±5mm</div><div>216±3mm</div><div>130±3mm</div><div>117±5mm</div><div>110±5mm</div><div>115±3mm</div><div>0~3mm</div><div>0~5mm</div><div>0~5mm</div></div></div>		<div>NOTE: FOR HATSUMONO AND OWARIMONO</div> <div>1. No wrong dimension</div>

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