



WORK INSTRUCTION

CLAMP ASSEMBLY PROCESS

Effectivity Date:

November 4, 2024

Process Name/Title:

Model code/Part number:

840B / 7N0121-7021

Customer:

TRJ

Validity Date:

n/a

Document No.:

WI-ENG-PDE-899

Purpose:

☐

PROTOTYPE

☐

PRE-LAUNCH

☒

MASSPRO

Revision No.:

0

Page No.:

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PARTS:

1. Assy parts: Clamp 82711-12A80 (W); Clamp 82711-12A60 (W); Clamp 82711-52070 (W);
2. Black tape [3pcs.]

JIG:

1. Clamp assembly jig
2. Bando gun

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

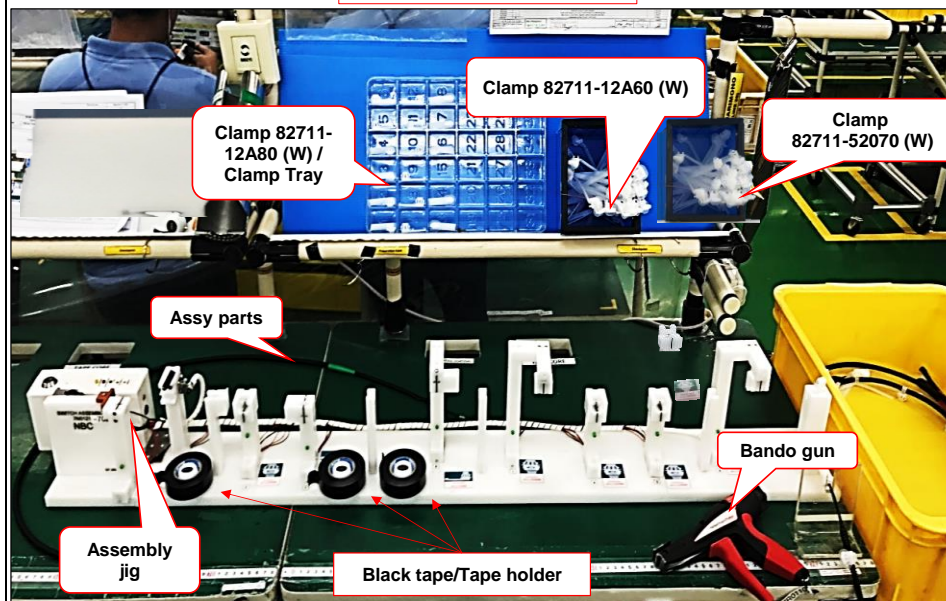
QUALITY POINTERS

1

Clamp
Assy

Table Lay-out

Table Lay-out



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.

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

Revision History

Prepared by

Reviewed by

Approved by

Noted by

11/04/24

0

Initial Issue

A. Hernandez

C. Villanueva

A. Arañes

n/a

A. Hernandez

C. Villanueva

A. Arañes

n/a

Eff. Date

Rev. No

Details of Change

Revised

Reviewed

Approved

Noted

Est. Date:

November 4, 2024

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PARTS:1. Clamp 82711-12A80 (W) [3pcs.]
2. Clamp 82711-12A60 (W) [4pcs.]3. Clamp 82711-52070 (W)
4. Black tape [3pcs.]**JIG**

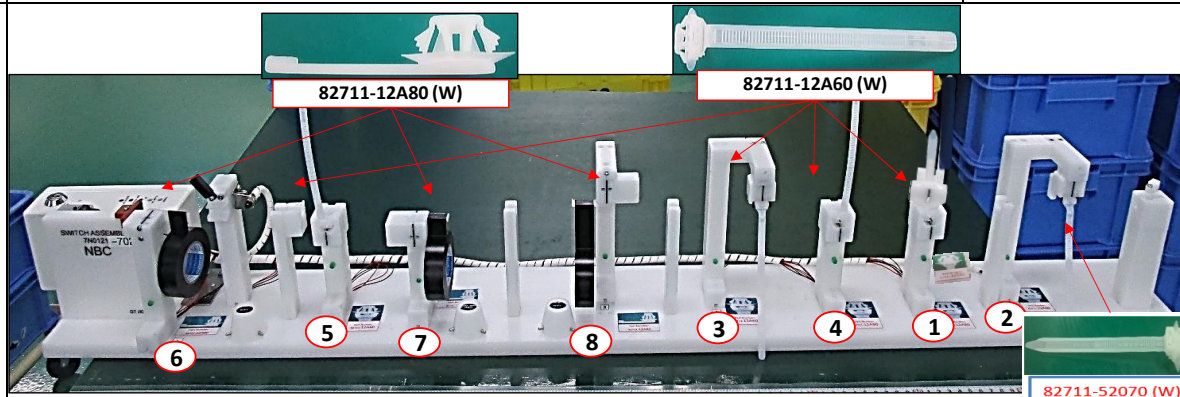
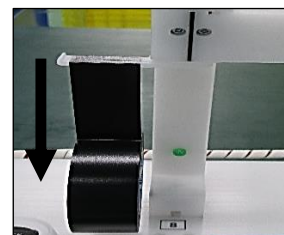
1. Clamp Assembly Jig

NO.**PROCESS NAME****WORK PROCEDURE/ ILLUSTRATION****TOOLS/PPE****QUALITY POINTERS**

2

Clamp
Assy

Clamp Setting

1. Get **2pcs.** of clamp **82711-12A80 (W)** then set to clamp location **6 and 7** using both hands.2. Get **1pc.** of clamp **82711-12A80 (W)** then set to clamp location **8** using both hands.3. Get **2pcs.** of clamp **82711-12A60 (W)** then set to clamp location **5 and 3** using both hands.4. Get **2pcs.** of clamp **82711-12A60 (W)** then set to clamp location **4 and 2** using both hands.5. Get **1pc.** of clamp **82711-52070 (W)** then set to clamp location **1** using both hands.6. Initially attach **Black tape** on clamp location **6, 7, and 8** using both hands.**Take note:**

1. Make an excess attach tape on clamp location 8 for easy setting up of assy parts.
2. Make 1 wind on clamp before clamp tape windings

STANDARD TAPING FOR CLAMP

One side tape under clamp



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

BAND CLAMP ILLUSTRATION**BAND CLAMP ILLUSTRATION****CLAMP ILLUSTRATION****Important reminders/Note/s:**

1. Please check the Clamp first before start of assembly to avoid wrong use of clamp.

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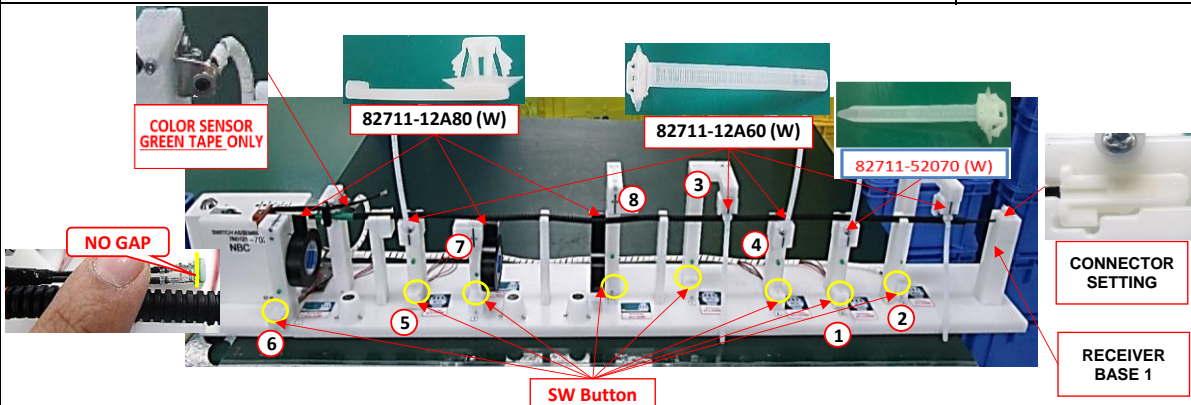
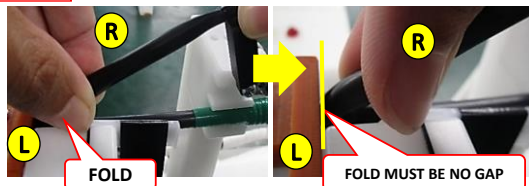
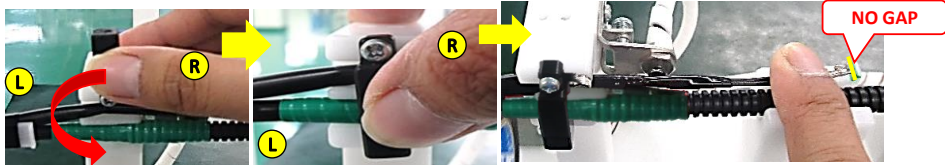






CLAMP ASSEMBLY PROCESS

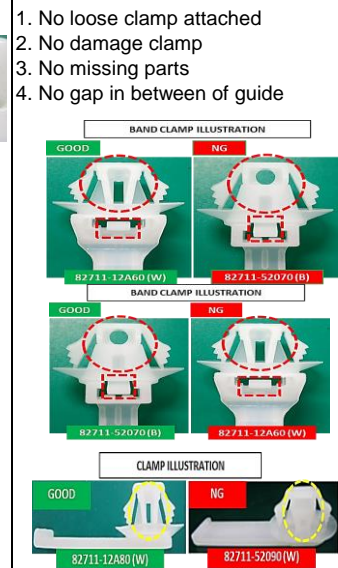
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Model code/Part number: **840B / 7N0121-7021** Customer: **TRJ**

Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ☒ MASSPRO

| | | | | | | | | | | | |
|--------|--------------|--|--|--|--|--|-----------------------|-----------|-----|---|--|
| PARTS: | | 1. Assy parts [3pcs.] 2.Clamp 82711-12A60 (W) [4pcs.] | | | 3.Clamp 82711-12A80 (W) 4.Clamp 82711-52070 (W) | | 5. Black tape [3pcs.] | | JIG | 1. Clamp Assembly Jig | |
| NO. | PROCESS NAME | | WORK PROCEDURE/ ILLUSTRATION | | | | | TOOLS/PPE | | QUALITY POINTERS | |
| 3 | Clamp Assy | Clamp Assembly | <div></div> <div><p>1. Get the assy parts then put into jig. <i>(See above picture for correct setting).</i> First, set the connector 6098-3810 (W) to Receiver base 1. Continue to set the harness in jig. Color sensor light will beep/buzz if sensor detects Green tape. Fold the tube until the terminal end reaches the guide. <i>(See below illustration)</i></p><p>2. Fold the tube using both hands. Must be no gap.</p><p>3. Slide down the guide using right hand. Terminal end must be no gap in guide.</p></div> <div></div> <td colspan="2"></td> <td><div><p>1. No loose clamp attached</p><p>2. No damage clamp</p><p>3. No missing parts</p><p>4. No gap in between of guide</p></div><div><p>BAND CLAMP ILLUSTRATION</p><p>GOOD NG</p><p>82711-12A60 (W) 82711-52070 (B)</p><p>BAND CLAMP ILLUSTRATION</p><p>GOOD NG</p><p>82711-52070 (B) 82711-12A60 (W)</p><p>CLAMP ILLUSTRATION</p><p>GOOD NG</p><p>82711-12A80 (W) 82711-52090 (W)</p></div></td> | | | | | | | <div><p>1. No loose clamp attached</p><p>2. No damage clamp</p><p>3. No missing parts</p><p>4. No gap in between of guide</p></div> <div><p>BAND CLAMP ILLUSTRATION</p><p>GOOD NG</p><p>82711-12A60 (W) 82711-52070 (B)</p><p>BAND CLAMP ILLUSTRATION</p><p>GOOD NG</p><p>82711-52070 (B) 82711-12A60 (W)</p><p>CLAMP ILLUSTRATION</p><p>GOOD NG</p><p>82711-12A80 (W) 82711-52090 (W)</p></div> | |



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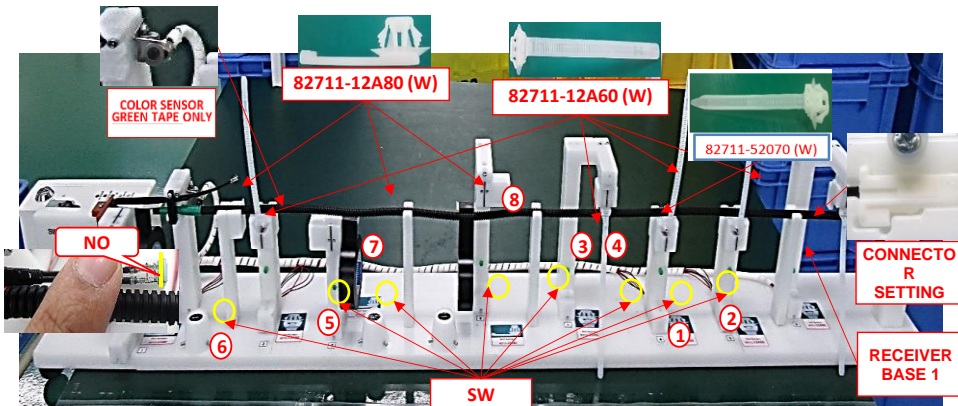





DCC Stamp



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CLAMP ASSEMBLY PROCESS

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| Purpose: | <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO | | |

| | | | | | | | | | | |
|--------|--------------|--|---|--|--|-----------------------|-----------|-----|---------------------------------------|--|
| PARTS: | | 1. Assy parts [3pcs.] 2.Clamp 82711-12A60 (W) [4pcs.] | | 3.Clamp 82711-12A80 (W) 4.Clamp 82711-52070 (W) | | 5. Black tape [3pcs.] | | JIG | 1. Clamp Assembly Jig 2. Bando gun | |
| NO. | PROCESS NAME | | WORK PROCEDURE/ ILLUSTRATION | | | | TOOLS/PPE | | QUALITY POINTERS | |
| 4 | Clamp Assy | Clamp Assembly (Continuation) | <div></div> <div><p>4. Initially tighten the band clamp on clamp location 1 using both hands.</p><p>5. Get the bando gun using right hand then Cut the band clamp on location 1 using both hands (USE FLAT NOSEPIECE BANDO GUN). Press the SW button after cut. Continue the process by tightening all band clamp then cut if the clamp location 2 was ON.</p><div><p>Fixed setting of band clamp cutter: 1~ 2</p></div><div><div><p>GOOD</p></div><div><p>NG</p></div><div><p>BANDO GUN ALIGNMENT</p><div><p>PERPENDICULARITY</p><div><p>NG</p><p>OK</p><p>NG</p></div></div><p>Note: Setting of band clamp cutter depends on the size of the COT/Vinyl tube. For: $\phi 5 - 1^*2$, $\phi 7 - 3^*4$</p></div></div></div> <div><p>BANDO GUN</p><div><p>1. No loose clamp attached</p><p>2. No damage clamp</p><p>3. No flip-out tape</p><p>4. No peel-off tape</p><p>5. No loose tape</p><p>6. No wrong use of tape</p></div><div><p>BANDO GUN ILLUSTRATION</p><div><p>GOOD</p><p>NG</p><p>FLAT NOSEPIECE</p><p>EXTENDED NOSEPIECE</p></div></div></div> | | | | | | | |

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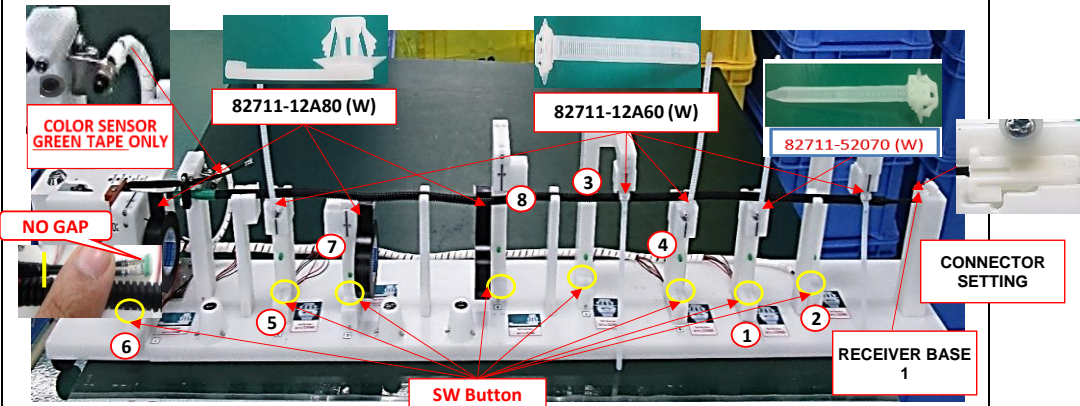
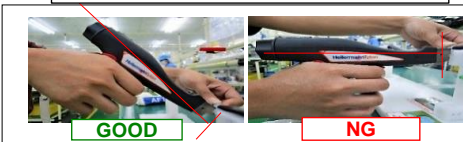


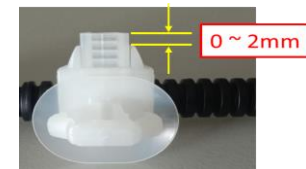
☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

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| PARTS: | | 1. Assy parts [3pcs.] 2.Clamp 82711-12A60 (W) [4pcs.] | | | 3.Clamp 82711-12A80 (W) 4.Clamp 82711-52070 (W) | 5. Black tape [3pcs.] | JIG | 1. Clamp Assembly Jig 2. Bando gun |
|--------|--------------|--|--|--|--|--|--|---------------------------------------|
| NO. | PROCESS NAME | | WORK PROCEDURE/ ILLUSTRATION | | | TOOLS/PPE | QUALITY POINTERS | |
| 5 | Clamp Assy | Clamp Assembly (Continuation) | <div><p>COLOR SENSOR GREEN TAPE ONLY</p><p>NO GAP</p><p>82711-12A80 (W)</p><p>82711-12A60 (W)</p><p>82711-52070 (W)</p><p>CONNECTOR SETTING</p><p>RECEIVER BASE 1</p><p>SW Button</p></div> <div><p>6. Initially tighten the band clamp on clamp location 5, 4, 3 and 2 using both hands.</p><p>7. Get the bando gun using right hand then cut the band clamp on location 2 using both hands (USE EXTENDED NOSEPIECE BANDO GUN). Press the SW button after cut. Continue if the sequence light on clamp location 3 was ON.</p><p>8. Cut the band clamp on location 3 using both hands (USE EXTENDED NOSEPIECE BANDO GUN). Press the SW button after cut. Continue if the sequence light on clamp location 4 was ON.</p></div> <div><p>BANDO GUN POSITION DURING CUTTING</p><p>BANDO GUN ALIGNMENT</p><div><p>PERPENDICULARITY</p><p>OK</p><p>NG</p><p>NG</p></div><p>Note: Setting of band clamp cutter depends on the size of the COT/Vinyl tube. For: ø5 - 1~2, ø7 - 3~4</p><p>Fixed setting of band clamp cutter: 1~2</p></div> | | | <div><p>BANDO GUN</p></div> <div><p>BANDO GUN ILLUSTRATION</p><p>GOOD</p><p>NG</p><p>EXTENDED NOSEPIECE</p><p>FLAT NOSEPIECE</p></div> | <p>Important reminders/Note/s:</p> <p>1. TILTING OF BANDO GUN APPLICABLE ONLY IN CLAMP 82711-12A60 (W) DURING FINAL CUT.</p>  <p>0 ~ 2mm</p> <ol style="list-style-type: none">1. No loose clamp attached2. No damage clamp3. No flip-out tape4. No peel-off tape5. No loose tape6. No wrong use of tape | |

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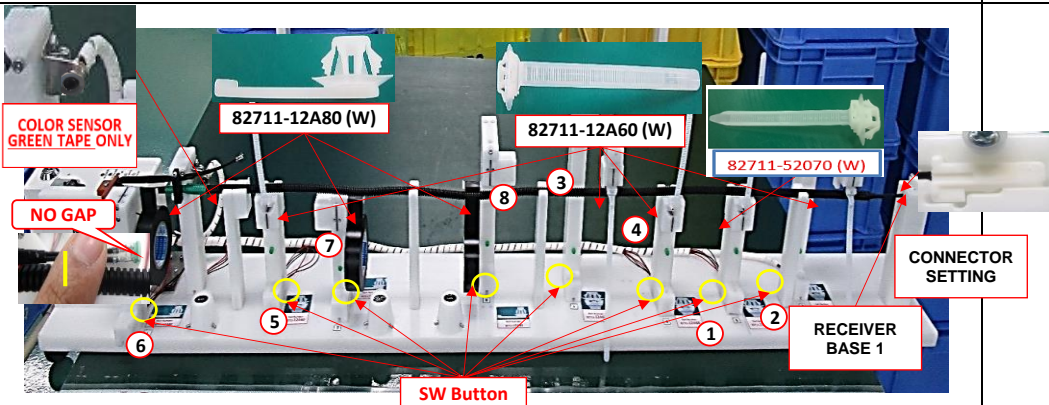
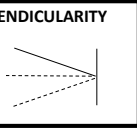


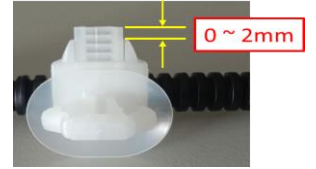

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Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ☒ MASSPRO

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|---------------|--|--|--|---|--|--|-----------------------|--|------------|--|---------------------------------------|-------------------------|--|
| PARTS: | | 1. Assy parts [3pcs.] 2.Clamp 82711-12A60 (W) [4pcs.] | | | 3.Clamp 82711-12A80 (W) 4.Clamp 82711-52070 (W) | | 5. Black tape [3pcs.] | | JIG | | 1. Clamp Assembly Jig 2. Bando gun | | |
| NO. | | PROCESS NAME | | WORK PROCEDURE/ ILLUSTRATION | | | | | | TOOLS/PPE | | QUALITY POINTERS | |
| 6 | | Clamp Assy Clamp Assembly (Continuation) | | <div><p>9. Cut the band clamp on location 4 using both hands (USE EXTENDED NOSEPIECE BANDO GUN). Press the SW button after cut. Continue if the sequence light on clamp location 5 was ON.</p><p>10. 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. Continue if the sequence light in location 7 was ON.</p><p>11. Hold the tape on clamp location 8 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></div> <div>BANDO GUN ALIGNMENT PERPENDICULARITY OK NG NG <p>Note: Setting of band clamp cutter depends on the size of the COT/Vinyl tube. For: $\phi 5 - 1 \sim 2$, $\phi 7 - 3 \sim 4$</p><p>Fixed setting of band clamp cutter: 1~2</p></div> <div></div> | | | | | | <p>Important reminders/Note/s:</p> <p>1. TILTING OF BANDO GUN APPLICABLE ONLY IN CLAMP 82711-12A60 (W) DURING FINAL CUT.</p>  <ol style="list-style-type: none">No loose clamp attachedNo damage clampNo flip-out tapeNo peel-off tapeNo loose tapeNo wrong use of tape <div>BANDO GUN ILLUSTRATION GOOD NG </div> | | | |

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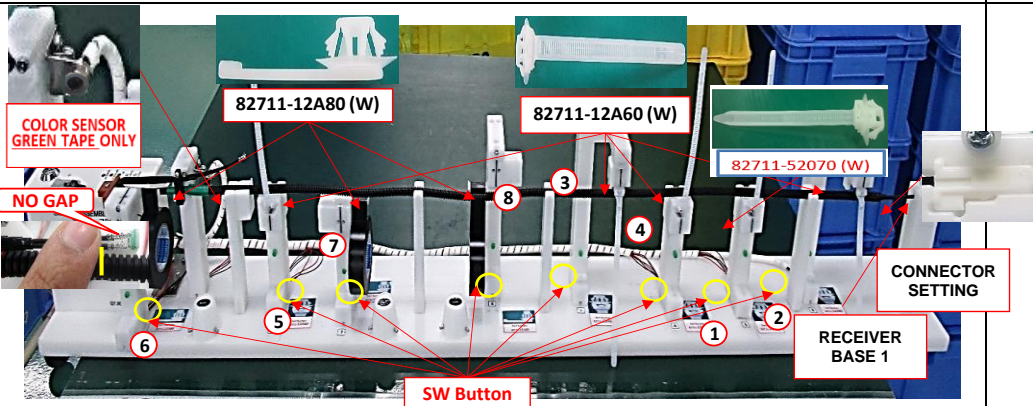
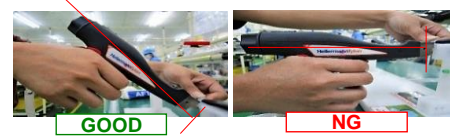
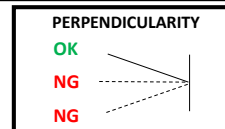



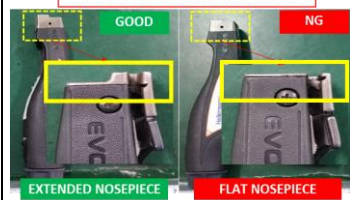
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Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ☒ MASSPRO

| PARTS: | | 1. Assy parts [3pcs.] 2.Clamp 82711-12A60 (W) [4pcs.] 3.Clamp 82711-12A80 (W) 4.Clamp 82711-52070 (W) 5. Black tape [3pcs.] | | | JIG | 1. Clamp Assembly Jig 2. Bando gun |
|--------|---|---|--|--|---|---|
| NO. | PROCESS NAME | WORK PROCEDURE/ ILLUSTRATION | | | TOOLS/PPE | QUALITY POINTERS |
| 7 | Clamp Assy Clamp Assembly (Continuation) |    <p>Note: Setting of band clamp cutter depends on the size of the COT/Vinyl tube. For: ø5 - 1~2, ø7 - 3~4</p>   <p>12. Cut the band clamp on location 5 using both hands (USE EXTENDED NOSEPIECE BANDO GUN). Press the SW button after cut. Continue if the sequence light on clamp location 6 was ON.</p> <p>13. Hold the tape on clamp location 7 then start taping using both hands. Make 3 windings of tape then cut the tape. Press the SW button after taping. Continue if the sequence light in location 8 was ON.</p> <p>14. After taping, conduct POINT CHECKING before removing the harness from the jig.</p> <p>15. After point checking, press the button to remove the harness.</p> | | |   | <p>1. No loose clamp attached 2. No damage clamp 3. No flip-out tape 4. No peel-off tape 5. No loose tape 6. No wrong use of tape</p> <p>Important reminders/Note/s: 1. TILTING OF BANDO GUN APPLICABLE ONLY IN CLAMP 82711-12A60 (W) DURING FINAL CUT.</p> |

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PARTS:

1. Assy parts

JIG

1. Measuring tape

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

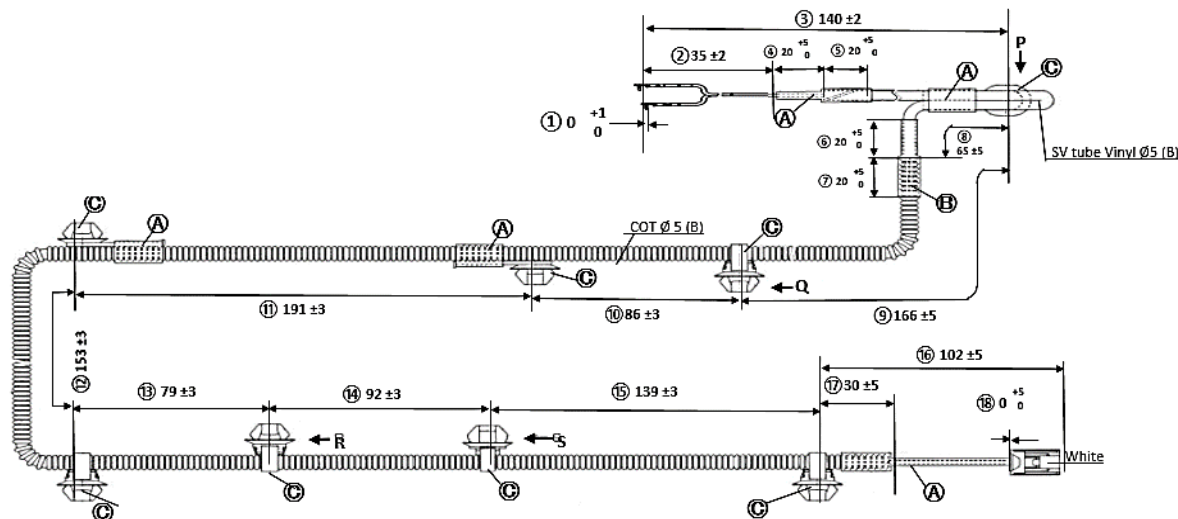
TOOLS/PPE

QUALITY POINTERS

10

Clamp
Assy

Measurement

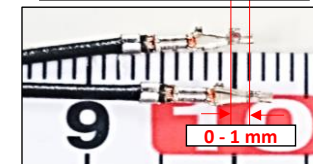


1. No wrong dimension

Measuring tape



Wire alignment tolerance



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

Important reminders/Note/s:

**1. FOR HATSUMONO AND
OWARIMONO**

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PARTS:

n/a

JIG

n/a

VISUAL INSPECTION/QUALITY CHECKPOINTS

Clamp Assembly

7N0121-7021



① No Clamp Mis-alignment

② Check the Clamp Appearance

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