



WORK INSTRUCTION

Process Name/Title:

CLAMP ASSEMBLY PROCESS

Model code/Part number:

010B / 7L0032-7024A

Customer:

TRQSS

Car Model:

TOYOTA AVALON

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Effectivity Date:

September 13, 2024

Validity Date:

n/a

Document No.:

WI-ENG-PDE-1034

Revision No.:

1

Page No.:

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PARTS:

1. Assy parts: Clamp 82711-34490 (B); Clamp 82711-16820 (BR); Label 7V1080-0020 (73230-06B20 Passenger power); Clamp 82711-52090 (W)

JIG:

1. Clamp Assembly jig
2. Locking jig
3. Label dispenser

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

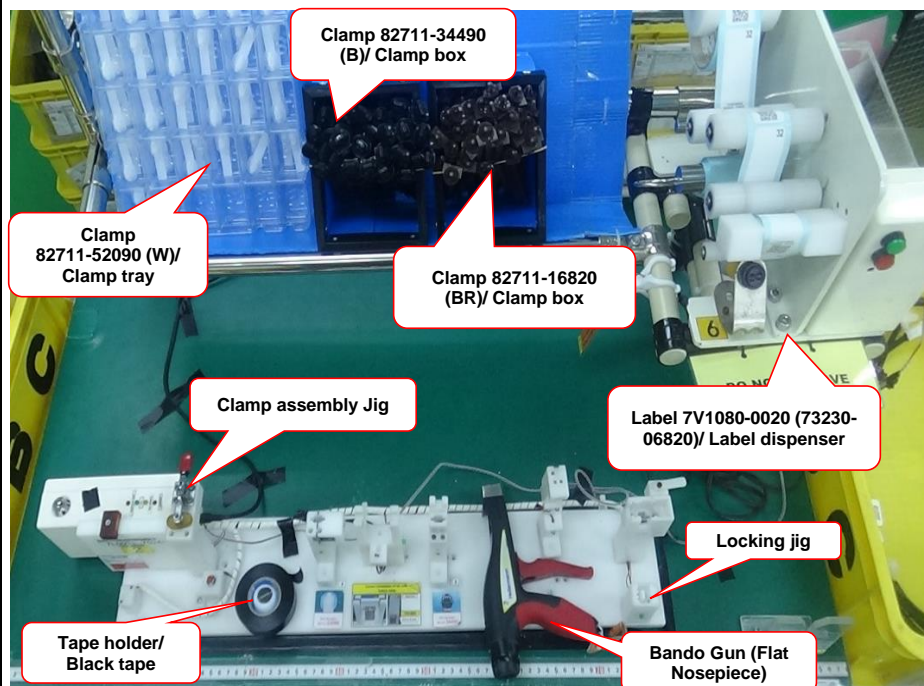
QUALITY POINTERS

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.

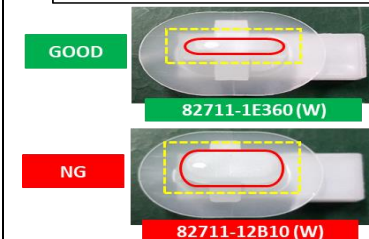
BANDO GUN

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

CLAMP ILLUSTRATION



CLIP CLAMP ILLUSTRATION



Revision History

Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Prepared by	Reviewed by	Approved by	Noted by
09/13/24	1	Change from Purpose from Pre-launch to Masspro.	M. Ariola	C. Villanueva	A. Arañes	n/a				n/a
09/10/24	0	Initial issue.	M. Ariola	C. Villanueva	A. Arañes	n/a				
Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Est. Date:	September 10, 2024		

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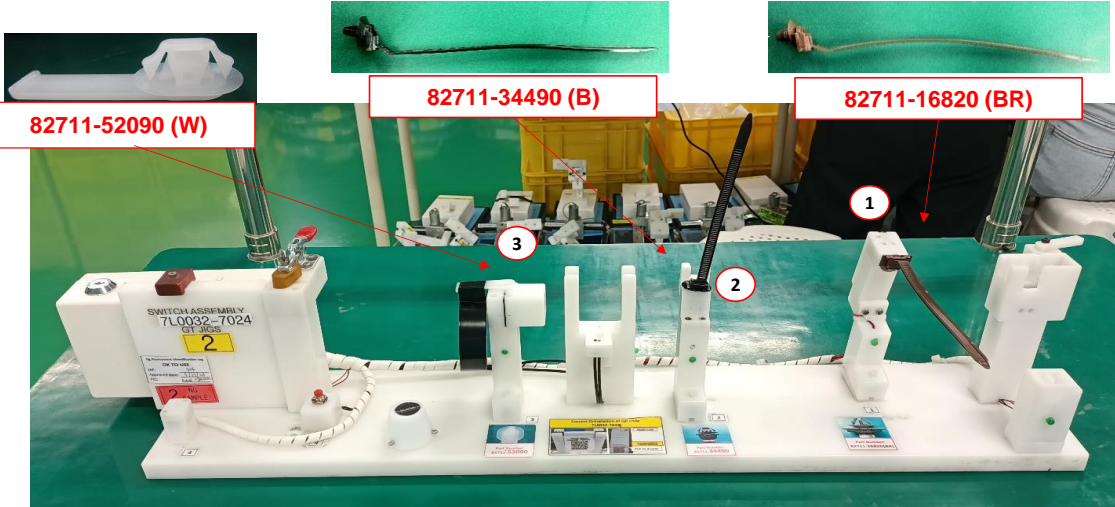




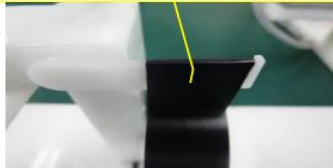
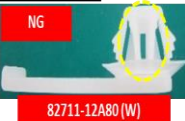

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PARTS:		1. Clamp 82711-34490 (B) 2. Clamp 82711-16820 (BR) 3. Clamp 82711-52090 (W)		JIG:	1. Clamp assembly jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
2	Clamp Assy Clamp setting	<div></div> <div><div>1. Get 1pc of band clamp 82711-16820 (BR) then attach to clamp location 1.</div><div>2. Get 1pc of band clamp 82711-34490 (B) then attach to clamp location 2.</div><div>3. Get 1 pc of Clamp 82711-52090 (W) then attach to clamp location 3.</div><div>4. Initially attach black tape on clamp location 3.</div></div> <div><div><div>BAND CLAMP ILLUSTRATION</div><div><div>GOOD</div><div>NG</div></div><div></div><div><div>BAND CLAMP ILLUSTRATION</div><div><div>GOOD</div><div>NG</div></div><div></div></div></div></div>		<div><div>STANDARD TAPING FOR CLAMP</div><div>One wind for under Tape</div><div></div></div> <div><div>Important reminders/Note/s:</div><div>1. Check the clamp first before start of assembly to avoid wrong use of clamp.</div><div>2. Must be no gap between terminal and stopper jig.</div><div>3. Make 2-3 windings for clamp taping</div></div> <div><div>CLAMP ILLUSTRATION</div><div><div>GOOD</div><div>NG</div></div><div></div></div>	

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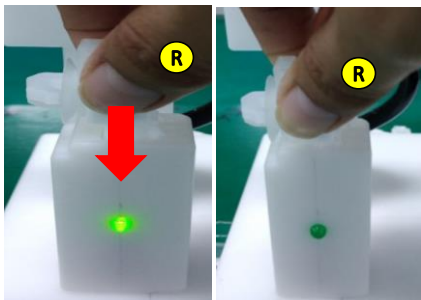
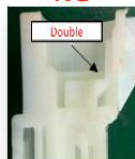
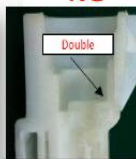
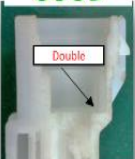



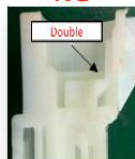
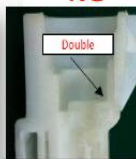
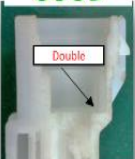
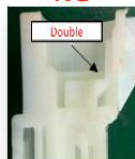
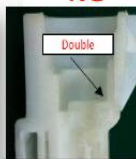
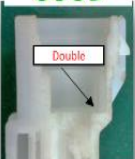
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PARTS:		1. Assy parts		JIG:	1. Locking jig								
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS								
3	Clamp Assy	Connector lock	<div><div></div><div><p>1. Put the connector into locking jig using right hand then press 2x to lock using both hands. Check the lock if properly locked.</p></div></div> <div><div><p>Coupler Cross Sectional View</p><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><div></div><div></div><div><p>Before lock</p><p>After lock</p></div></div></div> <div><div><p>LOCKING JIG</p></div><div></div></div>	NG	NG	GOOD				Unlock Condition	Half Lock Condition	Full Lock Condition	<div><p>1. Use the provided locking jig per model 2. No unlock/half-locked connector 3. No skip of locking process</p><p>Important reminders/Note/s: 1. MANUAL LOCKING MAY CAUSE DAMAGED CONNECTOR.</p></div>
NG	NG	GOOD											
													
Unlock Condition	Half Lock Condition	Full Lock Condition											

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☐ PRE-LAUNCH

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PARTS: 1. Assy parts

JIG:

1. Clamp assembly jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

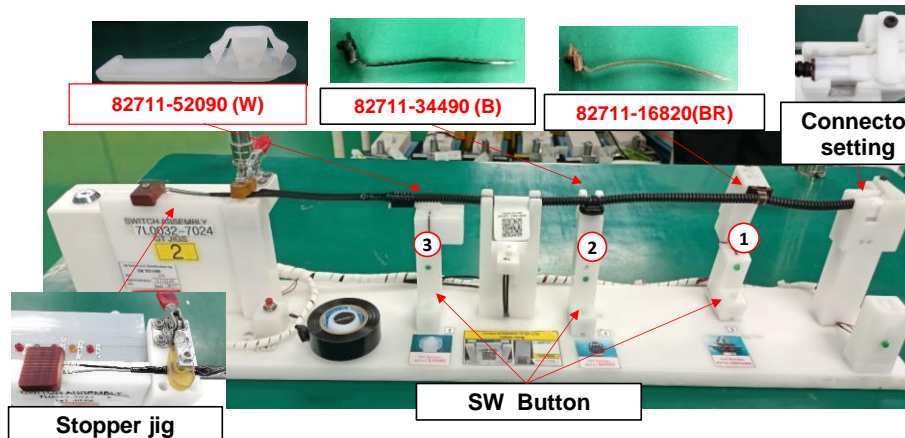
TOOLS/PPE

QUALITY POINTERS

4

Clamp Assy

Clamp assembly



1. Put the assy parts into jig using both hands. First put the connector into receiver base using left hand and lock using right hand. Second, put the terminal to stopper jig using left hand and pull down the toggle clamp using right hand.
Refer to above illustration for the correct setting.

2. Check if the LED light for **POWER** and **CLAMP** is **ON**. If encountered abnormality, **STOP** the process. **CALL** the attention of the Leader and **WAIT** for instruction.

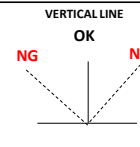
3. Initially tighten the two clamp **82711-34490 (B)** and **82711-16820 (BR)** using right hand.

4. Get the bando gun using right hand then cut the band clamp on Location **1**. Press the switch button after cutting of band clamp. Continue if the sequence light in location **2** was **ON**.

BAND CLAMP CUT POSITION FOR LOCATION 1



BANDO GUN ALIGNMENT



Fixed setting of band clamp cutter: 1~2

BANDO GUN



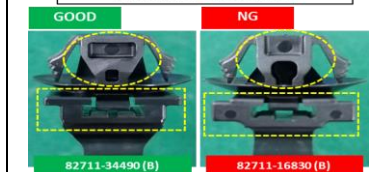
1. No wrong setting of clamp
2. No wrong use of clamp
3. No Loose attachment of clamp
4. No wrong setting of Bando gun

Important reminders/note/s:

1. Using steel rule, check if the band cut measurement is within the required dimension and should not exceed the allowable range (**0~2mm**).
2. Make sure no gap between the terminal and stopper jig.



BAND CLAMP ILLUSTRATION



BANDO GUN ILLUSTRATION



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PARTS:	1. Assy parts		JIG:	1. Clamp assembly jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
4	Clamp Assy	<div><div><div></div><div></div><div></div><div></div></div><div></div></div> <div><div><p>5. Cut the band clamp on Location 2. Press the switch button after cutting of band clamp. Continue if the sequence light in location 3 was ON.</p></div><div><div></div><div></div></div></div>	<div><div></div><div></div><div></div></div>	<div><div><p>1. No wrong setting of clamp</p><p>2. No wrong use of clamp</p><p>3. No Loose attachment of clamp</p><p>4. No wrong setting of Bando gun</p></div><div><p>Important reminders/note/s:</p><p>1. Using steel rule, check if the band cut measurement is within the required dimension and should not exceed the allowable range (0~2mm).</p><p>2. Make sure no gap between the terminal and stopper jig.</p></div></div>

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☐ PRE-LAUNCH

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PARTS: 1. Label 7V1080-0020 (73230-06B20 Passenger power)

JIG:

1. Clamp assembly jig
2. Label dispenser

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

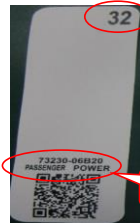
TOOLS/PPE

QUALITY POINTERS

5

Clamp Assy

Clamp assembly Label Attachment



Model Code

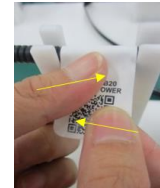
Item no. & name



Item no. & name

1. Get the label.
Check the model code, item no. & name

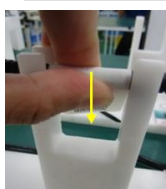
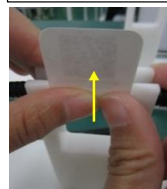
2. Align the end part of label in the jig.



3. Fold the center part of the label

4. Align both end part of label .

5. After alignment , Press the label with both fingers.
Make sure it was attach properly.



6. Press the label upside down using finger.

7. Press the SW button after label attachment. Conduct **POINT CHECKING** and remove the harness from jig.



GOOD

Acceptable overlap
0~1mm

N/A

1. No bubbles
2. No damage
3. No peel off
4. No wrong use of label
5. No missing parts
6. No loose attachment

Model	Item no.	Item name
7L0030	73230-06750	Passenger Manual
7L0031	73230-06740	Driver Manual
7L0032	73230-06B20	Passenger Power
7L0033	73230-06760	Driver Power



NG

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PARTS:

1. Assy parts

JIG:

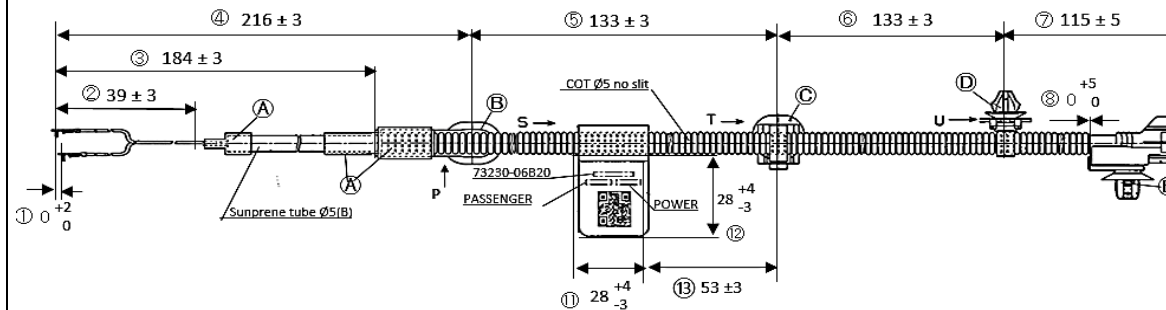
n/a

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

6

Clamp
Assy

Measurement

**NOTE:**

- Ⓐ - Taping (B)
- Ⓑ - Clamp (W)
- Ⓒ - Clamp (B)
- Ⓓ - Clamp (BR)

WIRE TYPE TABLE

No.	Color	Wire Type
1	G	TVSS 0.3f
2	B/W	TVSS 0.3f

Important reminders and note/s:

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

2. For Hatsumono, Nakamono and Owarimono.

Document reference/s:

1. Refer to WI-PRO-ASY-056 for Sub-assembly Hatsumono Nakamono Owarimono Inspection.

1. No wrong dimension

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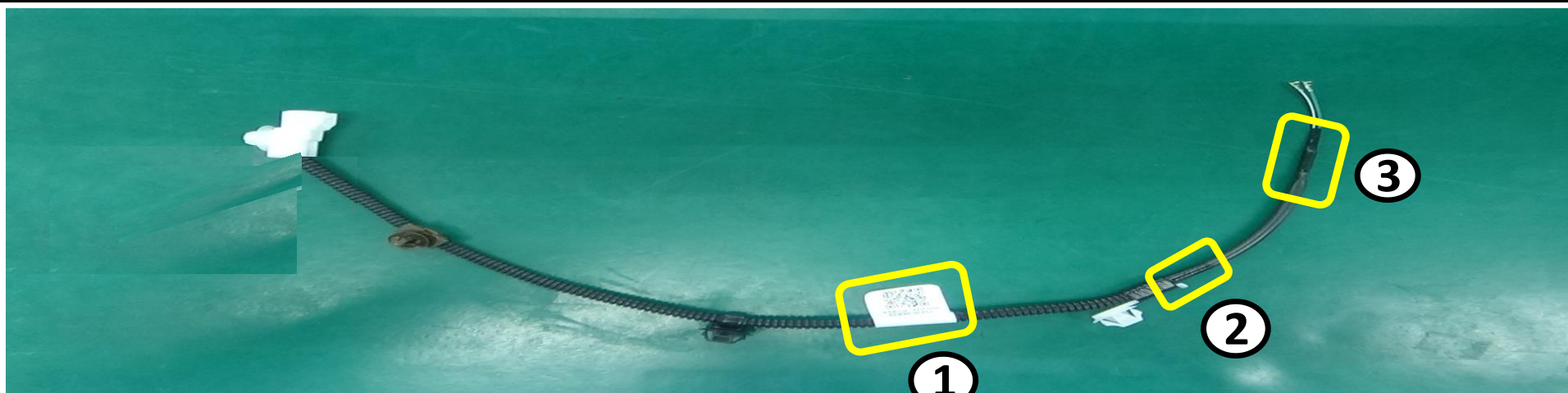
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PARTS:

1. Assy parts

JIG:

n/a

VISUAL INSPECTION/ QUALITY CHECKPOINTS**CLAMP ASSY****7L0032-7024A**

① No Missing QR code label

② ③ No Missing Tape (Black Tape)

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