



WORK INSTRUCTION

Process Name/Title: **CLAMP ASSEMBLY PROCESS**Model code/Part number: **311D / 7L0151-7021** Customer: **TRQSS** Car Model: **TOYOTA-RAV4**Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ☒ MASSPRO

Effectivity Date:

June 6, 2024

Validity Date:

n/a

Document No.:

WI-ENG-PDE-910

Revision No.:

1

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PARTS:

1. Assy parts; Clamp 82711-52090 (W); 82711-48210(B); Clamp 82711-34490 (B); Clamp 82711-3A540 (W); Clamp 82711-33650 (B); Black tape [5pcs.]

JIG:

1. Clamp assembly jig

NO.

PROCESS NAME

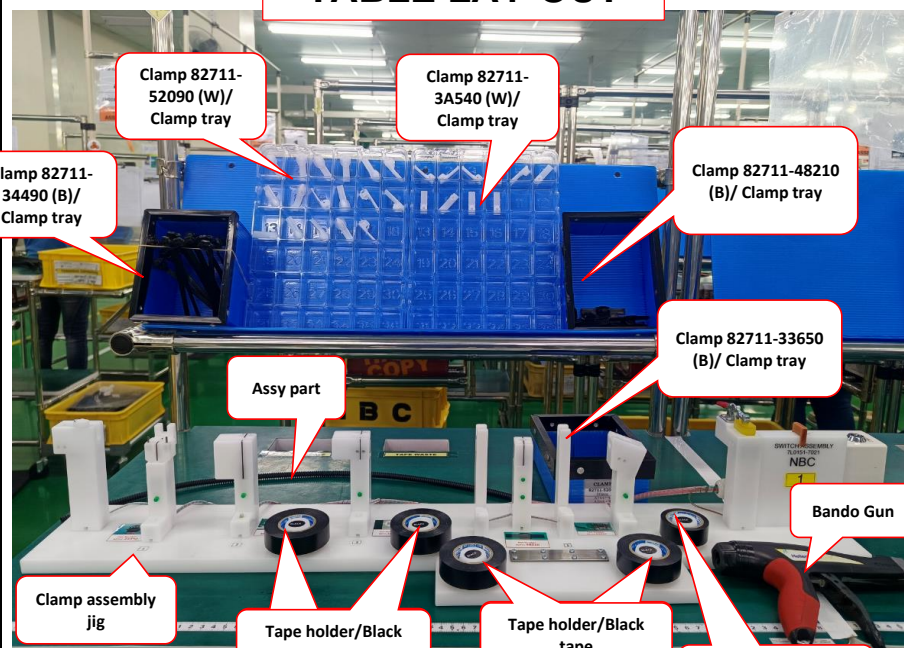


WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

TABLE LAY-OUT

**Safety Instruction**

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

Housekeeping

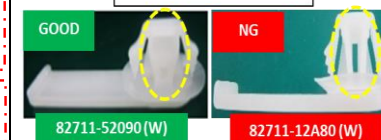
1. Maintain and always practice 5's.
2. Personal things on the workplace is prohibited. Keep it in your locker.

Alert level

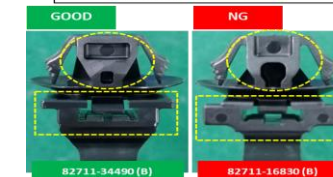
For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.

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

CLAMP ILLUSTRATION



BAND CLAMP ILLUSTRATION



Revision History

Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Prepared by	Reviewed by	Approved by	Noted by
06/06/24	0	Initial issue. Excluded process from WI-ENG-PDE-844 . Change Process name/Title from TAPING ASSEMBLY PROCESS to CLAMP ASSEMBLY PROCESS due to new process improvement. Provide permanent Clamp assembly jig and Additional table lay-out. Improved measurement and Visual Inspections/Quality checkpoints. Change purpose from Pre-launch to Masspro.	M. Ariola	C. Villanueva	A. Arañes	n/a	M. Ariola	C. Villanueva	A. Arañes	n/a

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DCC Stamp



WORK INSTRUCTION

CLAMP ASSEMBLY PROCESS

Process Name/Title:

Model code/Part number:

311D

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7L0151-7021

Customer:

TRQSS

Car Model:

TOYOTA-RAV4

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

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PARTS:

1. Clamp 82711-52090 (W)
2. Clamp 82711-48210 (B)
3. Clamp 82711-34490 (B)

4. Clamp 82711-3A540 (W)
5. Clamp 82711-33650 (B)
6. Black tape [5 pcs.]

JIG:

1. Clamp assembly jig

NO.

PROCESS NAME



WORK PROCEDURE/ ILLUSTRATION

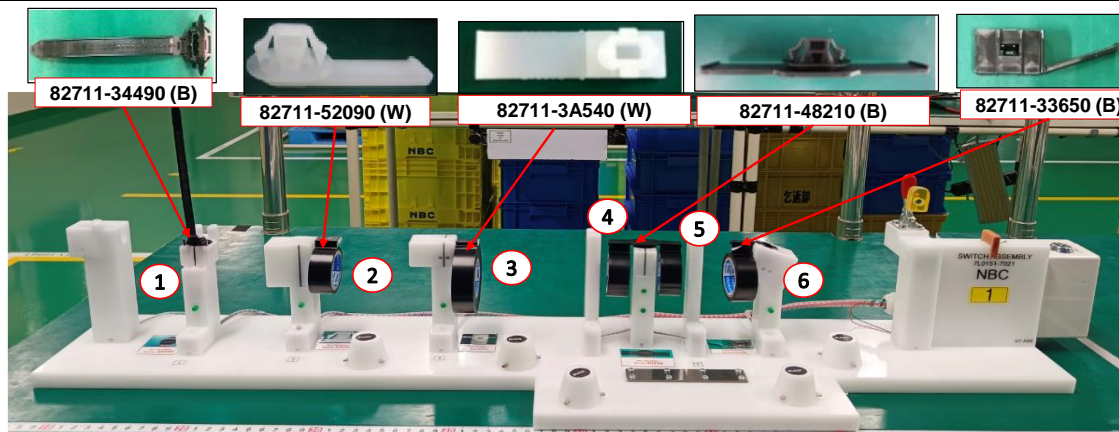
TOOLS/PPE

QUALITY POINTERS

2

Clamp
assy

Clamp Setting



1. Get 1pc. of clamp **82711-34490 (B)** using right hand and set to clamp location **1** using both hands.

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

3. Get 1pc. of clamp **82711-3A540 (W)** using right hand and set to clamp location **3** using both hands.

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

5. Get 1pc. of clamp **82711-33650 (B)** using right hand and set to clamp location **1** using both hands.

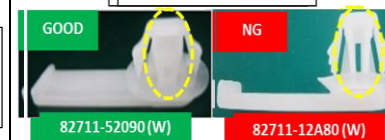
6. Initially attach **Black tape** to clamp location **1, 2, 3, 4 and 5** using both hands.

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

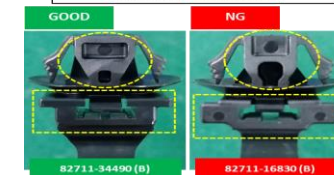
Important reminders/Note/s:

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

CLAMP ILLUSTRATION



BAND CLAMP ILLUSTRATION



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PARTS:		1. Assy parts 2. Black tape [5pcs]		JIG:	1. Clamp assembly jig
NO.	PROCESS NAME	1 WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
3	Clamp assy	<div><div></div><div></div><div></div><div></div><div></div></div> <div><p>1. Put the assy into jig. (<i>See above picture for the correct setting</i>). First, set the connector 6098-3802 (W) to Receiver base 1. Second, set the B-B wires together within stopper then press by toggle clamp.</p><p>2. Initially tighten the band clamp on location 1 using both hands. Get the bando gun using right hand then cut the band clamp using both hands.</p><p>3. Hold the tape on clamp location 2 make 3 windings of tape then cut the tape using both hands. Proceed to clamp location 3.</p><p>4. On clamp location 3, hold the tape then make 3 windings of tape then cut the tape using both hands. Proceed to clamp location 4.</p></div>		<div><p>Important reminders/Note/s:</p><p>1. Please check the Clamp first before start of assembly to avoid wrong use of clamp.</p><p>2. 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>3. Setting of band clamp cutter depends on the size of the COT/SV tube (Vinyl) ø5- 1~2, ø7- 3~4</p></div> <div><p>BANDO GUN ILLUSTRATION</p><p>GOOD NG</p><p>FLAT NOSEPIECE EXTENDED NOSEPIECE</p></div>	

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PROTOTYPE



PRE-LAUNCH



MASSPRO

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PARTS:

1. Assy parts

JIG:

1. Clamp assembly jig

NO.

PROCESS NAME

1

WORK PROCEDURE/ ILLUSTRATION

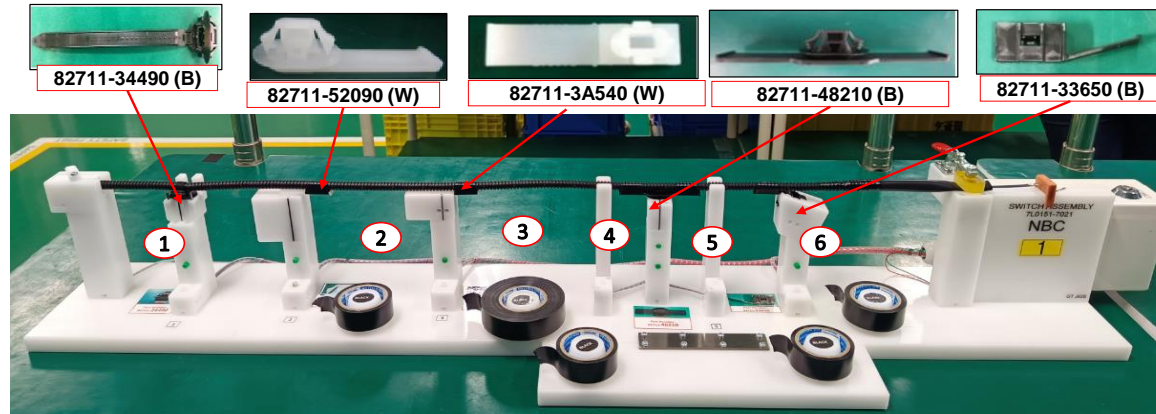
TOOLS/PPE

QUALITY POINTERS

3

Clamp
assy

Clamp assembly
(Continuation)



5. On clamp location **4**, hold the tape then make **3 windings** of tape then cut the tape using both hands. Proceed to clamp location **5**.

7. On clamp location **6**, hold the tape then make **3 windings** of tape then cut the tape using both hands.

6. On clamp location **5**, hold the tape then make **3 windings** of tape then cut the tape using both hands. proceed to Clamp location **6**.

8. After taping, **CONDUCT POINT CHECKING** before removing the harness from jig.

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

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PARTS:

n/a

JIG:

n/a

NO.

PROCESS NAME



WORK PROCEDURE/ ILLUSTRATION

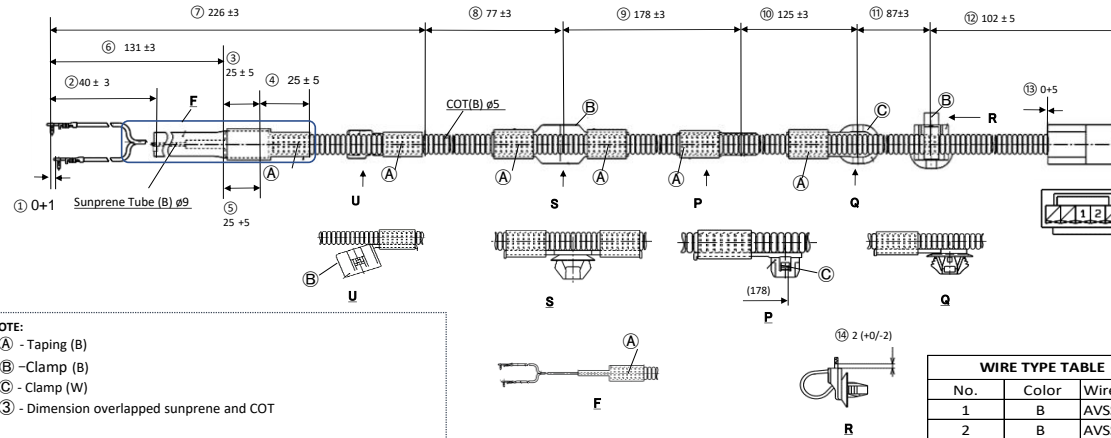
TOOLS/PPE

QUALITY POINTERS

4

Clamp
assy

Measurement



1. No wrong dimension

Important reminders/Note/s:

1. Please use calibrated/verified measuring tape when getting the measurement.
2. For Hatsumono, Nakamono and Owarimono.

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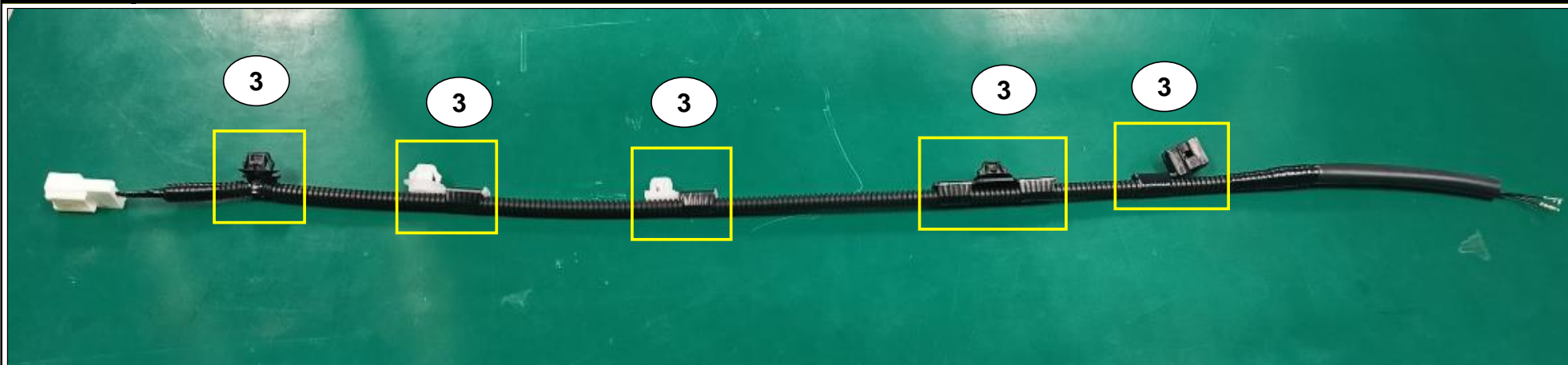
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PARTS: n/a

JIG:

n/a

**VISUAL INSPECTION/ QUALITY CHECKPOINTS****CLAMP
ASSY****7L0151-7021****1** Check the **alignment of clamps****3** No **missing clamp****2** No **Missing tape (Black tape)**

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