



## WORK INSTRUCTION

Process Name/Title:

## CLAMP ASSEMBLY PROCESS

Effectivity Date:

June 11, 2024

Model code/Part number:

310D

/ 7N0197-7020A

Customer: TRJ

Car Model: TOYOTA-RAV4

Validity Date:

n/a

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Document No.:

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Revision No.:

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## PARTS:

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

JIG:

1. Clamp assembly jig

NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
1	Clamp	Table lay-out	<p><b>Safety Instruction</b> Be sure to wear prescribed personal protective equipment during operation (gloves, finger cots, etc.)</p> <p><b>Housekeeping</b> 1. Maintain and always practice 5's. 2. Personal things on the workplace is prohibited. Keep it in your locker.</p> <p><b>Alert level</b> For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.</p>	<p><b>Document reference/s:</b> 1. Please check the clamp first before assembly to avoid wrong use of tape.</p> <p>1. No missing parts/tools 2. No excess parts/tools</p> <p>CLAMP ILLUSTRATION</p> <p>GOOD NG</p> <p>82711-52090 (W) 82711-12A80 (W)</p> <p>CLAMP ILLUSTRATION</p> <p>GOOD NG</p> <p>82711-48210 (B) 82711-3F290 (B)</p>

## Revision History

Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Prepared by	Reviewed by	Approved by	Noted by
06/11/24	1	Change from Pre-Launch to Masspro. Improvement of Measurement and Visual Inspection/Quality Checkpoint.	A. Hernandez	C. Villanueva	A. Arañes	n/a	A. Hernandez	C. Villanueva	A. Arañes	n/a
06/06/24	0	Initial Issue.	A. Hernandez	C. Villanueva	A. Arañes	n/a	A. Hernandez	C. Villanueva	A. Arañes	n/a

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### PARTS:

1. Clamp 82711-48210(B) [2pcs]  
2. Clamp 82711-52090 (W)

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

5. Green tape

JIG:

1. Clamp assembly jig

### NO.

### PROCESS NAME

### WORK PROCEDURE/ ILLUSTRATION

### TOOLS/PPE

### QUALITY POINTERS

2

Clamp

Clamp setting



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

2. Get 1pc. of clamp **82711-48210 (B)** then set to clamp location **4** and **5** using both hands.

3. Get 1pc. of clamp **82711-52090 (W)** then set to clamp location **3** using both hands.

4. Get 1pc. of clamp **82711-33650 (B)** then set to clamp location **6** using both hands.

5. Get the **Black tape** then initially attach to clamp location **1,2,3,4 and 6** using both hands.

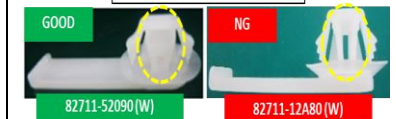
6. Get the **Green tape** then initially attach to clamp location **5** using both hands.

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

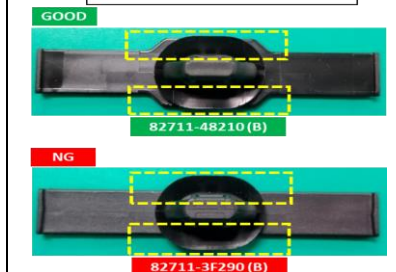
#### Important reminders/Note/s:

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

#### CLAMP ILLUSTRATION



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PROTOTYPE



PRE-LAUNCH



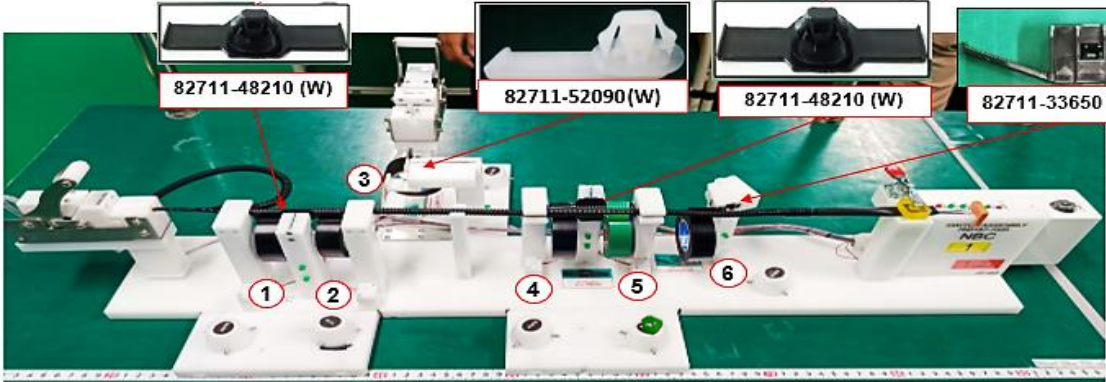
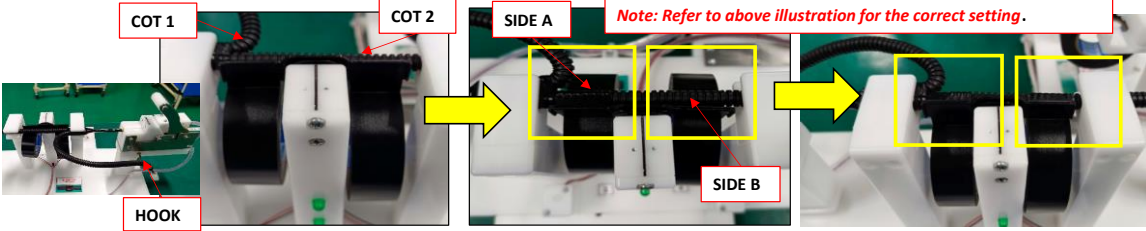
MASSPRO

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PARTS:		1. Assy parts 2. Black tape		JIG:	1. Clamp assembly jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
3	Clamp	Clamp assembly	<div><p>1. Put the assy parts into jig (<i>See above picture for the correct setting</i>). First, set the <b>connector 6098-3802 (W)</b> to <b>checker 1</b>. Second, set the <b>(VM tube (Sunprene) with B-B wires)</b> together with the stopper then press by toggle clamp. Last, initially put the COT (with <b>Connector 6098-2220(W)</b>) in hook.</p><p>3. Wrap the <b>COT 2 (SIDE A)</b> of clamp 2 windings of tape using both hands. Press the <b>SW button</b> after taping (<b>Do not cut the tape</b>).</p><p>4. Wrap the <b>COT 1 (SIDE B)</b> of clamp 2 windings of tape using both hands. Press the <b>SW button</b> after taping (<b>Do not cut the tape</b>).</p><p><i>Note: Refer to above illustration for the correct setting.</i></p></div>		<p>1. No loose/tight clamp attachment. 2. No damaged clamp. 3. No missing tape. 4. No missing spot tape. 5. No missing parts 6. Make sure there is no clearance between the PCB and the stopper jig</p> <div><p>CLAMP ILLUSTRATION</p><p>GOOD NG</p><p>82711-52090 (W) 82711-12A80 (W)</p><p>CLAMP ILLUSTRATION</p><p>GOOD NG</p><p>82711-48210 (B) 82711-3F290 (B)</p></div>

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### PARTS:

1. Assy parts
2. Black tape

JIG:

1. Clamp assembly jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

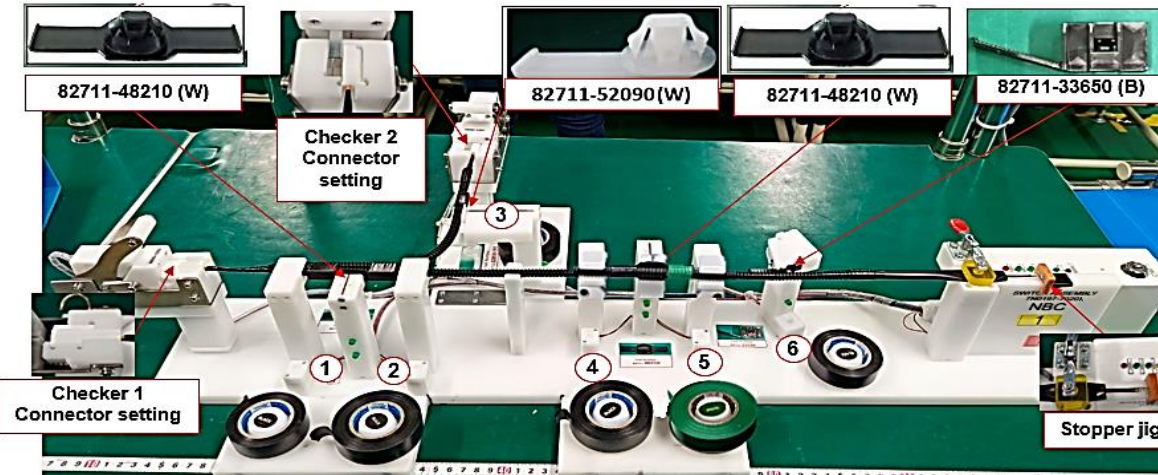
TOOLS/PPE

QUALITY POINTERS

3

Clamp

Clamp assembly

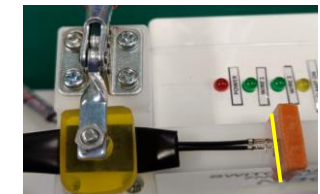


5. Remove the **COT 1** from the hook and set the **connector 6098-2220 (W)** to **Checker 2** using both hands then lock. *(Refer to above illustration for the correct setting).* Continue the process if the sequence light was **ON**.

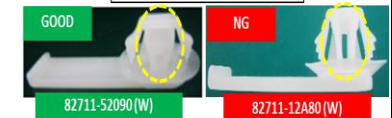
6. Combine the **COT 1** and **COT 2**. Hold the black tape on clamp **location 1 (SIDE A)** then start taping using both hand. Make **3 windings** of tape then cut the tape. Press the **SW button** after taping. Continue the process if the sequence light on **location 2** was **ON**.

7. On Clamp **location 2 (SIDE B)**. Hold the Black tape using right hand. Make **3 winding** of tape then cut the tape. Press the **SW button** after taping. Continue the process if the sequence light on **location 3** was **ON**.

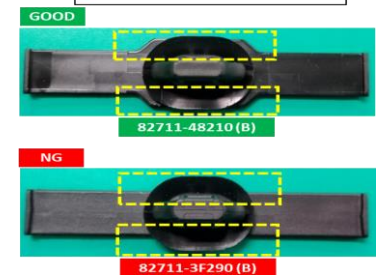
1. No loose/tight clamp attachment.
2. No damaged clamp.
3. No missing tape.
4. No missing spot tape.
5. No missing parts
6. Make sure there is no clearance between the PCB and the stopper jig



CLAMP ILLUSTRATION



CLAMP ILLUSTRATION



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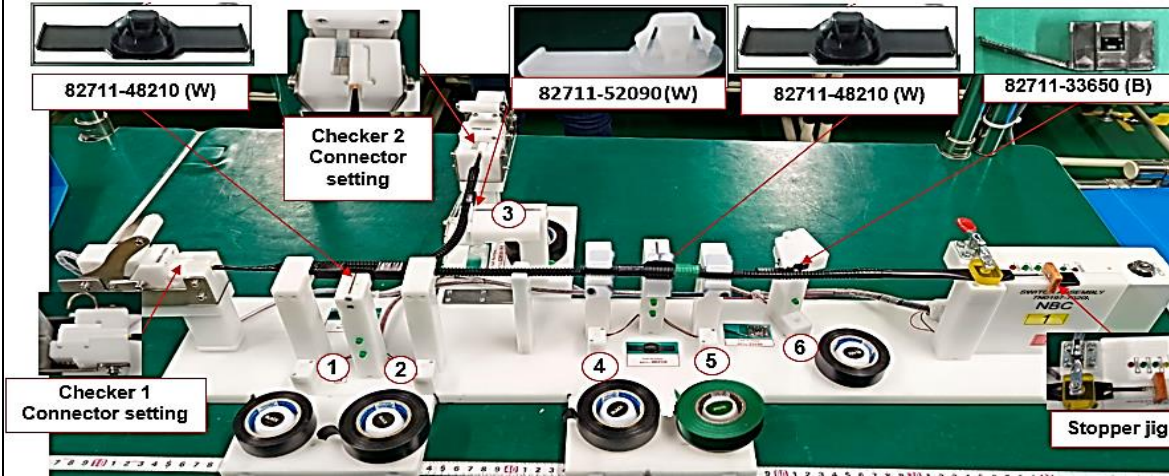

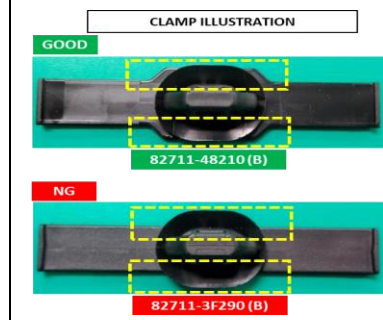
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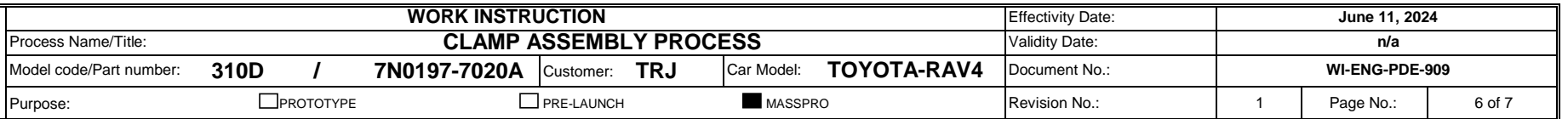
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PARTS:		1. Assy parts 2. Black tape		JIG:	1. Clamp assembly jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
3	Clamp Clamp assembly (Continuation)	 <p>8. On Clamp <b>location 3</b> hold the Black tape using right hand. Make <b>3 winding</b> of tape then cut the tape. Press the SW button after taping. Continue the process if the sequence light on <b>location 4</b> was <b>ON</b>.</p> <p>9. On Clamp <b>location 4</b> hold the Black tape using right hand. Make <b>3 winding</b> of tape then cut the tape. Press the SW button after taping. Continue the process if the sequence light on <b>location 5</b> was <b>ON</b>.</p> <p>10. On Clamp <b>location 5</b> hold the Green tape using right hand. Make <b>3 winding</b> of tape then cut the tape. Press the SW button after taping. Continue the process if the sequence light on <b>location 6</b> was <b>ON</b>.</p> <p>11. On Clamp <b>location 6</b> hold the Black tape using right hand. Make <b>3 winding</b> of tape then cut the tape. Press the SW button after taping. <b>GO</b> buzzer will be heard.</p> <p>12. After taping, <b>CONDUCT POINT CHECKING</b> before removing the harness from jig.</p>		 	<p>1. No loose/tight clamp attachment.</p> <p>2. No damaged clamp.</p> <p>3. No missing tape.</p> <p>4. No missing spot tape.</p> <p>5. No missing parts</p> <p>6. Make sure there is no clearance between the PCB and the stopper jig</p>

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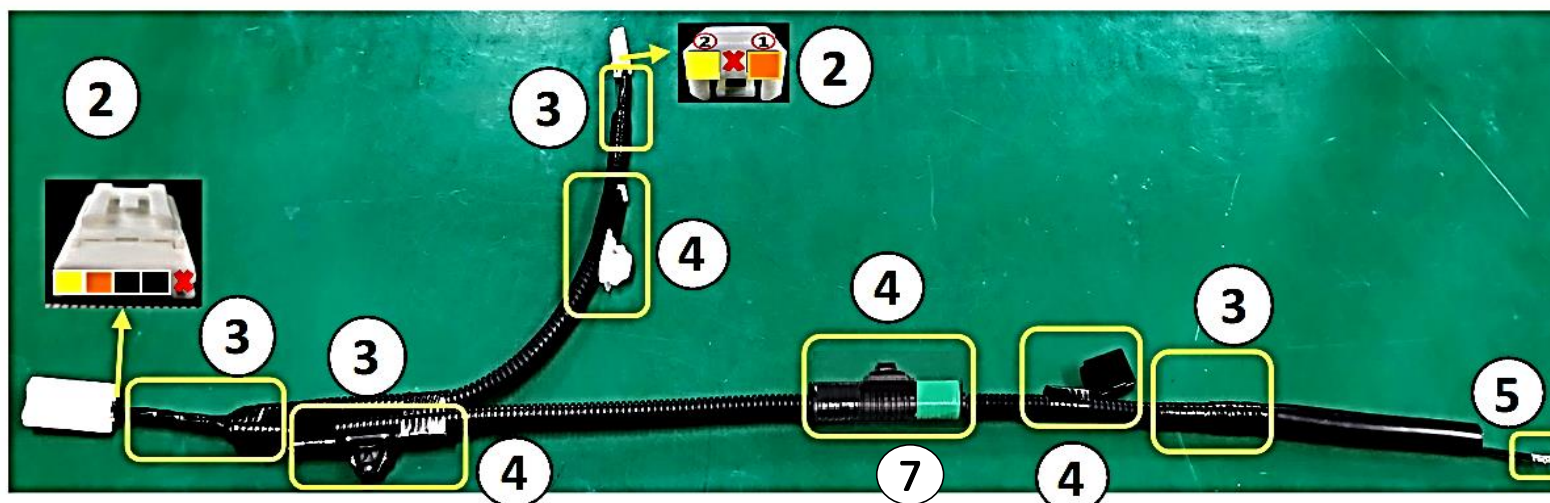
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PARTS:

n/a

JIG:

n/a

**VISUAL INSPECTION/QUALITY CHECKPOINTS****CLAMP  
ASSY****7N0197-7020A**

**1** No Unlock/  
Halflocked Connector  
(on 2 connector)

**2** No Wrong insert (no  
wrong slot)

**3** No Missing spot tape  
and Tape

**4** No Missing Clamp and  
Bending of 2 sides of  
wing clamp

**5** No Deformed Terminal

**6** Check the  
Clamp  
Alignment

**7** No Wrong Use of  
Tape

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