

	<b>WORK INSTRUCTION</b>					Effectivity Date:		July 10, 2024	
	<b>CLAMP ASSEMBLY PROCESS</b>					Validity Date:		n/a	
	Model code/Part number: <b>320B / 7L0053-7025</b>		Customer: <b>TRQSS</b>	Car Model: <b>TOYOTA-RAV4</b>		Document No.:		<b>WI-ENG-PDE-700</b>	
	Purpose: <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO				Revision No.:		1	Page No.:	1 of 6

<b>PARTS:</b>	1. Assy parts 2.Clamp 82711-52090 (W) 3.Clamp 82711-48070 (GR) 4.Clamp 82711-3A540 (W) 5.Black tape [5pcs]				<b>JIG:</b>	1. Clamp assembly jig
<b>NO.</b>	<b>PROCESS NAME</b>	<b>WORK PROCEDURE/ ILLUSTRATION</b>			<b>TOOLS/PPE</b>	<b>QUALITY POINTERS</b>
1	Clamp Assy	<div style="text-align: center; border: 1px solid black; padding: 5px; margin-bottom: 10px;"><b>TABLE LAY-OUT</b></div>			<div style="border: 1px dashed red; padding: 5px; margin-bottom: 10px;"> <b>Safety Instruction</b>            Be sure to wear prescribed personal protective equipment during operation (gloves, finger cots, etc.)         </div> <div style="border: 1px dashed red; padding: 5px; margin-bottom: 10px;"> <b>Housekeeping</b>            1. Maintain and always practice 5's.            2. Personal things on the workplace is prohibited. Keep it in your locker.         </div> <div style="border: 1px dashed red; padding: 5px;"> <b>Alert level</b>            For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.         </div>	1. No missing parts/tools 2. No excess parts/tools

Revision History								Prepared by		Reviewed by		Approved by		Noted by	
07/10/24	1	Improve measurement and visual inspection/quality checkpoints.	A.Hernandez	C. Villanueva	A. Arañes	n/a				n/a					
07/15/23	0	Initial Issue. Excluded process from P3; Updated Template; Inclusion of <b>CAR MODEL"TOYOTA-RAV4"</b> ; Change Part Name from <b>TAPING ASSEMBLY PROCESS</b> to <b>CLAMP ASSEMBLY PROCESS</b> ; Change document control no. from <b>WI-ENG-PDE-139C</b> to <b>WI-ENG-PDE-700</b> due to separation of process	M. Ariola	J. Loterte	C. Villanueva	A. Arañes									
Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Est. Date:		July 15, 2023						

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DCC Stamp



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Process Name/Title:

## CLAMP ASSEMBLY PROCESS

Model code/Part number: **320B / 7L0053-7025**

Customer: **TRQSS**

Car Model: **TOYOTA-RAV4**

Purpose: ☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

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### PARTS:

1. Clamp 82711-3A540 (W)
2. Clamp 82711-52090 (W) [2pcs]

3. Clamp 82711-48070 (GR) [2pcs]
4. Black tape [5pcs]

### JIG

1. Clamp assembly jig

### NO.

### PROCESS NAME

### WORK PROCEDURE/ ILLUSTRATION

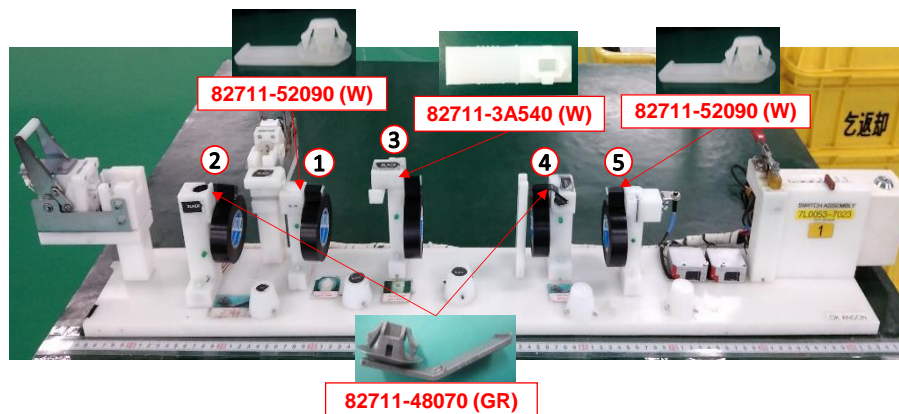
### TOOLS/PPE

### QUALITY POINTERS

2

Clamp  
Assy

Clamp setting



1. Get **2pcs.** of clamp **82711-48070 (GR)** using both hands then set to location **2 & 4** using both hands.

2. Get **2pcs.** of clamp **82711-52090 (W)** using both hands then set to location **1 & 5** using both hands.

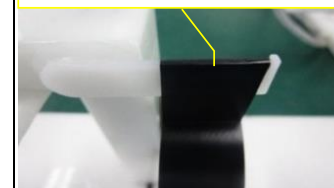
3. Get **1pc.** of clamp **82711-3A540 (W)** using right hand then set to clamp location **3** using both hands.

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

n/a

#### STANDARD TAPING FOR

One wind for under tape



#### Important reminders/Note/s:

1. Please check the Clamp first before start of assembly to avoid wrong use of clamp.
2. Must be no gap between terminal and stopper jig.
3. Make 2-3 windings for clamp taping.

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

#### CLAMP ILLUSTRATION

**GOOD**



**82711-52090 (W)**

**NG**



**82711-12A80 (W)**

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### PARTS:

1. Assy parts

### JIG

1. Clamp assembly jig

### NO.

### PROCESS NAME

### WORK PROCEDURE/ ILLUSTRATION

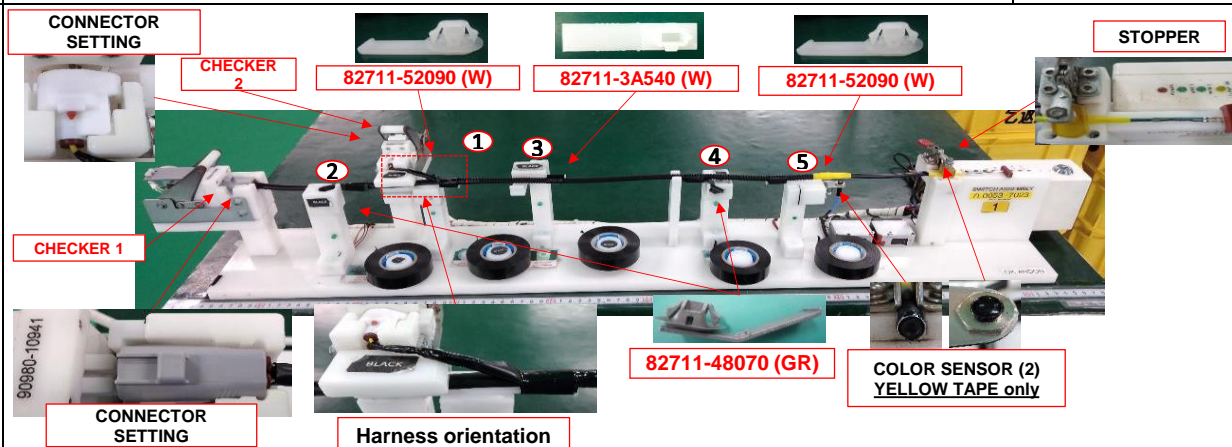
### TOOLS/PPE

### QUALITY POINTERS

3

Clamp  
Assy

Clamp Assembly



1. Get the assy parts and set into jig. (**See above picture for correct setting of harness**). First, set the connector **6188-0066 (GR)** to **Checker 1** then pull the checker fixture for continuity checking. Second, set the connector **6189-0451 (W)** to **Checker 2** then pull the checker fixture for continuity checking. Continue to set the harness in jig. **Color sensor 1** will beep/buzz if sensor detects **Yellow tape**. **Color sensor 2** will beep/buzz if sensor detects **Yellow tape**. Last, set the hotmelted wires and terminal end together within the stopper then press by **Toggle clamp**. Check if the sequence light of location **1** was **ON**.

2. Check if all LED light for **Power On, Clamp On, Wire1 & Wire2, Color sensor 1 and Color sensor 2** was **ON**. If encountered abnormality, **STOP** and immediately **CALL** the attention of the leader. **WAIT** for further instruction then continue the process.

3. Hold the tape on clamp location **1**. Make **3 windings** of tape then cut the tape using both hands. Press the **SW button** after taping. Continue the process if sequence light in clamp location **2** was **ON**.

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

1. No wrong use of parts
2. No wrong use of tape
3. No damaged clamp
4. No wrong clamp position
5. No gap between terminal and stopper jig



### Important reminders/Note/s:

1. Make sue no gap between stopper jig and terminal.

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### PARTS:

1. Assy parts

JIG

1. Clamp assembly jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

3

Clamp Assy

Clamp Assembly (Continuation)

CONNECTOR SETTING

CHECKER 2

82711-52090 (W)

82711-3A540 (W)

82711-52090 (W)

STOPPER

CHECKER 1

90880-10841

CONNECTOR SETTING

Harness orientation

82711-48070 (GR)

COLOR SENSOR (2)  
YELLOW TAPE only

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

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

7. Hold the tape on clamp location 5. Make 3 windings of tape then cut the tape using both hands. Press the **SW button** after taping. **Go** sound will be heard.

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
5. No gap between terminal and stopper jig



### Important reminders/Note/s:

1. Make sue no gap between stopper jig and terminal.

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PARTS:

n/a

JIG

n/a

NO.

PROCESS NAME

1

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

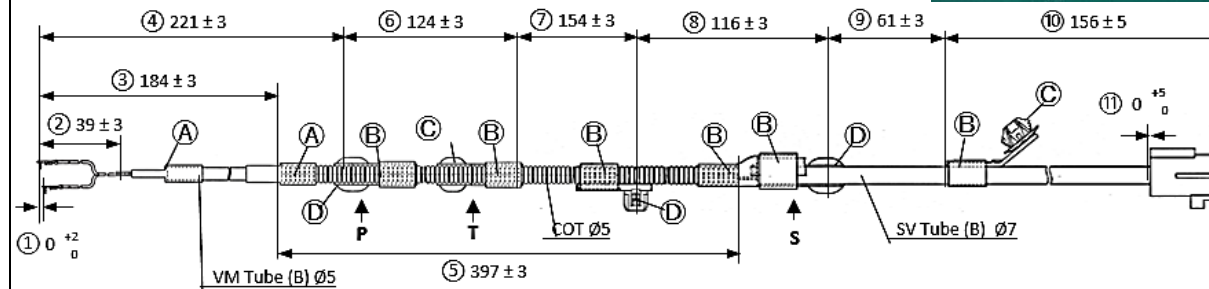
1

QUALITY POINTERS

4

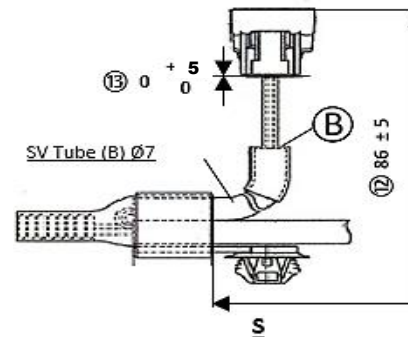
Clamp Assy

Measurement



## NOTE:

- ① - Taping (Y)
- ② - Taping (B)
- ③ - Clamp (GR)
- ④ - Clamp (W)



Measuring tape



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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PARTS:

n/a

JIG

n/a



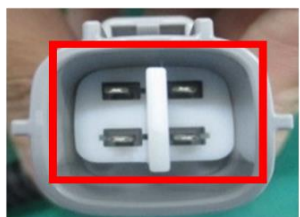
### VISUAL INSPECTION/QUALITY CHECKPOINTS

## CLAMP ASSY

# 7L0053-7025



GOOD



NO GOOD

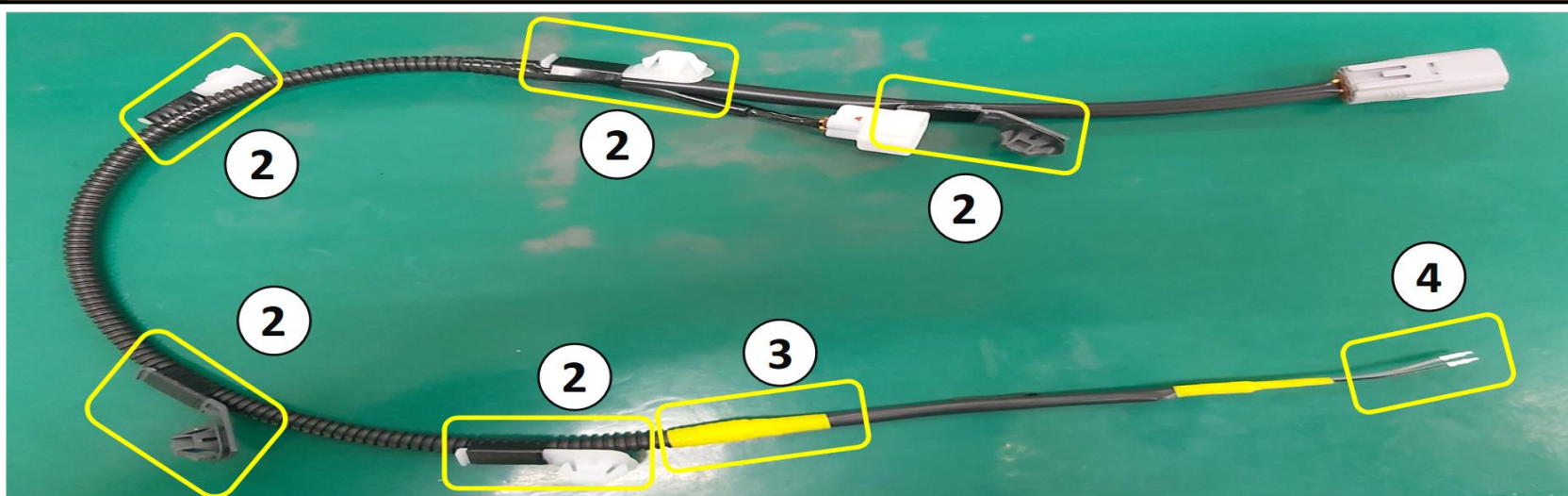
1 No Unlock/Halflock Connector (on 2 connector)

2 No Missing Clamp (5pcs.)

3 Conduct Bending on COT to VT

4 No Deformed Terminal

5 Checking of Clamp Alignment



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