

**WORK INSTRUCTION**

Process Name/Title:

CLAMP ASSEMBLY PROCESS

Effectivity Date:

October 18, 2024

Validity Date:

n/a

Model code/Part number:

096D / 7L0120-7023

Customer:

TRQSS

Car Model:

TOYOTA-HIGHLANDER

Document No.:

WI-ENG-PDE-693

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

1

Page No.:

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PARTS:

1. Assy parts ; Clamp 82711-52090 (W) ;Clamp 82711-48070 (GR) ; Clamp 82711-3A540 (W) ; Black tape (4pcs)

JIG:

1. Clamp assembly jig

NO.**PROCESS NAME**

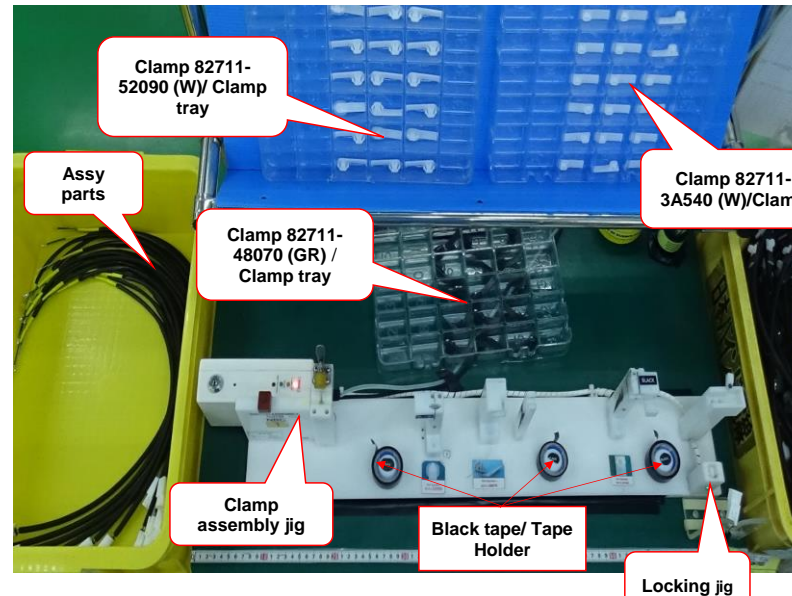
1

WORK PROCEDURE/ ILLUSTRATION**TOOLS/PPE****QUALITY POINTERS**

1

CLAMP
ASSY

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.

Document reference/s:

1. Refer to **WI-ENG-PDE-243** for Offline assembly process

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


Revision History

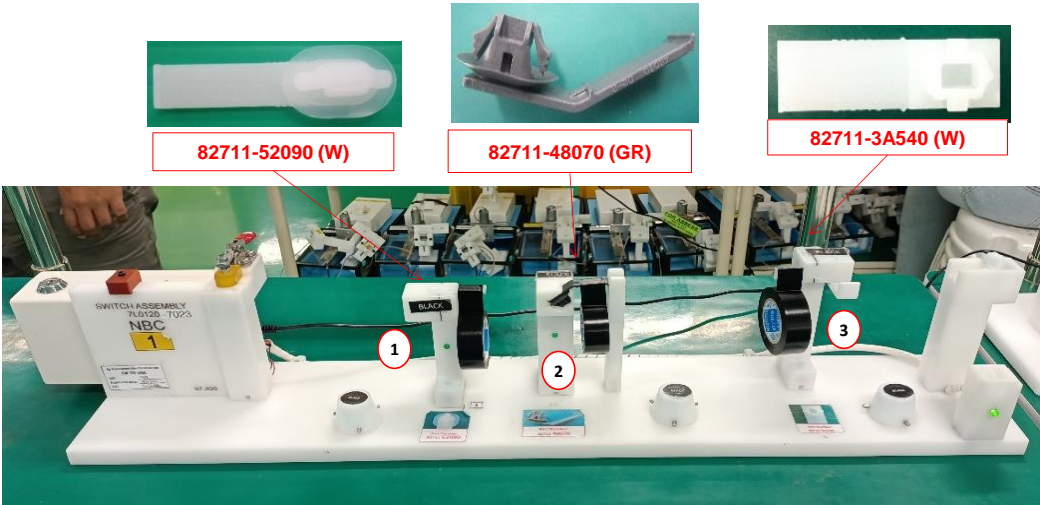
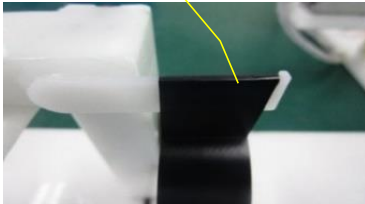
Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Prepared by	Reviewed by	Approved by	Noted by
10/18/24	1	Inclusion of car model "TOYOTA-HIGHLANDER". Update table lay-out, Measurement and Visual inspection/ Quality checkpoints.	D. Castillo	C. Villanueva	A. Arañes	n/a				
06/07/23	0	Initial issue. Inclusion of connector lock process, improvement due to QC claim (Unlock connector). Integrate the locking jig to Assembly jig. Transfer Taping 1 Black COT to Black suprene tube process to P1. Change Process name/ Title from Taping Assembly Process to Clamp Assembly Process ; Document control no. from WI-ENG-PDE-243 to WI-ENG-PDE-693 due to separation process.	D. Castillo	J. Loterte	C. Villanueva	A. Arañes				n/a

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DCC Stamp

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	Model code/Part number: 096D / 7L0120-7023		Customer: TRQSS	Car Model: TOYOTA-HIGHLANDER	Document No.: WI-ENG-PDE-693		
	Purpose: <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO			Revision No.:	1	Page No.:	2 of 6

PARTS:	1. Black tape [3pcs.] 2. Clamp 82711-52090 (W)			3.Clamp 82711-48070 (GR) 4.Clamp 82711-3A540 (W)			JIG:	1. Clamp assembly jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION				TOOLS/PPE	QUALITY POINTERS	
2	CLAMP ASSY	<div>Clamp setting</div> <div></div> <div>1. Get 1pc. of clamp 82711-52090 (W) using right hand and set to clamp location 1 using both hands.</div> <div>2. Get 1pc. of clamp 82711-48070 (GR) using right hand and set to clamp location 2 using both hands.</div> <div>3. Get 1pc of clamp 82711-3A540 (W) using right hand and set to clamp location 3 using both hands.</div> <div>4. Get black tape and put pre-tape on clamp location 1, 2 and 3 using both hands.</div>					<div>STANDARD TAPING FOR CLAMP</div> <div>One wind for under tape</div> <div></div> <div>Important reminders/Note/S: 1. Please check the Clamp first before start of assembly to avoid wrong use of clamp.</div> <div>1. No wrong use of parts 2. No wrong use of tape 3. No damaged clamp 4. No wrong clamp position</div>	

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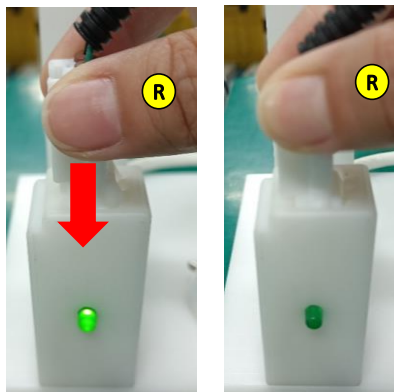
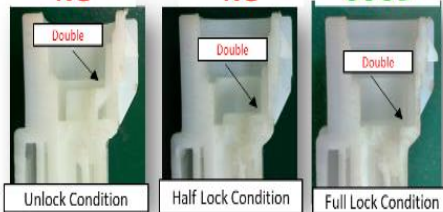
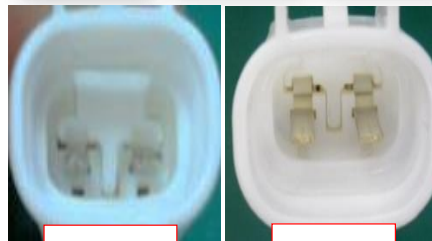

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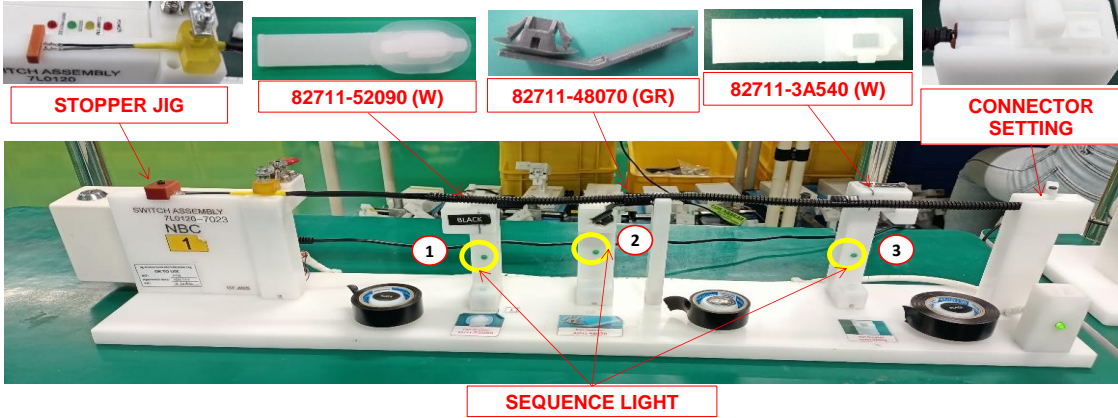

PARTS:	1. Assy parts			JIG:	1. Locking jig		
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS	
3	CLAMP ASSY	Connector lock	<div><div></div><div><p>1. Put the connector into locking jig using right hand then press 2x to lock using both hands. Check the lock if properly locked.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

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	Purpose:		<input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO		Revision No.:	1	Page No.:	4 of 6

PARTS:	1. Assy parts 2. Black tape			JIG:	1. Clamp Assembly jig	
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
4	CLAMP ASSY	Clamp assembly	<div></div> <div>1. Get the assy parts and set into jig. <i>(See above picture for correct setting of harness).</i> First, set the connector 6098-0407 (W) to Receiver base 1 then lock. Continue to set the harness in jig. Last, set the terminal end together (with direct contact terminal to terminal to avoid sensor malfunction of clamp) within the stopper then press by Toggle clamp. Continue if the sequence light in location 1 was ON.</div> <div>2. Check the LED light for POWER, CLAMP and SEQUENCE light on clamp location 1 is ON. If encountered abnormality, STOP the process, CALL the attention of LEADER and WAIT for instruction.</div> <div>3. Hold the tape on clamp location 1, make 3 windings then cut the tape using both hands. Press the SW button after taping. Continue the process if sequence light on clamp location 2 was ON.</div> <div>4. Hold the tape on clamp location 2, make 3 windings then cut the tape using both hands. Press the SW button after taping. Go sound will be heard.</div> <div>5. Conduct POINT CHECKING before removal from jig.</div>			<div></div> <div>Important reminders/Note/s: 1. Make sure no GAP between terminal and stopper jig 2. Make 2-3 windings for Clamp taping</div> <div>1. No wrong use of parts 2. No wrong use of tape 3. No damaged clamp 4. No wrong clamp position 5. No missing tape</div>

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PARTS:		1.Assy parts		JIG:	n/a
NO.	PROCESS NAME	1 WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
5	CLAMP ASSY	Measurement	<div><div><div>MEASURING TAPE</div></div><div><div>NOTE:</div><div><div>A - Taping (Y)</div><div>B - Taping (B)</div><div>C - Clamp (GR)</div><div>D - Clamp (W)</div></div><div><div></div><div></div></div></div></div>	<div><div>Important reminders and note/s:</div><div><div>1.Please use calibrated /verified measuring tape when getting the measurement.</div><div>2. For Hatsumono,Nakamono and Owarimono.</div></div><div><div>Document reference/s:</div><div><div>1. Refer to WI-PRO-ASY-056 for Sub-assembly Hatsumono Nakamono Owarimono Inspection.</div></div></div></div> <div>1.No wrong deminsion</div>	

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PARTS:

1. Assy parts

JIG:

n/a

**VISUAL INSPECTION/ QUALITY CHECKPOINTS****CLAMP ASSY****7L0120-7023****1** No Wrong facing of clamp**2 3** No Missing Tape (Black tape)

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