



WORK INSTRUCTION

Process Name/Title: **CLAMP ASSEMBLY PROCESS**

Effectivity Date:

September 12, 2023

Model code/Part number: **700B / 7N0099-7020**Customer: **TRJ**Car Model: **Toyota-Land Cruiser**

Validity Date:

n/a

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Document No.:

WI-ENG-PD-734

Revision No.:

0

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PARTS:

1. Assy Parts
2. Clamp 82711-52090 (W) [2pcs]
3. Clamp 82711-48070 (GR) [2pcs]
4. Clamp 82711-33380 (B)

5. Clamp 82711-3A540 (W)
6. Black tape [6pcs]
7. Sky blue tape [1pc]

JIG:

1. Clamp Assembly jig

NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
1	P3	Table Lay-out	<div>Safety Instruction Be sure to wear prescribed personal protective equipment during operation (gloves, finger cots, etc.)</div> <div>Housekeeping 1. Maintain and always practice 5's. 2. Personal things on the workplace is prohibited. Keep it in your locker.</div> <div>Alert level 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

9/12/23 0 Initial Issue

A. Hernandez J. Loterte C. Villanueva A. Arañes

A. Hernandez

J. Loterte

C. Villanueva

A. Arañes

Eff. Date

Rev. No

Details of Change

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Reviewed

Approved

Noted

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5. Black tape [6pcs]
6. Sky blue tape [1pc]

JIG:

1. Clamp Assy Jig

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
2	P3	Clamp Setting	<div><div><div><div><div></div><div><div>1. Get 1pc. of clamp 82711-33380 (W) using right hand and set to clamp location 1 and 2 using both hands.</div><div>2. Get 2pcs. of clamp 82711-52090 (W) using right hand and set to clamp location 4 and 6 using both hands.</div><div>3. Get 2pcs. of clamp 82711-48070 (GR) using right hand and set to clamp location 3 and 7 using both hands.</div><div>4. Get 1pcs. of clamp 82711-3A540 (W) using right hand and set to clamp location 5 using both hands.</div></div><div><div>5. Initially attach Sky blue tape to clamp location 3 using both hands.</div><div>6. Initially attach Black tape to clamp location 4, 5, 1, 2, 6, and 7 using both hands.</div></div></div></div><div><div><div>1. No wrong use of parts</div><div>2. No wrong use of tape</div><div>3. No damaged clamp</div><div>4. No wrong clamp position</div></div><div><div>Important reminders/Note/s:</div><div>1. Please check the Clamp first before start of assembly to avoid wrong use of clamp.</div></div><div><div>One side tape under clamp</div><div><div>CLAMP ILLUSTRATION</div><div><div>GOOD</div><div><div>82711-52090 (W)</div></div></div><div><div>NG</div><div><div>82711-12A80 (W)</div></div></div></div></div></div></div></div>		

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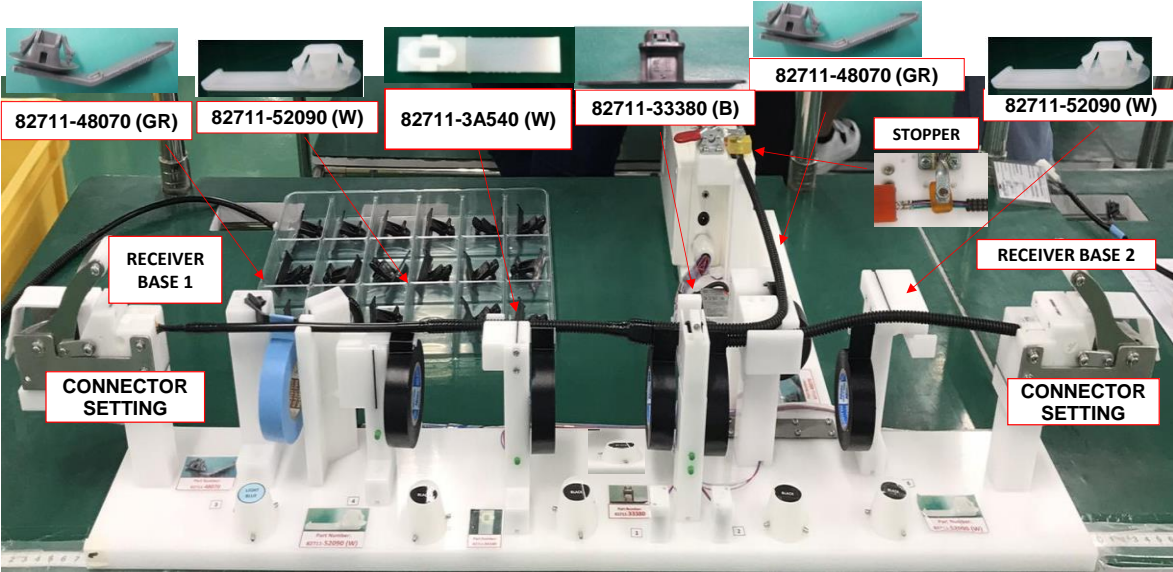
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PARTS:		1. Assy parts 2. Black tape 3. Sky blue tape [1pc]		JIG:	1. Clamp assembly jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
3	P3 Clamp Setting	<div></div> <div>1. Put the assy into jig. (<i>See above picture for the correct setting</i>). First, set the connector 6098-3802 (W) to Receiver base 1. Second, set the next connector 6098-2220 (W) to Receiver base 2. Continue to set the harness in jig. Last, set the V-G-B wires together within stopper then press by toggle clamp.</div> <div>2. Check if all LED light for POWER ON, WIRE1, WIRE2 and CLAMP ON was ON. If encountered abnormality, STOP and immediately CALL the attention of the leader. WAIT for further instruction and continue the process.</div> <div>3. Hold the tape on clamp location 1, make 3 windings of tape on combined COT 1 and COT 2 then cut the tape using both hands. Continue to clamp location 2.</div>			<p>Important reminders/Note/s:</p> <p>1. Make sure no gap between stopper and terminals</p> <p>1. No wrong use of parts 2. No wrong use of tape 3. No damaged clamp 4. No wrong clamp position</p>

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NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
3	P3 Clamp Assembly (Continuation)	<div><p>82711-48070 (GR)</p><p>82711-52090 (W)</p><p>82711-3A540 (W)</p><p>82711-48070 (GR)</p><p>STOPPER</p><p>82711-52090 (W)</p><p>RECEIVER BASE 1</p><p>RECEIVER BASE 2</p><p>CONNECTOR SETTING</p><p>CONNECTOR SETTING</p><p>82711-33380 (B)</p></div> <div><p>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.</p><p>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.</p><p>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.</p><p>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. Continue the process if sequence light in clamp location 6 was ON.</p></div>			<div><p>Important reminders/Note/s: 1. Make sure no gap between stopper and terminals</p><p>1. No wrong use of parts 2. No wrong use of tape 3. No damaged clamp 4. No wrong clamp position</p></div>

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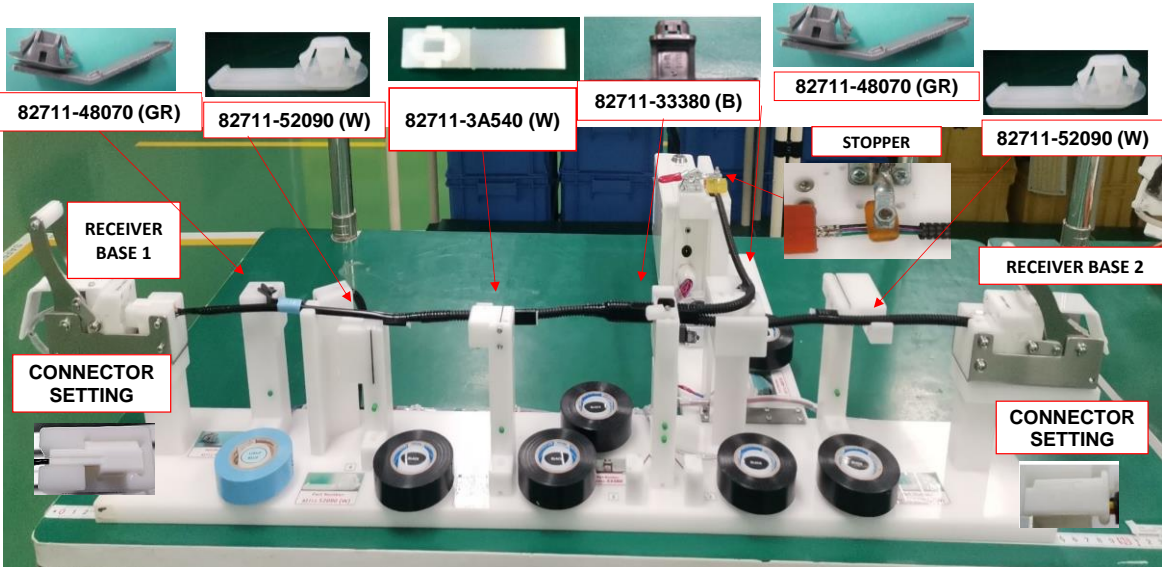
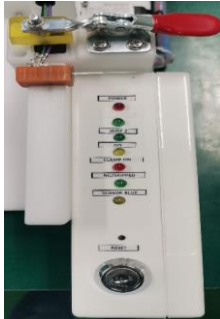
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NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
4	P3 Clamp Assembly (Continuation)	<div></div> <div>8. Hold the tape on clamp location 6. Make 3 windings of tape then cut the tape using both hands. Press the SW button after taping. Continue the process if sequence light in clamp location 7 was ON.</div> <div>9. Hold the tape on clamp location 7. Make 3 windings of tape then cut the tape using both hands. (Note: Color sensor light will beep/buzz if sensor detects Brown tape during taping). Press the SW button after taping. Go sound will be heard.</div> <div>10. After taping, CONDUCT POINT CHECKING before removing the harness from jig.</div>		<div></div> <div>Important reminders/Note/s: 1. Make sure no gap between stopper and terminals</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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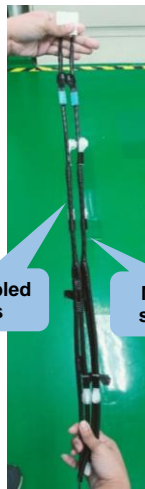


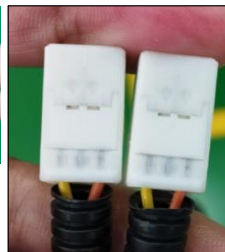


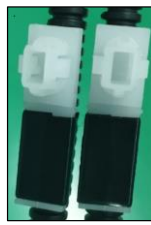




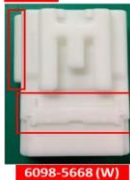



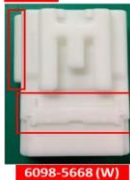



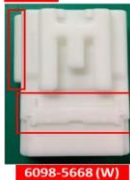


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PARTS:		1. Assy parts 2. Master sample		JIG:	n/a												
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS												
4	P3	Visual/By Two's Inspection															
		<div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div><div></div><div></div></div> <div><div>1. Conduct alignment of harness (Master sample vs. Assembled parts) using both hands.</div><div>2. Check the connector lock condition, insertion, terminal and taping condition.</div><div>3. Check the presence of clamp attachment, taping condition and color of tape.</div></div>		<div></div> <div>ACTUAL PRODUCT</div>	<div>1. No skip checking during inspection.</div> <div>MASTER SAMPLE</div> <div></div> <div>CONNECTOR ILLUSTRATION</div> <table><tr><td>GOOD</td><td>NG</td></tr><tr><td></td><td></td></tr><tr><td>6098-3802 (W)</td><td>6098-5668 (W)</td></tr></table> <div>CLAMP ILLUSTRATION</div> <table><tr><td>GOOD</td><td>NG</td></tr><tr><td></td><td></td></tr><tr><td>82711-52090 (W)</td><td>82711-12A80 (W)</td></tr></table>	GOOD	NG			6098-3802 (W)	6098-5668 (W)	GOOD	NG			82711-52090 (W)	82711-12A80 (W)
GOOD	NG																
																	
6098-3802 (W)	6098-5668 (W)																
GOOD	NG																
																	
82711-52090 (W)	82711-12A80 (W)																

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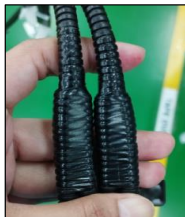


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PARTS:		1. Assy parts 2. Master sample	JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
4	P1 Visual/By Two's Inspection (Continuation)	 ACTUAL PRODUCT     <p>4. Check the Taping condition. Conduct slightly bending to avoid overlook of missing tape.</p> <p>5. Check the presence of wing-type clamp and taping condition. Conduct slightly bending of part with wing type clamp. Check the Y-taping condition.</p> <p>6. Check the terminal. Must no deformed terminal.</p>		1. No skip checking during inspection. ENGINEERING SAMPLE 

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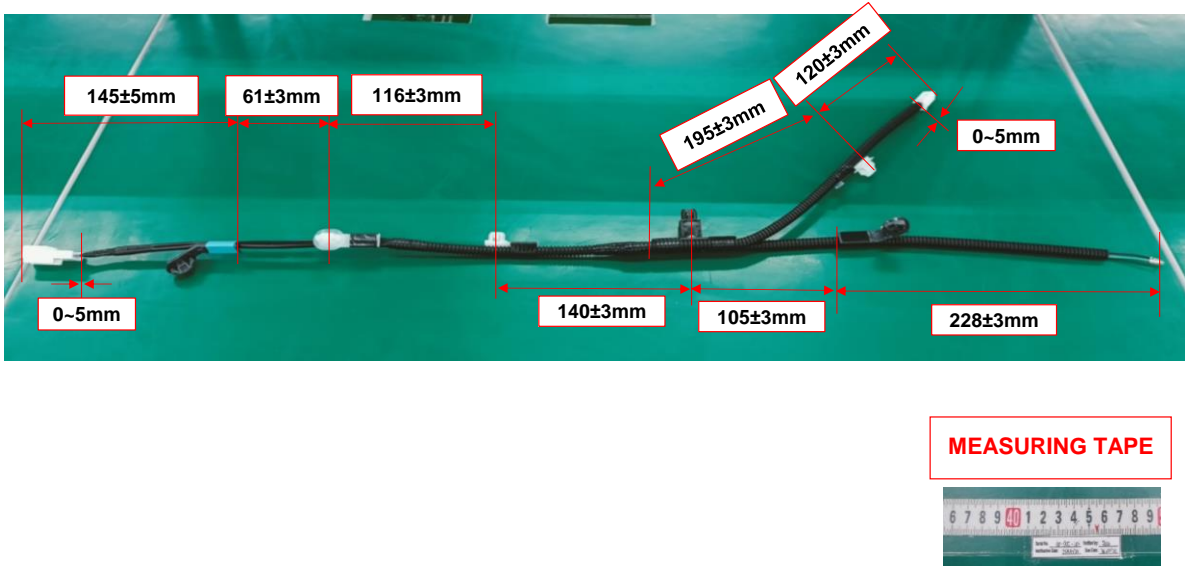
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PARTS:	n/a		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
5	P1	Measurement	<div></div>	<div>1. No wrong dimension</div> <div>Important reminders/Note/s:</div> <div>1. Please use calibrated/verified measuring tape when getting the measurement.</div> <div>2. For Hatsumono and Owarimono.</div>

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PARTS: n/a

JIG:

n/a

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

P1

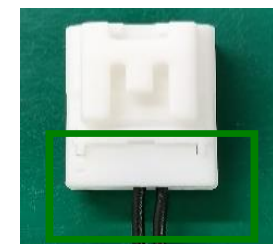
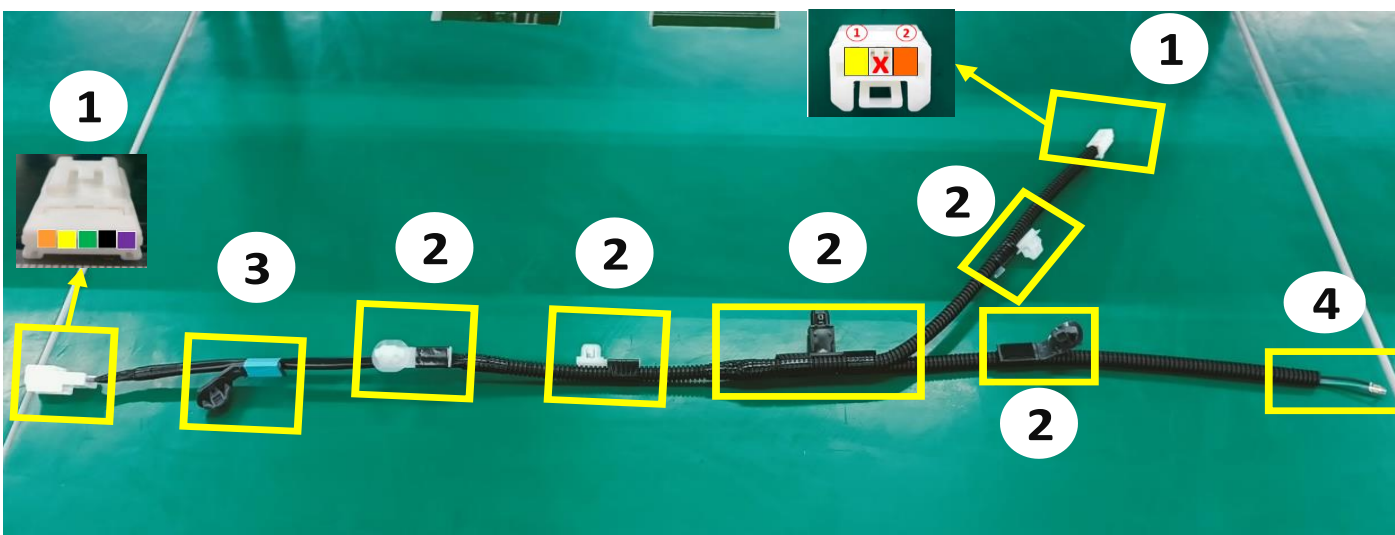
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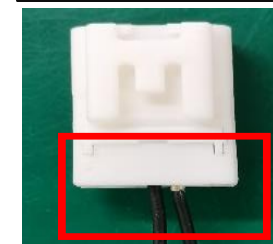
GOOD



NO GOOD



GOOD



NO GOOD

1 No Unlock/
Halflocked Connector
(2 connector)

2 No Missing Clamp
(6pcs.) and BENDING
of 2 sides of wing
clamp

3 No Wrong Used of Tape
(Sky Blue)

4 No Deformed
Terminal

5 Checking of
Clamp Alignment

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