



## WORK INSTRUCTION

## TAPING ASSEMBLY PROCESS

Effectivity Date:

January 03, 2024

Process Name/Title:

Validity Date:

n/a

Model code/Part number:

311D / 7L0155-7021

Customer:

TRQSS

Car Model:

TOYOTA-RAV4

Document No.:

WI-ENG-PDE-786

Purpose:

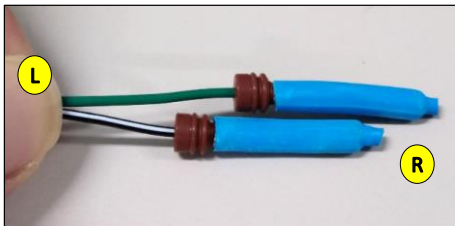

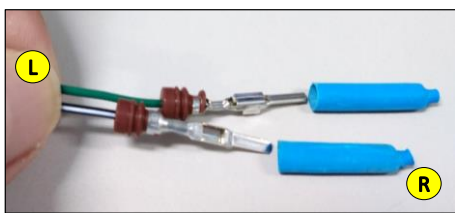
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<b>PARTS:</b>	1. MR SW CP (AVSSf 0.3 G wires L=588±3mm; TVSSf 0.3 B/W wires L=588±3mm) 2. Black Corrugated tube (No slit) ø7, L=461±4mm				JIG:	1. Terminal Cover jig
<b>NO.</b>	<b>PROCESS NAME</b>	<b>WORK PROCEDURE/ ILLUSTRATION</b>			<b>TOOLS/PPE</b>	<b>QUALITY POINTERS</b>
1	n/a	<div><p>1. Get the <b>MRSW CP TVSSf 0.3 G-B/W wires L=588±3mm</b> using left hand, then get the terminal cover jig using right hand then insert to both terminals (<b>G-B/W wires</b>) using right hand.</p></div> <div><p>2. Get the corrugated tube <b>ø7 L=461±4mm</b> using right hand then insert the <b>G-B/W wires</b> using left hand.</p></div> <div><p>3. After insertion, remove the cover jig using right hand.</p></div>			<div><b>Safety Instruction</b> Be sure to wear required personal protective equipment during operation (gloves, finger cots, etc.)</div> <div><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><b>Alert level</b> For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.</div>	1. No wrong usage of parts 2. No deformed terminal
Revision History					Prepared by	Reviewed by
					Approved by	Noted by
01/03/24	0	Initial issue.			A.Hernandez	C.Villanueva
Eff. Date	Rev. No	Details of Change			Revised	Reviewed
					Approved	Noted
					Est. Date:	January 03, 2024

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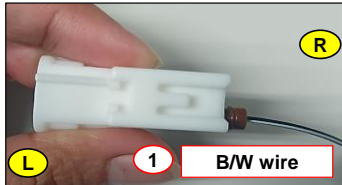
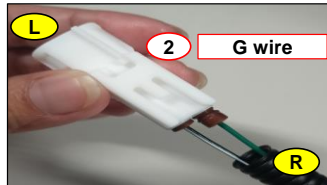
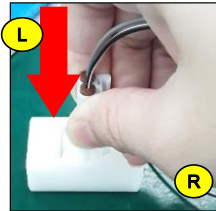
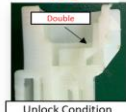

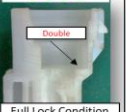


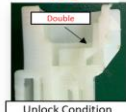

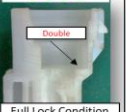

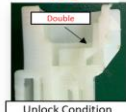

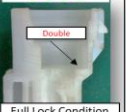
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PARTS:	1. Assy parts			JIG:	1. Locking jig									
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS									
2	Wire insertion to connector 6188-0407 (W)	<div><div><p><b>CONNECTOR ORIENTATION</b></p></div><div><p>1. Hold the connector using left hand. Get the <b>Black/White wire</b> then insert to terminal <b>slot 1</b> using right hand.</p></div><div><p>2. Get the <b>Green wire</b> and insert to terminal <b>slot 2</b>.</p></div></div>		n/a	<div>1. No wrong use of connector 2. No damaged connector 3. No wrong insertion 4. One by one insertion 5. No deformed terminal 6. No wrong wire facing</div> <div><b>Important reminder/Notes/:</b></div> <div>1. Please hold the wire near terminal during insertion. 2. Make sure wires are properly inserted. Conduct <u>Pull-Push-Pull-Push</u> after insertion. Do not exert extra force.</div> <div><b>Document reference/s:</b></div> <div>1. Please refer to <b>WI-PRO-CNC-017</b> for Wire and Strip length tolerance. 2. Please refer to <b>GL-PRO-ASY-029</b> for Pull-Push procedure.</div>									
3	Connector lock	<div><div><p>1. Put the connector into locking jig using right hand then press <b>2x</b> to lock using both hands. Check the lock if properly locked.</p></div><div><p><b>Coupler Cross Sectional View</b></p><table><tr><td><b>NG</b></td><td><b>NG</b></td><td><b>GOOD</b></td></tr><tr><td></td><td></td><td></td></tr><tr><td>Unlock Condition</td><td>Half Lock Condition</td><td>Full Lock Condition</td></tr></table><div><p><b>Before lock</b></p><p><b>After lock</b></p></div></div></div>		<b>NG</b>	<b>NG</b>	<b>GOOD</b>				Unlock Condition	Half Lock Condition	Full Lock Condition	<div><b>LOCKING JIG</b></div> 	<div>1. Use the provided jig per model 2. No unclocked/half-locked connector.</div> <div><b>Important reminders/Notes</b></div> <div>1. Manual locking may cause <b>damaged connector lock</b></div>
<b>NG</b>	<b>NG</b>	<b>GOOD</b>												
														
Unlock Condition	Half Lock Condition	Full Lock Condition												

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TRQSS

Car Model:

TOYOTA-RAV4

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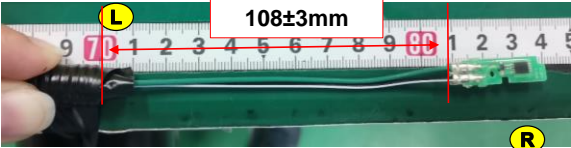

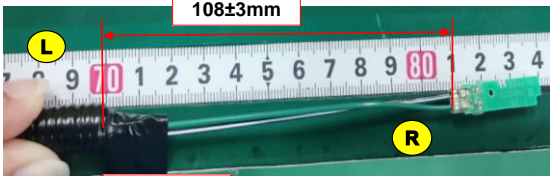
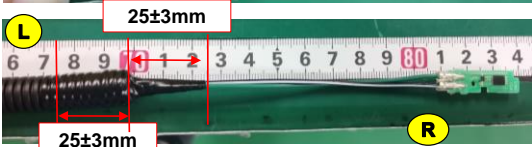

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PARTS:		1. Assy parts 2. Black tape		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
4	n/a Taping 1 Black Corrugated tube to Wire near PCB	<div><p>Start of taping</p></div> <div><p>108±3mm</p></div> <div><p>1. Hold the assy parts using left hand, get <b>Black tape</b> then conduct pre-taping using both hands.</p></div> <div><p>25±3mm</p></div> <div><p>108±3mm</p></div> <div><p>25±3mm</p></div> <div><p>2. Measure from end of COT up to edge of hotmelted wires <b>108±3mm</b> then continue the taping process using both hands</p></div> <div><p>3. Confirm measurement of <b>25±3mm</b> from end of tape up to end of COT then continue the taping process using both hands.</p></div> <div><p>4. Confirm measurement of <b>108±3mm</b> from end of tape up to edge of PCB then continue the taping process using both hands.</p></div> <div><p>5. After taping, check the measurement and taping condition.</p></div>		<p>MEASURING TAPE</p> 	<p><b>Important reminders/Notes</b></p> <p>1. Please use calibrated/verified measuring tape when fetting the measurement.</p> <p>1. No peel-off tape 2. No flip out tape 3. No loose tape 4. No wrong use of tape 5. No wrong dimension 6. No missing tape</p>

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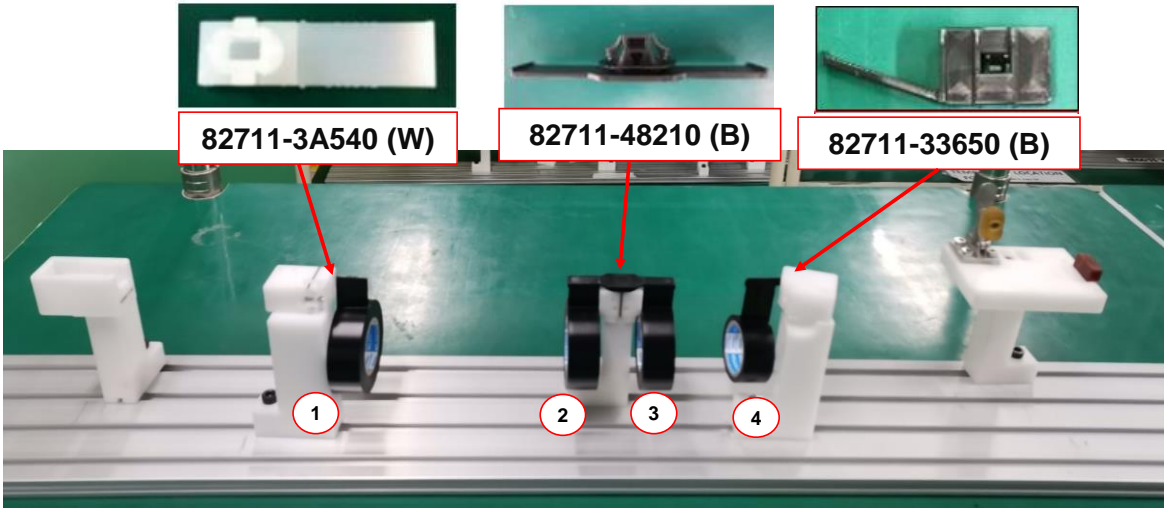


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PARTS:		1. Clamp 82711-3A540 (W) 2. Clamp 82711-48210 (B) 3. Clamp 82711-33650 (B) 4. Black tape [3pcs]		JIG:	1. Temporary jig
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
5	n/a	Clamp Setting	<div></div> <div><div>1. Get <b>1pc</b> of clamp <b>82711- 3A540 (W)</b> using right hand then set to Clamp location no. <b>1</b> using both hands.</div><div>2. Get <b>1pc</b> of clamp <b>82711-48210 (B)</b> using right hand then set to Clamp location no. <b>2 and 3</b> using both hands.</div><div>3. Get <b>1pc</b> of clamp <b>82711-33650 (B)</b> using right hand then set to Clamp location no. <b>4</b> using both hands.</div><div>4. Initially attach <b>BLACK TAPE</b> to location <b>1,2,3, and 4</b> using both hands.</div></div>		<div><b>Important reminders/Notes</b></div> <div>1. Please check the clamp first before start of clamp 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> <div><div>CLAMP ILLUSTRATION</div><div><div>GOOD</div><div>82711-48210 (B)</div></div><div><div>NG</div><div>82711-3F290 (B)</div></div></div>

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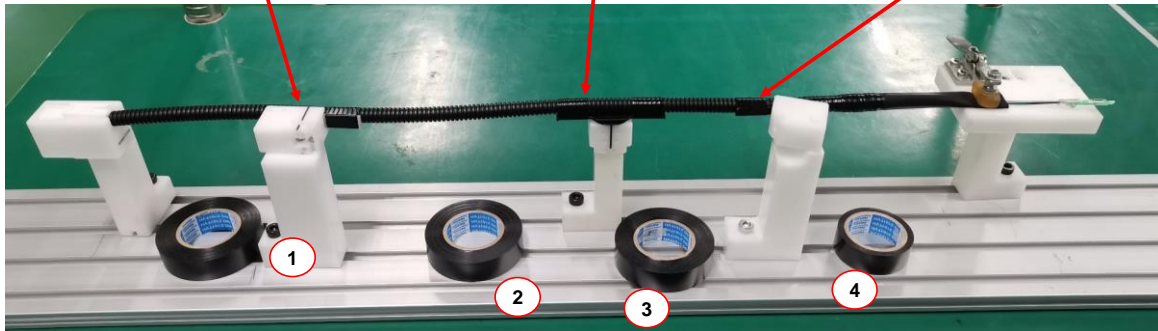

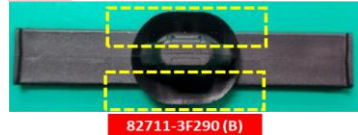
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PARTS:		1. Assy parts 2. Black tape		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
6	n/a Clamp Assembly	<div><div> 82711-3A540 (W)</div><div> 82711-48210 (B)</div><div> 82711-33650 (B)</div></div> <div><p>1. Get the assy parts using right hand then set into jig using both hands. <i>(See above picture for the correct setting).</i> First put the connector <b>6188-0407 (W)</b> into receiver base 1. Continue setting the harness in jig. Last, set the hotmelted wires <b>(B/W-G)</b> within the stopper jig then press by the toggle clamp.</p><p>2. Hold the tape on the clamp location no. <b>1</b> using right hand. Make <b>3 windings</b> of tape using both hands then cut the tape. Proceed to clamp location <b>2</b>.</p><p>3. Hold the tape on the clamp location no. <b>2</b> using right hand. Make <b>3 windings</b> of tape using both hands then cut the tape. Proceed to clamp location <b>3</b>.</p><p>4. Hold the tape on the clamp location no. <b>4</b> using right hand. Make <b>3 windings</b> of tape using both hands then cut the tape.</p><p>5. After taping, conduct <b>POINT CHECKING</b> before removing the harness from jig</p></div>			<p><b>Important reminders/Notes</b></p> <p><b>1. Please check the clamp first before start of clamp assembly to avoid wrong use of clamp.</b></p> <p>1. No wrong use of parts 2. No wrong use of tape 3. No damaged clamp 4. No wrong clamp position</p> <p>CLAMP ILLUSTRATION</p> <p><b>GOOD</b></p>  <p>82711-48210 (B)</p> <p><b>NG</b></p>  <p>82711-3F290 (B)</p>

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PARTS:	1. Assy parts		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
7	n/a	<div><div><div><p>ASSEMBLED PARTS</p></div><div><p>ENGINEERING SAMPLE</p></div><div><p>1. Conduct alignment of harness (Master sample vs. Assembled parts) using both hands.</p></div></div><div><div><p>2. Check the connector lock condition, insertion, terminal and the presence of clip-type clamp</p></div><div><p>3. Check the presence of all clamp attachment and taping condition. Conduct slightly bending of parts with wing-type clamp.</p></div><div><p>4. Conduct slightly pulling (UP and Down) of VM tube (Sunprene) to confirm the presence of tape.</p></div><div><p>5. Check the hotmelted wires (B/W-G) appearance. Must be no deformed terminal.</p></div></div></div> <div><p>ACTUAL PRODUCTS</p></div>		<p>1. No skip checking during inspection.</p> <p>ENGINEERING SAMPLE</p> <p>MASTER SAMPLE</p> <p>CLAMP ILLUSTRATION</p> <p>GOOD</p>  <p>82711-4B210 (B)</p> <p>NG</p>  <p>82711-3F290 (B)</p>

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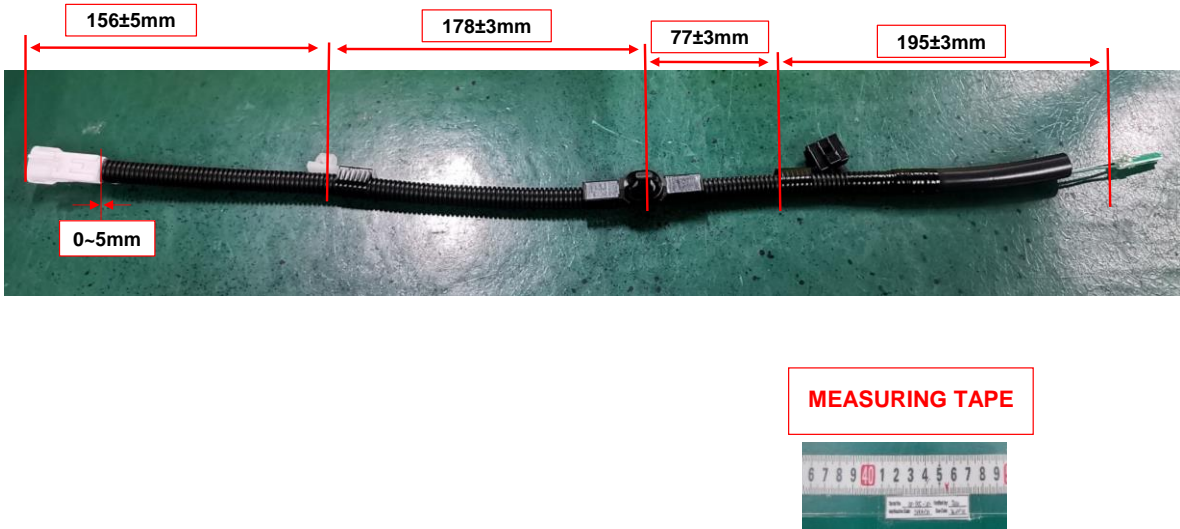
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PARTS:	1. Assy parts		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
8	n/a	Measurement	<div></div>	

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PARTS:

n/a

JIG:

n/a

### QUALITY CHECKPOINTS

n/a

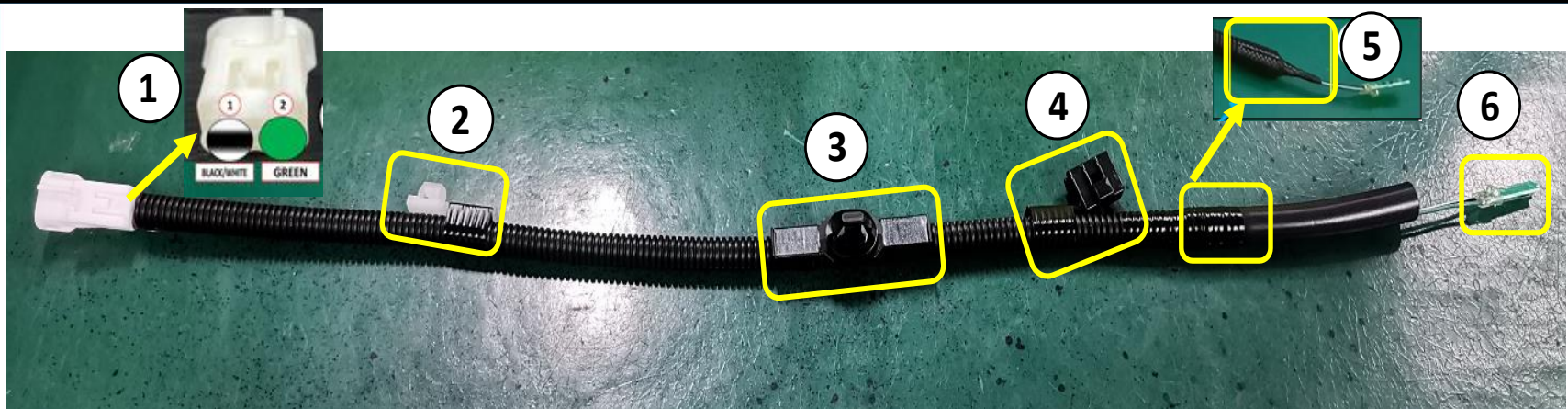
# 7L0155-7021



**GOOD**



**NO GOOD**



1 No **WRONG INSERT**  
No **UNLOCKED/HALFLOCKED**  
**NO TBO**

2 3 4 No **Missing Clamp**  
No **Wrong color of tape**

5 No **Missing Tape**

6 No **DEFORMED**  
**TERMINAL/PCB**

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