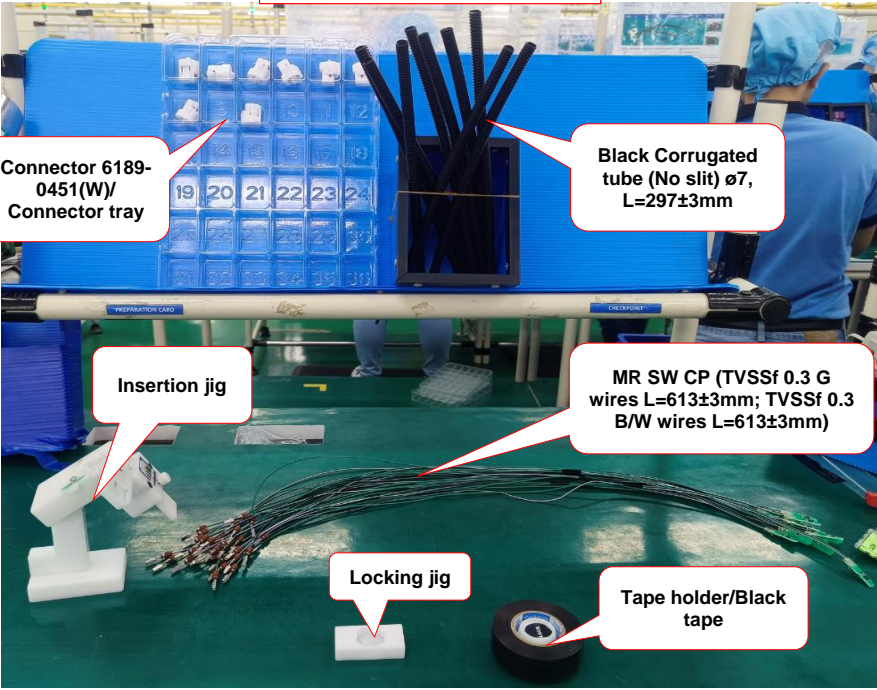
	WORK INSTRUCTION				Effectivity Date:	June 27, 2024		
	TAPING ASSEMBLY PROCESS				Validity Date:	n/a		
	Process Name/Title:		Model code/Part number: 310D / 7N0195-7020Ea		Customer: TRJ	Car Model: TOYOTA-RAV4		Document No.: WI-ENG-PDE-919A
	Purpose:		<input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO		Revision No.:	1	Page No.:	1 of 7

PARTS:	1. Connector 6189-0451 (W) 2. MR SW CP (TVSSf 0.3 G wires L=613±3mm; TVSSf 0.3 B/W wires L=613±3mm) 3. Black Corrugated tube (No slit) ø7, L=297±3mm			JIG:	1. Insertion jig 2. Locking jig
NO.	PROCESS NAME	1 WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
1	P1 Table lay-out	<div style="text-align: center;"> TABLE LAY-OUT </div> 		<div style="border: 1px dashed red; padding: 5px;"> Safety Instruction Be sure to wear prescribed personal protective equipment during operation (gloves, finger cots, etc.) </div> <div style="border: 1px dashed red; padding: 5px;"> Housekeeping 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;"> 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
06/27/24	1	Change purpose from Pre-launch to Masspro. Provided insertion jig; Additional table lay-ou and Improve Visual inspection/Quality checkpoints.				M. Ariola	C. Villanueva	A. Arañes	n/a
6/19/24	0	Initial issue. Change diameter of VM tube (Sunprene) from ø11 to ø9; Change the length of COT(No slit) from ø7, L=416±3mm to L=297±3mm; Additional Black Corrugated tube Ø5 L=164±3mm; Additional Half-wrap taping; Change color of Clamp taping 82711-48210(B) from (B-B tape) to (B-Y tape). Improve Measurement Illustration/Visual Inspection/Quality checkpoints				M. Ariola	C. Villanueva	A. Arañes	n/a
Eff. Date	Rev. No	Details of Change				Revised	Reviewed	Approved	Noted

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PARTS:		1. Connector 6189-0451 (W)		JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
2	P1	<div><div><div>INSERTION JIG</div><div>Wire guide</div><div>Visual reference</div><div>Wire guide</div><div>Button</div></div><div><div>Wire Facing</div><div>Connector Orientation</div></div><div><div><div>L</div><div>Connector setting to insertion jig</div><div>I-Mark</div><div>Press</div><div>1. Press the lock of insertion jig using left thumb.</div></div><div><div>2</div><div>Insert the connector 6189-0451 (W) into jig using right hand and release the lock.</div><div>Press</div><div>Release</div><div>3. Push the guide using right hand. The slot for B/W wire will be open.</div></div></div></div>		n/a	<div><div>Connector Orientation Illustration</div><div><div>I-mark is align</div><div>1 hole is open</div><div>GOOD</div></div><div><div>I-mark is NOT align</div><div>1 hole is open</div><div>NG</div></div></div> <div>1. Use provided jig per model 2. No wrong orientation of connector</div>

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PROTOTYPE



PRE-LAUNCH



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PARTS:

1. Assy parts

2. Black Corrugated tube (No slit) $\varnothing 7$, L=297 \pm 3mm

JIG:

n/a

NO.**PROCESS NAME****WORK PROCEDURE/ ILLUSTRATION****TOOLS/PPE****QUALITY POINTERS**

3

P1

Wire insertion to
Black Corrugated tube
(No slit) $\varnothing 7$, L=297 \pm 3mm1. Get the **Black Corrugated tube (No slit) $\varnothing 7$, L=297 \pm 3mm** using right hand then insert the wire using left hand.

n/a

1. No wrong used of parts.
2. No deformed terminal.

Document reference/s:**1. Please refer to WI-PRO-CNC-017
for Wire and Strip length tolerance.****CONFIDENTIAL:** Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.**NBC (Philippines)****MASTER COPY**

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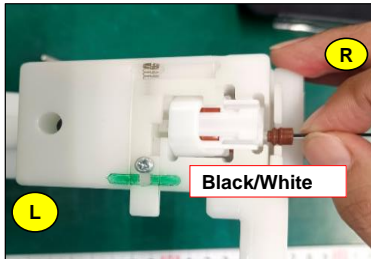
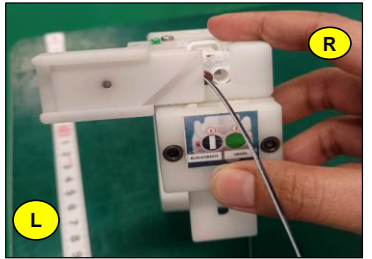

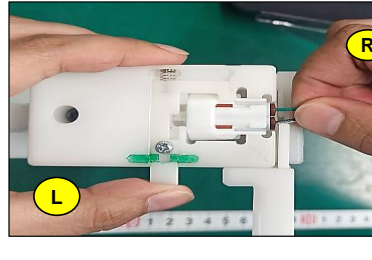
☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

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PARTS:		1. Assy parts 2. MR SW CP (TVSSf 0.3 G wires L=613±3mm; TVSSf 0.3 B/W wires L=613±3mm)		JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
4	P1 Wire insertion to Connector 6189-0451 (W)	<div><div><p>1. Get the B/W wire then insert to terminal slot no.1 using right hand.</p></div><div><p>2. After insertion of B/W wire press the button using right hand. The slot for Green wire will be open.</p></div><div><p>3. Get the B/W wire then insert to terminal slot no.1 using right hand.</p></div><div><p>4. After insertion, push the lock of insertion jig using left thumb and then hold the wires and gently pull-out the connector from the jig using right hand</p></div></div> <td>n/a</td> <td><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>Important reminder/Notes/:</div><div>1. Please hold the wire near terminal during insertion.</div><div>2. Make sure wires are properly inserted. Conduct <u>Pull-Push-Pull-Push</u> after insertion. Do not exert extra force.</div><div>Document reference/s:</div><div>1. Please refer to WI-PRO-CNC-017 for Wire and Strip length tolerance. 2. Please refer to GL-PRO-ASY-029 for Pull-Push procedure.</div></td>		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>Important reminder/Notes/:</div> <div>1. Please hold the wire near terminal during insertion.</div> <div>2. Make sure wires are properly inserted. Conduct <u>Pull-Push-Pull-Push</u> after insertion. Do not exert extra force.</div> <div>Document reference/s:</div> <div>1. Please refer to WI-PRO-CNC-017 for Wire and Strip length tolerance. 2. Please refer to GL-PRO-ASY-029 for Pull-Push procedure.</div>

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WORK INSTRUCTION

TAPING ASSEMBLY PROCESS

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7N0195-7020Ea

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Car Model:

TOYOTA-RAV4

Validity Date:

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☐ PROTOTYPE

☐ PRE-LAUNCH

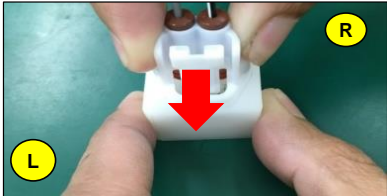

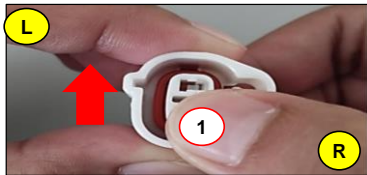





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PARTS:		1. Assy parts		JIG:	1. Locking jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
5	P1	Connector lock	<div><div>1. Put the connector into locking jig using right hand. Then press to lock 2x using both hands.</div><div>2. Ensure that connector is in locked condition by slide touching the connector lock based on the sequence illustrated.</div><div><div>Check the double lock deformation</div></div></div>	<div>LOCKING JIG</div> 	<p>Important reminders/Notes</p> <p>1. Manual locking may cause damaged connector lock</p> <p>1. Use the provided jig per model 2. No unclocked/half-locked connector.</p>

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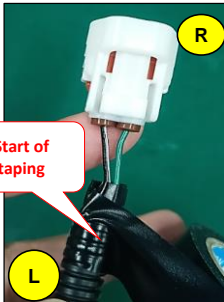
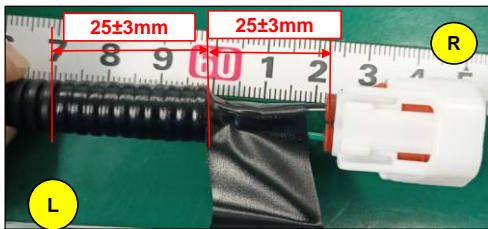
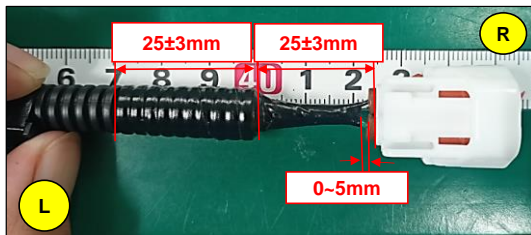

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PARTS:		1. Assy parts 2. Black tape		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
6	P1 Taping 1 Black Corrugated tube to Wire near connector	<div><div><p>1. Hold the Corrugated tube using left hand, Get the Black tape and start pre-taping using right hand.</p></div><div><p>2. Measure from end of Corrugated tube up to edge of connector 25±3mm then continue the taping process using both hands</p></div><div><p>3. After taping, check the measurement and taping condition</p></div></div> <div><div>MEASURING TAPE</div></div>		<p>Important reminders/Notes</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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PARTS:

n/a

JIG:

n/a

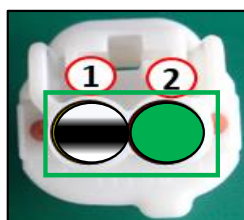
1 QUALITY CHECKPOINTS

P1

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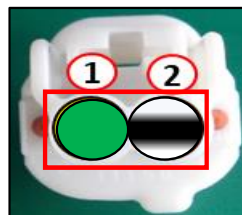
GOOD



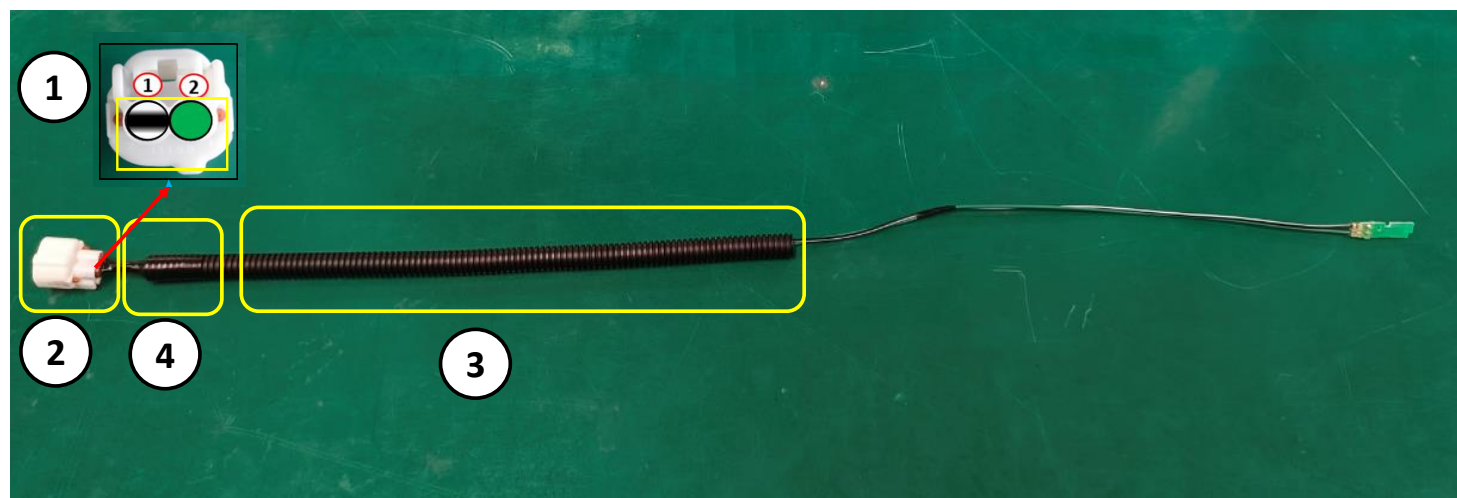
GOOD



NO GOOD



NO GOOD



1 2

No **WRONG INSERT**

No **TERMINAL BACKING OUT**

No **UNLOCK/HALF-LOCKED CONNECTOR**

3

No **MISSING COT (NO SLIT)**

4

No **MISSING TAPE**

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