



## WORK INSTRUCTION

## OFFLINE ASSEMBLY PROCESS

Process Name/Title:

Model code/Part number:

310D / 7N0240-7020

Customer: TRJ

Car Model: TOYOTA RAV 4

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Effectivity Date:

December 04, 2024

Validity Date:

n/a

Document No.:

WI-ENG-PDE-1176

Revision No.:

0

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## PARTS:

1. Connector 6188-0093 (W); Connector 6189-1161 (B); AVSSf 0.3 Y-OR wire L=377±2mm ; Black Corrugated tube Ø5 L=257±3mm;

JIG:

1. Insertion jig with switch cover  
2. Insertion jig.  
3. Locking jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

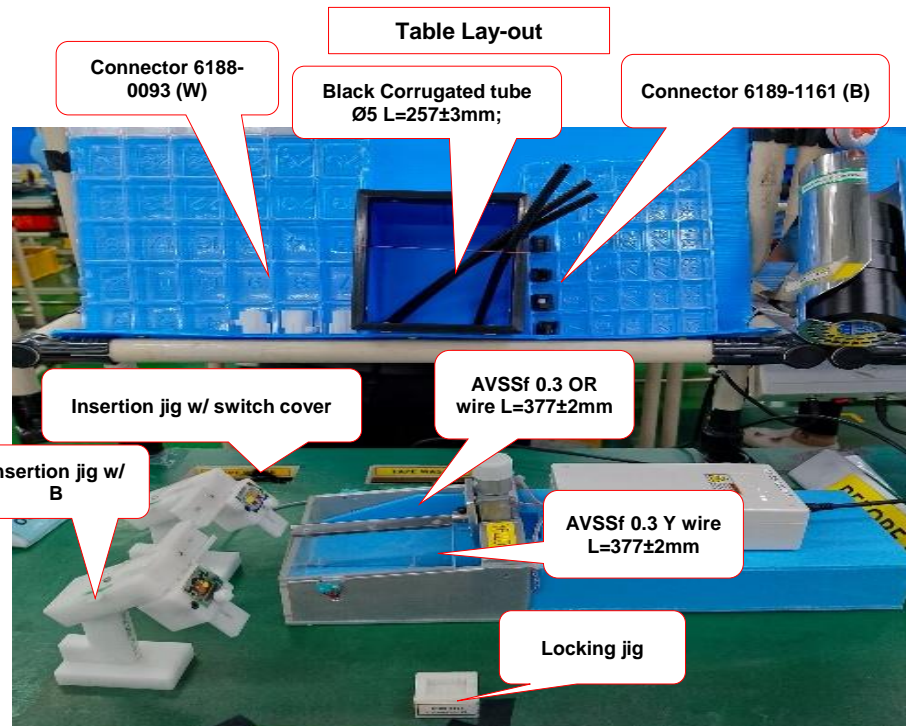
TOOLS/PPE

QUALITY POINTERS

1

Offline

Table Lay-out

**Safety Instruction**

Be sure to wear prescribed 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.

**Important reminders/Note/s:**

1. Refer to WI-ENG-PDE-675 for Offline assembly process
2. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance

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

## Revision History

Prepared by

Reviewed by

Approved by

Noted by

12/04/24

0

Initial issue.

A.Hernandez

C. Villanueva

A. Arañes

n/a

A.Hernandez

C. Villanueva

A. Arañes

n/a

Eff. Date

Rev. No

Details of Change

Revised

Reviewed

Approved

Noted

Est. Date:

December 04, 2024

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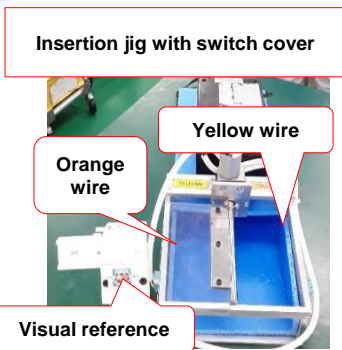
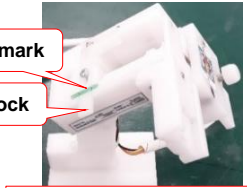

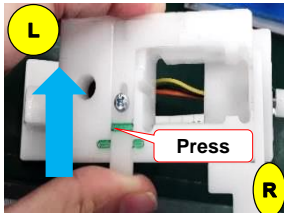
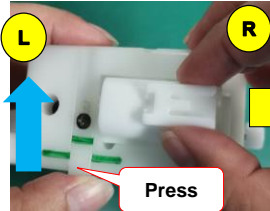
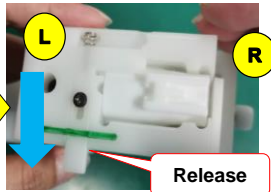
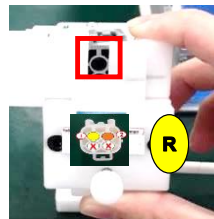
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PARTS:		1. Connector 6188-0093 (W)		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
2	Offline Connector setting to insertion jig 6188-0093 (W)	<div><div><p>Insertion jig with switch cover</p><p>Visual reference</p></div><div><p>I-mark</p><p>Lock</p><p>INSERTION JIG ORIENTATION</p></div><div><p>CONNECTOR ORIENTATION</p></div><div><p>Press</p></div><div><p>Press</p></div><div><p>Release</p></div><div><p>1. Press the lock using left hand.</p></div><div><p>2. Get the connector <b>6188-0093 (W)</b> using right hand then insert to insertion jig. Release the lock after insertion. <b>Note: Follow the connector orientation.</b></p></div><div><p>R</p></div><div><p>3. Push the lower wire guide upward using right hand. Slot for <b>Yellow wire</b> will be opened.</p></div></div> <td>n/a</td> <td><p>1. No wrong insertion of wires 2. No loose insertion 3. No wrong insertion 4. One by one insertion 5. No deformed terminal 6. No wrong wire facing</p><p><b>Important reminders/Note/s:</b> <b>1. Please hold the wire near terminal.</b> <b>2. Make sure wires are properly inserted.</b> <b>Conduct Pull-Push-Pull-Push after insertion.</b> <b>Do not exert extra force.</b></p><p><b>Document references:</b> <b>1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</b> <b>2. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</b></p></td>		n/a	<p>1. No wrong insertion of wires 2. No loose insertion 3. No wrong insertion 4. One by one insertion 5. No deformed terminal 6. No wrong wire facing</p> <p><b>Important reminders/Note/s:</b> <b>1. Please hold the wire near terminal.</b> <b>2. Make sure wires are properly inserted.</b> <b>Conduct Pull-Push-Pull-Push after insertion.</b> <b>Do not exert extra force.</b></p> <p><b>Document references:</b> <b>1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</b> <b>2. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</b></p>

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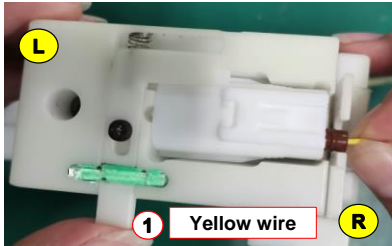
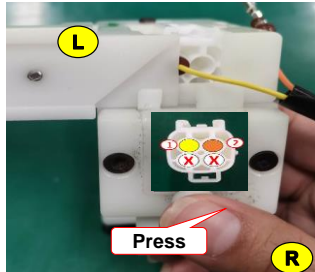
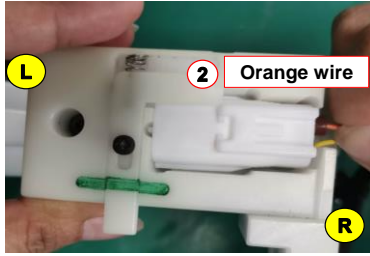
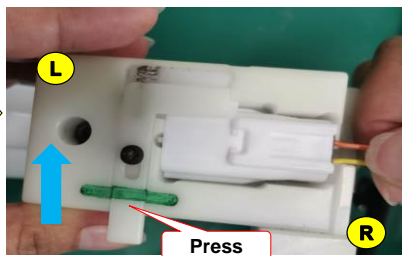
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<b>PARTS:</b>		1. AVSSf 0.3 Y-OR wire L=377±2mm		JIG:	1. Insertion jig with switch cover
<b>NO.</b>	<b>PROCESS NAME</b>	<b>WORK PROCEDURE/ ILLUSTRATION</b>		<b>TOOLS/PPE</b>	<b>QUALITY POINTERS</b>
3	Offline Wire insertion to insertion 6188-0093 (W)	<div><b>WIRE TERMINAL FACING</b></div> <div><p>1. Hold the insertion jig using left hand. Get the <b>Yellow wire</b> then insert to terminal slot <b>1</b> using right hand.</p></div> <div><p>2. Press the button using right thumb. The slot for <b>Orange wire</b> will be opened.</p></div> <div><p>3. Get the <b>Orange wire</b> then insert to terminal slot <b>2</b> using right hand.</p></div> <div><p>4. After insertion, push the lock using left thumb and then hold the wires and gently pull out the connector from jig using right hand.</p></div>		n/a	<p>1. No wrong insertion of wires 2. No loose insertion 3. No wrong insertion 4. One by one insertion 5. No deformed terminal 6. No wrong wire facing</p> <p><b>Important reminders/Note/s:</b> <b>1. Please hold the wire near terminal.</b> <b>2. Make sure wires are properly inserted.</b> <b>Conduct Pull-Push-Pull-Push after insertion.</b> <b>Do not exert extra force.</b></p> <p><b>Document references:</b> <b>1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</b> <b>2. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</b></p>

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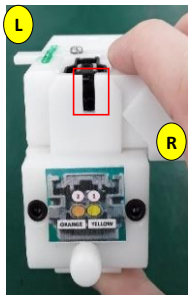
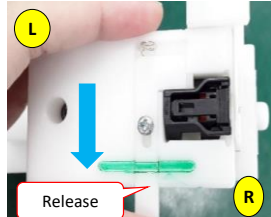
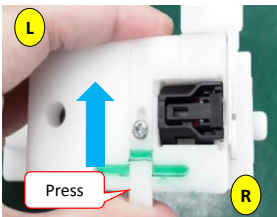
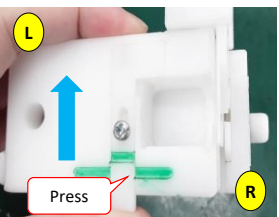


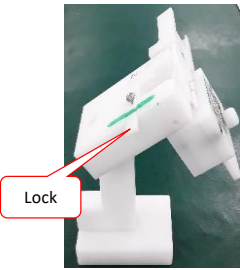
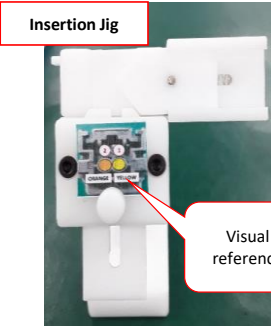


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PARTS:		1. Connector 6189-1161 (B)		JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
5	Offline Connector setting to insertion jig 6189-1161 (B)	<div><p>2. Get the connector 6189-1161 (B) using right hand and insert to insertion jig. Release the lock after insertion. <b>Note: Follow the connector orientation.</b></p><p>3. Push the guide using right hand. The slot for <b>Y wire</b> will be opened.</p></div>		n/a	<div><p>1. Use the provided jig per model 2. No wrong orientation of connector 3. No wrong use of connector 4. No damaged connector</p><div><p><b>CONNECTOR ORIENTATION ILLUSTRATION</b></p><div><p>I-mark is align</p><p>1 hole is open</p><p><b>GOOD</b></p></div><div><p>I-mark is not align</p><p>1 hole is open</p><p><b>NG</b></p></div></div></div>

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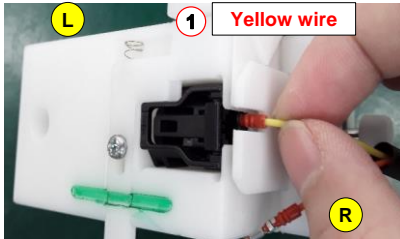
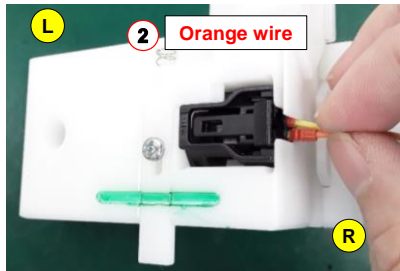
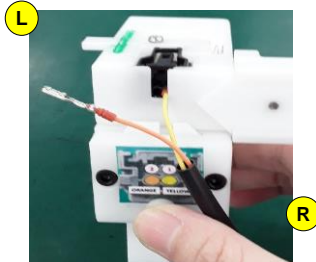
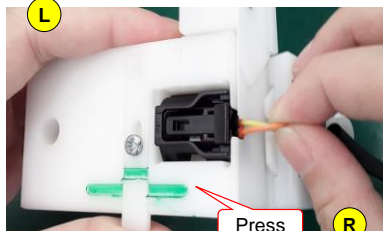
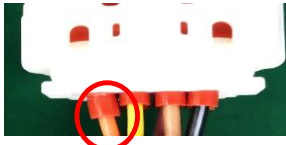
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PARTS:	1. Assy parts		JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
6	Offline  Wire insertion to connector 6189-1161 (B)	<div><p>Wire terminal facing</p></div> <div><p>1. Hold the insertion jig using left hand. Get the <b>Yellow wire</b> then insert to terminal slot <b>1</b> using right hand.</p></div> <div><p>3. Get the <b>Orange wire</b> then insert to terminal slot <b>2</b> using right hand.</p></div> <div><p>2. Press the button using right thumb. Slot for <b>Orange wire</b> will be opened.</p></div> <div><p>4. After insertion, push the lock using left thumb and then hold the wires and gently pull out the connector from jig using right hand.</p></div>	n/a	<div><p>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deformed terminal 5. No wrong wire facing</p><div><p>Note: During insertion, hold the wire not <u>rubber seal</u> to prevent sagging.</p></div><p><b>Important reminders/Note/s:</b> <b>1. Please hold the wire near terminal.</b> <b>2. Make sure wires are properly inserted.</b> <b>Conduct Pull-Push-Pull-Push after insertion.</b> <b>Do not exert extra force.</b></p><p><b>Document references:</b> <b>1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</b> <b>2. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</b></p></div>

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☐ PRE-LAUNCH






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PARTS:		1. Assy parts			JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
7	Offline Connector lock	<div><div>1. Put the connector into locking jig using both hands and then press <b>2x</b>. Check the connector lock if properly lock.</div><div><div>BEFORE PRESSINGAFTER PRESSING</div></div><div><div>NGNGGOOD</div><div>Unlock ConditionHalf Lock ConditionFull Lock Condition</div></div></div>			<div>LOCKING JIG</div> 	<p><b>Important reminders/Note/s:</b></p> <p><b>1. Manual locking may caused damaged connector lock</b></p> <p>1. Use provided locking jig per model. 2. No unlock/half-locked connector</p>

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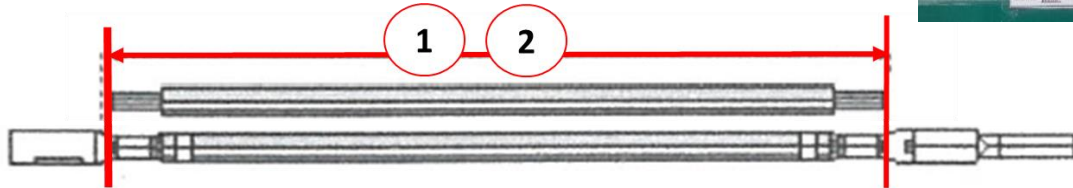

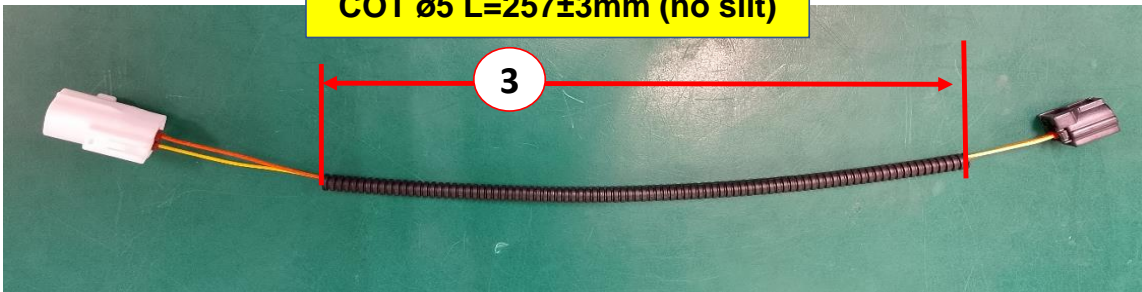
☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

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PARTS:		1. Assy Parts		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
8	Offline Measurement	<p>Note:</p> <ol style="list-style-type: none"><li>1. Measurement point: End of core wire to the end of core wire</li><li>2. Terminal is reference only.</li></ol>   <p>COT ø5 L=257±3mm (no slit)</p> 		<b>MEASURING TAPE</b>	<p><b>Important reminders and note/s:</b></p> <ol style="list-style-type: none"><li>1. Please use calibrated/verified measuring tape when getting the measurement.</li><li>2. For Hatsumono, Nakamono and Owarimono.</li></ol> <p><b>Document reference/s:</b></p> <ol style="list-style-type: none"><li>1. Refer to <b>WI-PRO-ASY-056</b> for Sub-assembly Hatsumono Nakamono Owarimono Inspection</li></ol> <p>1. No wrong dimension</p>

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PARTS:

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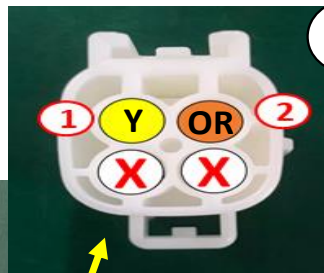
JIG:

n/a

### VISUAL INSPECTION/QUALITY CHECKPOINTS

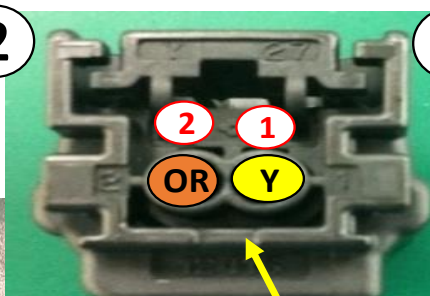
## OFFLINE INSERTION

## 7N0240-7020



1

2



3

1

2

No Wrong Insert

3

No Half locked/Unlocked Connector

4

No Missing COT

5

No Deformed Terminal

6

No Terminal Backing Out

4

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