



## WORK INSTRUCTION

## OFFLINE ASSEMBLY PROCESS

Effectivity Date:

July 02, 2024

Process Name/Title:

Validity Date:

n/a

Model code/Part number:

310B / 7M0525-7020B

Customer: TRJ

Car Model:

TOYOTA-RAV 4

Document No.:

WI-ENG-PDE-104

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

4

Page No.:

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## PARTS:

1. Connector 6098-3802 (W); AVSSf 0.3 B-B wires L=202±2mm

JIG:

1. Insertion jig  
2. Locking jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

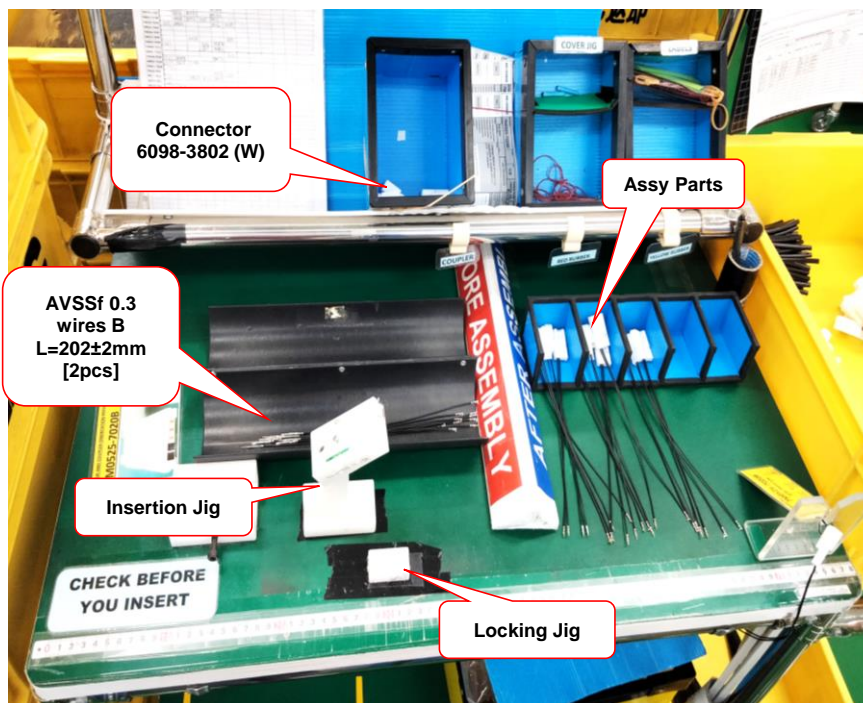
QUALITY POINTERS

1

Offline

Table Lay-out

## 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-PRO-CNC-017** for Wire and Strip Length Tolerance

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
07/02/24	4	Inclusion of Car model "TOYOTA-RAY 4" and Measurement. Improved Visual inspection/ Quality checkpoints.	D.Castillo	C.Villanueva	A. Arañes	N/A				
05/19/23	3	Inclusion of Table lay-out and quality check points; improve important reminders/note/s; change process name/title from kitting assembly to offline assembly	J. Loterte	C. Villanueva	A. Arañes	N/A				
04/26/21	2	Change connector color in accordance with color standardization for plastic parts. Refer to GL-COM-003	J. Loterte	C. Villanueva	A. Shimamura	A. Arañes				

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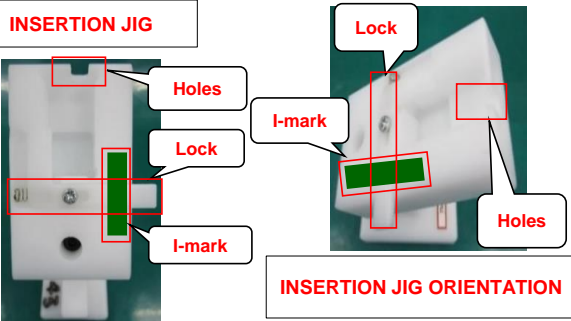
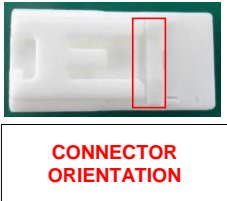
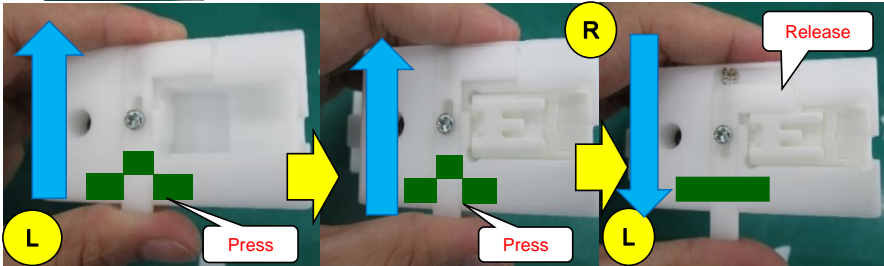

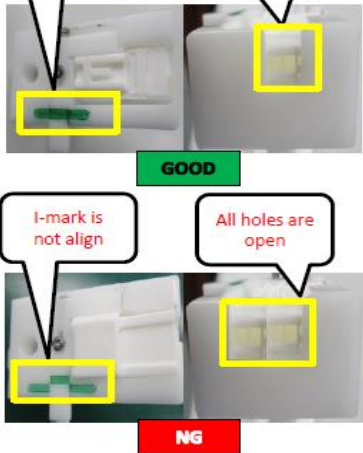
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PARTS:	1. Connector 6098-3802 (W)		JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
2	Offline	<div><div>Connector setting to insertion jig 6098-3802 (W)</div><div><div><div><div><div>INSERTION JIG</div><div></div><div><div>CONNECTOR ORIENTATION</div><div></div></div></div><div><div></div><div><div>1. Press the lock of insertion jig using left thumb.</div><div>2. Insert the Connector <b>6098-3802 (W)</b> into jig using right hand and release the lock.</div></div><div><div></div><div>3. Check the holes/terminal slot for 2 Black wires.</div></div></div></div></div><div>n/a</div><div><div><div><div><div>Connector Orientation Illustration</div><div><div><div>I-mark is align</div><div>2 Holes are open</div></div><div></div></div></div><div><div>GOOD</div><div>NG</div></div></div><div><div>1. Use the provided jig per model</div><div>2. No wrong orientation of connector</div><div>3. No wrong use of connector</div><div>4. No damaged connector</div></div></div></div></div></div>		

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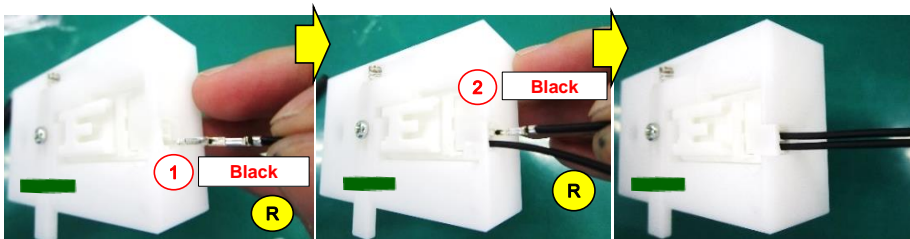
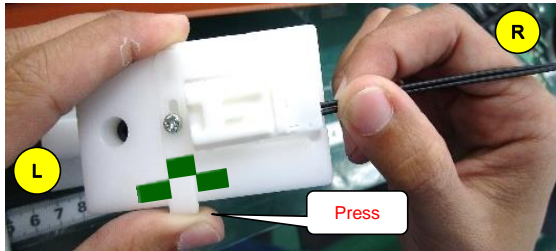
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PARTS:		1. AVSSf 0.3 B wires L=202±2mm [2pcs]		JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
3	Offline	<div><div></div><div>Wire facing</div><div></div><div><div>1. Get the first black wire and insert to connector using right hand.</div><div>2. Get the 2nd black wire and insert to connector using right hand.</div></div><div></div><div>3. After insertion, push the lock using left thumb and then hold the wires and gently pull out the connector from jig using right hand.</div></div>		n/a	<p><b>Important reminders/note/s:</b></p> <p>1. Insertion of wire must be from left to right.</p> <p>2. Make sure wires are properly inserted. Conduct <b><u>Pull-Push-Pull-Push</u></b> after insertion. Do not exert extra force.</p> <p><b>Document reference/s:</b></p> <p>1. Refer to <b>WI-PRO-CNC-017</b> for wire and strip length tolerance.</p> <p>2. Refer to <b>GL-PRO-ASY-029</b> for Pull-Push procedure.</p> <p>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deformed terminal 5. No wrong wire facing</p>

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☐ PROTOTYPE

☐ PRE-LAUNCH






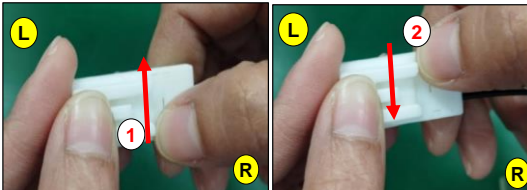



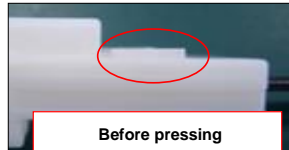

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PARTS:		1. Assy parts		JIG:	1. Locking jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
4	Offline Connector lock	<div><div><p>1. Load the connector into the jig holding both side of the connector, tip first.</p></div><div><p>2. Press the lower part of connector to fully insert into the locking jig.</p></div><div><p>Right thumb-Lower Left thumb-middle</p><p>3. Press the lower parts of connector using right hand while left hand holding the middle.</p></div><div><p>Right thumb-upper Left thumb-middle</p><p>4. Press the upper part of connector using right hand while left hand holding the middle.</p></div><div><p>Right thumb-middle Left thumb-middle</p><p>5. Lift then press the connector in the middle using left and right hand.</p></div><div><p>6. Ensure that connector is in locked condition by slide touching the connector lock based on the sequence illustrated.</p></div></div>		<div>LOCKING JIG</div> 	<p>1. No Unlock and half-locked 2. Use provided jig tools per model to avoid damaged lock.</p> <p><b>Important reminders/Note/s:</b> <b>1. Manual locking may cause damaged lock</b></p> <p><b>Document references/Note/s:</b> <b>1. Refer to GL-PRO-ASY-017 for verification of connector lock.</b></p> <div><div><b>GOOD</b></div><p>Full Lock</p><div><b>NG</b></div><p>Half Lock</p></div> <div><p>Before pressing</p><p>After pressing</p></div>

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**PARTS:**

1. Assy parts

JIG:

n/a

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

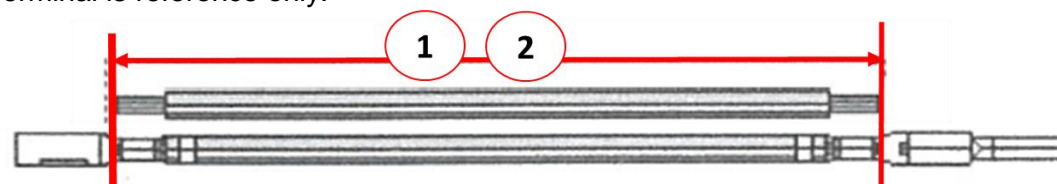
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Offline

Measurement

Note:

1. Measurement point: End of core wire to the end of core wire
2. Terminal is reference only.

**MEASURING  
TAPE****Important reminders and note/s:**

**1. Please use calibrated/verified measuring tape when getting the measurement.**

**2. For Hatsumono, Nakamono and Owarimono.**

**Document reference/s:**

**1. Refer to *WI-PRO-ASY-056* for Sub-assembly Hatsumono Nakamono Owarimono Inspection**

1. No wrong dimension

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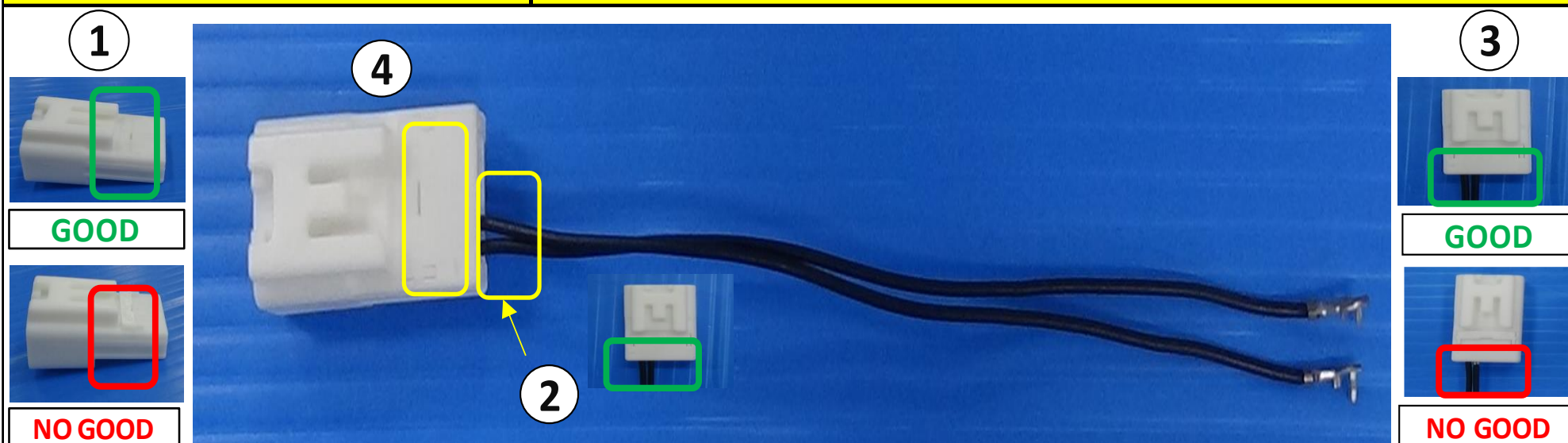
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**PARTS:**

1. Assy parts

JIG:

N/A

**VISUAL INSPECTION/ QUALITY CHECKPOINTS****OFFLINE INSERTION****7M0525-7020B****1 No Unlocked/Half-locked connector****3 No Terminal Backing Out****2 No Wrong insert****4 No Deformed terminal**

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