



WORK INSTRUCTION

Process Name/Title:

OFFLINE ASSEMBLY PROCESS

Effectivity Date:

October 22, 2024

Model code/Part number:

310B / 7M0557-7021B

Customer:

TRJ

Car Model:

TOYOTA RAV4

Validity Date:

n/a

Purpose:



PROTOTYPE



PRE-LAUNCH



MASSPRO

Document No.:

WI-ENG-PDE-1132

Revision No.:

1

Page No.:

1 of 6

PARTS:

1. Connector 6198-0451(W); Black Vinyl tube $\phi 5$ L=273 \pm 3mm; 3. TVSSf 0.3 G-B/W L=549 \pm 3mm

JIG:

1. Insertion jig with switch cover
2. Locking jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

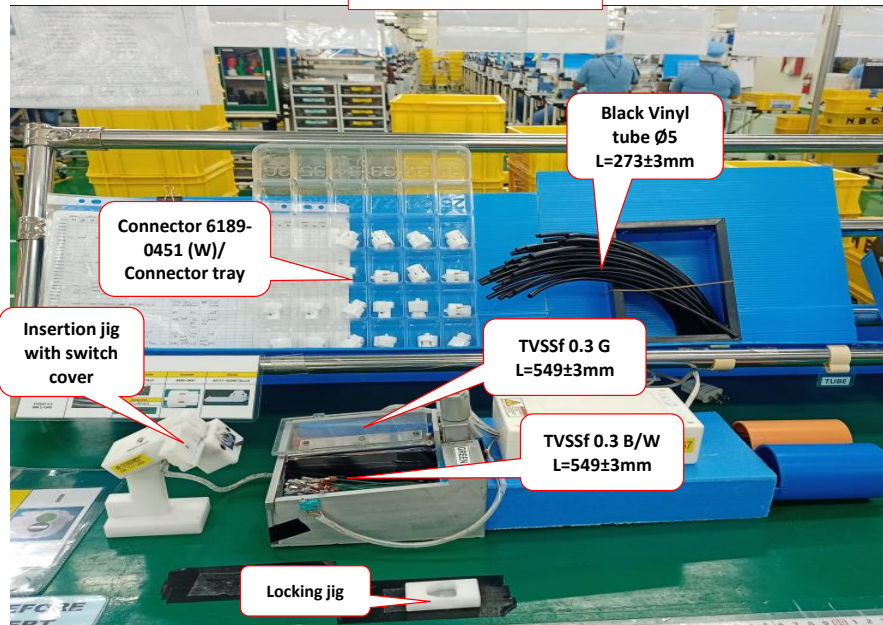
TOOLS/PPE

QUALITY POINTERS

1

Offline

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

Prepared by

Reviewed by

Approved by

Noted by

10/22/24

1

Change pre-launch to mass pro.

A.Hernandez

C. Villanueva

A. Arañes

n/a

10/17/24

0

Initial issue.

A.Hernandez

C. Villanueva

A. Arañes

n/a

Eff. Date

Rev. No

Details of Change

Revised

Reviewed

Approved

Noted

Est. Date:

October 17, 2024

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

DCC Stamp



WORK INSTRUCTION

OFFLINE ASSEMBLY PROCESS

Effectivity Date:

October 22, 2024

Process Name/Title:

Model code/Part number:

310B / 7M0557-7021B

Customer: TRJ

Car Model: TOYOTA RAV4

Validity Date:

n/a

Document No.:

WI-ENG-PDE-1132

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Revision No.:

1

Page No.:

2 of 6

PARTS:		1. Connector 6189-0451 (W)		JIG:	1. Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
2	Offline Connector setting to insertion jig 6189-0451 (W)	<div><div><div>INSERTION JIG WITH SWITCH COVER</div><div><div><div>Insertion jig</div><div>G-wire</div><div>Switch cover</div><div>B/W-wire</div><div>Wire guide</div><div>Holes</div><div>Wire guide</div><div>Button</div></div><div><div>Connector orientation</div><div>Wire Terminal Facing</div></div></div></div><div><div><div><div>L</div><div><div>↑</div><div>Press</div></div></div><div><div>1. Press the lock of insertion jig using left thumb.</div></div></div><div><div><div><div>L</div><div><div>↑</div><div>Press</div></div><div><div>R</div><div><div>↓</div><div>Release</div></div></div><div><div>2. Get the connector 6189-0451 (W) using right hand and insert to insertion jig. Release the lock after insertion. Note: Follow the connector orientation.</div></div></div><div><div><div><div>L</div><div><div>1 2</div><div>RAW G</div></div><div><div>R</div></div></div><div><div><div>Hole</div></div><div><div>1 2</div><div>RAW G</div></div><div><div>R</div></div></div><div><div>3. Push the guide using left hand. The slot for B/W wire will be opened.</div></div></div></div></div><div>n/a</div><td><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>Connector Orientation Illustration</div><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></td></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>Connector Orientation Illustration</div><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>	

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

DCC Stamp



WORK INSTRUCTION

OFFLINE ASSEMBLY PROCESS

Effectivity Date:

October 22, 2024

Process Name/Title:

Model code/Part number:

310B / 7M0557-7021B

Customer: TRJ

Car Model: TOYOTA RAV4

Validity Date:

n/a

Document No.:

WI-ENG-PDE-1132

Purpose:



PROTOTYPE



PRE-LAUNCH




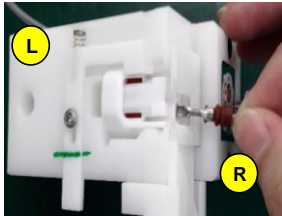
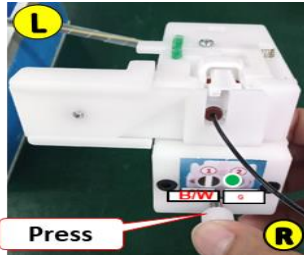
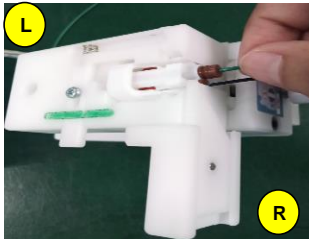
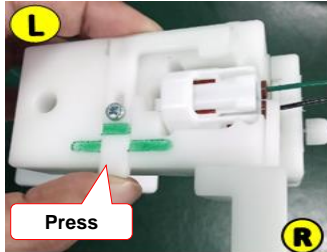
MASSPRO

Revision No.:

1

Page No.:

3 of 6

PARTS:		1. TVSSf 0.3 G-B/W L=549±3mm		JIG:	1. Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
3	Offline Wire insertion to connector 6189-0451 (W)	<div><p>Wire Terminal Facing</p></div> <div><p>1. Get the B/W wire then insert to terminal slot ① using right hand.</p></div> <div><p>2. After insertion of B/W wire press the button using right hand. The slot for G wire will be opened.</p></div> <div><p>3. Get the G wire then insert to terminal slot ② 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 loose insertion 2. No wrong insertion 3. One by one insertion 4. No deformed terminal 5. No wrong wire facing</p> <p>Important reminders/note/s:</p> <p>1. Please hold the wire near terminal during insertion. 2. Insertion must be from left to right. 3. Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.</p> <p>Document reference/s:</p> <p>1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance 2. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</p>

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

DCC Stamp

**WORK INSTRUCTION**

Process Name/Title:

OFFLINE ASSEMBLY PROCESS

Effectivity Date:

October 22, 2024

Validity Date:

n/a

Model code/Part number:

310B / 7M0557-7021B

Customer: TRJ

Car Model: TOYOTA RAV4

Document No.:

WI-ENG-PDE-1132

Purpose:



PROTOTYPE



PRE-LAUNCH



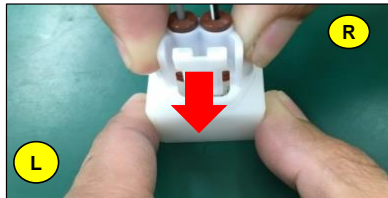
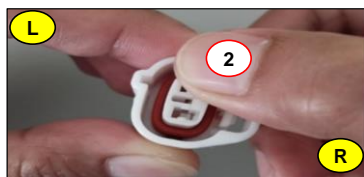
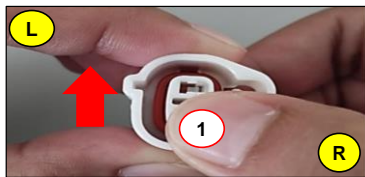





MASSPRO

Revision No.:

1

Page No.:

4 of 6

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

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

DCC Stamp

**WORK INSTRUCTION**

Process Name/Title:

OFFLINE ASSEMBLY PROCESS

Effectivity Date:

October 22, 2024

Model code/Part number:

310B / 7M0557-7021BCustomer: **TRJ**

Car Model:

TOYOTA RAV4

Validity Date:

n/a

Purpose:

☐

PROTOTYPE

☐

PRE-LAUNCH

☒

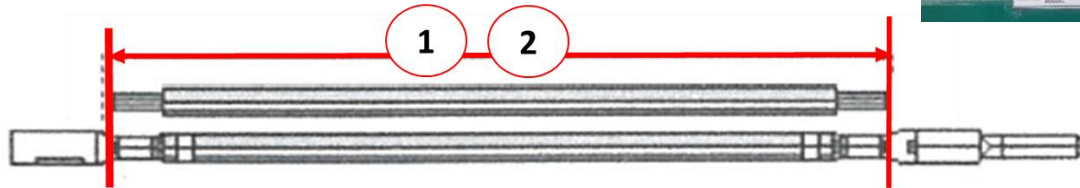

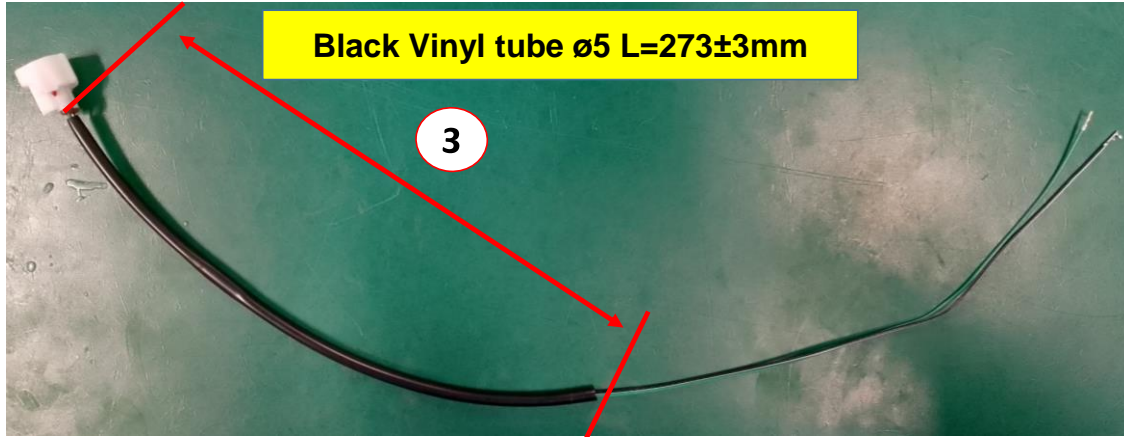
MASSPRO

Revision No.:

1

Page No.:

5 of 6

PARTS:		1. Assy Parts		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
5	Offline	<p>Note:</p> <ol style="list-style-type: none">Measurement point: End of core wire to the end of core wireTerminal is reference only.   <p>MEASURING TAPE</p>  <p>Black Vinyl tube $\varnothing 5$ L=273\pm3mm</p> <p>3</p>			<p>Important reminders and note/s:</p> <ol style="list-style-type: none">Please use calibrated/verified measuring tape when getting the measurement.For Hatsumono, Nakamono and Owarimono. <p>Document reference/s:</p> <ol style="list-style-type: none">Refer to WI-PRO-ASY-056 for Sub-assembly Hatsumono Nakamono Owarimono Inspection <p>1. No wrong dimension</p>

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

DCC Stamp

**WORK INSTRUCTION**

Process Name/Title:

OFFLINE ASSEMBLY PROCESS

Effectivity Date:

October 22, 2024

Validity Date:

n/a

Model code/Part number:

310B / 7M0557-7021BCustomer: **TRJ**

Car Model:

TOYOTA RAV4

Document No.:

WI-ENG-PDE-1132

Purpose:



PROTOTYPE



PRE-LAUNCH



MASSPRO

Revision No.:

1

Page No.:

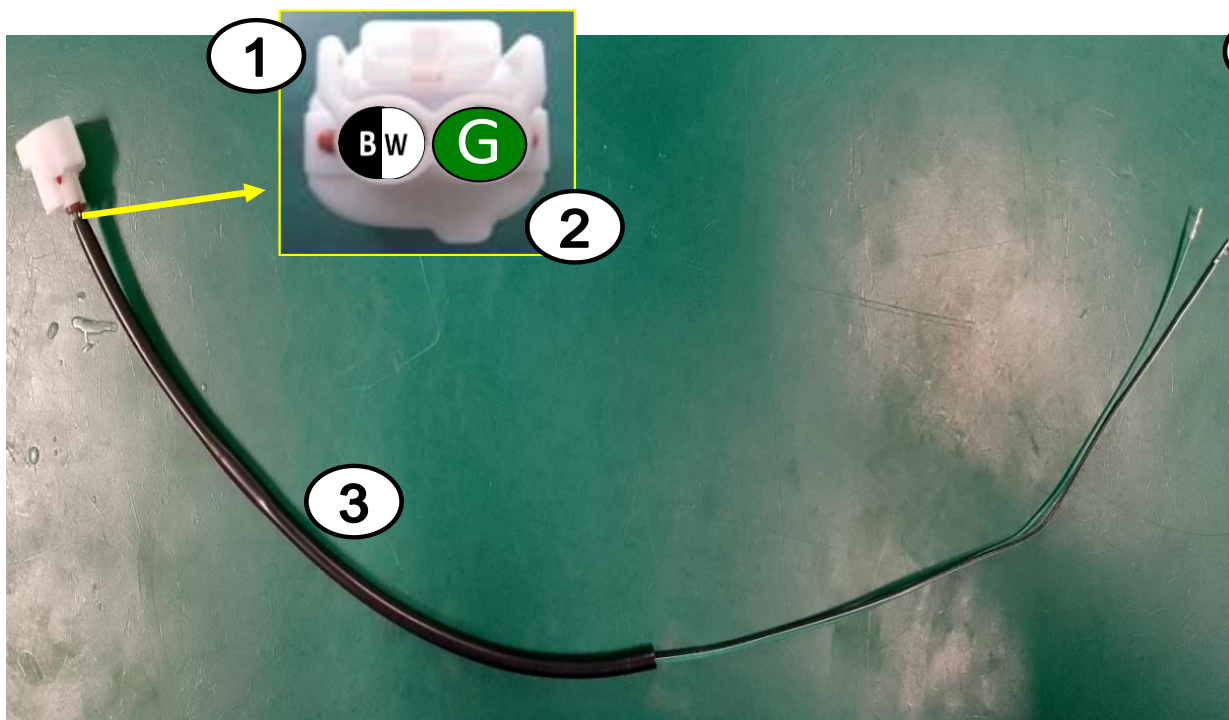
6 of 6

PARTS:

n/a

JIG:

n/a

VISUAL INSPECTION/ QUALITY CHECKPOINTS**OFFLINE INSERTION****7M0557-7021B**

- ① **No Unlocked/Half-locked connector**
- ② **No Wrong Insert**
- ③ **No Missing SV tube (Vinyl)**
- ④ **No Terminal Backing Out**
- ⑤ **No Deformed Terminal**

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

DCC Stamp