



WORK INSTRUCTION

Process Name/Title:

TAPING ASSEMBLY PROCESS

Effectivity Date:

July 10, 2024

Model code/Part number:

990B / 7N0143-7020B

Customer:

TRJ

Car Model:

TOYOTA PRIUS

Document No.:

WI-ENG-PDE-464A

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

5

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PARTS:

1. Connector 6189-0451 (W); MRSW CP TVSSf 0.3 Wires G L=607±3mm; B/W L=607±3mm; Black Corrugated tube Ø7, L= 248±2mm (no slit); Black Corrugated tube Ø7, L= 131±3mm (no slit); Black tape

JIG:

1. Insertion jig with switch cover
2. Locking jig
3. Terminal Cover Jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

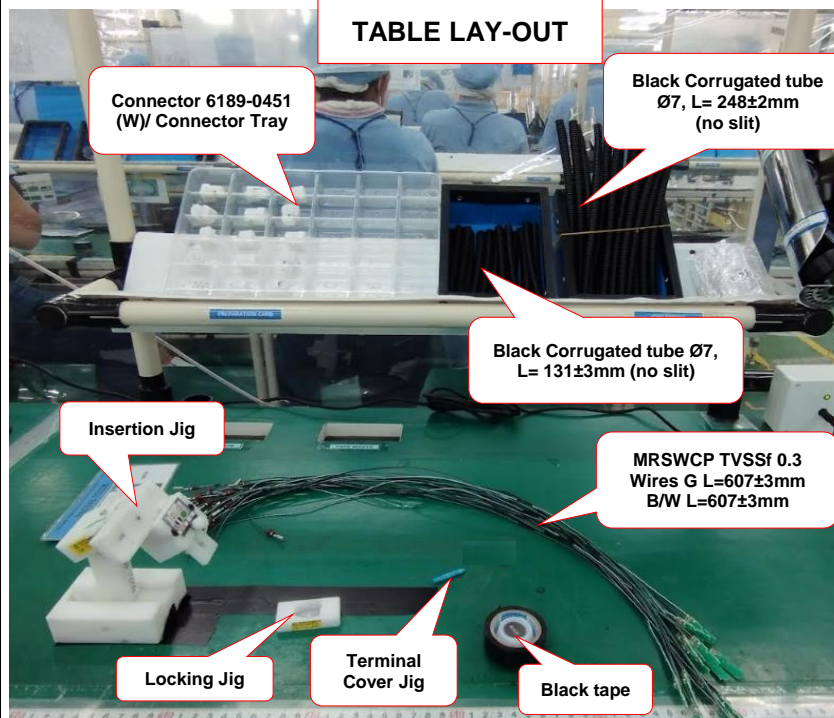
TOOLS/PPE

QUALITY POINTERS

1

P1

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.

Document reference/s:

1. Refer to **WI-PRO-CNC-017** for Wire and Strip length Tolerance.
2. Refer to **WI-PRO-KIT-005** for Wire taping without Vinyl Tube

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

Revision History

Prepared by

Reviewed by

Approved by

Noted by

Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Est. Date:	April 13, 2022
07/10/24	5	Transfer Taping 2 Black COT (no slit) to wire near Taping 1 and PCB to P2 (WI-ENG-PDE-464B). Inclusion of Car model "TOYOTA PRIUS". Improved Visual inspection/Quality checkpoints.	D.Castillo	C.Villanueva	A. Arañes	N/A		
12/12/22	4	Inclusion of Quality checkpoints.	M.Ariola	J.Loterte	C.Villanueva	A. Arañes		
08/13/22	3	Apply some improvements in work procedure/illustration on pg.3 procedure no.2 (measurement from end of COT up to edge of hotmelted wires 51±3mm then continue the taping process using both hands). Change of tolerance of 26mm+/-3mm to +3/-1 as immediate action for encountered NG dimension from end of tape to PCB in process no.3. Improve quality pointers. Change table lay-out from ATO to SAKI process.	M.Ariola	J.Loterte	C.Villanueva	A. Arañes		

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PARTS:		1. Assy parts	3. Black corrugated tube $\phi 7$ L=248 \pm 2mm	JIG:	1. Terminal cover jig
		2. Black Corrugated tube $\phi 7$ L=131 \pm 3mm (No slit)			
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
2	P1	<p>Wire insertion to Black Corrugated tube $\phi 7$ L=131\pm3mm and Black corrugated tube $\phi 7$ L=248\pm2mm</p> <div><p>1. Get the terminal cover jig using right hand then insert to both terminals (G-B/W wires) using right hand.</p></div> <div><p>2. Get the corrugated tube $\phi 7$ L=131\pm3mm using right hand then insert the G-B/W wires using left hand.</p></div> <div><p>3. Get the corrugated tube $\phi 7$ L=248\pm2mm using right hand then insert the G-B/W wires using left hand.</p></div> <div><p>4. After insertion, remove the cover jig using right hand.</p></div>		<div>TERMINAL COVER JIG</div> 	1. No wrong usage of parts 2. No damaged rubber seal

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PARTS:

1. MRSW CP TVSSf 0.3 wires G-B/W L=607±3mm
2. Black Corrugated tube Ø7 L=131±3mm (no slit)

3. Black tape

JIG:

N/A

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

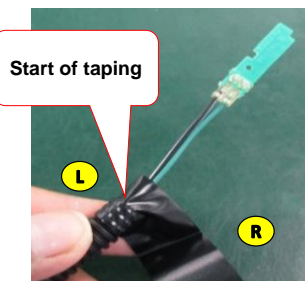
TOOLS/PPE

QUALITY POINTERS

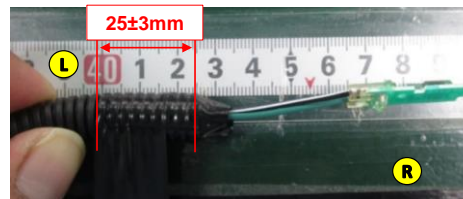
3

P1

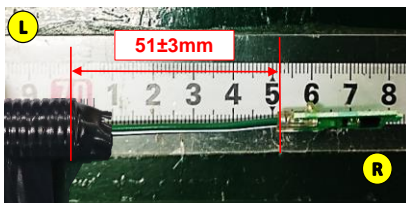
Taping 1
Black COT to wire near
PCB



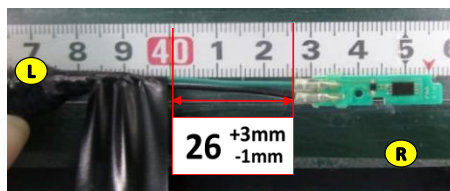
1. Hold the assy parts using left hand, get **Black tape** then conduct pre-taping using both hands.



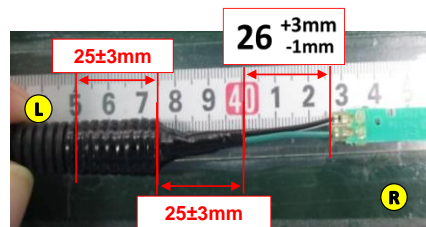
2. Confirm measurement of **25±3mm** from end of tape up to end of COT then continue the taping process using both hands.



2. Confirm measurement of **51±3mm** from COT to hotmelted wire then continue the taping process using both hands.



4. Confirm measurement of **26+3/-1mm** from end of tape up to edge of PCB then continue the taping process using both hands.



5. After taping, check the measurement and taping condition.

Measuring tape



Important reminders/note/s:

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

1. No flip-out tape
2. No peel-off tape
3. No loose tape
4. No missing tape
5. No wrong dimension
6. No wrong use of tape

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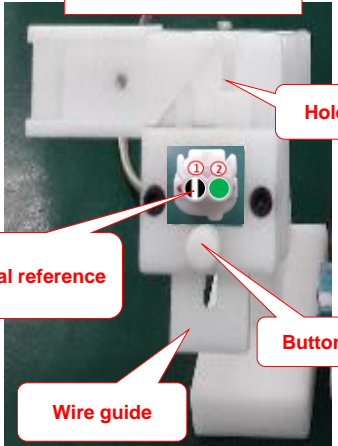
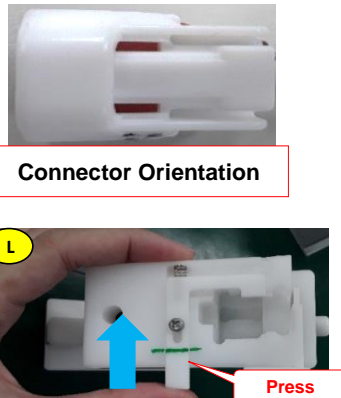
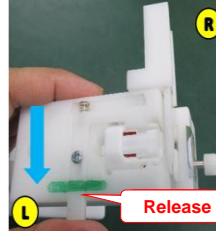
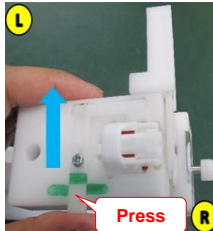
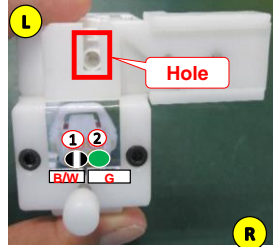

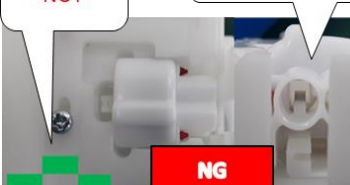
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PARTS:	1. Connector 6189-0451 (W)		JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
4	P1 Connector setting to insertion jig 6189-0451 (W)	<div><div><div>INSERTION JIG</div></div><div><div>Connector Orientation</div><div>1. Press the lock of insertion jig using left thumb.</div></div><div><div></div><div><div>3. Push the guide using right hand. The slot for B/W wire will be opened.</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>	N/A	<div><div>1. Use the provided jig per model 2. No wrong orientation of connector 3. No wrong use of connector 4. No damaged connector</div><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</div><div>1 hole is open</div><div>NG</div></div></div></div>

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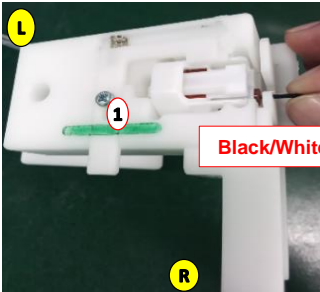
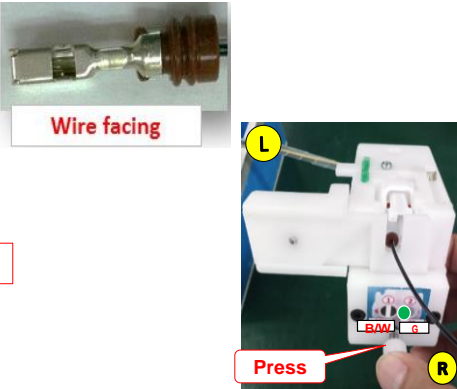
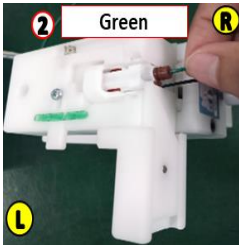
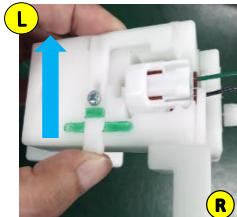
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PARTS:	1. Connector 6189-0451 (W)			JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
5	P1	<div><div></div><div></div><div></div><div></div><div>1. Get the B/W wire then insert to terminal slot 1 using right hand.</div><div>2. After insertion of B/W wire press the button using right hand. The slot for G wire will be open.</div><div>3. Get the G wire then insert to terminal slot 2 using right hand.</div><div>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.</div></div> <td>N/A</td> <td><div>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deformed terminal 5. No wrong wire facing</div><div>Important reminders/Note/s: 1. Please hold the wire near terminal during insertion. 2. Insertion of wire 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.</div><div>Document reference/s: 1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</div></td>		N/A	<div>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deformed terminal 5. No wrong wire facing</div> <div>Important reminders/Note/s: 1. Please hold the wire near terminal during insertion. 2. Insertion of wire 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.</div> <div>Document reference/s: 1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</div>

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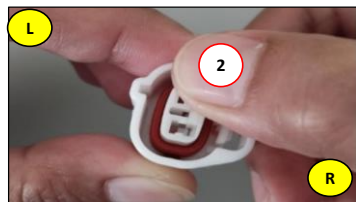
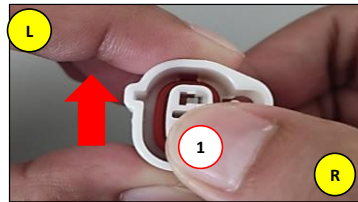





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PARTS:	1. Assy parts		JIG:	1. Locking jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
6	P1 Connector Lock	<div></div> <div><p>1. Put the connector into locking jig using right hand. Then press to lock 2x using both hands.</p></div> <div></div> <div><p>2. Ensure that connector is in locked condition by slide touching the connector lock based on the sequence illustrated.</p></div> <div><div><p>BEFORE PRESSING</p><p>AFTER PRESSING</p></div><div><p>GOOD</p><p>NG</p></div><div><p>Check the double lock deformation</p></div></div> <div><div>LOCKING JIG</div></div> <div><p>Important reminders/Note/s:</p><p>1. MANUAL LOCKING MAY CAUSE DAMAGED CONNECTOR.</p><p>1. Must be fully inserted 2. No double lock deformation 3. No Unlock/Half-locked of connector</p></div>		

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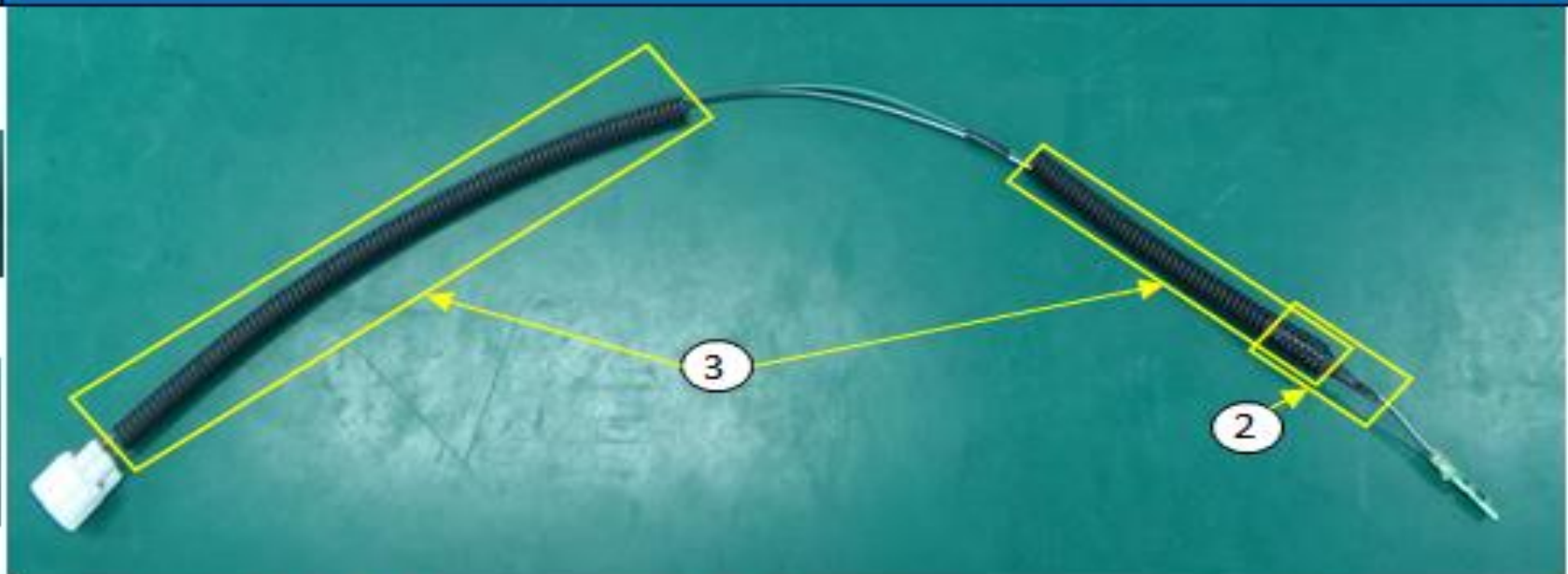
1. Assy parts

JIG:

N/A

VISUAL INSPECTION/ QUALITY CHECKPOINTS**P1****7N0143-7020B**

①

**GOOD****NG**

①

**No Unlock/Halflock
connector**

②

**No Missing tape
COT to wire near PCB**

③

**No Missing COT
L=131mm and L=248mm**

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