



## WORK INSTRUCTION

Process Name/Title:

## TAPING ASSEMBLY PROCESS

Effectivity Date:

October 18, 2024

Model code/Part number:

310D

/

7N0199-7020B

Customer:

TRJ

Car Model:

TOYOTA-RAV4

Document No.:

WI-ENG-PDE-1061A

Purpose:



PROTOTYPE



PRE-LAUNCH



MASSPRO

Revision No.:

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## PARTS:

1. Assy parts; Connector 6098-3810 (W); Black Corrugated tube  $\phi 5$  L=74 $\pm$ 3mm (no slit); AVSSf 0.3 wires Green L=683 $\pm$ 3mm; Black tape; Black Corrugated tube  $\phi 5$  L=470 $\pm$ 4mm (no slit)

JIG:

1. Insertion jig
2. Terminal cover jig
3. Locking jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

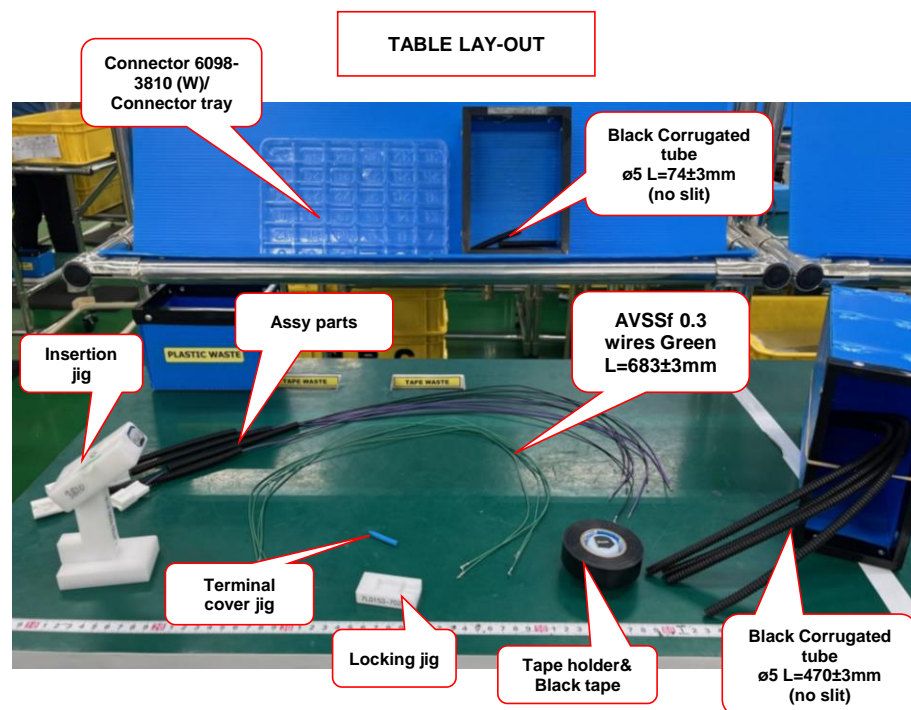
TOOLS/PPE

QUALITY POINTERS

1

P1

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**

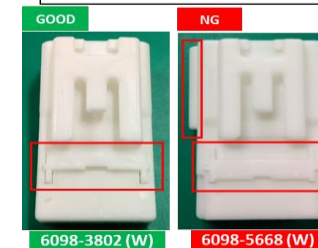
For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.

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

**Document references:**

1. Refer to WI-ENG-PDE-1018 for Offline Assembly process
2. Refer to WI-PRO-CNC-017 for Wire Strip length tolerance.

## CONNECTOR ILLUSTRATION



## Revision History

Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Prepared by	Reviewed by	Approved by	Noted by
10/18/24	1	Change purpose from Pre-launch to Masspro.	M. Ariola	C.Villanueva	A. Arañes	n/a	M. Ariola	C.Villanueva	A. Arañes	n/a
09/24/24	0	Initial issue	M. Ariola	C.Villanueva	A. Arañes	n/a	M. Ariola	C.Villanueva	A. Arañes	n/a

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PARTS:		1. Connector 6098-3810 (W)		JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
2	P1	<div><div><div>Insertion Jig</div></div><div><div>Insertion Jig Orientation</div></div><div><div>Connector Orientation</div></div></div> <div><div><div>L</div></div><div><div>L</div></div><div><div>L</div></div></div> <div><div></div><div>3. Check the holes/terminal slot for <b>G wires</b>.</div></div>		n/a	<div><div>CONNECTOR ILLUSTRATION</div><div><div>GOOD</div></div><div><div>NG</div></div><div>6098-3810 (W)</div><div>6098-5677 (W)</div></div>

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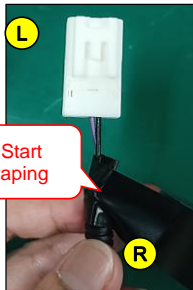
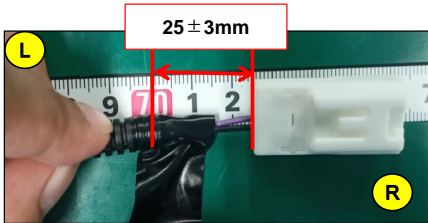
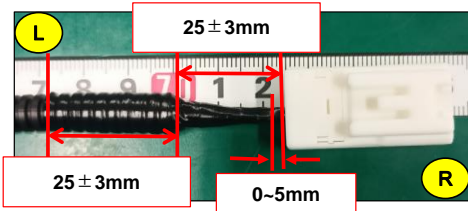

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PARTS:		1. Assy parts 2. Black tape		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
3	P1 Taping 1 Black Corrugated tube to wire near connector	 <p>1. Get the <b>Black tape</b>, hold the assy parts using left hand then start taping using both hands.</p>  <p>2. Measure the end of COT up to edge of connector <b>25±3mm then continue the taping process using both hands.</b></p>  <p>3. After taping, check the measurement and taping condition.</p>		<p><b>MEASURING TAPE</b></p> 	<p><b>Important reminders/Notes/:</b></p> <p><b>1. Please use calibrated/verified measuring tape when getting the measurement.</b></p> <p>1. No loose tape 2. No flip-out tape 3. No peel-off tape 4. No wrong use of tape 5. No wrong dimension</p>

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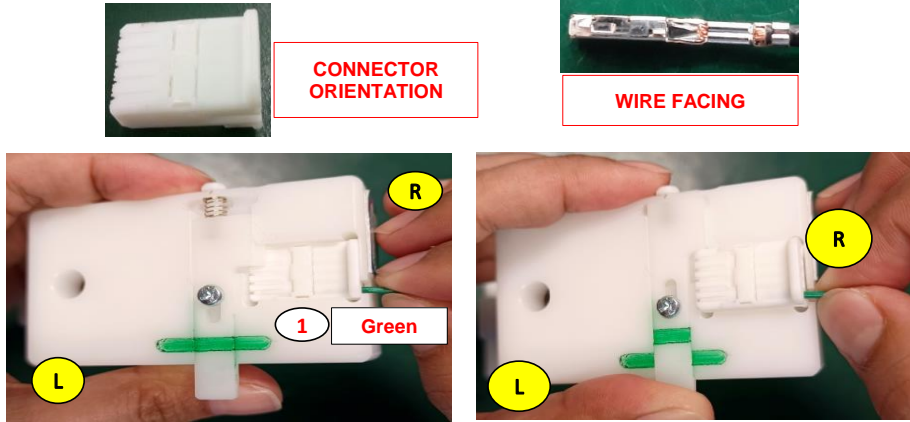
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<b>PARTS:</b>		1. Black Corrugated tube $\phi 5$ L=74 $\pm$ 3mm (no slit) 2. AVSSf 0.3 Green wire L=683 $\pm$ 3mm		JIG:	n/a
<b>NO.</b>	<b>PROCESS NAME</b>	<b>WORK PROCEDURE/ ILLUSTRATION</b>		<b>TOOLS/PPE</b>	<b>QUALITY POINTERS</b>
4	Wire Insertion to Black Corrugated tube $\phi 5$ L=74 $\pm$ 3mm (no slit)	 <p>1. Get the <b>Black Corrugated tube <math>\phi 5</math> L=74<math>\pm</math>3mm (no slit)</b> using left hand and get <b>AVSSf 0.3 Green wire L=683<math>\pm</math>3mm</b> then insert using right hand.</p>		n/a	<b>Document references:</b> <b>1. Refer to WI-PRO-CNC-017 for Wire Strip lenght tolerance.</b>  1. No wrong usage of parts. 2. No deformed terminal
5	P1  Wire insertion to Connector 6098-3810 (W)	 <p><b>CONNECTOR ORIENTATION</b></p> <p><b>WIRE FACING</b></p> <p>1. Get the <b>Green wire</b> and insert to <b>Slot 1</b> of connector using right hand. Conduct <b>2x</b> push pull after wire insertion.</p> <p>2. 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>			1. No wrong use of connector 2. No damaged connector 3. No wrong insertion of wires 4. No loose insertion 5. One by one insertion 6. No deformed terminal 7. No wrong wire facing  <b>Important reminder's/Note:</b> <b>1. Please hold the wire near terminal.</b>  <b>2. Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.</b>  <b>Document references:</b> <b>1. Refer to WI-PRO-CNC-017 for Wire Strip lenght tolerance.</b>  <b>2. Refer to GL PRO-ASY-029 for pull-push-pull-push procedure</b>

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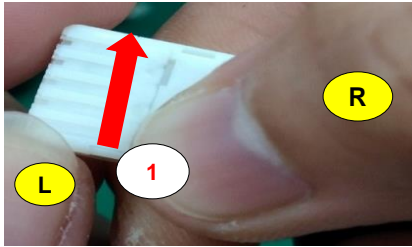
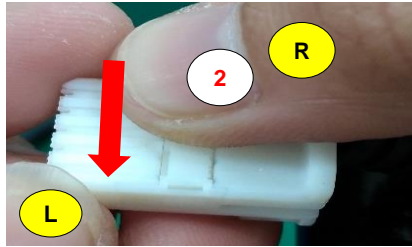



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PARTS:	1. Assy parts			JIG:	1. Locking jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
6	P1 Connector lock	<div data-bbox="566 395 1021 687"></div> <div data-bbox="1043 453 1462 622"><p>1. Put the connector into locking jig using right hand then press <b>2x</b> using both hands. Touch the connector lock to confirm if properly locked.</p></div> <div data-bbox="582 707 992 954"></div> <div data-bbox="996 707 1406 954"></div> <div data-bbox="600 967 1404 1059"><p>2. Ensure that connector is in locked condition by slide touching the connector lock based on the sequence illustrated.</p></div> <div data-bbox="692 1102 967 1240"></div> <div data-bbox="748 1256 911 1284" data-label="Caption"><b>Before Pressing</b></div> <div data-bbox="1043 1102 1332 1240"></div> <div data-bbox="1120 1256 1270 1284" data-label="Caption"><b>After Pressing</b></div>		<div data-bbox="1509 778 1697 810"><b>LOCKING JIG</b></div> <div data-bbox="1496 825 1711 935"></div>	<p><b>Important reminders/Note/s:</b></p> <p><b>1. Manual locking may cause damaged connector lock</b></p> <p>1. No wrong usage of parts 2. No deformed terminal</p>

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PARTS:		1. Assy parts 2. Black Corrugated tube $\varnothing 5$ L=470 $\pm$ 3mm (no slit)		JIG:	1. Terminal cover jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
7	P1	<div><div></div><div><div></div><div></div></div></div> <div>1. Combine the <b>B-V-G wires</b> using both hands. Get the terminal cover jig using right hand then insert to <b>B-V-G wires</b> both hands.</div> <div>2. Get the Corrugated tube <b><math>\varnothing 5</math>, L=470<math>\pm</math>3mm</b> using right hand then insert to <b>B-V-G wires</b> using both hands.</div> <div>3. After insertion, remove the terminal cover jig using right hand.</div>		<div>TERMINAL COVER JIG</div> 	1. No wrong usage of parts. 2. No deformed terminal

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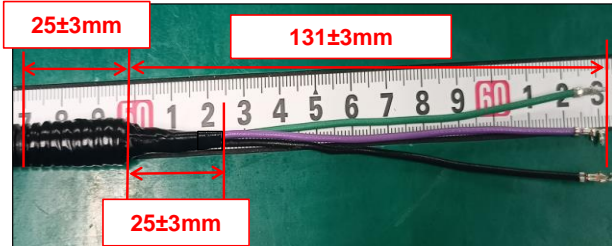

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PARTS:		1. Assy parts 2. Black tape		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
8	P1 Taping 2 Black corrugated tube to wire near terminal	<div><div>1. Hold the assy parts using left hand. Get <b>Black tape</b> using right hand and start pre-taping.</div></div> <div><div>2. Measure from COT to terminal pointed tip <b>131±3mm</b> using both hands and continue the taping process.</div></div> <div><div>3. After taping, check the measurement and taping condition.</div></div>		<div>MEASURING TAPE</div> 	1. No loose tape 2. No flip-out tape 3. No peel-off tape 4. No wrong use of tape 5. No wrong dimension

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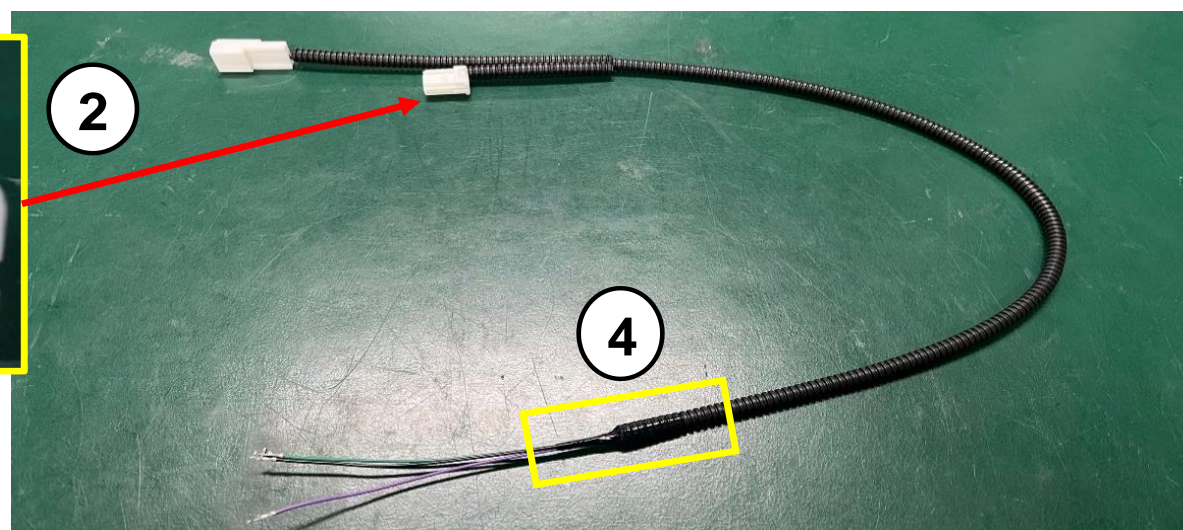
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PARTS: 1. Assy parts

JIG:

n/a

**VISUAL INSPECTION/ QUALITY CHECKPOINTS****TAPING - P1****7N0199-7020B****1** No **Unlocked/half-locked connector****3** No **Terminal Backing****2** No **Wrong insert****4** No **Missing tape**

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