



WORK INSTRUCTION

Process Name/Title:

TAPING ASSEMBLY PROCESS

Effectivity Date:

September 13, 2024

Model code/Part number:

010B / 7L0032-7024A

Customer:

TRQSS

Car Model:

TOYOTA AVALON

Document No.:

WI-ENG-PDE-1033

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

1

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PARTS:

1. Connector 6188-0407 (W); TVSSf 0.3 wires G-B/W L=571mm±3mm; Black Corrugated tube Ø5 L=376±4mm (no slit); Black VM tube (Sunprene) Ø5 L=125±3mm

JIG:

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

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

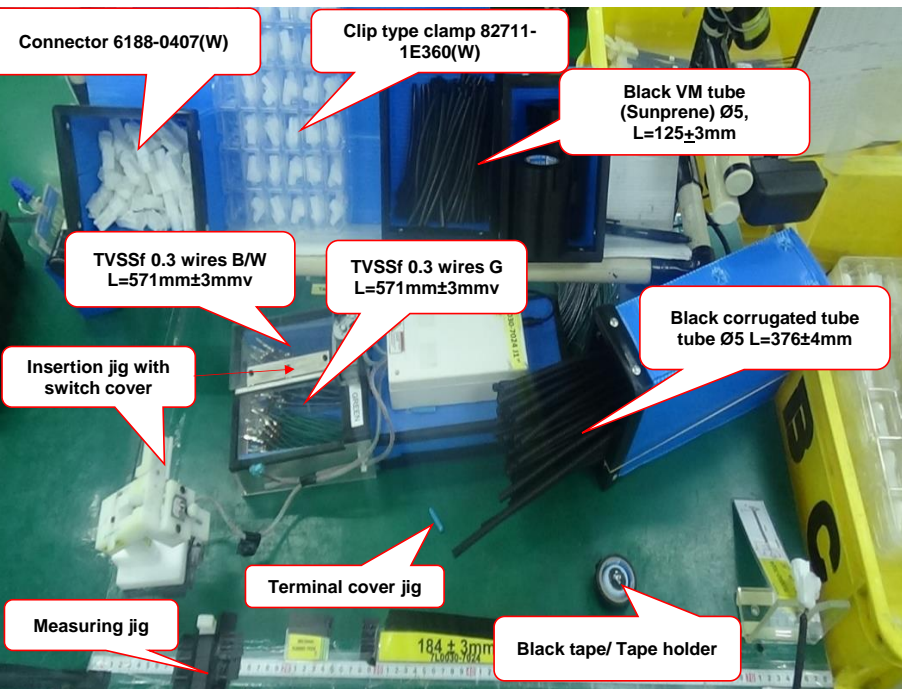
QUALITY POINTERS

1

P1

Table Lay-out

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**

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
09/13/24	1	Change from Pre-launch to Masspro.	M. Ariola	C. Villanueva	A.Arañes	n/a				
09/10/24	0	Initial issue.	M. Ariola	C. Villanueva	A.Arañes	n/a	M. Ariola	C. Villanueva	A.Arañes	n/a
Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Est. Date:	September 10, 2024		

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PARTS:	1. Connector 6188-0407 (W)		JIG:	1. Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
2	P1 Connector setting to Insertion jig 6188-0407 (W)	<div><div><div>Insertion jig with switch cover</div><div>Insertion jig</div><div>Visual reference</div><div>Switch cover</div><div>Lock</div><div>I-mark</div><div>Holes</div><div>Connector orientation</div></div><div><div><div>L</div><div>↑</div><div>Press</div><div>1. Press the lock of insertion jig using left thumb.</div><div><div></div><div></div></div></div><div><div>L</div><div>↑</div><div>Press</div><div>2. Insert the connector 6188-0407 (W) into jig using right hand and release the lock. <i>Note: Refer to above illustration for correct setting.</i></div><div><div></div><div></div></div></div><div><div>L</div><div>↓</div><div>Release</div><div>3. Check the holes/terminal slot for B/W wire.</div><div><div></div><div></div></div></div></div></div> <div>N/A</div> <td><div>1. Use the provided jig per model 2. No wrong orientation of connector</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></td>	<div>1. Use the provided jig per model 2. No wrong orientation of connector</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>	

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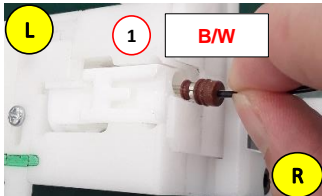
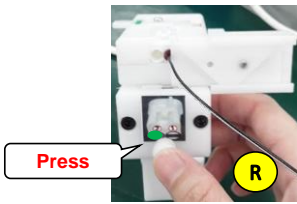
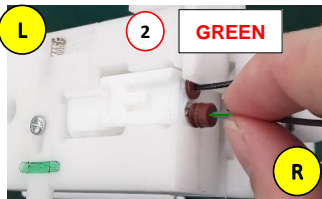
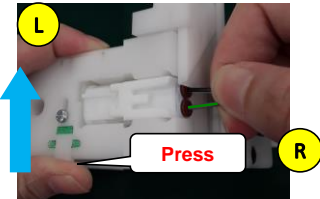
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PARTS:		1. TVSSf 0.3 wires G L=571mm±3mm, B/W L=571mm±3mm		JIG:	1. Insertion jig 2. Locking jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
3	P1	<div><p>Wire facing</p></div> <div><p>1. Get Black and white wire then insert to terminal slot ① using right hand.</p></div> <div><p>2. Push the button after insertion. Hole for Green wire will be open.</p></div> <div><p>3. Get Green 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. Make sure wires are properly inserted.</p> <p>Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.</p> <p>2. Please hold the wire near terminal during insertion.</p> <p>Document reference/s:</p> <p>1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance.</p> <p>2. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</p>

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PARTS:	1.Clamp 82711-1E360 (W) Connector 6188-0407 (W)2.		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
4	P1 Clamp attachment (clip type clamp)	<div data-bbox="613 568 936 895"></div> <div data-bbox="976 692 1055 839"></div> <div data-bbox="1093 572 1420 887"></div> <div data-bbox="555 911 1464 1054"><p>1. Hold the connector using left hand, get the clip type clamp 82711-1E360 (W) then insert the clamp using right hand. Note: Sound will be heard if properly inserted.</p></div>	N/A	1. Must be fully inserted <div data-bbox="1776 799 2114 852">CLIP CLAMP ILLUSTRATION</div> <div data-bbox="1744 903 1852 963">GOOD</div> <div data-bbox="1852 855 2114 1023"></div> <div data-bbox="1899 1015 2063 1046">82711-1E360 (W)</div> <div data-bbox="1744 1102 1852 1163">NG</div> <div data-bbox="1852 1062 2114 1222"></div> <div data-bbox="1899 1214 2063 1246">82711-12B10 (W)</div>

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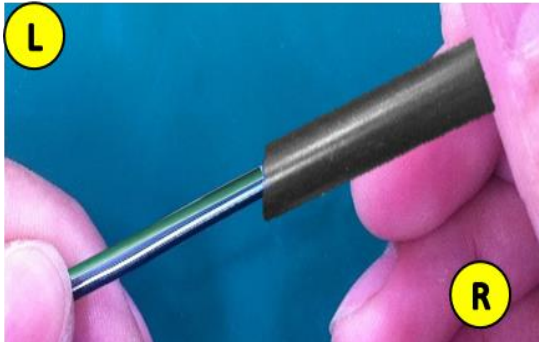
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PARTS:		1. Corrugated tube Ø5 L=376±4mm (no slit) 2. Assy parts		3. Black VM tube (Sunprene) Ø5 L=125±3mm		JIG:	1. Terminal Cover jig
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
4	P1	Wire Insertion to Corrugated tube Ø5 L=376±4mm (no slit)	<div><div></div><div>1. Get the terminal cover jig using right hand then insert the G and B/W wires.</div><div></div><div>2. Get the Corrugated Ø5 L=376±4mm (no slit) using right hand and insert the G and B/W wires</div><div></div><div>3. After insertion, remove the terminal cover jig using right hand.</div></div>			<div>TERMINAL COVER JIG</div> 	1. No wrong use of parts 2. No deformed terminal
5		Wire insertion to Black Sunprene tube Ø5 L=125±3mm	<div></div> <div>1. Get the VM tube (Sunprene) Ø5 L=125±3mm using right hand then insert the Green and Black/White wire.</div>			N/A	

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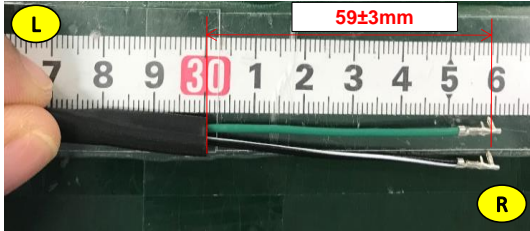
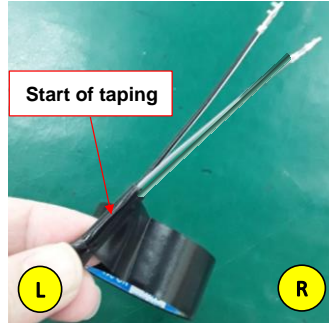
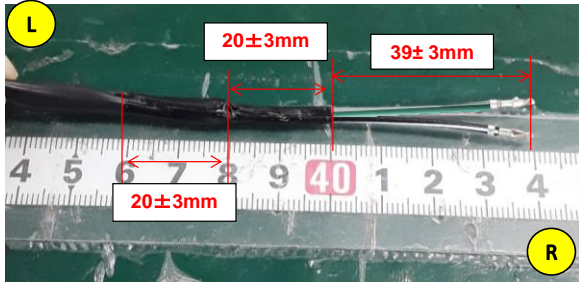

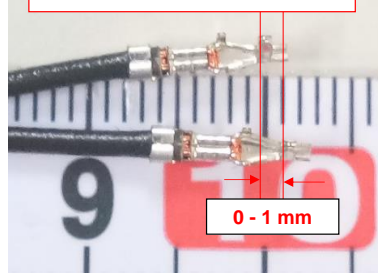
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PARTS:		1. Black tape 2. Assy parts	JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
6	P1 Taping (1) VM tube (Sunprene) to wire near terminal	<div><p>1. Measure the end of the VM tube (Sunprene) up to the end of the terminal pointed tip 59mm using both hands.</p></div> <div><p>2. Hold the VM tube (Sunprene) using left hand then start taping using right hand.</p></div> <div><p>3. After taping, check the measurement, alignment and tape condition.</p></div>	<div><p>Measuring tape</p></div>	<div><p>1. No loose tape 2. No peel-off tape 3. No flip-out tape 4. No wrong use of tape 5. No wrong dimension</p><p>Important reminders/note/s: 1. Please use calibrated/verified measuring tape when getting the measurement.</p></div> <div><p>Wire alignment tolerance</p><p>0 - 1 mm</p></div>

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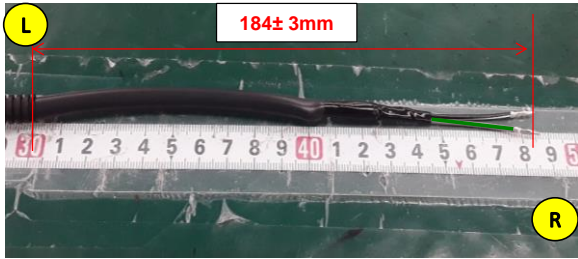
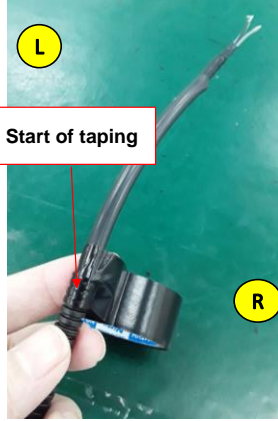
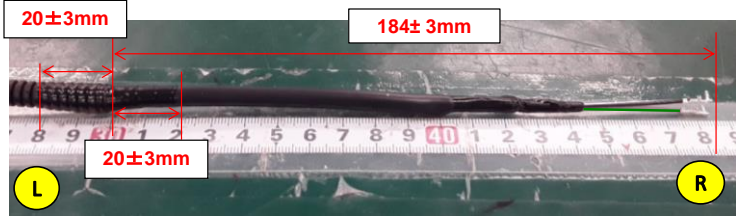

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PARTS:		1. Black tape 2. Assy parts	JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
7	P1 Taping (2) Corrugated tube to VM tube (Sunprene)	<div><p>1. Measure the end of the corrugated tube up to the end of the terminal pointed tip 184mm.</p></div> <div><p>2. Hold corrugated tube using left hand then start taping using right hand.</p></div> <div><p>3. After taping, check the measurement, alignment and tape condition.</p></div>	<div></div>	<p>Important reminders/note/s:</p> <p>1. Please use calibrated/verified measuring tape when getting the measurement.</p> <p>1. No loose tape 2. No peel-off tape 3. No flip-out tape 4. No wrong use of tape 5. No wrong dimension</p>

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PARTS:

1. Black tape
2. Assy parts

JIG:

n/a

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

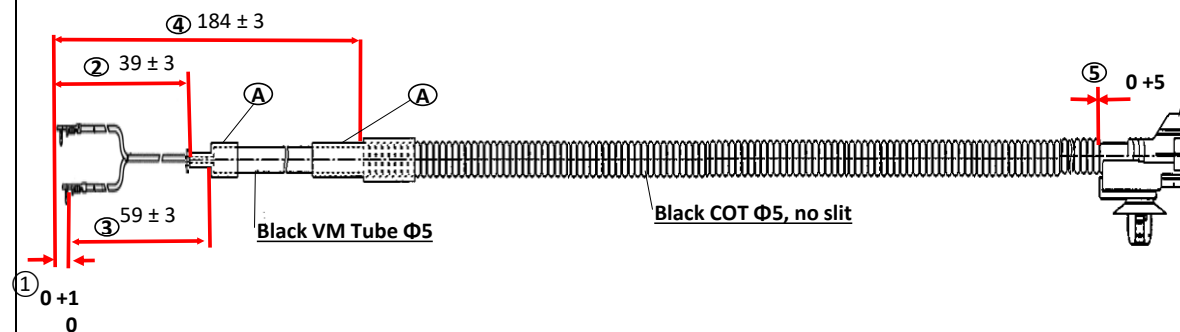
TOOLS/PPE

QUALITY POINTERS

8

P1

Measurement



WIRE TYPE TABLE

NO.	COLOR	WIRE TYPE
1	G	AVSS 0.3f
2	B/W	AVSS 0.3f

NOTE:

Ⓐ Taping (B)

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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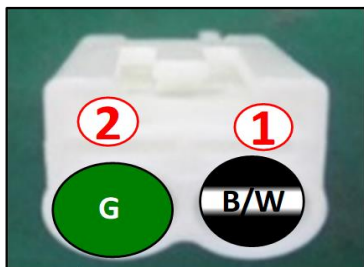
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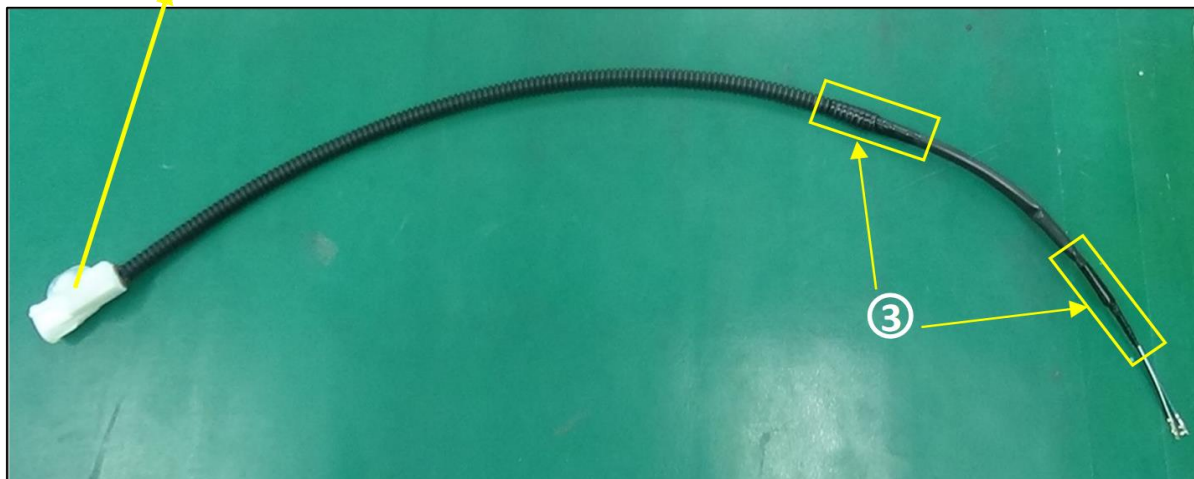
1. Assy parts

JIG:

n/a

VISUAL INSPECTION/QUALITY CHECKPOINTS**TAPING - P1****7L0032-7024A**

②

① **No Wrong insert**② **No Missing tape**③ **No Deformed Terminal**④ **No Terminal Backing out**

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