



## WORK INSTRUCTION

Process Name/Title:

## TAPING ASSEMBLY PROCESS

Effectivity Date:

June 3, 2024

Model code/Part number:

010B / 7L0032-7024

Customer:

TRQSS

Car Model:

TOYOTA AVALON

Document No.:

WI-ENG-PDE-401A

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

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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

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

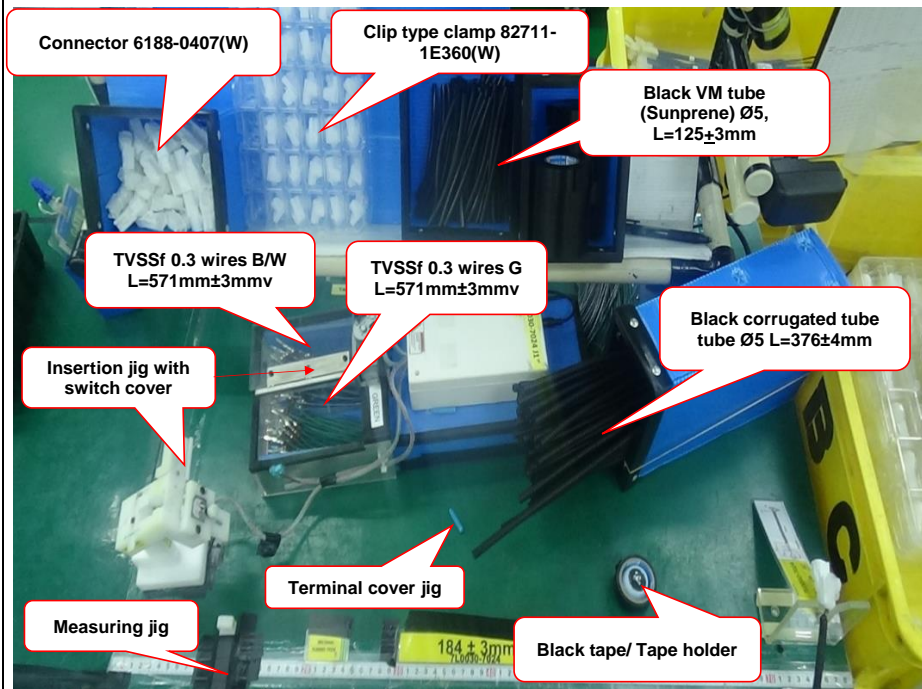
QUALITY POINTERS

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
06/03/24	4	Improve measurement and visual inspection/ quality checkpoints.	A.Hernandez	C. Villanueva	A. Arañes	n/a				
06/03/23	3	Removal of connector lock process, improvement due to QC claim (Unlock connector). Integrate the locking jig to Assembly jig	D. Castillo	J. Loterte	C. Villanueva	A.Arañes				
03/22/23	2	Standardized tube description: VM tube (Sunprene); Inclusion of Quality Checkpoints on page no.7 due to documents process improvements.	M.Ariola	J. Loterte	C. Villanueva	A.Arañes	A.Hernandez	C. Villanueva	A.Arañes	n/a
							Est. Date:	February 14, 2022		

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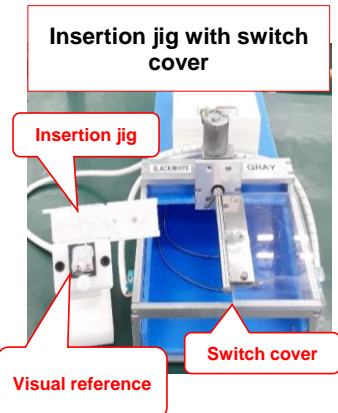
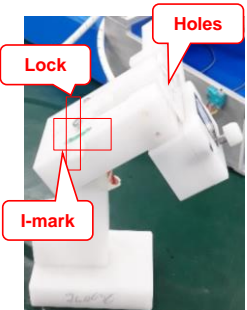

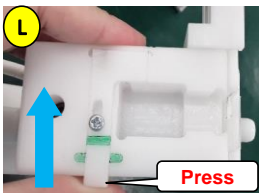
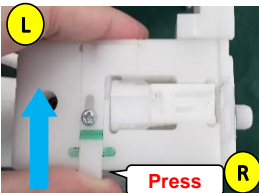

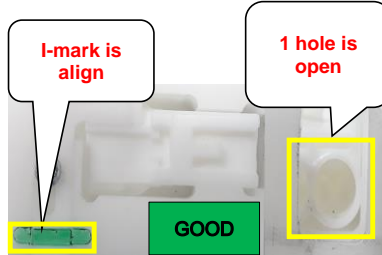
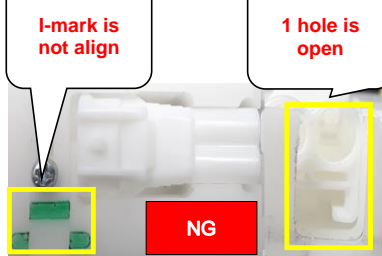
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PARTS:		1. Connector 6188-0407 (W)		JIG:	1. Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
2	P1	<p>Connector setting to Insertion jig 6188-0407 (W)</p>    <p>1. Press the lock of insertion jig using left thumb.</p>  <p>2. Insert the connector 6188-0407 (W) into jig using right hand and release the lock.</p>  <p>Note: Refer to above illustration for correct setting.</p>  <p>3. Check the holes/terminal slot for B/W wire.</p>		N/A	<p>1. Use the provided jig per model No wrong orientation of connector</p> <p>2.</p> <p><b>Connector Orientation Illustration</b></p>  

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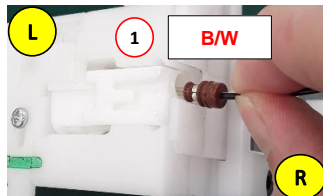
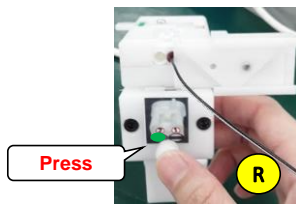
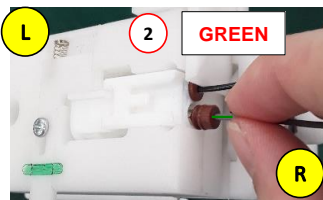
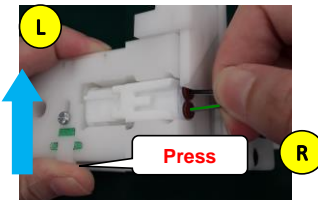
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PARTS:		1. TVSSf 0.3 wires G L=571mm±3mm, B/W L=571mm±3mm		JIG:	1. Insertion jig 2. Locking jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
3	P1	<div><div><p>Wire facing</p></div><div><p>1. Get <b>Black and white wire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

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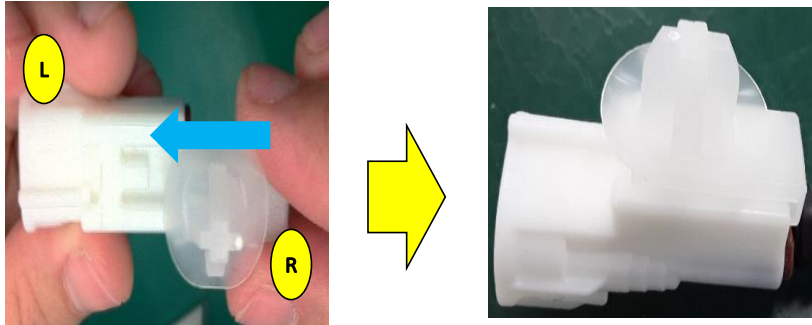
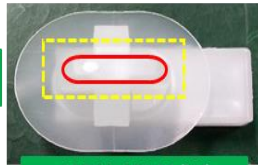
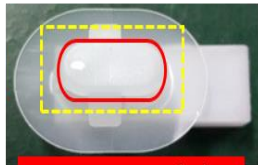
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PARTS:		1.Clamp 82711-1E360 (W) Connector 6188-0407 (W)		2.	JIG:	N/A
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
4	P1	Clamp attachment (clip type clamp)	<div></div> <div>1. Hold the connector using left hand, get the clip type clamp <b>82711-1E360 (W)</b> then insert the clamp using right hand. <i>Note: Sound will be heard if properly inserted.</i></div>		N/A	<div>1. Must be fully inserted</div> <div>CLIP CLAMP ILLUSTRATION</div> <div><div>GOOD</div><div>82711-1E360 (W)</div></div> <div><div>NG</div><div>82711-12B10 (W)</div></div>

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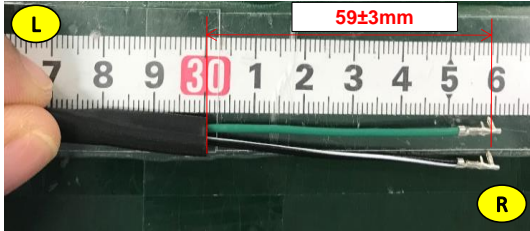
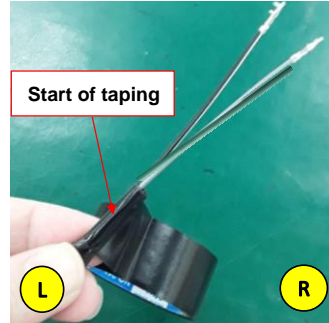
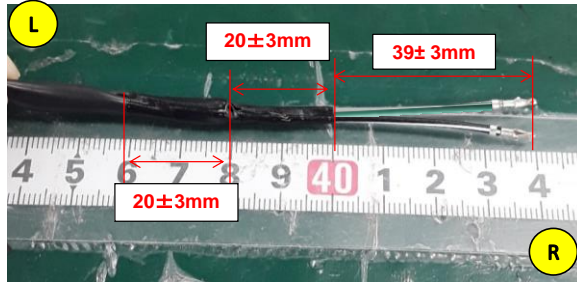

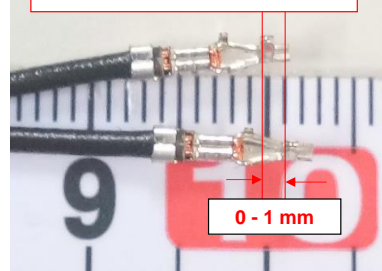
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PARTS:		1. Black tape 2. Assy parts		JIG:	N/A
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
6	P1 Taping (1) VM tube (Sunprene) to wire near terminal	<div></div> <div>1. Measure the end of the VM tube (Sunprene) up to the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

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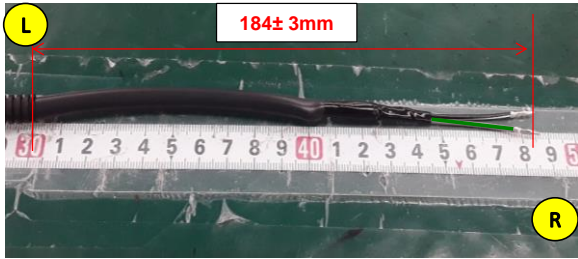
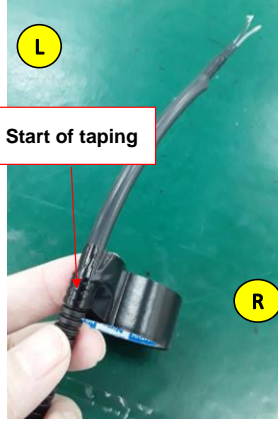
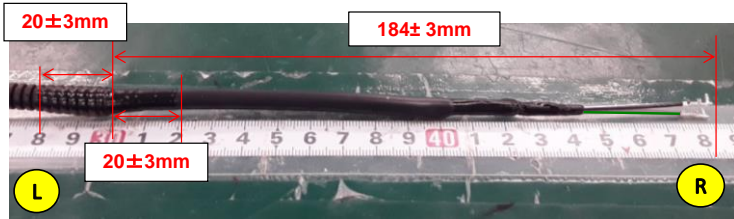
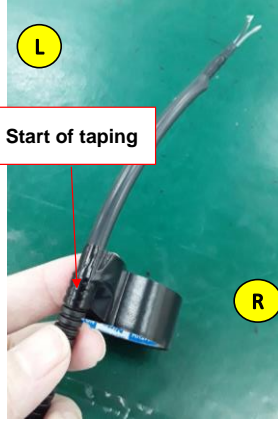
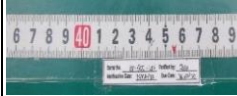
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PARTS:		1. Black tape 2. Assy parts		JIG:	N/A
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
7	P1 Taping (2) Corrugated tube to VM tube (Sunprene)	<div><p>1. Measure the end of the corrugated tube up to the end of the terminal pointed tip <b>184mm</b>.</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><p>Start of taping</p></div> <div><p>Measuring tape</p></div>	<p><b>Important reminders/note/s:</b></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

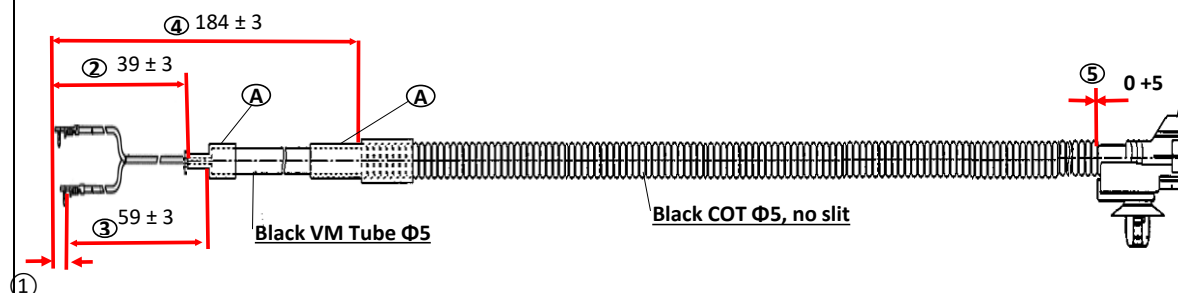


QUALITY POINTERS

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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PARTS:

1. Assy parts

JIG:

N/A



### VISUAL INSPECTION/QUALITY CHECKPOINTS

# P1

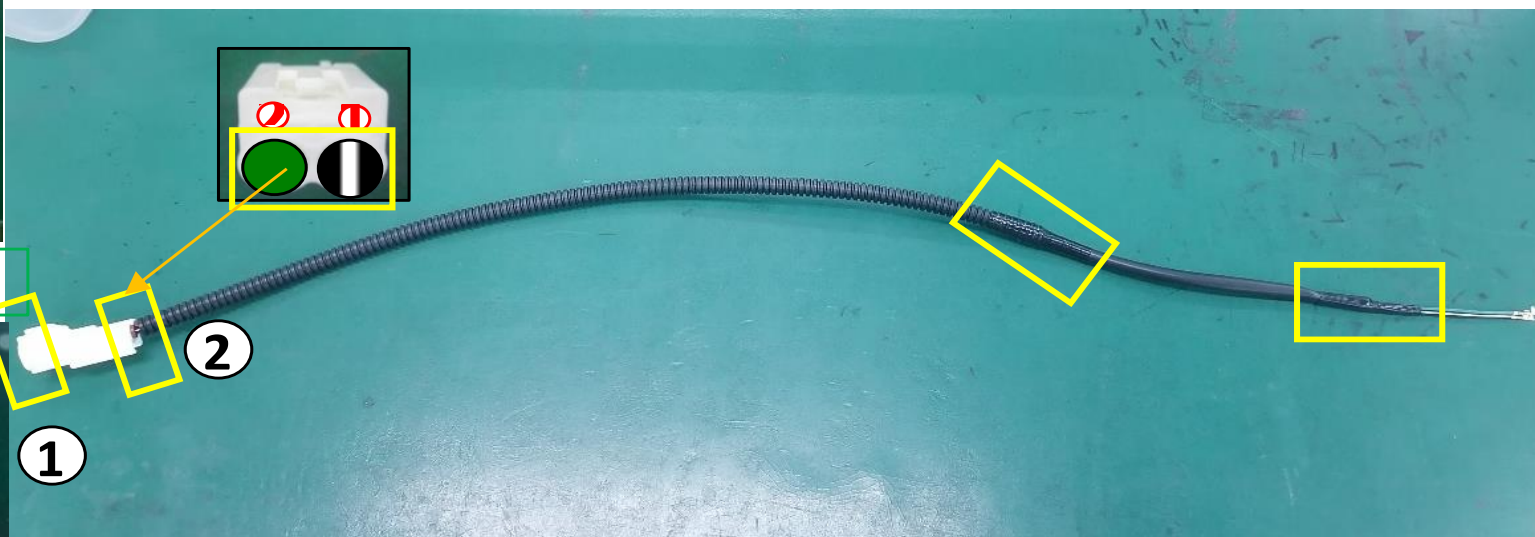
# 7L0032-7024



GOOD



NO GOOD



4



GOOD



NO GOOD

1 No Unlocked/ Half Locked Connector

3 No Wrong missing tape

2 No Wrong Insert

4 No Terminal Backing Out

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