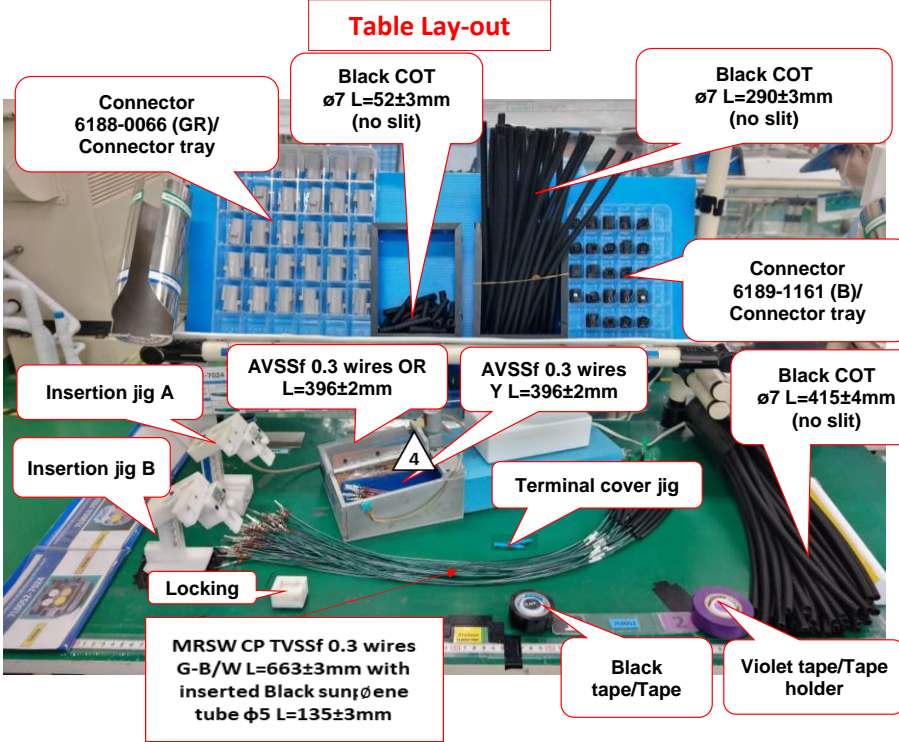
	<b>WORK INSTRUCTION</b> <b>TAPING ASSEMBLY PROCESS</b>			Effectivity Date:	October 01, 2024		
	Process Name/Title:			Validity Date:	n/a		
	Model code/Part number:	320B / 7L0052-7024A	Customer: TRQSS	Car Model: TOYOTA-RAV4	Document No.:	WI-ENG-PDE-1065A	
	Purpose:	<input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO		Revision No.:	1	Page No.:	1 of 11

<b>PARTS:</b>		1. Connector 6188-0066 (GR); Black COT ø7 L=52±3mm (no slit); Black COT ø7 L=290±3mm (no slit); Connector 6189-1161 (B); AVSSf 0.3 wires Y-OR L=396±2mm; MRSW CP TVSSf 0.3 wires G-B/W L=663±3mm with inserted Black VM tube (Sunprene) ø5 L=135±3mm; Black COT ø7 L=415±4mm (no slit); Black tape; Violet tape				JIG:		1. Insertion jig with flip cover 2. Locking jig 3. Terminal cover jig	
<b>NO.</b>	<b>PROCESS NAME</b>	<b>WORK PROCEDURE/ ILLUSTRATION</b>				<b>TOOLS/PPE</b>		<b>QUALITY POINTERS</b>	
1	P1	<div> <div>Table Lay-out</div>  </div>				<div> <b>Safety Instruction</b>            Be sure to wear prescribed personal protective equipment during operation (gloves, finger cots, etc.)         </div> <hr/> <div> <b>Housekeeping</b>            1. Maintain and always practice 5's.            2. Personal things on the workplace is prohibited. Keep it in your locker.         </div> <hr/> <div> <b>Alert level</b>            For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.         </div>		<b>Document reference/s:</b> 1.Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance	
Revision History						Prepared by	Reviewed by	Approved by	Noted by
10/01/24	1	Change from Pre-launch to Masspro.				A. Hernandez	C. Villanueva	A. Arañes	n/a
09/24/24	0	Initial Issue.				A. Hernandez	C. Villanueva	A. Arañes	n/a
Eff. Date	Rev. No	Details of Change				Revised	Reviewed	Approved	Noted
						Est. Date:	September 24, 2024		



# WORK INSTRUCTION

## TAPING ASSEMBLY PROCESS

Process Name/Title:

Model code/Part number:

320B / 7L0052-7024A

Customer:

TRQSS

Car Model:

TOYOTA-RAV4

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

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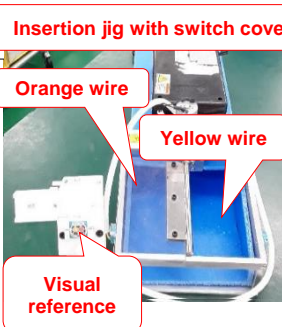


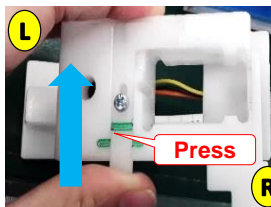
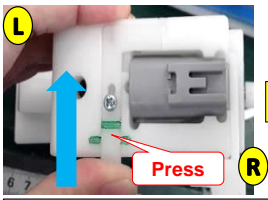
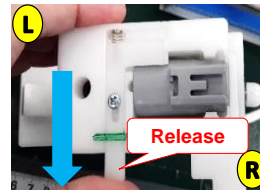





WI-ENG-PDE-1065A

Revision No.:

1

Page No.:

2 of 11

PARTS:		1. Connector 6188-0066 (GR)		JIG:	1. Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
2	P1  Connector setting to insertion jig 6188-0066 ( GR )	<div><div><p>Insertion jig with switch cover</p><p>Orange wire</p><p>Yellow wire</p><p>Visual reference</p></div><div><p>I-mark</p><p>Lock</p><p>INSERTION JG ORIENTATION</p></div><div><p>CONNECTOR ORIENTATION</p></div><div><p>1. Press the lock using left hand.</p></div><div><p>2. Get the connector <b>6188-0066 (GR)</b> using right hand then insert to insertion jig. Release the lock after insertion. <b>Note: Follow the connector orientation.</b></p></div><div><p>3. Push the lower wire guide upward using right hand. Slot for <b>Yellow wire</b> will be opened.</p></div><div></div></div> <div>n/a</div> <td><div><p><b>CONNECTOR ORIENTATION ILLUSTRATION</b></p><div><p>I-mark is align</p><p>1 hole is open</p><p><b>GOOD</b></p></div><div><p>I-mark is not align</p><p>2 holes are open</p><p><b>NG</b></p></div></div><div><p>1. Use the provided jig per model</p><p>2. No wrong orientation of connector</p><p>3. No wrong use of connector</p><p>4. No damaged connector</p></div></td>		<div><p><b>CONNECTOR ORIENTATION ILLUSTRATION</b></p><div><p>I-mark is align</p><p>1 hole is open</p><p><b>GOOD</b></p></div><div><p>I-mark is not align</p><p>2 holes are open</p><p><b>NG</b></p></div></div> <div><p>1. Use the provided jig per model</p><p>2. No wrong orientation of connector</p><p>3. No wrong use of connector</p><p>4. No damaged connector</p></div>	

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# WORK INSTRUCTION

## TAPING ASSEMBLY PROCESS

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October 01, 2024

Process Name/Title:

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320B / 7L0052-7024A

Customer:

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Car Model:

TOYOTA-RAV4

Validity Date:

n/a

Document No.:

WI-ENG-PDE-1065A

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH


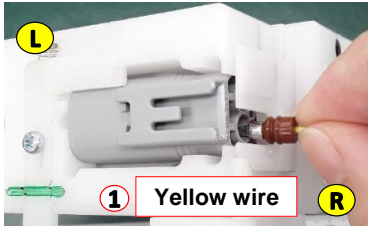
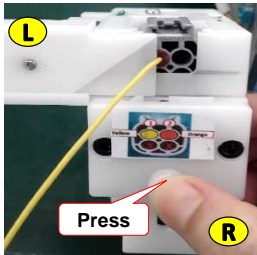
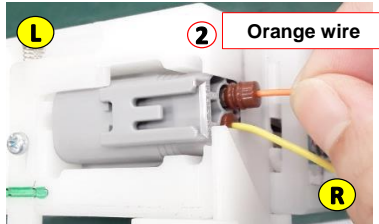
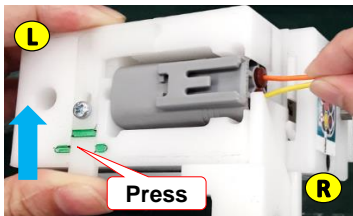
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Revision No.:

1

Page No.:

3 of 11

PARTS:	1. AVSSf 0.3 wires Y L=396±2mm; OR L=396±2mm		JIG:	1. Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
3	P1 Wire Insertion to connector 6188-0066 (GR)	<div><p>Terminal Facing</p></div> <div><p>1. Hold the insertion jig using left hand. Get the <b>Yellow wire</b> then insert to terminal slot <b>1</b> using right hand.</p></div> <div><p>2. Press the button using right thumb. The slot for <b>Orange wire</b> will be opened.</p></div> <div><p>3. Get the <b>Orange wire</b> then insert to terminal slot <b>2</b> 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	<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> <b>1. Please hold the wire near terminal.</b> <b>2. Make sure wires are properly inserted.</b> <b>Conduct Pull-Push-Pull-Push after insertion.</b> <b>Do not exert extra force.</b></div> <div><b>Document reference/s:</b> <b>1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</b> <b>2. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</b></div>

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**WORK INSTRUCTION**

Process Name/Title:

**TAPING ASSEMBLY PROCESS**

Effectivity Date:

**October 01, 2024**

Validity Date:

**n/a**

Model code/Part number:

**320B / 7L0052-7024A**

Customer:

**TRQSS**

Car Model:

**TOYOTA-RAV4**

Document No.:

**WI-ENG-PDE-1065A**

Purpose:



☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

**1**

Page No.:

**4 of 11**

PARTS:		1. Assy parts 2. Black corrugated tube (no slit) Ø7 L=52±3mm		3. Black corrugated tube (no slit) Ø7 L=290±3mm		JIG:	n/a
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
4	P1	Wire Insertion to Corrugated tube (no slit) Ø7 L=52±3mm	<div></div> <div>1. Hold the wires using left hand. Get the <b>Corrugated tube (no slit) Ø7 L=52±3mm</b> using right hand then insert the <b>Yellow- Orange wires</b> using left hand.</div>			n/a	1. No wrong use of parts 2. No deformed terminal
5		Wire insertion to Black corrugated tube (no slit) Ø7 L=290±3mm	<div></div> <div>1. Hold the wires using left hand. Get the <b>Corrugated tube (no slit) ø5 L=290±3mm</b> using right hand then insert the <b>Y-OR wires</b> using left hand.</div>			n/a	1. No wrong use of parts 2. No deformed terminal

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# WORK INSTRUCTION

## TAPING ASSEMBLY PROCESS

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Model code/Part number:

320B / 7L0052-7024A

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Car Model:

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Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

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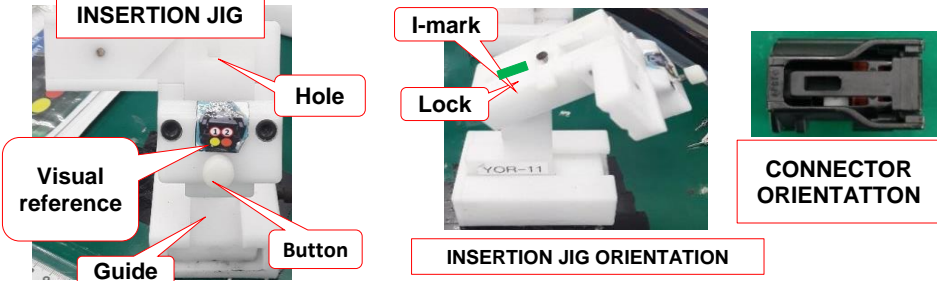
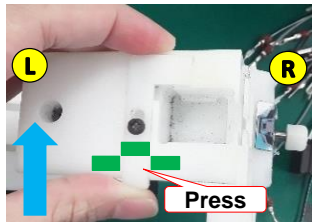
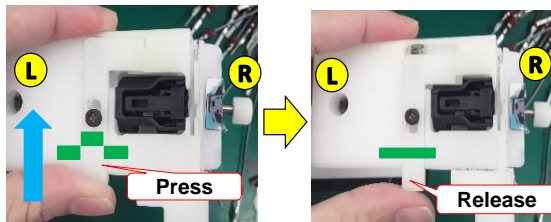





WI-ENG-PDE-1065A

Revision No.:

1

Page No.:

5 of 11

PARTS:	1. Connector 6189-1161 (B)		JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
6	P1  Connector setting to insertion jig 6189-1161 ( B )	<div><div><p>INSERTION JIG ORIENTATION</p></div><div><p>1. Press the lock using left thumb.</p></div><div><p>2. Get the connector <b>6189-1161 (B)</b> using right hand then insert to insertion jig. Release the lock after insertion.</p></div><div><p>3. Push the lower wire guide upward using right hand. Slot for <b>Yellow wire</b> will be opened.</p></div></div> <div>n/a</div> <td><div><div>CONNECTOR ORIENTATION ILLUSTRATION</div><div><p>GOOD</p></div><div><p>NG</p></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></td>	<div><div>CONNECTOR ORIENTATION ILLUSTRATION</div><div><p>GOOD</p></div><div><p>NG</p></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>	

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Process Name/Title:

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320B / 7L0052-7024A

Customer:

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Car Model:

TOYOTA-RAV4

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Effectivity Date:

October 01, 2024

Validity Date:

n/a

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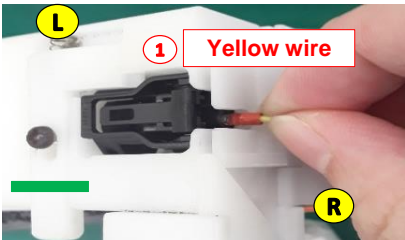
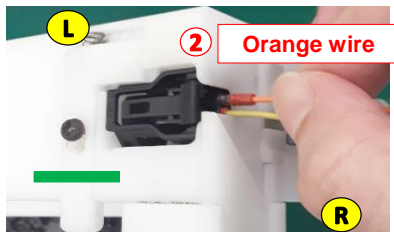
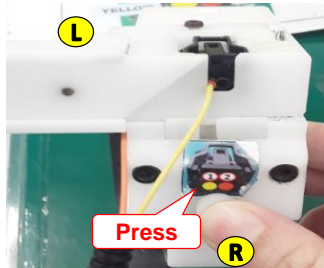
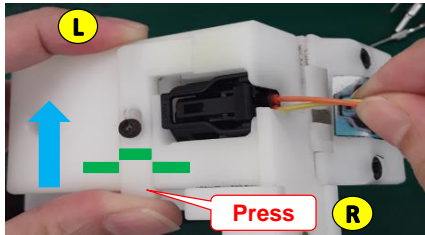
WI-ENG-PDE-1065A

Revision No.:

1

Page No.:

6 of 11

PARTS:	1. Assy parts		JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
7	P1	<div><div><div>TERMINAL FACING</div></div><div><div>1 Yellow wire</div></div><div><div>2 Orange wire</div></div><div><p>1. Hold the insertion jig using left hand. Get the <b>Yellow wire</b> then insert to terminal slot <b>1</b> using right hand.</p><p>2. Press the button using right thumb. The slot for <b>Orange wire</b> will be opened.</p><p>3. Get the <b>Orange wire</b> then insert to terminal slot <b>2</b> using right hand.</p><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> <div><div><div>Press</div></div><div><div>Press</div></div></div> <div>n/a</div> <div><p><b>Important reminders /Note/s:</b></p><p>1. <b>Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.</b></p><p><b>Document reference/s:</b></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><p>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deformed terminal 5. No wrong wire facing</p></div>		

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## WORK INSTRUCTION

## TAPING ASSEMBLY PROCESS

Process Name/Title:

Model code/Part number:

320B / 7L0052-7024A

Customer:

TRQSS

Car Model:

TOYOTA-RAV4

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Effectivity Date:

October 01, 2024

Validity Date:

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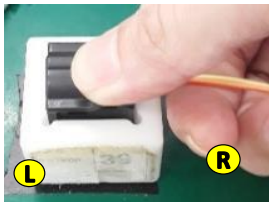





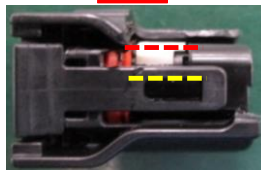
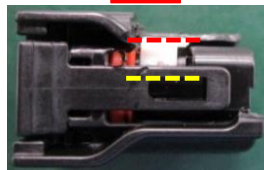
WI-ENG-PDE-1065A

Revision No.:

1

Page No.:

7 of 11

PARTS:	1. Assy parts		JIG:	1. Locking jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
8	P1	Connector lock <div><div><div>1. Put the connector into locking jig and push down <b>2x</b> using both hands. Check the connector lock if properly locked.</div></div><div><div></div><div><div>BEFORE PRESSING</div><div>AFTER PRESSING</div></div><div><div></div><div><div>GOOD</div><div>NO GOOD</div></div><div><div></div><div><div>UNLOCK CONDITION</div><div>HALF LOCKED CONDITION</div><div>FULLY LOCKED CONDITION</div></div></div></div></div></div>	n/a	<p><b>Important reminders /Note/s:</b></p> <p><b>1.Refer to GL-PRO-ASY-029 for Pull-Push procedure.</b></p> <p><b>2.Make sure wires are properly inserted.</b></p> <p><b>Conduct <u>Pull-Push-Pull-Push</u> after insertion.</b></p> <p><b>Do not exert extra force.</b></p> <p>1. No loose insertion</p> <p>2. No wrong insertion</p> <p>3. One by one insertion</p> <p>4. No deformed terminal</p> <p>5. No wrong wire facing</p>

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## WORK INSTRUCTION

## TAPING ASSEMBLY PROCESS

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320B / 7L0052-7024A

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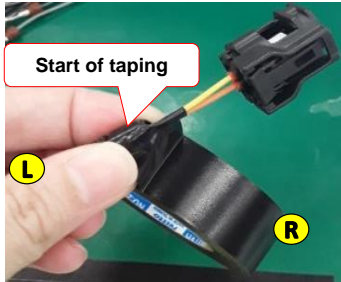
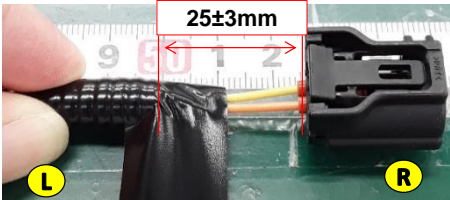
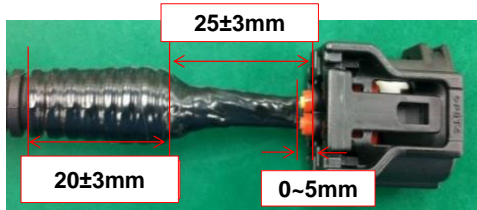
☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

1

Page No.:

8 of 11

PARTS:		1. Assy parts 2. Black tape		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
9	P1 Taping 1 COT to wire near connector	 <p>Start of taping</p> <p>1. Hold the assy parts using left hand, get <b>Black tape</b> then conduct pre-taping using both hands.</p>  <p>25±3mm</p> <p>2. Hold the assy parts using left hand and measure from COT to connector <b>25±3mm</b> using both hands. Continue taping process using both hands.</p>  <p>25±3mm</p> <p>20±3mm</p> <p>0~5mm</p> <p>3. After taping, check the measurement and taping condition.</p> <p><b>NOTE: SET ASIDE THE ASSY PARTS.</b></p>		n/a	<p><b>Important reminders and Note/s:</b></p> <p><b>1. Please use calibrated/verified measuring tape when getting the measurement.</b></p> <p><b>Document reference/s:</b></p> <p><b>1. Refer to WI-PRO-ASY-001 for taping procedure.</b></p> <p>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</p>

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**WORK INSTRUCTION****TAPING ASSEMBLY PROCESS**

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**320B / 7L0052-7024A**

Customer:

**TRQSS**

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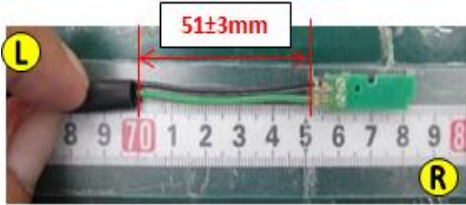
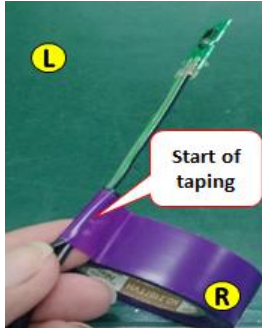
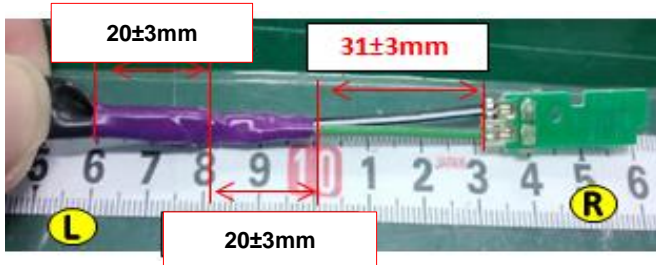
**WI-ENG-PDE-1065A**

Revision No.:

**1**

Page No.:

**9 of 11**

<b>PARTS:</b>		1. MRSW CP (G-B/W L=663±3mm with inserted sunprene tube ø5 L=135±3mm) 2. Violet tape		JIG:	n/a
<b>NO.</b>	<b>PROCESS NAME</b>	<b>WORK PROCEDURE/ ILLUSTRATION</b>		<b>TOOLS/PPE</b>	<b>QUALITY POINTERS</b>
10	P1 Taping 2 VM tube (Sunprene) to wire neat hotmelted wire	<div></div> <div></div> <div></div> <div>1. Get the hotmelted <b>G-B/W wires</b> with sunprene tube then measure from end of the sunprene tube up to the edge of hotmelt <b>51mm</b> using both hands.</div> <div>2. Hold the sunprene tube using left hand, get the <b>Violet tape</b> using right hand and begin taping process using both hands.</div> <div>3. After taping, check the measurement and taping condition.</div>		n/a	<b>Important reminders and Note/s:</b> <b>1. Use VIOLET TAPE only.</b> <b>2. Please use calibrated/verified measuring tape when getting the measurement.</b>  <b>Document reference/s:</b> <b>1. Refer to WI-PRO-ASY-001 for taping procedure.</b>  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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WI-ENG-PDE-1065A

Purpose:

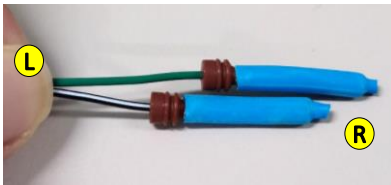


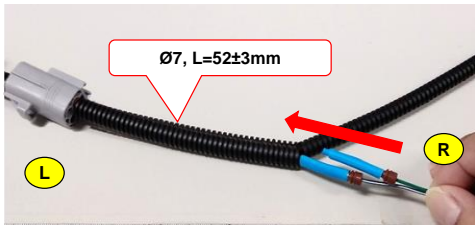
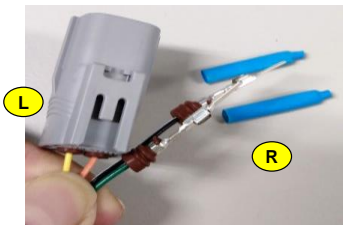

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

1

Page No.:

10 of 11

PARTS:		1. Assy parts 2. Black Corrugated tube (no slit) Ø7 L=415±4mm		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
11	P1	Wire insertion to Black Corrugated tube (no slit) Ø7 L=415±4mm	  1. Get the terminal cover jig using right hand then insert to both terminals (G-B/W wires) using right hand. 2. Get the corrugated tube Ø7 L=312±3mm using right hand then insert the G-B/W wires using left hand.	<div>TERMINAL COVER JIG</div> 	1. No wrong usage of parts 2. No damaged rubber seal
12		Wire insertion to assy parts	  1. Get the assy parts, hold the COT Ø7 L=52±3mm using left hand then insert the G-B/W wires using right hand. 2. After insertion, remove the cover jig using right hand.	<div>TERMINAL COVER JIG</div> 	1. No wrong usage of parts 2. No damaged rubber seal

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**WORK INSTRUCTION**

Process Name/Title:

**TAPING ASSEMBLY PROCESS**

Effectivity Date:

October 01, 2024

Validity Date:

n/a

Model code/Part number:

320B / 7L0052-7024A

Customer:

TRQSS

Car Model:

TOYOTA-RAV4

Document No.:

WI-ENG-PDE-1065A

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

1

Page No.:

11 of 11

**PARTS:**

1. Assy parts

JIG:

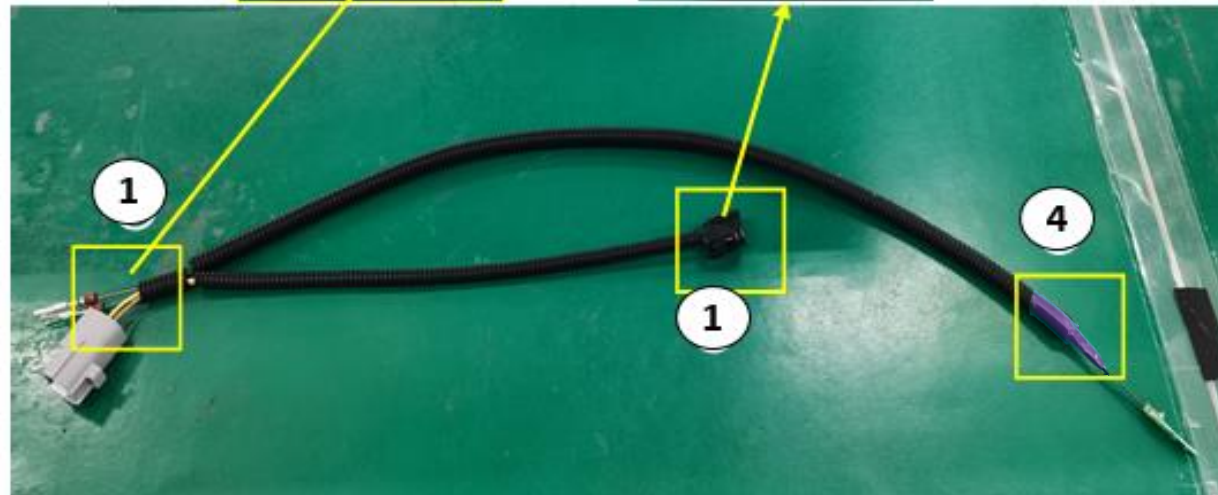
n/a

**VISUAL INSPECTION/ QUALITY CHECKPOINTS****TAPING - P1****7L0052-7024A**

2



3



1

1

4

① **No Unlocked /Half-locked Connector**

② ③ **No Wrong Insert**

④ **No Missing Tape**

⑤ **No Deformed Terminal**

⑥ **No Terminal Backing out**

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