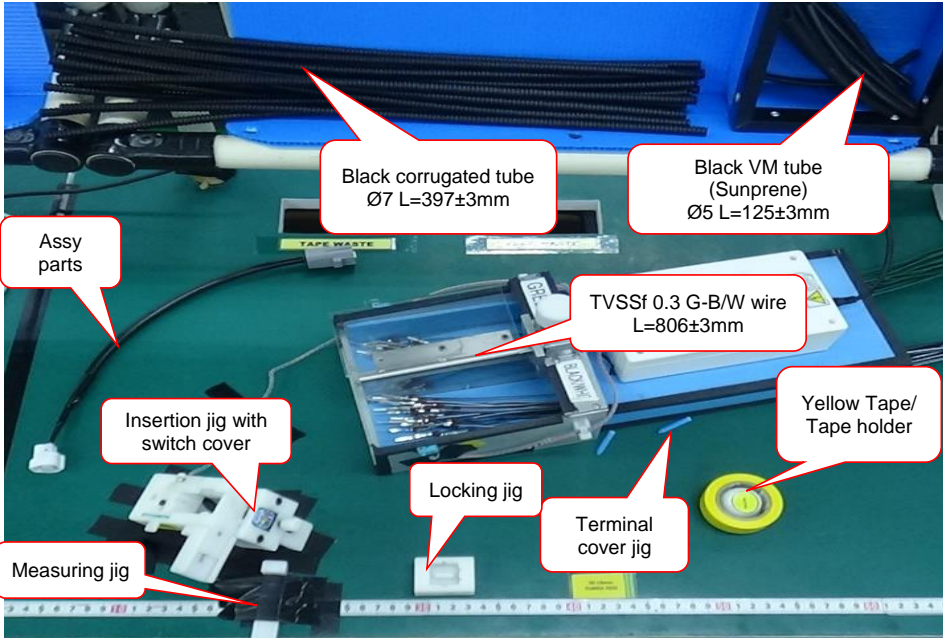


	WORK INSTRUCTION					Effectivity Date:		June 3, 2024	
	TAPING ASSEMBLY PROCESS					Validity Date:		n/a	
	Model code/Part number: 320B / 7L0053-7025		Customer: TRQSS	Car Model: TOYOTA-RAV4		Document No.:		WI-ENG-PDE-139B	
	Purpose: <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO				Revision No.:		9	Page No.:	1 of 6

PARTS:	1. Assy parts 2. Black corrugated tube Ø7 L=397±3mm 3. Black VM tube (Sunprene) Ø5 L=125±3mm 4. TVSSf 0.3 G wire L=806±3mm 5. TVSSf 0.3 B/W wire L=806±3mm 6. Yellow tape			JIG:	1. Insertion jig with switch cover 2. locking jig 3. Terminal cover jig 4. Measuring jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
1	P2 Table Lay-out	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> 9 </div> <div style="border: 1px solid black; padding: 5px; display: inline-block;"> Table Lay-out </div> 		<div style="border: 1px dashed red; padding: 5px; margin-bottom: 10px;"> Safety Instruction Be sure to wear prescribed personal protective equipment during operation (gloves, finger cots, etc.) </div> <div style="border: 1px dashed red; padding: 5px; margin-bottom: 10px;"> Housekeeping 1. Maintain and always practice 5's. 2. Personal things on the workplace is prohibited. Keep it in your locker. </div> <div style="border: 1px dashed red; padding: 5px;"> Alert level For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action. </div>	Document references: 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						Prepared by	Reviewed by	Approved by	Noted by		
06/03/24	9	Process improvement. Change process sequence transfer Y- Taping to P3 and additional process from P3 Insertion of sunprene tube , Taping sunprene tube to wire near terminal. Improve measurement and visual inspection/ quality checkpoints.	A.Hernandez	C. Villanueva	A. Arañes	n/a	 A. Hernandez	 C. Villanueva	 A. Arañes	n/a	
07/15/23	8	Transferred process no.2,3,4,5 and 6 from P1 to P2; Transferred process of 3,4 and 5 from P2 to P3 due to new process distribution; Updated template; Inclusion of CAR MODEL "TOYOTA-RAV4" Updated Table lay-out illustration; Standardized tube description; SV tube (Vinyl). Refer to ENGDRR-127 for Document revision request.	M. Ariola	J. Loterte	C. Villanueva	A. Arañes					
05/12/23	7	Inclusion of quality checkpoints; Standardize the VM tube (Sunprene) term.	J. Loterte	C. Villanueva	A. Arañes	n/a					
Eff. Date	Rev. No	Details of Change				Revised	Reviewed	Approved	Noted	Est. Date:	July 12, 2023

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WORK INSTRUCTION

Effectivity Date:

June 3, 2024

Process Name/Title:

TAPING ASSEMBLY PROCESS

Validity Date:

n/a

Model code/Part number: 320B / 7L0053-7025

Customer: TRQSS

Car Model: TOYOTA-RAV4

Document No.:

WI-ENG-PDE-139B

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

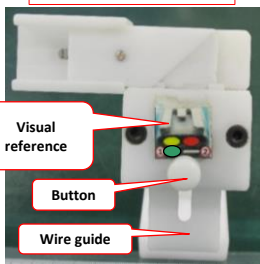

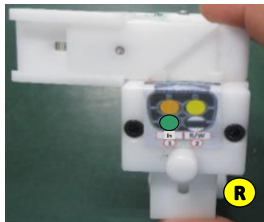
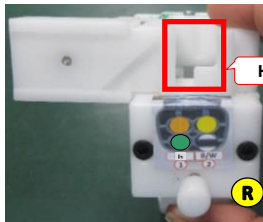

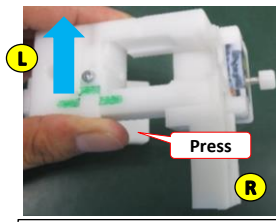
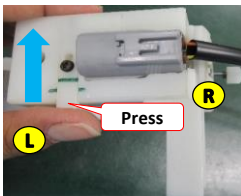
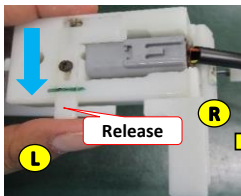
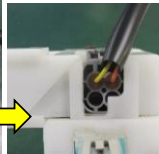
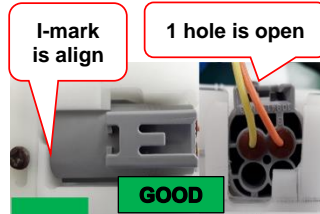
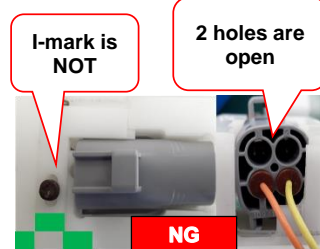
☒ MASSPRO

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PARTS:		1. Assy parts		JIG	1. Insertion jig with switch cover	
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
2	P2	<div><div><div><div>Visual reference</div><div>Button</div><div>Wire guide</div></div><div><div>INSERTION JIG</div><div></div></div><div><div>I-mark</div><div>Lock</div><div>INSERTION JIG ORIENTATION</div><div></div></div><div><div>Hole</div><div></div></div><div><div>Press</div><div></div></div><div><div>1. Push the lower wire guide upward using right thumb. Slot for Green wire will be opened.</div></div><div><div>CONNECTOR ORIENTATION</div><div></div></div><div><div>Press</div><div></div></div><div><div>2. Press the lock using left thumb.</div></div><div><div>3. Flip the assy parts upward to make way for insertion using left hand. Push the wire guide upward using right hand. Slot for Green wire will be opened.</div></div><div><div></div><div><div></div><div><div></div></div></div></div><div>n/a</div><div><div><div>Connector Orientation Illustration</div><div><div>I-mark is align</div><div>1 hole is open</div><div></div><div>GOOD</div></div><div><div>I-mark is NOT</div><div>2 holes are open</div><div></div><div>NG</div></div></div><div><div>1. Use provided jig per model</div><div>2. No wrong usage of parts</div><div>3. No wrong orientation of connector</div><div>4. No damaged connector</div></div></div></div></div>				

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WORK INSTRUCTION

Process Name/Title:

TAPING ASSEMBLY PROCESS

Effectivity Date:

June 3, 2024

Model code/Part number: 320B / 7L0053-7025

Customer: TRQSS

Car Model:

TOYOTA-RAV4

Document No.:

WI-ENG-PDE-139B

Purpose:

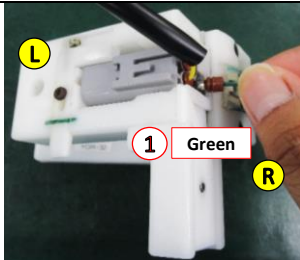
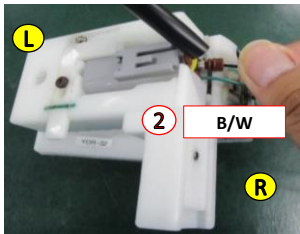

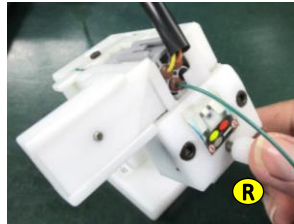
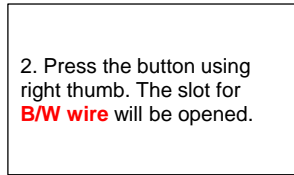
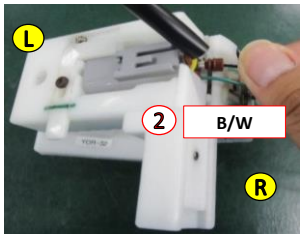
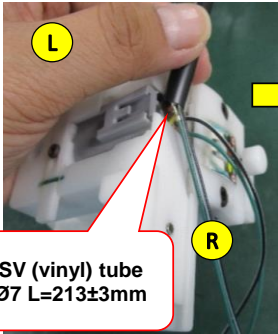
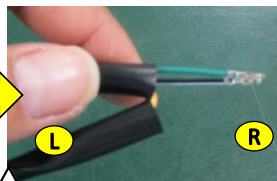
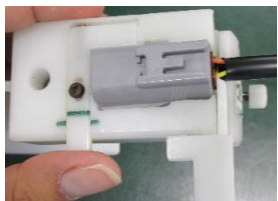
☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

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PARTS:		1. Assy parts 2. TVSSf 0.3 B/W wire L=806±3mm; G wire L=806±3mm			JIG	1. Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
3	P2 Wire insertion to connector 6188-0066 (GR)	<div><p>1 Green</p></div> <div><p>2 B/W</p></div>	<div><p>WIRE FACING</p></div> <div><p>1 Hold the Green wire then insert to terminal slot 1 using right hand.</p></div> <div><p>2. Press the button using right thumb. The slot for B/W wire will be opened.</p></div> <div><p>3. Hold the B/W wire then insert to terminal slot 2 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>Document references: 1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance 2. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</div> <div>Important reminders/Note/s: 1. Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.</div>	
4	Wire insertion to SV tube (Vinyl) (Ø7 L=213±3mm) with assy parts	<div><p>SV (vinyl) tube Ø7 L=213±3mm</p></div> <div><p>1. Hold the assy parts upward using left hand. Insert the Green and Black/White wires to SV (vinyl) tube using right</p></div> <div><p>2. After insertion, push the lock using left thumb then hold the wires and gently pull out the connector from jig using right hand.</p></div>	n/a	<div>1. No wrong insertion 2. No deformed terminal</div>		

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WORK INSTRUCTION

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June 3, 2024

Process Name/Title:

TAPING ASSEMBLY PROCESS

Validity Date:

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Model code/Part number: 320B / 7L0053-7025

Customer: TRQSS

Car Model: TOYOTA-RAV4

Document No.:

WI-ENG-PDE-139B

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

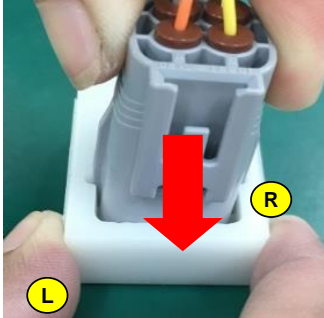





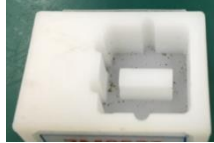




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PARTS:		1. Assy parts 2. Black Corrugated tube Ø5 L=397±3mm (no slit)	JIG	1. Locking jig 2. Terminal cover jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
5	Connector Lock	<div><p>1. Put the connector into locking jig using right hand then press 2x. Touch the connector lock to confirm if properly locked.</p></div> <div><p>Before pressing After pressing</p><p>Connector Cross Sectional View</p><div><p>NG NG GOOD</p><p>Unlock Condition Half Lock Condition Full Lock Condition</p></div></div>	<p>LOCKING JIG</p> 	<p>Important reminders/Note/s:</p> <p>1. Manual locking may cause damaged lock.</p> <p>1. Use the provided locking jig per model 2. No unlock/half-locked connector 3. No damaged lock</p>
6	Wire Insertion to Black Corrugated tube Ø5 L=397±3mm (no slit)	<div><p>L R L R L R</p><p>1. Hold the wires using left hand, get the terminal cover jig using right hand then insert the G-B/W wires using left hand.</p><p>2. Get the corrugated tube (no slit) Ø5 L=397±3mm using right hand then insert the G-B/W wires using left hand.</p><p>3. After insertion, remove the terminal cover jig using right hand.</p></div>	<p>TERMINAL COVER JIG</p> 	<p>1. No wrong use of parts. 2. No deformed terminal</p>

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WI-ENG-PDE-139B

Purpose:

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Revision No.:

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PARTS:

1. Assy parts

JIG

n/a

NO.

PROCESS NAME



WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

7

Wire insertion to Black VM tube (Sunprene)
Ø5 L=125±3mm



1. Get the **Black VM tube (Sunprene) Ø5 L=125±3mm** using right hand then insert the **G-B/W wires** using left hand.

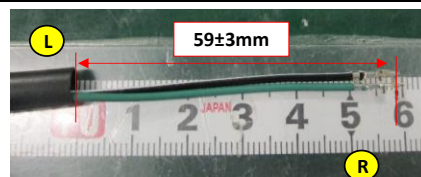
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1. No wrong use of parts.
2. No damaged terminal

8

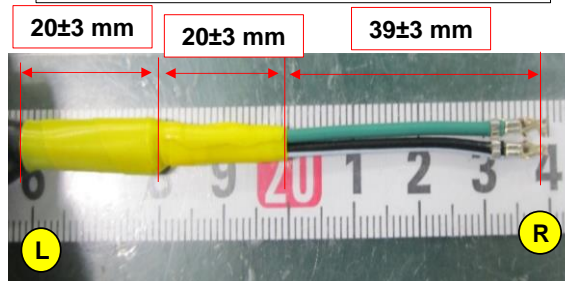
P2

Taping 1
Black sunprene tube to wire near terminal

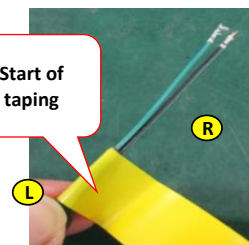


1. Hold the VM tube (Sunprene) using left hand, measure from end of VM tube (Sunprene) up to terminal pointed tip **59±3mm** using both hands.

2. Hold the VM tube (Sunprene) using left hand. Get the **Yellow tape** using right hand and begin taping process using both hands.



Start of
taping



3. After taping, check the wire alignment, measurement and taping condition.

MEASURING
TAPE



Important reminder/Note/s:
1. Please use calibrated/verified measuring tape when getting the measurement.

Document references:
1. Please refer to WI-PRO-ASY-001 for taping procedure.

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**WORK INSTRUCTION**Process Name/Title: **TAPING ASSEMBLY PROCESS**

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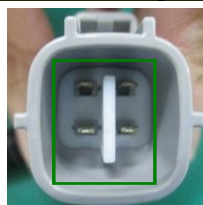
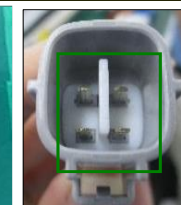
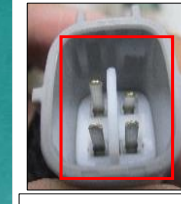
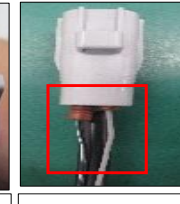
Page No.:

6 of 6**PARTS:**

n/a

JIG:

n/a

Important reminders and note/s:**VISUAL INSPECTION/QUALITY CHECKPOINTS****P2****7L0053-7025****GOOD****NO GOOD****GOOD****GOOD****NO GOOD****NO GOOD****1****No Unlock/
Halflocked Connector****2****No wrong insert/ No Terminal
Backing Out****3****No Missing/ Wrong use of Tape**

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