



WORK INSTRUCTION

Process Name/Title:

TAPING ASSEMBLY PROCESS

Effectivity Date:

July 4, 2024

Model code/Part number:

311D / 75S834-7050

Customer:

TRMX

Car Model:

RAV4

Validity Date:

n/a

Purpose:

☐ PROTOTYPE☒ PRE-LAUNCH☐ MASSPRO

Document No.:

WI-ENG-PDE-869

Revision No.:

0

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PARTS:

1. AVSS 0.3 GR/B L=113±2mm;
2. Light Blue tape (19mm)
3. White SV tube (Vinyl) ø3; t=0.5; L=64±3mm

JIG:

1. Measuring Tape

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

1

Wire Insertion of GR/B to White SV tube (Vinyl)
ø3; t=0.5; L=64±3mm



1. Get the **GR/B wire** using left hand. Get 1 pc of **White SV tube (Vinyl) ø3; t=0.5; L=64±3mm** using right hand then insert the **GR/B wire**. (Based on the illustration above)

Safety Instruction

Be sure to wear required personal protective equipment during operation (gloves, finger cots, etc.)

1. No flip-out tape
2. No peel-off tape
3. No loose tape
4. No missing tape
5. No wrong use of tape
6. No wrong dimension

MEASURING TAPE**Wire alignment tolerance****Important reminders/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.

Housekeeping

1. Maintain and always practice 5's.
2. Personal things on the workplace is prohibited. Keep it in your locker.

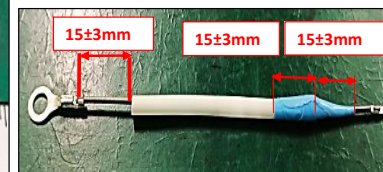
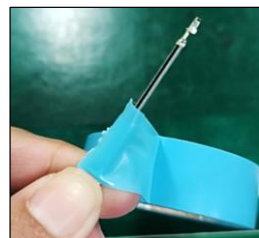
Alert level

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

2

n/a

Taping Vinyl to Wire near terminal



2. Hold the assy part, get the **Light Blue tape (19mm)** and start taping.

3. After taping, check the dimension and taping condition.

NOTE: SET ASIDE THE ASSY PARTS

Revision History

Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Prepared by	Reviewed by	Approved by	Noted by
7/04/2024	0	Initial Issue	-	J.Loterte	C. Villanueva	A. Arañes	A. Hernandez	C. Villanueva	A. Arañes	N/A

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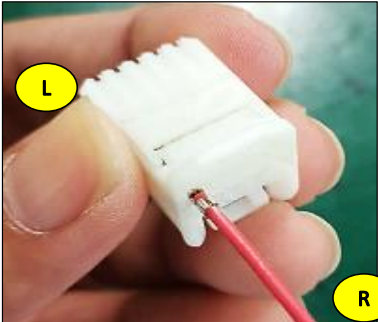

☐ PROTOTYPE☒ PRE-LAUNCH☐ MASSPRO

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PARTS:		1. Connector 4A1230-0000 (W); 2. AVSS 0.3 R L=166±2mm; WG L=168±2mm; BR L=172±2mm;		JIG:	n/a																				
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS																				
3	n/a Wire insertion to connector PBVP-10V-S (W)	<div><div>VISUAL REFERENCE</div></div> <div><div>Wire facing</div></div> <div><div>WIRE INSERTION ILLUSTRATION</div><table><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr><tr><td>R</td><td>WG</td><td></td><td></td><td>BR</td></tr><tr><td>166</td><td>168</td><td></td><td></td><td>172</td></tr><tr><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr></table></div> <div><div>4. Hold the connector PBVP-10V-S (W) then get the Red wire and insert to terminal slot 1 of connector using right hand. Conduct 2x push pull after wire insertion. Repeat the process to WG wire in terminal Slot 2 and BR wire in terminal Slot 5. Note: Follow the insertion sequence based on the illustration.</div></div> <div><div>5. After insertion, check the wire condition.</div><div>NOTE: SET ASIDE THE ASSY PARTS</div></div>		1	2	3	4	5	R	WG			BR	166	168			172	X	X	X	X	X	n/a	<div>1. No wrong orientation of connector 2. No wrong use of connector 3. No damaged connector 4. No wrong insertion of wires 5. No loose insertion 6. No wrong insertion 7. One by one insertion 8. No deformed terminal 9. No wrong wire facing</div> <div>Important reminder's/Note: 1. Make sure wires are properly inserted. 2. Conduct Pull-Push-Pull-Push after insertion. 3. Do not exert extra force. 4. Please hold the wire near terminal.</div> <div>Document references: 1. Refer to WI-PRO-CNC-017 for Wire Strip lenght tolerance. 2. Refer to GL PRO-ASY-029 for pull-push-pull-push procedure</div>
1	2	3	4	5																					
R	WG			BR																					
166	168			172																					
X	X	X	X	X																					

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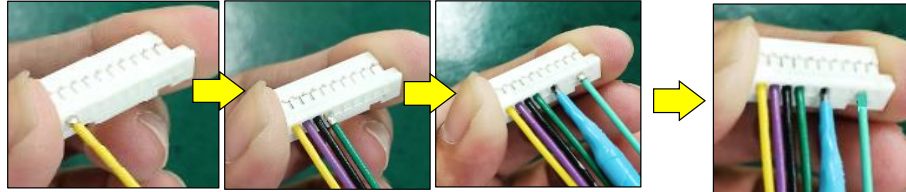
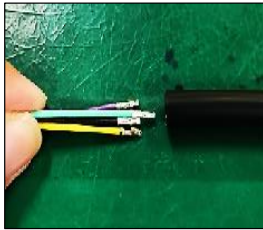
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PARTS:		1. Assy parts 2. Connector PBVP-10V-S (W) 3. Black SV tube (Vinyl) ø7; t=0.5; L=131±3mm				4. AVSSf 0.3 GR/B L=113±1mm; R L=166±2mm; WG L=168±2mm; BR L=172±2mm; L=285±2mm; V L=285±2mm; Y L=285±2mm; G L=285±2mm; LG L=289±2mm; B				JIG:	n/a																																									
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION							TOOLS/PPE		QUALITY POINTERS																																								
4	n/a		<div><div><div>VISUAL REFERENCE</div></div><div><div>Wire facing</div></div><div><table><tr><td colspan="10">WIRE INSERTION ILLUSTRATION</td></tr><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr><tr><td>Y</td><td>V</td><td>B</td><td>G</td><td>✗</td><td>GR/B</td><td>✗</td><td>✗</td><td>LG</td><td>✗</td></tr><tr><td>285</td><td>285</td><td>285</td><td>285</td><td>✗</td><td>113</td><td>✗</td><td>✗</td><td>289</td><td>✗</td></tr></table></div><div></div><div><div>6. Hold the connector PBVP-10V-S (W) then get the Yellow wire and insert to terminal slot 1 of connector using right hand. Conduct 2x push pull after wire insertion. Repeat the process to V-B-G. Get the GR/B wire then insert to terminal slot 6. Insert LG wires to Slot 9. Note: Follow the insertion sequence based on the illustration.</div><div>7. After insertion, check the terminal tip condition, must be visible.</div></div></div>							WIRE INSERTION ILLUSTRATION										1	2	3	4	5	6	7	8	9	10	Y	V	B	G	✗	GR/B	✗	✗	LG	✗	285	285	285	285	✗	113	✗	✗	289	✗	n/a		<div>1. No wrong orientation of connector 2. No wrong use of connector 3. No damaged connector 4. No wrong insertion of wires 5. No loose insertion 6. No wrong insertion 7. One by one insertion 8. No deformed terminal 9. No wrong wire facing</div> <div>Important reminder's/Note: 1. Make sure wires are properly inserted. 2. Conduct Pull-Push-Pull-Push after insertion. 3. Do not exert extra force. 4. Please hold the wire near terminal.</div>
WIRE INSERTION ILLUSTRATION																																																				
1	2	3	4	5	6	7	8	9	10																																											
Y	V	B	G	✗	GR/B	✗	✗	LG	✗																																											
285	285	285	285	✗	113	✗	✗	289	✗																																											
5	Y-V-B-G-GR/B-LG Wire insertion to Black SV tube (Vinyl) ø7; t=0.5; L=131±3mm PBVP-10V-S (W)		<div><div>8. Hold the wires using left hand, get the Black SV tube (Vinyl) ø7; t=0.5; L=131±3mm using right hand then insert the long wires.</div></div> <div><div>Note: Make sure the GR/B wire is on top of Black SV tube (Vinyl) ø7; t=0.5; L=131±3mm.</div></div>									<div>Document references: 1. Refer to WI-PRO-CNC-017 for Wire Strip lenght tolerance. 2. Refer to GL PRO-ASY-029 for pull-push-pull-push procedure</div>																																								

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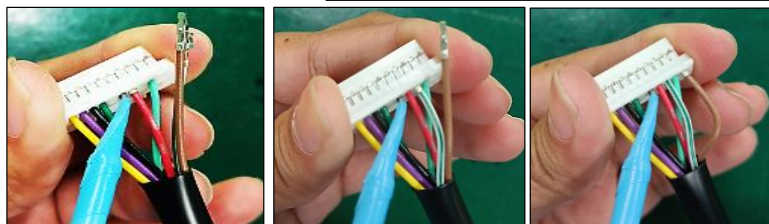
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PARTS:		1. Assy parts		JIG:	n/a																																					
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS																																					
6	n/a	Wire insertion of assy part (Connector 4A1230-0000 (W) with inserted wires) to Black SV tube (Vinyl) ø7; t=0.5; L=131±3mm with assy part	<div></div> <div>9. Hold the assy part (Connector PBVP-10V-S (W) with inserted wires) using left hand then get the first assy part (Connector 4A1230-0000 (W) with inserted wires) using right hand then insert to Black SV tube (Vinyl) ø7; t=0.5; L=131±3mm with inserted wire.</div>	N/A	1. No wrong insertion 2. No deformed terminal																																					
7		Wire insertion to Connector PBVP-10V-S (W) with inserted wires	<div><table><tr><th colspan="10">WIRE INSERTION ILLUSTRATION</th></tr><tr><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th><th>7</th><th>8</th><th>9</th><th>10</th></tr><tr><td>Y</td><td>V</td><td>B</td><td>G</td><td>X</td><td>GR/B</td><td>R</td><td>WG</td><td>LG</td><td>BR</td></tr><tr><td>285</td><td>285</td><td>285</td><td>285</td><td>X</td><td>113</td><td>166</td><td>168</td><td>289</td><td>172</td></tr></table></div> <div>10. Hold the Connector PBVP-10V-S (W) with inserted wires then get the Red wire and insert to terminal slot 7 of connector using right hand. Conduct 2x push pull after wire insertion. Repeat the process to W/G in Slot 8 and BR wires in Slot 10. Note: Follow the insertion sequence based on the illustration.</div>			WIRE INSERTION ILLUSTRATION										1	2	3	4	5	6	7	8	9	10	Y	V	B	G	X	GR/B	R	WG	LG	BR	285	285	285	285	X	113	166
WIRE INSERTION ILLUSTRATION																																										
1	2	3	4	5	6	7	8	9	10																																	
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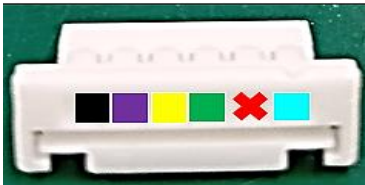



☐ PROTOTYPE☒ PRE-LAUNCH☐ MASSPRO

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PARTS:		1. Assy parts 2. Connector PBVP-06V-S (W); 3. Black SV tube (Vinyl) $\phi 5.5$; t=0.5; L=122 \pm 3mm		JIG:	n/a																		
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS																		
8	Wire insertion of Assy part to Black SV tube (Vinyl) $\phi 5.5$; t=0.5; L=122 \pm 3mm	 <p>11. Hold the assy part, get 1 pc of Black SV tube (Vinyl) $\phi 5.5$; t=0.5; L=122\pm3mm then insert the B-V-Y-G and LG wires in inserted assy parts.</p>			1. No wrong orientation of connector 2. No wrong use of connector 3. No damaged connector 4. No wrong insertion of wires 5. No loose insertion 6. No wrong insertion 7. One by one insertion 8. No deformed terminal 9. No wrong wire facing																		
9	Wire insertion of Assy part to Connector PBVP-06V-S (W)	 <table border="1"><thead><tr><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th></tr></thead><tbody><tr><td>B</td><td>V</td><td>Y</td><td>G</td><td></td><td>LG</td></tr><tr><td>285</td><td>285</td><td>285</td><td>285</td><td></td><td>289</td></tr></tbody></table>    <p>12. Hold the connector PBVP-06V-S (W) then get the Black wire then insert to terminal slot 1 of connector using right hand. Conduct 2x push pull after wire insertion. Repeat the process to V-Y-G-LG wires. Note: Follow the insertion sequence based on the illustration.</p> <p>13. After insertion, check the terminal tip condition, must be visible.</p> <p>14. Conduct wire arrangement using both hands.</p>		1	2	3	4	5	6	B	V	Y	G		LG	285	285	285	285		289	N/A	<p>Important reminder's/Note:</p> <ol style="list-style-type: none">1. Make sure wires are properly inserted.2. Conduct Pull-Push-Pull-Push after insertion.3. Do not exert extra force.4. Please hold the wire near terminal. <p>Document references:</p> <p>Refer to GL PRO-ASY-029 for pull-push-pull-push procedure5</p>
1	2	3	4	5	6																		
B	V	Y	G		LG																		
285	285	285	285		289																		

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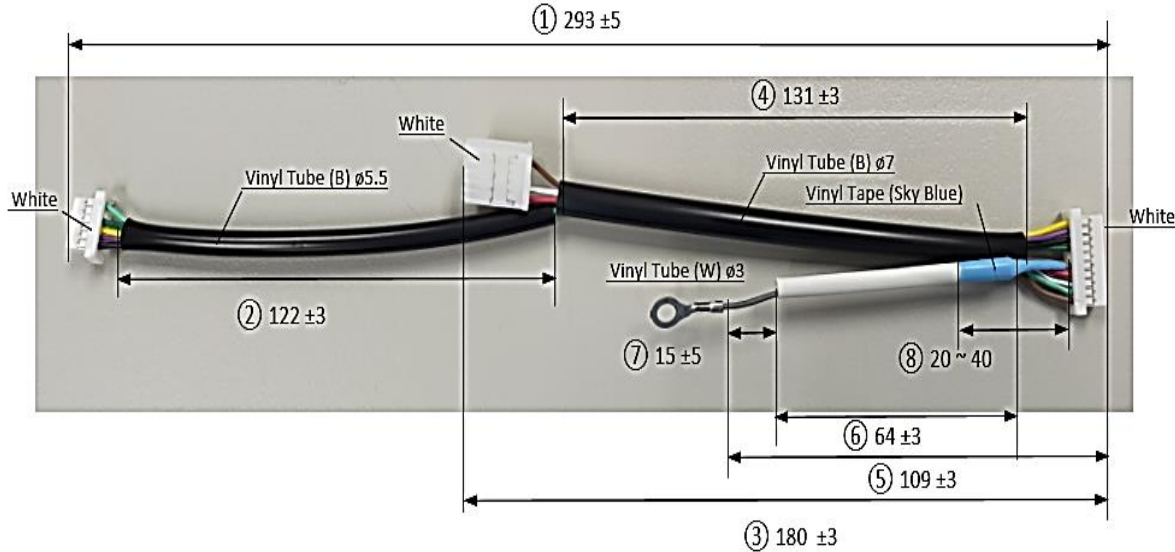

☐ MASSPRO

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PARTS:		1. Assy parts		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
10	n/a	Measurement			<ol style="list-style-type: none">1. No wrong orientation of connector2. No wrong use of connector3. No damaged connector4. No wrong insertion of wires5. No loose insertion6. No wrong insertion7. One by one insertion8. No wrong wire facing <div>MEASURING TAPE </div> <p>Note: Please use calibrated/verified measuring tape when getting the measurement.</p>

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PARTS:

n/a

JIG:

n/a

VISUAL INSPECTION

75S834-7050

2. Check the wire alignment. Make sure no tangled wires.

3. Check the Connector lock, locking of connector is included to Steering electrical test.

4. Check the orientation of harness.

5. Check if no missing parts.

6. Check the terminal if with backing out (not fully inserted) or deformed terminal.

CORRECT FACING

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