



WORK INSTRUCTION

TAPING ASSEMBLY PROCESS

Effectivity Date:

April 26, 2024

Process Name/Title:

Model code/Part number:

930B

/

7N0205-7020Ca

Customer: TRJ

Car Model:

TOYOTA-4RUNNER

Validity Date:

n/a

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Document No.:

WI-ENG-PDE-877A

Revision No.:

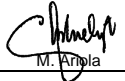


1

Page No.:

1 of 10

PARTS:		1. Connector 6189-0451 (W); AVSSf 0.3 Y-OR Wires L=254±2mm; Connector 6188-0066 (GR); Black Corrugated tube ø7, L=154±3mm; Black Corrugated tube ø7, L=40±3mm; Black Corrugated tube ø7, L=391±3mm; Black tape; MRSW CP TVSSF 0.3 G and B/W L=784±3mm with SV tube (Vinyl) L= 72±3mm		JIG:	1. Insertion jig with switch cover 2. Locking jig 3. Terminal cover jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
1	P1	<div><div>Connector 6189-0451 (W)/ Connector tray</div><div>TABLE LAY-OUT</div><div>Connector 6188-0066 (GR)/ Connector tray</div><div>Black Corrugated tube ø7, L=154±3mm</div><div>Black Corrugated tube ø7, L=40±3mm</div><div>AVSSf 0.3 OR wires L=254±2mm</div><div>Switch cover</div><div>Insertion jig A</div><div>Black Corrugated tube ø7, L=391±3mm</div><div>AVSSf 0.3 Y wires L=254±2mm</div><div>Terminal cover jig</div><div>Insertion jig B</div><div>Tape holder/Black tape</div><div>Locking jig</div><div>MRSW CP TVSSF 0.3 G and B/W L=784±3mm with SV tube (Vinyl) L= 72±3mm</div></div>		<div><div>Safety Instruction Be sure to wear required personal protective equipment during operation (gloves, finger cots, etc.)</div><div>Housekeeping 1. Maintain and always practice 5's. 2. Personal things on the workplace is prohibited. Keep it in your locker.</div><div>Alert level For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.</div></div>	<div>1. No missing parts/tools 2. No excess parts/tols</div> <div>Document references: 1. Refer to WI-PRO-CNC-017 for Wire Strip lenght tolerance.</div>

Revision History

Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Prepared by	Reviewed by	Approved by	Noted by
04/26/24	1	Change purpose from Pre-launch to Masspro.					 M. Ariola	 C. Villanueva	 A. Arañes	n/a
04/23/24	0	Initial issue.				n/a				
Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Est. Date:	April 23, 2024		

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☐ PRE-LAUNCH

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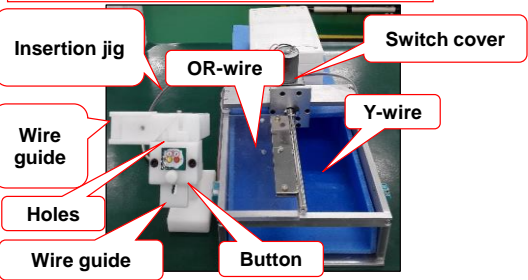
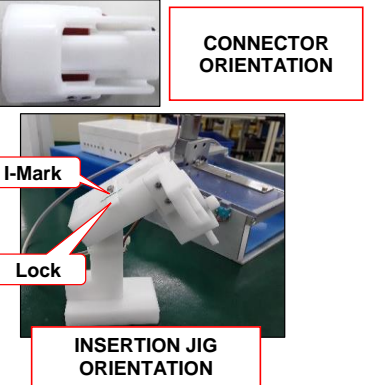
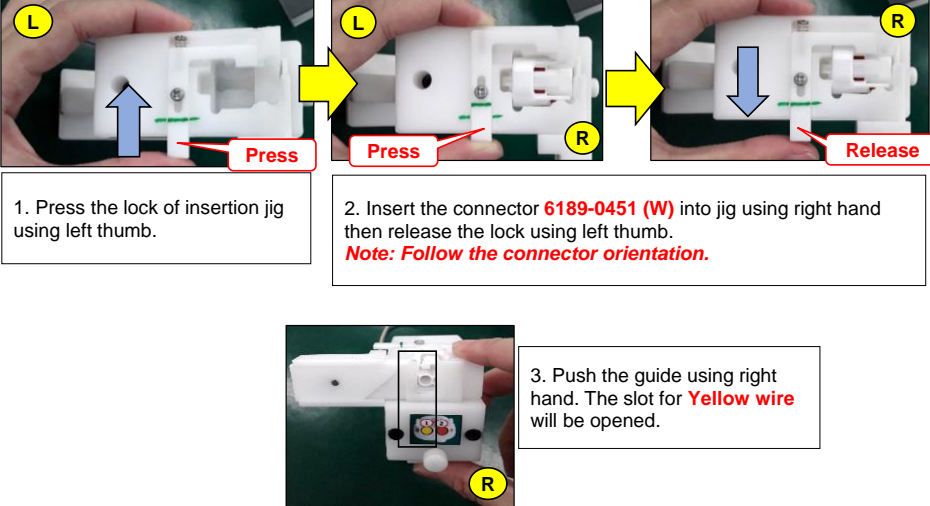
WI-ENG-PDE-877A

Revision No.:

1

Page No.:

2 of 10

PARTS:	1. Connector 6189-0451 (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 6189-0451 (W)	<div><div>INSERTION JIG WITH SWITCH COVER</div><div>CONNECTOR ORIENTATION</div><div>INSERTION JIG ORIENTATION</div></div> <div></div>		n/a	<div>1. Use the provided jog per model</div> <div>2. No unlocked/half-locked connector</div> <div>Important reminders/Note/s:</div> <div>1. MANUAL LOCKING MAY CAUSE DAMAGED CONNECTOR LOCK</div> <div>Document references:</div> <div>1. Refer to GL-PRO-ASY-017 for the verification of connector lock.</div>

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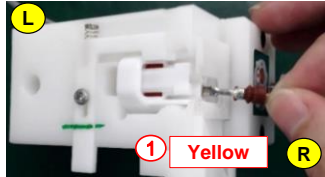
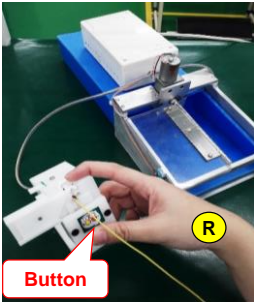

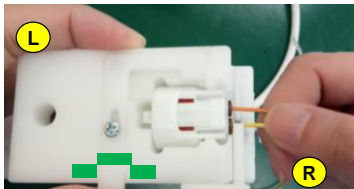
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Revision No.:

1

Page No.:

3 of 10

PARTS:		1. Connector 6189-0451 (W) 2. AVSSf 0.3 Y-OR Wires L=254±2mm		JIG:	1. Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
3	P1 Wire insertion to Connector 6189-0451 (W)	<div></div> <div>WIRE FACING</div> <div></div> <div>1. Hold the insertion jig using left hand, get Yellow wire and insert to connector slot 1 using right hand.</div> <div></div> <div>2. Press the button using right thumb, slot for Orange wire will be opened.</div> <div></div> <div>3. Hold the insertion jig using left hand, get Orange wire and insert to connector slot 2 using right hand.</div> <div></div> <div>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.</div>		n/a	1. No wrong usage of parts. 2. No deformed terminal

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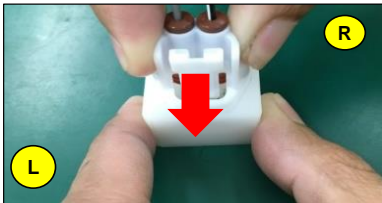
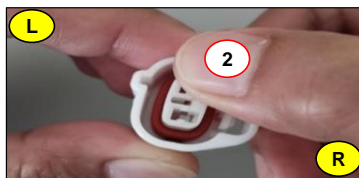






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Revision No.:

1

Page No.:

4 of 10

PARTS:		1. Assy Parts		JIG:	1. Locking jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
4	P1	Connector lock	<div><p>1. Put the connector into locking jig using right hand. Then press to lock 2x using both hands.</p></div> <div><p>2. Ensure that connector is in locked condition by slide touching the connector lock based on the sequence illustrated.</p></div> <div><p>BEFORE PRESSING</p><p>AFTER PRESSING</p><div><p>GOOD</p><p>NG</p><p>Check the double lock deformation</p></div></div>	<div>LOCKING JIG</div> 	<div>1. Use the provided jog per model</div> <div>2. No unlocked/half-locked connector</div> <div>Important reminders/Note/s:</div> <div>1. MANUAL LOCKING MAY CAUSE DAMAGED CONNECTOR LOCK</div> <div>Document references:</div> <div>1. Refer to GL-PRO-ASY-017 for the verification of connector lock.</div>

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Document No.:

WI-ENG-PDE-877A

Purpose:






☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

1

Page No.:

5 of 10

PARTS:		1. Assy parts 2. Black Corrugated tube $\varnothing 7$, L=40 \pm 3mm (no slit) 3. Black tape		4. Black Corrugated tube $\varnothing 7$, L=154 \pm 3mm (no slit)		JIG:	1. Terminal cover jig
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
5	P1	Wire Insertion to Black Corrugated tube $\varnothing 7$, L=40 \pm 3mm $\varnothing 7$, L=154 \pm 3mm (no slit)	<div><div><p>1. Get the cover jig then insert to Y-OR wires using left hand.</p></div><div><p>2. Get the corrugated tube (no slit) $\varnothing 7$, L=40\pm3mm using left hand then insert the Y-OR wires using right hand.</p></div><div><p>3. Get the corrugated tube (no slit) $\varnothing 7$, L=154\pm3mm using left hand then insert the Y-OR wires using right hand.</p></div><div><p>4. After insertion, remove the cover jig using left hand.</p></div></div> <div><div>TERMINAL COVER JIG</div></div>			1. No wrong usage of parts. 2. No deformed terminal	

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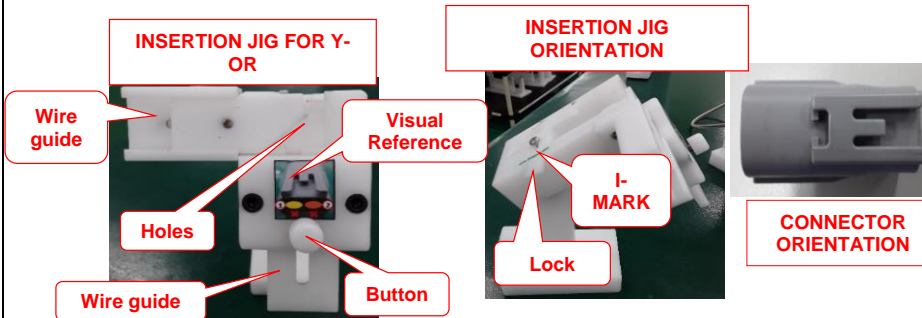
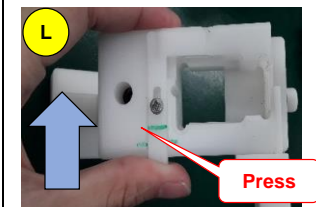
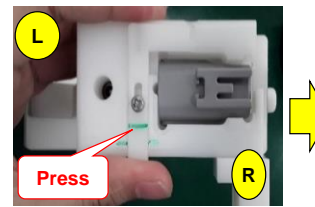
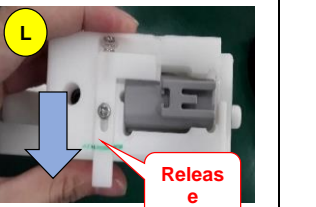
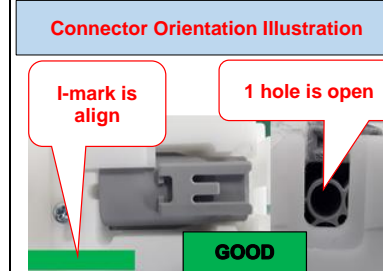

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Revision No.:

1

Page No.:

6 of 10

PARTS:		1. Connector 6188-0066 (GR)		JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
6	P1	<p>Connector setting to insertion jig 6188-0066 (GR)</p>     <p>1. Press the lock of insertion jig using left thumb.</p> <p>2. Insert the connector 6188-0066 (GR) into jig using right hand then release the lock. Note: Follow the connector orientation.</p> <p>3. Push the guide using right thumb. The slot for Y wire will be opened.</p>			<p>1. No wrong usage of parts. 2. No deformed terminal</p>  

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WI-ENG-PDE-877A

Revision No.:

1

Page No.:

7 of 10

PARTS:		1. Assy parts 2. Connector 6188-0066 (GR)		JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
7	P1	Wire insertion to Connector 6188-0066 (GR)			<div>1. No wrong usage of parts. 2. No deformed terminal</div> <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>2 holes are open</div><div>NG</div></div></div></div>

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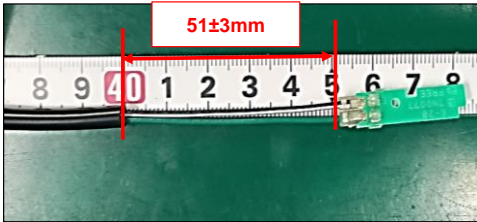


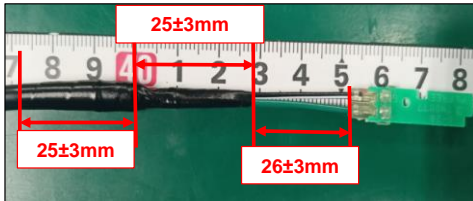

WI-ENG-PDE-877A

Revision No.:

1

Page No.:

8 of 10

PARTS:		1. MRSW CP TVSSf 0.3 G and B/W L=784±3mm with SV tube (Vinyl) L= 72±3mm 2. Black tape		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
8	P1 Taping 1 Black SV tube (Vinyl) to Wire near Hotmelted wire	 <p>1. Get the MRSW CP TVSSf 0.3 G and B/W L=784±3mm with SV tube (Vinyl) L= 72±3mm. Hold the Black SV tube (Vinyl) using left hand. Measure from end of SV tube (Vinyl) up to edge of hotmelted wires 51±3mm using right hand.</p>  <p>2. Hold the Black SV tube (Vinyl) using left hand. Get the black tape using right hand and start taping process.</p> <p>Start of taping</p>  <p>3. Confirm the measurement from end of tape up to end of SV tube (Vinyl) 25±3mm then start taping using both hands.</p>  <p>4. Confirm the measurement from SV tube (Vinyl) up to end of tape 25±3mm then start taping using both hands.</p> <p>5. After taping, check the measurement and taping condition.</p>		 <p>MEASURING TAPE</p>	<p>Important reminders/Note/s:</p> <p>1. Please use calibrated'verified measuring tape when getting the measurement.</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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PROTOTYPE



PRE-LAUNCH







MASSPRO

Revision No.:

1

Page No.:

9 of 10

PARTS:		1. Assy parts 2. Black corrugated tube $\varnothing 7$, L=391 \pm 4mm (No slit),		JIG:	1. Terminal cover jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
9	n/a	Wire insertion to Black corrugated tube $\varnothing 7$, L=391 \pm 4mm (No slit)		<div><div><div><div><div>L</div><div></div><div>R</div></div><div><div>1. Get the MRSW CP (TVSSf 0.3 G-B/W wires L=784\pm3mm) using both hands then insert the terminal cover jig using left hand.</div></div></div><div><div><div><div>L</div><div></div><div>R</div></div><div><div>2. Get the Black corrugated tube $\varnothing 7$, L=391\pm4mm (No slit), using left hand then insert the wires using right hand.</div></div></div><div><div><div><div>L</div><div></div><div>R</div></div><div><div>3. After insertion, remove the terminal cover jig using left hand.</div></div></div></div></div><div><div>TERMINAL COVER JIG</div><div></div></div><div><div>1. No wrong usage of parts. 2. No deformed terminal</div></div></div></div>	

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☐ PRE-LAUNCH

☒ MASSPRO

Revision No.:

1

Page No.:

10 of 10

PARTS:

n/a

JIG:

n/a

QUALITY CHECKPOINTS

P1

7N0205-7020Ca



NO GOOD



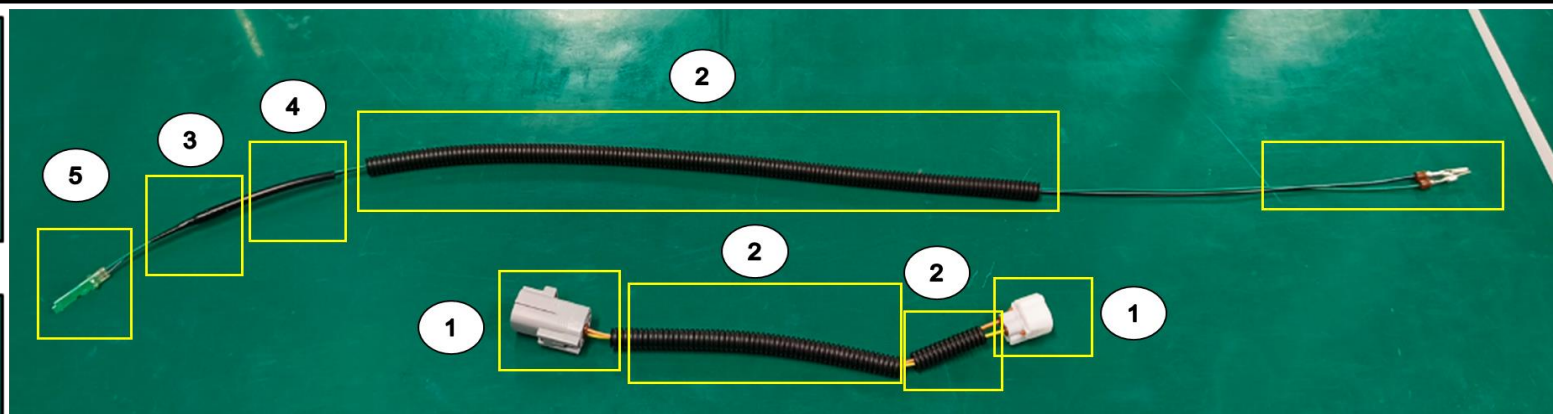
GOOD



GOOD



NO GOOD



1 No **WRONG INSERT**
No **UNLOCK/HALF-LOCKED**
No **TBO**

2 No **MISSING COT**

3 No **MISSING TAPE**

4 No **MISSING SV TUBE (VINYL)**

5 No **DEFORMED TERMINAL/PCB**

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