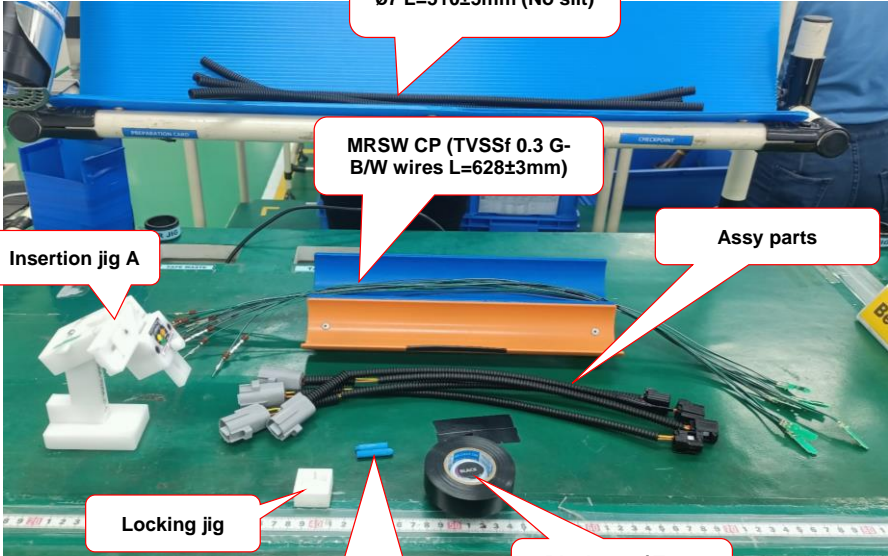







	WORK INSTRUCTION				Effectivity Date:		February 6, 2024	
	Process Name/Title: TAPING ASSEMBLY PROCESS				Validity Date:		n/a	
	Model code/Part number: 930B / 7N0204-7020A		Customer: TRJ	Car Model: TOYOTA-4 RUNNER		Document No.: WI-ENG-PDE-792A		
	Purpose: <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO		Revision No.:		1	Page No.:	1 of 7	

PARTS:		1. All parts: Assy part; Black corrugated tube ø7 L=510±5mm (No slit); MRSW CP (TVSSf 0.3 G-B/W wires L=628±3mm); Black tape				JIG:		1. Insertion jig 2. locking jig 3. Terminal cover jig	
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION				TOOLS/PPE		QUALITY POINTERS	
1	P1	<div>TABLE LAY-OUT</div>  <div>Safety Instruction Be sure to wear prescribed 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>Document references: 1. Refer to WI-ENG-PDE-828 for Offline assembly process 2. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</div> <div>1. No missing parts/tools 2. No excess parts/tools</div>			

Revision History								Prepared by	Reviewed by	Approved by	Noted by
02/06/24	1	Change from Pre-launch to Masspro. Separate some process to Offline assembly and Clamp assembly process.						D.Castillo	C. Villanueva	A. Arañes	n/a
01/17/24	0	Initial issue						D.Castillo	C. Villanueva	A. Arañes	n/a
Eff. Date	Rev. No	Details of Change						Revised	Reviewed	Approved	Noted

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	Model code/Part number: 930B / 7N0204-7020A		Customer: TRJ	Car Model: TOYOTA-4 RUNNER	Document No.:	WI-ENG-PDE-792A		
	Purpose: <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO				Revision No.:	1	Page No.:	2 of 7

PARTS:		1. Assy parts 2. MRSW CP (TVSSf 0.3 G-B/W wires L=628±3mm)		3. Black corrugated tube ø7 L=510±5mm (No slit)		JIG:		1. Terminal cover jig	
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION				TOOLS/PPE		QUALITY POINTERS	
2	P1	<div>   </div> <div> <p>1. Get the MRSW CP (TVSSf 0.3 G-B/W wires L=628±3mm) using both hands then insert the terminal cover jig using right hand.</p> <p>2. Get the Black corrugated tube ø7 L=510±5mm (No slit) using left hand then insert the wires using right hand.</p> </div>				<div> TERMINAL COVER JIG  </div>		<p>Document references:</p> <p>1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</p> <p>1. No wrong usage of parts 2. No damaged rubber seal</p>	
3		<div>   </div> <div> <p>1. Hold the COT (no slit) ø7 L=45±3mm using left hand then insert the MRSW CP TVSSf 0.3 G-B/W wires L=628±3mm using right hand.</p> <p>2. After insertion, remove the cover jig using right hand.</p> </div>				<div> TERMINAL COVER JIG  </div>			

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WORK INSTRUCTION

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

Model code/Part number: **930B / 7N0204-7020A** Customer: **TRJ** Car Model: **TOYOTA-4 RUNNER**

Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ☒ MASSPRO

Effectivity Date:

February 6, 2024

Validity Date:

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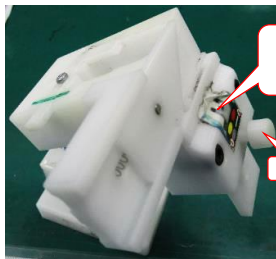
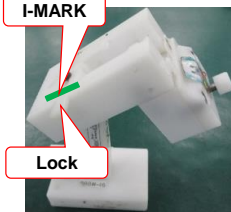

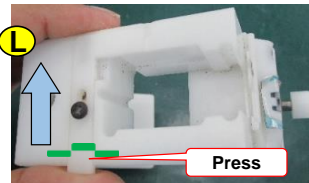


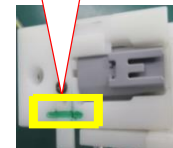
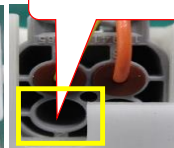


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PARTS:		1. Assy parts		JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
4	P1	<div><div>INSERTION JIG</div><div>Visual reference</div><div>Button</div><div>Lock</div><div>INSERTION JIG ORIENTATION</div><div>I-MARK</div><div>Lock</div><div>CONNECTOR ORIENTATION</div></div> <div><div>1. Press the guide using right thumb. The slot for G wire will be opened.</div><div>2. Press the lock of insertion jig using left thumb.</div><div>3. Insert the connector 6188-0066 (GR) with inserted Y-OR wire using right hand</div></div>		n/a	<div><div>Connector Orientation Illustration</div><div><div>I-mark is</div><div>1 Hole is open</div><div>GOOD</div></div><div><div>I-mark is NOT align</div><div>2 Holes are opened</div><div>NG</div></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>Important reminders/Note/s: 1. Follow the connector orientation</div></div>

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WORK INSTRUCTION

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TAPING ASSEMBLY PROCESS

Effectivity Date:

February 6, 2024

Model code/Part number:

930B

/

7N0204-7020A

Customer:

TRJ

Car Model:

TOYOTA-4 RUNNER

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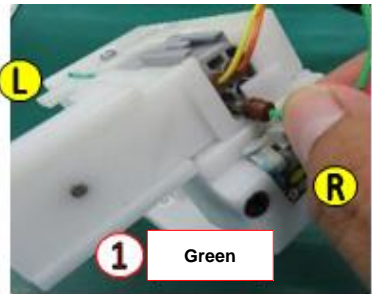

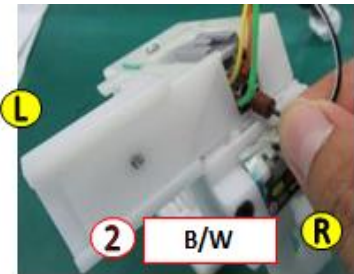
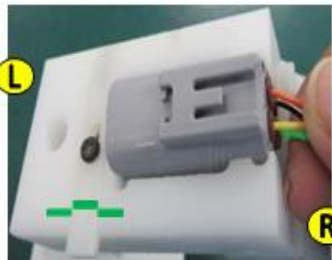
☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

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PARTS:	1. Assy parts			JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
5	P1	<div>Wire insertion to connector 6188-0066 (GR) (Assy parts)</div> <div> WIRE FACING</div> <div> 1 Hold the G wire then insert to terminal slot 1 using right hand.</div> <div> 2. Press the button using right thumb. The slot for B/W wire will be opened.</div> <div> 3. Hold the B/W wire then insert to terminal slot 2 using right hand.</div> <div> 4. After insertion, push the lock using left thumb then hold the wires and gently pull out the connector from jig using right hand.</div>		n/a	<p>Important reminders/Note/s:</p> <ol style="list-style-type: none">1. Please hold the wire near terminal.2. Make sure wires are properly inserted. <p>Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.</p> <p>Document references:</p> <ol style="list-style-type: none">1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.2. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance <ol style="list-style-type: none">1. No loose insertion2. No wrong insertion3. One by one insertion4. No deformed terminal5. No wrong wire facing

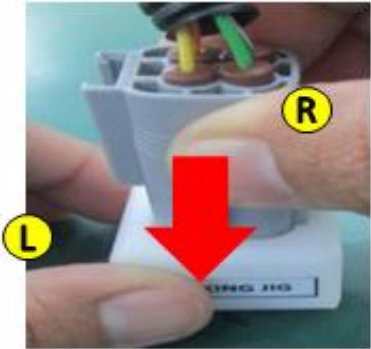
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	Model code/Part number: 930B / 7N0204-7020A		Customer: TRJ	Car Model: TOYOTA-4 RUNNER	Document No.:	WI-ENG-PDE-792A		
	Purpose: <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO				Revision No.:	1	Page No.:	5 of 7

PARTS:	1. Assy parts			JIG:	1. Locking jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
6	P1	Connector lock			



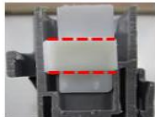
1. Put the connector into locking jig using both hands and then conduct **2x** pressing. Check the connector if properly locked.



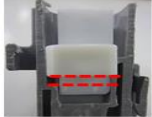
Before pressing

After pressing

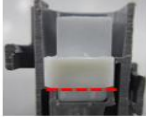
Connector Cross Sectional View



Unlock




Half Lock Condition



Full Lock Condition

NG **NG** **GOOD**

LOCKING JIG



Important reminders/Note/s:

1. MANUAL LOCKING MAY CAUSE DAMAGED CONNECTOR


1. Use the provided jig tool to lock the connector.
2. No unlock/half-locked connector
3. No damaged lock

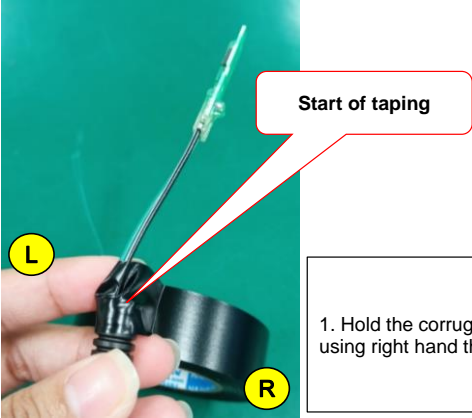
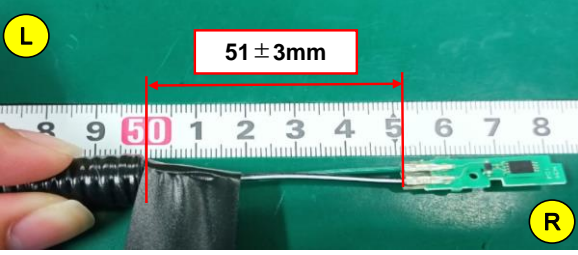
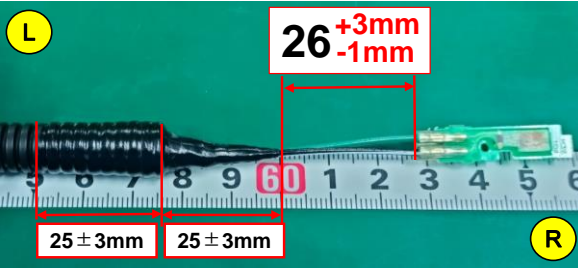

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	Purpose: <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO				Revision No.:	1	Page No.:	6 of 7

PARTS:		1. Assy parts 2. Black tape [1pc]		JIG:	n/a	
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS	
7	P1 Taping 1 COT to wire near hotmelted	<div><p>Start of taping</p><p>1. Hold the corrugated tube using left hand, get the Black tape using right hand then start pre-taping using both hands.</p></div> <div><p>51 ± 3mm</p><p>2. Measure from end of the corrugated tube up to hotmelted wires 51±3mm then continue the taping process using both hands.</p></div> <div><p>25 ± 3mm 26 +3mm -1mm 25 ± 3mm</p><p>3. After taping, check the measurement, terminal appearance and taping condition.</p></div>		<div>MEASURING TAPE</div> 	<p>Important reminders/Note/s:</p> <p>1. Please use calibrated/verified measuring tape when getting the measurement.</p> <p>Document references:</p> <p>1. Refer to WI-PRO-ASY-001 for Taping process</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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7N0204-7020A

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PARTS:

1. Assy parts

JIG:

n/a

QUALITY CHECKPOINTS

P1

7N0204-7020A

2



NO GOOD



GOOD

1



1 No Wrong Insert

2 No Unlock/ Halflocked Connector

3 No Terminal Backing Out

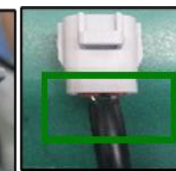
4 No Missing tape

5 No Deformed Hotmelted

3



GOOD



GOOD



NO GOOD



NO GOOD

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