

	<b>WORK INSTRUCTION</b>					Effectivity Date:		April 30, 2024		
	<b>TAPING ASSEMBLY PROCESS</b>					Validity Date:		n/a		
	Process Name/Title:					Document No.:		WI-ENG-PDE-880A		
	Model code/Part number: <b>930B / 7N0204-7020Ca</b>		Customer: <b>TRJ</b>		Car Model: <b>TOYOTA-4 RUNNER</b>		Revision No.:		1	Page No.:
Purpose: <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO										


<b>PARTS:</b>	1. All parts: Assy part; Black corrugated tube $\varnothing 7$ L=510 $\pm$ 5mm (No slit); MRSW CP (TVSSf 0.3 G-B/W wires L=628 $\pm$ 3mm); Black tape					JIG:	1. Insertion jig 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 style="border: 1px solid black; padding: 5px; margin-bottom: 10px; text-align: center;">TABLE LAY-OUT</div>					<div style="border: 1px solid red; padding: 5px; margin-bottom: 10px;"> <b>Safety Instruction</b>            Be sure to wear prescribed personal protective equipment during operation (gloves, finger cots, etc.)         </div> <div style="border: 1px solid red; padding: 5px; margin-bottom: 10px;"> <b>Housekeeping</b>            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 solid red; padding: 5px;"> <b>Alert level</b>            For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.         </div>	<b>Document references:</b> 1. Refer to WI-ENG-PDE-883 for Offline assembly process  2. 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
04/29/24	1	Change from Pre-launch to Masspro.	D.Castillo	C. Villanueva	A. Arañes	n/a					
04/24/24	0	Initial issue	D.Castillo	C. Villanueva	A. Arañes	n/a					
Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Est. Date:	April 24, 2024			

**CONFIDENTIAL:** Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

NBC (Philippines)  
MASTER COPY

	<b>WORK INSTRUCTION</b>				Effectivity Date:	<b>April 30, 2024</b>				
	<b>TAPING ASSEMBLY PROCESS</b>				Validity Date:	n/a				
	Process Name/Title:		Model code/Part number: <b>930B / 7N0204-7020Ca</b>		Customer: <b>TRJ</b>	Car Model: <b>TOYOTA-4 RUNNER</b>		Document No.:	<b>WI-ENG-PDE-880A</b>	
	Purpose:		<input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO		Revision No.:		1	Page No.:	2 of 7	

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

**CONFIDENTIAL:** Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

**NBC (Philippines)**  
**MASTER COPY**

DCC Stamp



# WORK INSTRUCTION

Process Name/Title:

## TAPING ASSEMBLY PROCESS

Effectivity Date:

April 30, 2024

Validity Date:

n/a

Model code/Part number:

930B

/

7N0204-7020Ca

Customer:

TRJ

Car Model:

TOYOTA-4 RUNNER

Document No.:

WI-ENG-PDE-880A

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

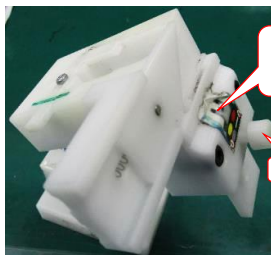
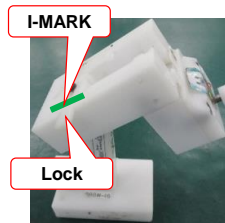

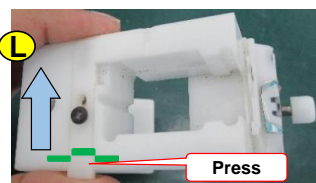


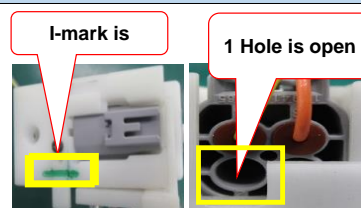

☒ MASSPRO

Revision No.:

1

Page No.:


3 of 7


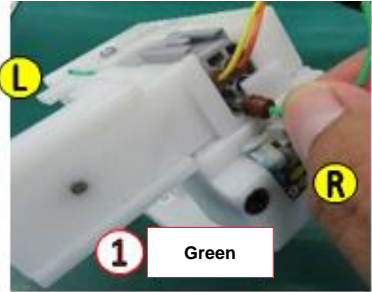

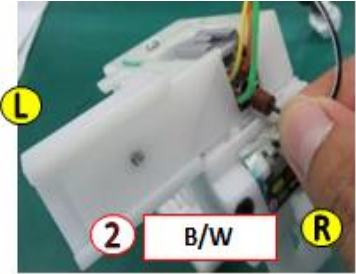
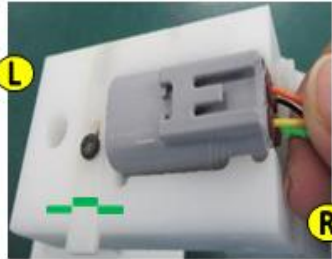
PARTS:	1. Assy parts		JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
4	P1  Connector setting to insertion jig 6188-0066 (GR) (Assy parts)	<div><div>INSERTION JIG</div></div> <div><div>INSERTION JIG ORIENTATION</div></div> <div><div>CONNECTOR ORIENTATION</div></div> <div></div> <div><div>1. Press the guide using right thumb. The slot for <b>G wire</b> will be opened.</div><div>2. Press the lock of insertion jig using left thumb.</div><div>3. Insert the connector <b>6188-0066 (GR)</b> with inserted <b>Y-OR wire</b> using right hand</div></div> <div><div><div>GOOD</div></div><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><b>Important reminders/Note/s:</b> <b>1. Follow the connector orientation</b></div></div>	n/a	

**CONFIDENTIAL:** Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

NBC (Philippines)  
MASTER COPY

DCC Stamp

	<b>WORK INSTRUCTION</b>				Effectivity Date:	<b>April 30, 2024</b>		
	<b>Process Name/Title: TAPING ASSEMBLY PROCESS</b>				Validity Date:	n/a		
	Model code/Part number: <b>930B / 7N0204-7020Ca</b>		Customer: <b>TRJ</b>	Car Model: <b>TOYOTA-4 RUNNER</b>	Document No.:	<b>WI-ENG-PDE-880A</b>		
	Purpose: <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO				Revision No.:	1	Page No.:	4 of 7


<b>PARTS:</b>	1. Assy parts		JIG:	1. Insertion jig	
<b>NO.</b>	<b>PROCESS NAME</b>	<b>WORK PROCEDURE/ ILLUSTRATION</b>	<b>TOOLS/PPE</b>	<b>QUALITY POINTERS</b>	
5	P1  Wire insertion to connector 6188-0066 (GR) (Assy parts)	<div><p>WIRE FACING</p></div> <div><p>1 Hold the <b>G 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>B/W wire</b> will be opened.</p></div> <div><p>3. Hold the <b>B/W 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 then hold the wires and gently pull out the connector from jig using right hand.</p></div>	n/a	<p><b>Important reminders/Note/s:</b></p> <p>1. Please hold the wire near terminal. 2. Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.</p> <p><b>Document references:</b></p> <p>1. Refer to GL-PRO-ASY-029 for Pull-Push procedure. 2. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</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>	

**CONFIDENTIAL:** Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

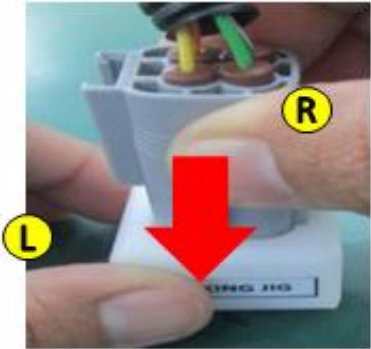
NBC (Philippines)

MASTER COPY



DCC Stamp

	<b>WORK INSTRUCTION</b>				Effectivity Date:	<b>April 30, 2024</b>		
	Process Name/Title: <b>TAPING ASSEMBLY PROCESS</b>				Validity Date:	n/a		
	Model code/Part number: <b>930B / 7N0204-7020Ca</b>		Customer: <b>TRJ</b>	Car Model: <b>TOYOTA-4 RUNNER</b>	Document No.:	<b>WI-ENG-PDE-880A</b>		
	Purpose: <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO				Revision No.:	1	Page No.:	5 of 7

<b>PARTS:</b>	1. Assy parts			JIG:	1. Locking jig
<b>NO.</b>	<b>PROCESS NAME</b>	<b>WORK PROCEDURE/ ILLUSTRATION</b>		<b>TOOLS/PPE</b>	<b>QUALITY POINTERS</b>
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.

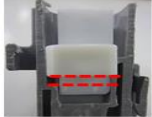


Before pressing      After pressing

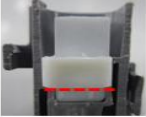
**Connector Cross Sectional View**



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


**CONFIDENTIAL:** Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

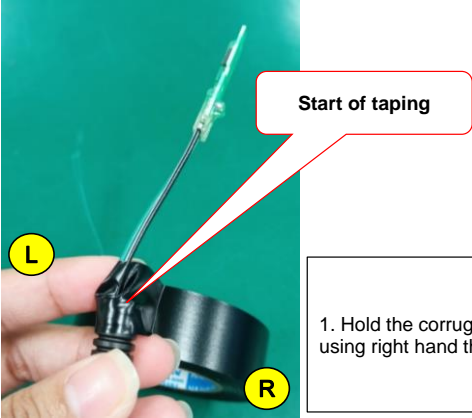
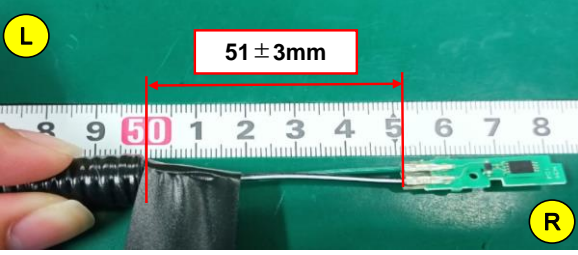
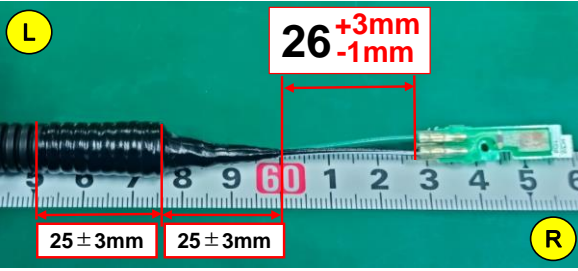

**NBC (Philippines)**

**MASTER COPY**

DCC Stamp



	<b>WORK INSTRUCTION</b>				Effectivity Date:	April 30, 2024		
	Process Name/Title: <b>TAPING ASSEMBLY PROCESS</b>				Validity Date:	n/a		
	Model code/Part number: <b>930B / 7N0204-7020Ca</b>		Customer: <b>TRJ</b>	Car Model: <b>TOYOTA-4 RUNNER</b>	Document No.:	<b>WI-ENG-PDE-880A</b>		
	Purpose: <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO				Revision No.:	1	Page No.:	6 of 7

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

**CONFIDENTIAL:** Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

**NBC (Philippines)**  
**MASTER COPY**

DCC Stamp



# WORK INSTRUCTION

Process Name/Title:

## TAPING ASSEMBLY PROCESS

Effectivity Date:

April 30, 2024

Validity Date:

n/a

Model code/Part number:

930B

/

7N0204-7020Ca

Customer:

TRJ

Car Model:

TOYOTA-4 RUNNER

Document No.:

WI-ENG-PDE-880A

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Revision No.:

1

Page No.:

7 of 7

PARTS:

1. Assy parts

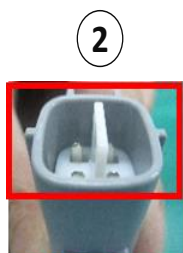
JIG:

n/a

### VISUAL INSPECTION

## TAPING - P1

# 7N0204-7020C



NO GOOD



GOOD



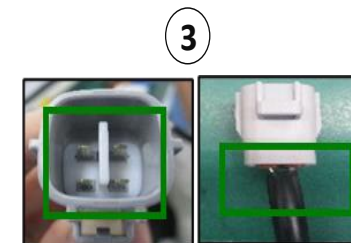
1 No Wrong Insert

2 No Unlock/ Halflocked Connector

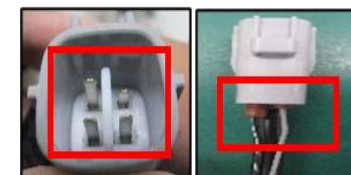
3 No Terminal Backing Out

4 No Missing tape

5 No Deformed Hotmelted



GOOD



NO GOOD



NO GOOD

**CONFIDENTIAL:** Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

NBC (Philippines)  
MASTER COPY

DCC Stamp