

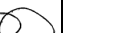


Revision History							Prepared by	Reviewed by	Approved by	Noted by
Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted				
01/27/25	2	Transfer process 2-6 from Offline and process 10-11 from P2 due to process improvement. Improved Table lay-out and Visual inspection/Quality checkpoint.	D.Castillo	C.Villanueva	A. Arañes	n/a	 D. Castillo	 C. Villanueva	 A. Arañes	n/a
09/12/23	1	Change purpose from pre launch to mass pro. Additional of table lay-out	A.Hernandez	J.Loterte	C.Villanueva	A. Arañes				
08/02/23	0	Initial issue.	D.Castillo	J.Loterte	C.Villanueva	A. Arañes				

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## WORK INSTRUCTION

## TAPING ASSEMBLY PROCESS

Effectivity Date:

January 27, 2025

Process Name/Title:

Validity Date:

n/a

Model code/Part number:

700B / 7N0099-7020

Customer: TRJ

Car Model: Toyota-Land Cruiser

Document No.:

WI-ENG-PDE-716A

Purpose:

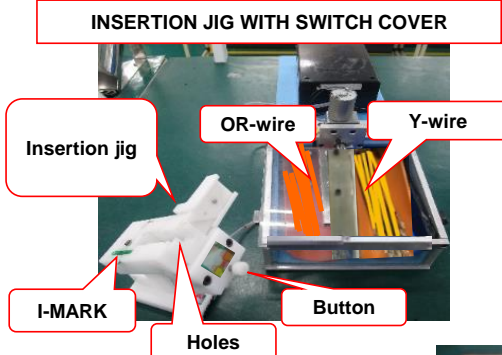

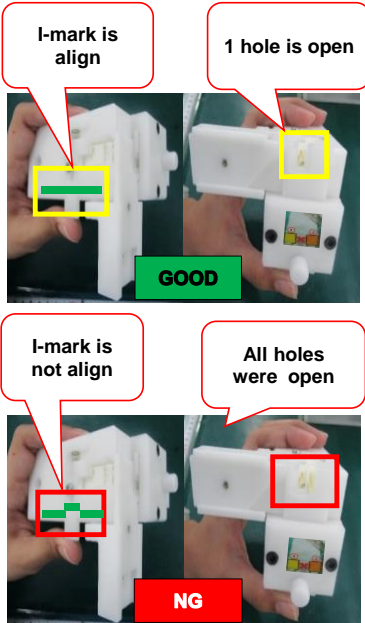
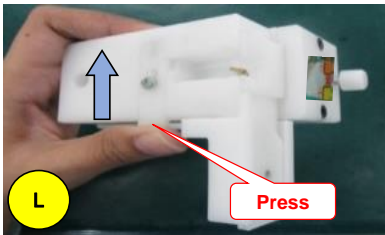
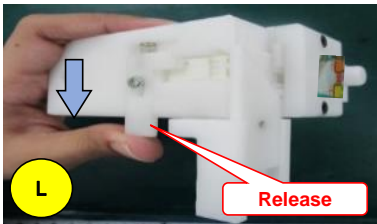
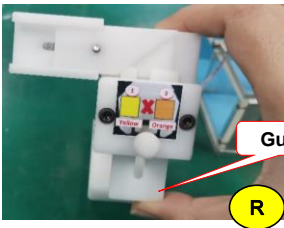
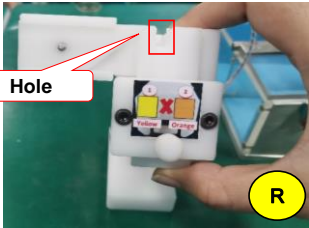
☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

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PARTS:		1. Connector 6098-2220(W)		JIG:	1. Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
2	P1 Connector setting 6098-2220(W)	<p><b>INSERTION JIG WITH SWITCH COVER</b></p>  <p><b>CONNECTOR ORIENTATION</b></p>  <p><b>Connector Orientation Illustration</b></p>  <p>1. Press the lock of insertion jig using left thumb.</p>  <p>2. Insert the connector <b>6098-2220 (W)</b> into jig using right hand and release the lock. <b>Note: Follow the connector orientation.</b></p>  <p>3. Push the guide using left hand. The slot for <b>Y wire</b> will be opened.</p>  		N/A	1. Use the provided jig per model 2. No wrong orientation of connector 3. No wrong use of connector 4. No damaged connector

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# WORK INSTRUCTION

## TAPING ASSEMBLY PROCESS

Effectivity Date:

January 27, 2025

Process Name/Title:

Model code/Part number:

700B / 7N0099-7020

Customer: TRJ

Car Model: Toyota-Land Cruiser

Validity Date:

n/a

Document No.:

WI-ENG-PDE-716A

Purpose:

☐ PROTOTYPE

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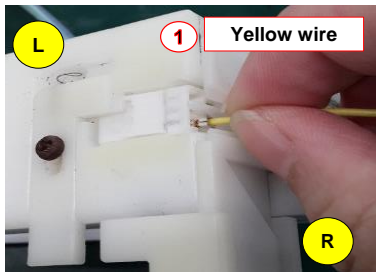
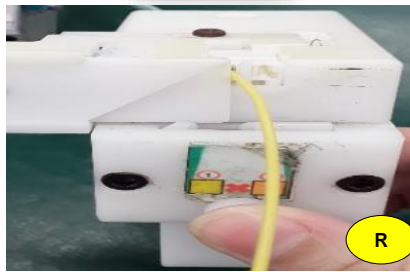
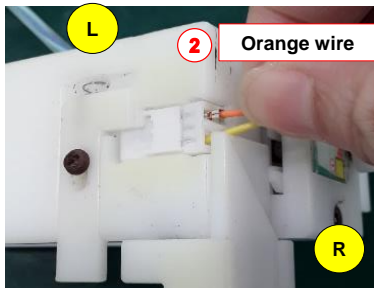
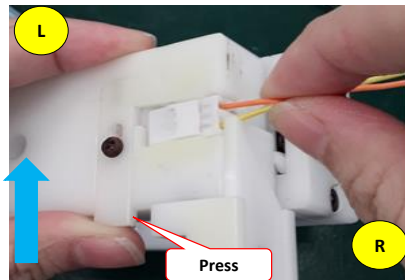
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PARTS:		1. AVSSf 0.3 Y L=713±3mm 2. AVSSf 0.3 OR L=713±3mm	JIG:	1. Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
3	P1 Wire insertion to connector 6098-2220 (W)	<div><p><b>TERMINAL FACING</b></p></div> <div><p>1. Hold the insertion jig using left hand. Get the <b>Y wire</b> and insert to connector using right hand.</p></div> <div><p>2. Press the button using right thumb the slot for <b>OR wire</b> will be opened.</p></div> <div><p>3. Get the <b>OR wire</b> and insert to connector using right hand.</p></div> <div><p>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.</p></div>	N/A	<p>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deform terminal 5. No wrong wire facing</p> <p><b>Important reminders/Note/s:</b> 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> 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>

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# WORK INSTRUCTION

Process Name/Title:

## TAPING ASSEMBLY PROCESS

Effectivity Date:

January 27, 2025

Validity Date:

n/a

Model code/Part number:

700B / 7N0099-7020

Customer:

TRJ

Car Model:

Toyota-Land Cruiser

Document No.:

WI-ENG-PDE-716A

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

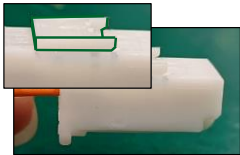
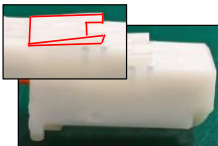
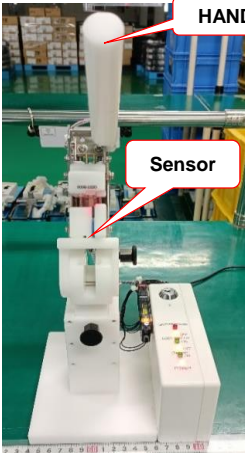
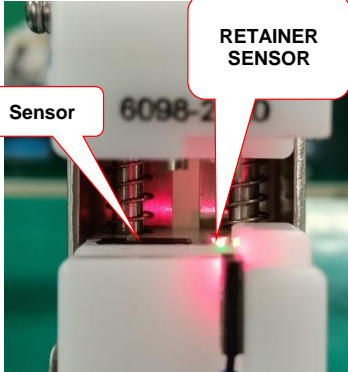
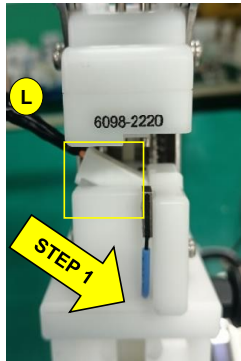
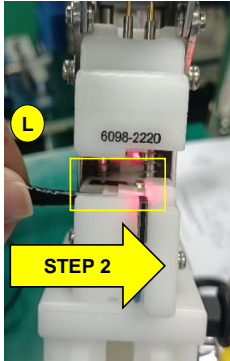
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PARTS:	1. Assy parts		JIG:	1. Locking jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
4	P1	<div><div><div>CONNECTOR RETAINER ILLUSTRATION</div><div>SIDE VIEW</div><div><div></div><div>GOOD</div></div><div><div></div><div>NG</div></div></div></div> <div><div>1. Check the Retainer lock of connector before insertion to locking jig. <i>Note: Must be <b>NO</b> half-locked condition prior connector locking.</i></div></div>		<div><div>1. Please ensure that Connector lock/retainer will not touch or hit by any object prior insertion into locking jig to avoid half-lock connector. 2. Maintain 10mm proper holding of wire to connector 3. Connector must be fully inserted to connector slot. 4. Make sure no offset setting before locking process. 5. No wrong setting of connector. 6. No damaged connector lock 7. No unlocked/ half-locked connector.</div></div>
		<div><div><div><div></div><div></div><div></div><div></div></div></div><div><div>2. Hold the assy parts using left hand and insert into connector locking jig based on the direction of arrow. Make sure the connector touch the sensor. Sound will be heard if properly lock. <b>NOTE: CONNECTOR LOCKING JIG WILL NOT FUNCTION IF CONNECTOR NOT REACH THE SENSOR.</b></div></div></div>		<div><div>Important reminders/Note/s:</div><div><div>1. Incomplete locking process will alarm the jig. 2. No retainer in connector cannot proceed. 3. If encountered abnormality, STOP and immediately CALL the attention of the leader. WAIT for further instruction and continue the process.</div></div></div>

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**WORK INSTRUCTION**

Process Name/Title:

**TAPING ASSEMBLY PROCESS**

Effectivity Date:

January 27, 2025

Model code/Part number:

**700B / 7N0099-7020**

Customer:

**TRJ**

Car Model:

**Toyota-Land Cruiser**

Document No.:

**WI-ENG-PDE-716A**

Purpose:


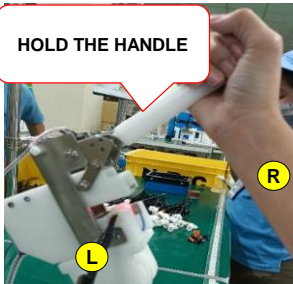
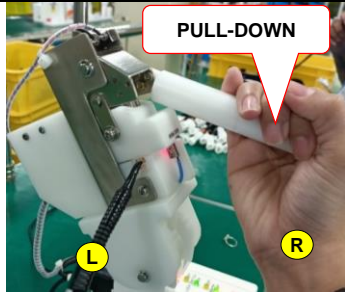

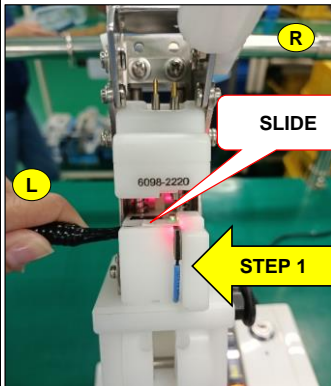
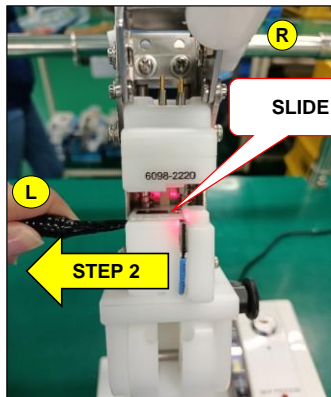

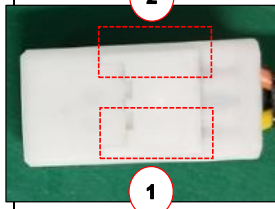
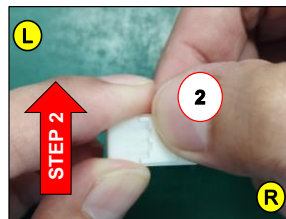
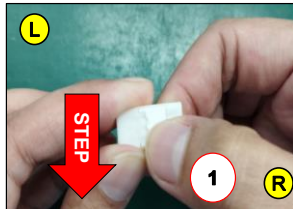
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PARTS:		1. Assy parts		JIG:	1. Locking jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
4	P1  Connector lock (Continuation)	<div><div></div><div></div></div> <div><p>3. Hold the handle of the connector locking jig using right hand then gently pull down and bring back to original position after locking. Note: Pull down one time only.</p></div>			<div><p>1. Please ensure that Connector lock/retainer will not touch or hit by any object prior insertion into locking jig to avoid half-lock connector.</p><p>2. Maintain 10mm proper holding of wire to connector</p><p>3.Connector must be fully inserted to connector slot.</p><p>4. Make sure no offset setting before locking process.</p><p>5.No wrong setting of connector.</p><p>6. No damaged connector lock</p><p>7. No unlocked/ half-locked connector.</p></div> <div><p><b>Important reminders/Note/s:</b></p><p><b>1. Incomplete locking process will alarm the jig.</b></p><p><b>2. No retainer in connector cannot proceed.</b></p><p><b>3. If encountered abnormality, STOP and immediately CALL the attention of the leader. WAIT for further instruction and continue the process.</b></p></div>
		<div><div></div><div></div></div> <div><p>4. Remove the locked connector using left hand based on the illustration, follow the direction of arrow.</p></div>			
		<div><div></div><div></div></div> <div><p>5. Ensure that connector is in locked condition by slide touching the connector lock based on the sequence illustrated.</p></div>			

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**WORK INSTRUCTION**

Effectivity Date:

January 27, 2025

Process Name/Title:

**TAPING ASSEMBLY PROCESS**

Validity Date:

n/a

Model code/Part number:

**700B / 7N0099-7020**Customer: **TRJ**Car Model: **Toyota-Land Cruiser**

Document No.:

**WI-ENG-PDE-716A**

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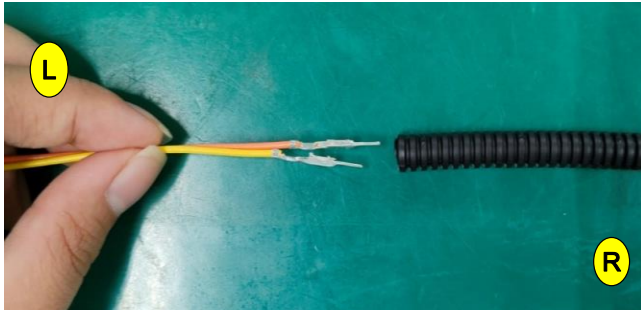
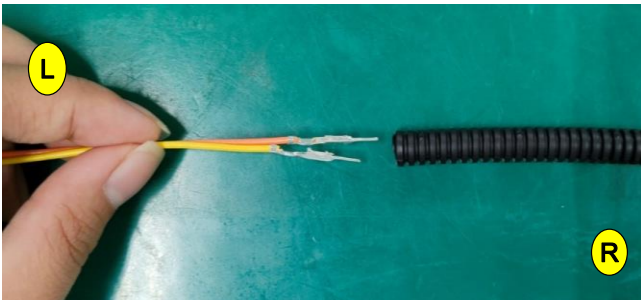
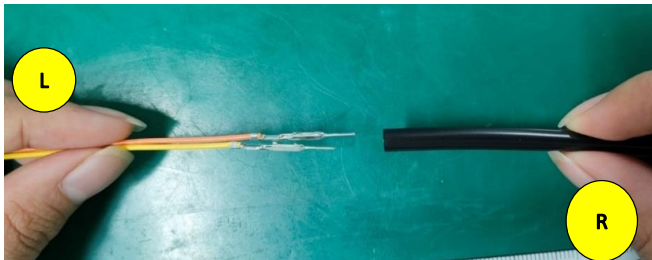
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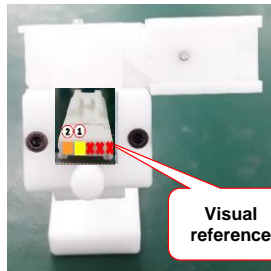
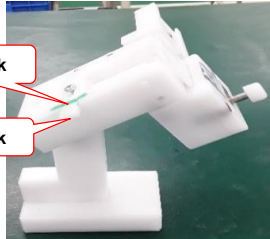

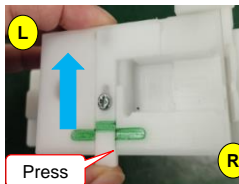
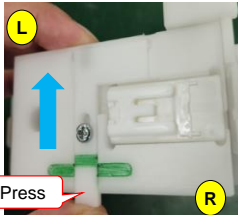
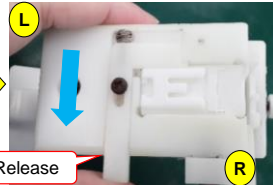
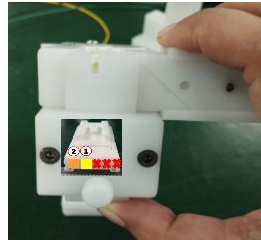


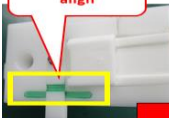


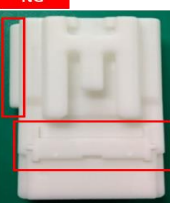
<b>PARTS:</b>	1. Assy parts 2. Black Corrugated Tube Ø5 L=316±3mm (No Slit) 3. Black Corrugated Tube Ø5 L=165±3mm (No Slit) 4. Black SV tube (Vinyl) Ø5 L=188±3mm			JIG:	n/a
<b>NO.</b>	<b>PROCESS NAME</b>	<b>WORK PROCEDURE/ ILLUSTRATION</b>		<b>TOOLS/PPE</b>	<b>QUALITY POINTERS</b>
5	Wire insertion to Black Corrugated tube Ø5 L=316±3mm (No slit)	 <p>1. Get the Black COT <b>Ø5 L=316±3mm (No slit)</b> using right hand and insert <b>Y-OR wires</b> using left hand.</p>		N/A	1. No wrong use of parts 2. No deformed terminal
6	P1 Wire Insertion to Black Corrugated tube Ø5 L=165±3mm (No Slit)	 <p>1. Get the Black Corrugated Tube <b>Ø5 L=165±3mm (No Slit)</b> using right hand then insert <b>Y-OR wires</b> using left hand.</p>		N/A	1. No wrong use of parts 2. No deformed terminal
7	Wire insertion to Black SV tube (Vinyl) Ø5 L=188±3mm	 <p>1. Get the Black SV tube (Vinyl) <b>Ø5 L=188±3mm</b> using right hand and insert <b>Y-OR</b> using left hand.</p>		N/A	1. No wrong use of parts 2. No deformed terminal

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		WORK INSTRUCTION			Effectivity Date:		January 27, 2025			
		TAPING ASSEMBLY PROCESS			Validity Date:		n/a			
		Model code/Part number: 700B / 7N0099-7020		Customer: TRJ	Car Model: Toyota-Land Cruiser		Document No.:		WI-ENG-PDE-716A	
		Purpose: <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO				Revision No.:		2	Page No.:	7 of 10

PARTS:		1. Connector 6098-3802 (W)			JIG:	1. Insertion jig		
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS		
8	P1 Connector setting 6098-3802 (W)	<div><div><div>INSERTION JIG</div></div><div><div>INSERTION JIG ORIENTATION</div></div><div><div>CONNECTOR ORIENTATION</div></div></div> <div><div><p>Press</p></div><div><p>Press</p></div><div><p>Release</p></div></div> <div><div><p>1. Press the Lock of insertion jig using left hand.</p></div><div><p>2. Get the connector 6098-3802 (W) using right hand and insert to insertion jig. Release the lock after insertion.</p></div><div><p>3. Push the lower wire guide upward using right hand. Slot for yellow wire will be open.</p></div></div> <div></div>			N/A	<div><div>Connector Orientation Illustration</div><div><div><p>I-mark is align</p></div><div><p>1 Hole is open</p></div><div>GOOD</div></div><div><div><p>I-mark is not align</p></div><div><p>1 Hole is open</p></div><div>NG</div></div><div>CONNECTOR ILLUSTRATION</div><div><div><p>6098-3802 (W)</p></div><div><p>6098-5668 (W)</p></div></div><div><p>1. Use the provided jig per model</p><p>2. No wrong orientation of connector</p><p>3. No wrong use of connector</p><p>4. No damaged connector</p></div></div>		

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**WORK INSTRUCTION**

Effectivity Date:

January 27, 2025

Process Name/Title:

**TAPING ASSEMBLY PROCESS**

Validity Date:

n/a

Model code/Part number:

**700B / 7N0099-7020**

Customer:

**TRJ**

Car Model:

**Toyota-Land Cruiser**

Document No.:

**WI-ENG-PDE-716A**

Purpose:



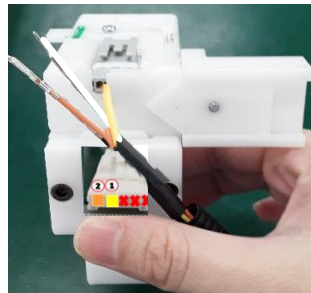
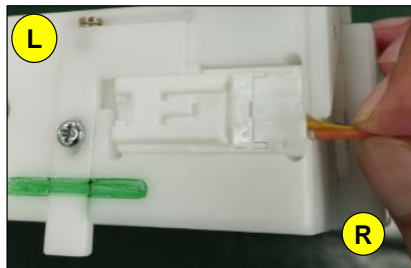
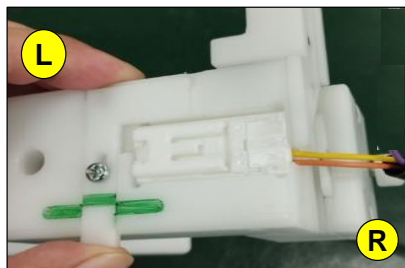
☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

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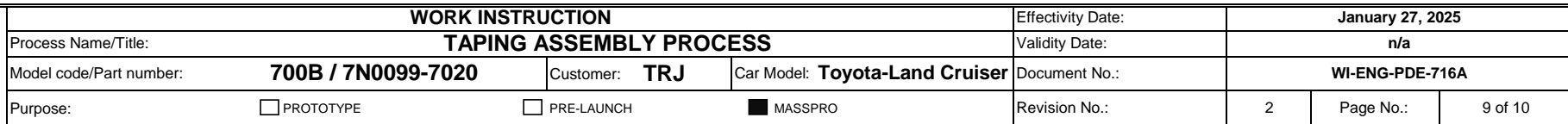
PARTS:	1. Assy parts			JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
9	P1	<div><div><div>TERMINAL FACING</div></div><div><div>1. Get the assy part and hold the <b>Y wire</b> then insert to terminal slot <b>1</b> using right hand.</div></div><div><div>2. After insertion of <b>Y wire</b> press the button using right thumb. Slot for <b>OR wire</b> will be opened.</div></div><div><div>3. Get the <b>OR wire</b> then insert to terminal slot <b>2</b> 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></div></div>		N/A	<div>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deform terminal 5. No wrong wire facing</div> <div><b>Important reminders/Note/s:</b> <b>1. Please hold the wire near terminal.</b> <b>2. Make sure wires are properly inserted.</b> <b>Conduct Pull-Push-Pull-Push after insertion.</b> <b>Do not exert extra force.</b></div> <div><b>Document references:</b> <b>1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</b> <b>2. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</b></div>

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**WORK INSTRUCTION**

Process Name/Title:

**TAPING ASSEMBLY PROCESS**

Effectivity Date:

January 27, 2025

Model code/Part number:

**700B / 7N0099-7020**Customer: **TRJ**Car Model: **Toyota-Land Cruiser**

Document No.:

**WI-ENG-PDE-716A**

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

2

Page No.:

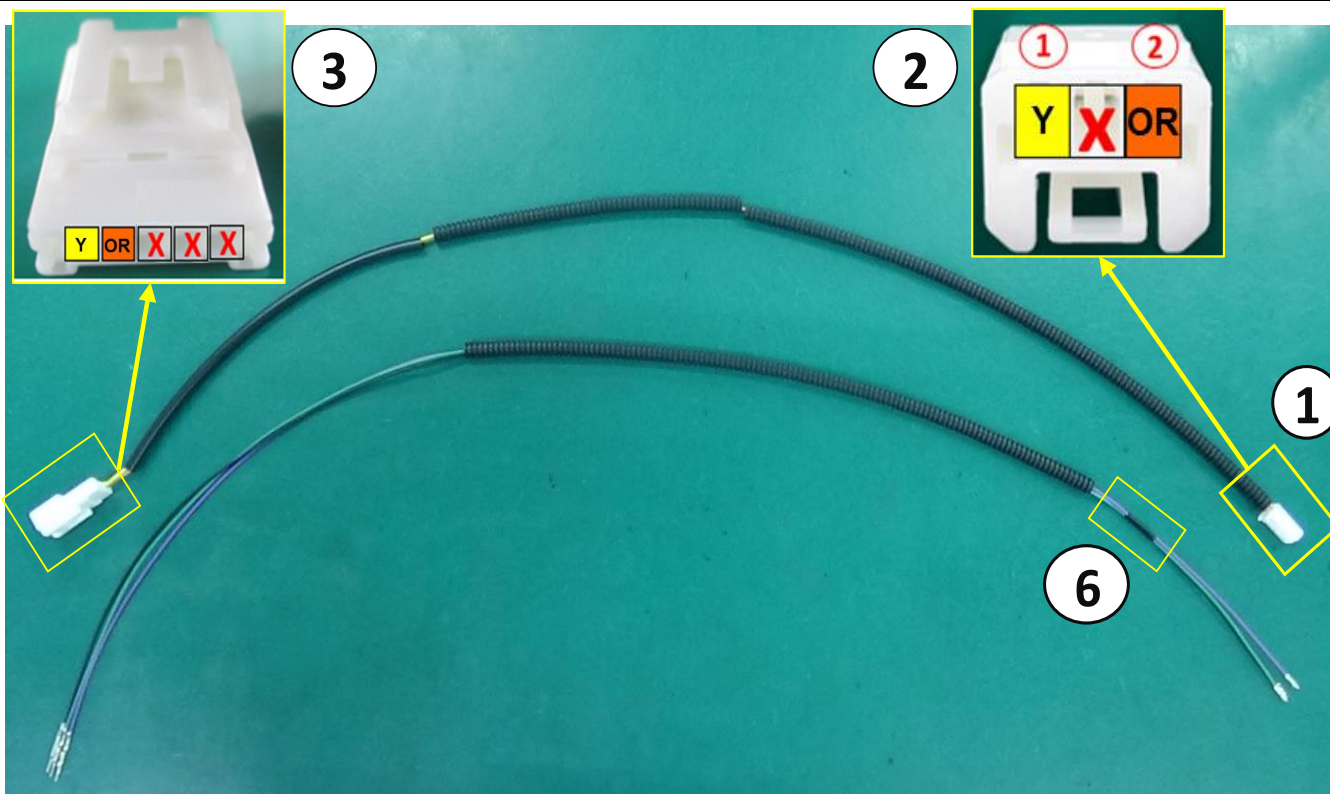
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**PARTS:**

1. Assy parts

JIG:

n/a

**VISUAL INSPECTION/ QUALITY CHECKPOINTS****TAPING - P1****7N0099-7020**

- ① No **Unlocked/ Half-locked connector**
- ② ③ No **Wrong Insert**
- ④ No **Deformed terminal**
- ⑤ No **Terminal backing out**
- ⑥ No **Missing Tape**
- ⑦ No **Missing parts**

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