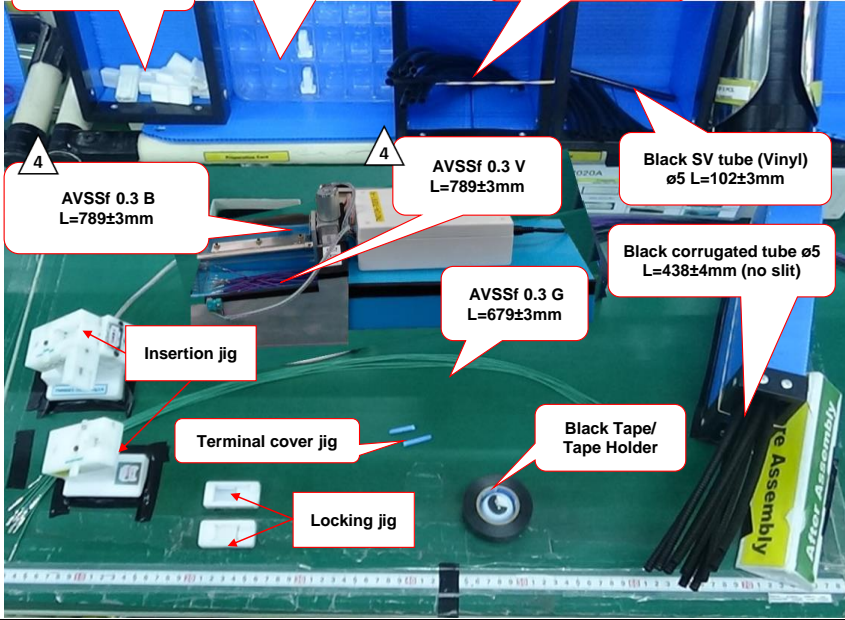


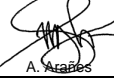
	WORK INSTRUCTION TAPING ASSEMBLY PROCESS				Effectivity Date: July 31, 2024	
	Process Name/Title:				Validity Date: n/a	
	Model code/Part number: 750B / 7M0681-7020A		Customer: TRJ	Car Model: TOYOTA HARRIER	Document No.: WI-ENG-PDE-215A	
	Purpose: <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO				Revision No.: 4 Page No.: 1 of 11	

PARTS: 1. All parts; Connector 6098-3810 (W); Connector 6098-3802 (W); Black SV tube (Vinyl) ø5 L=102±3mm; Black SV tube (Vinyl) ø5 L=188mm; AVSSf 0.3 G L=679±3mm; AVSSf 0.3 V-B L=789±3mm; Black corrugated tube ø5 L=438±4mm (no slit)		JIG: 1. Insertion jig 2. Locking jig 3. Terminal Cover Jig		
NO. 1	PROCESS NAME P1 Table Lay-out	<div style="text-align: center;"> 4 WORK PROCEDURE/ ILLUSTRATION </div> <div style="text-align: center;"> TABLE LAY-OUT </div> 	<div style="border: 1px dashed red; padding: 5px;"> Safety Instruction Be sure to wear prescribed personal protective equipment during operation (gloves, finger cots, etc.) </div> <div style="border: 1px dashed red; padding: 5px; margin-top: 10px;"> Housekeeping 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 dashed red; padding: 5px; margin-top: 10px;"> Alert level For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action. </div>	QUALITY POINTERS Document reference/s: 1. 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	
07/31/24	4	Transfer process from Offline assembly to Taping assembly process (WI-ENG-PDE-215A) and transfer Taping 2 and Y-taping to P2 (WI-ENG-PDE-215B) due to process improvement. Aligned switch cover to insertion jig. Update table lay-out and Visual inspection/ Quality checkpoints.	D. Castillo	C. Villanueva	A. Arañes	n/a	 D. Castillo	 C. Villanueva	 A. Arañes	n/a
03/10/23	3	Correction from tape width to 25±3mm.	D. Castillo	C. Villanueva	A. Shimamura	A. Arañes				
02/25/23	2	Work instruction improvement: Change MP from 3MP to 2MP. Transfer Y-taping process from P2 to P1 (Page 7). Change term Black vinyl tube to Black SV tube (Vinyl); Inclusion of Table lay-out (Page 1) and Quality checkpoint (Page 8). Update quality pointers.	D. Castillo	C. Villanueva	A. Shimamura	A. Arañes				
Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Est. Date:	January 26, 2021		

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TAPING ASSEMBLY PROCESS

Effectivity Date:

July 31, 2024

Process Name/Title:

Model code/Part number:

750B / 7M0681-7020A

Customer: TRJ

Car Model: TOYOTA HARRIER

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Purpose:

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PARTS:

1. Connector 6098-3802 (W)

JIG:

1. Insertion jig with switch cover

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

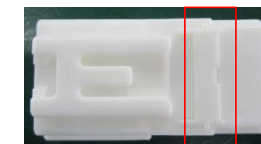
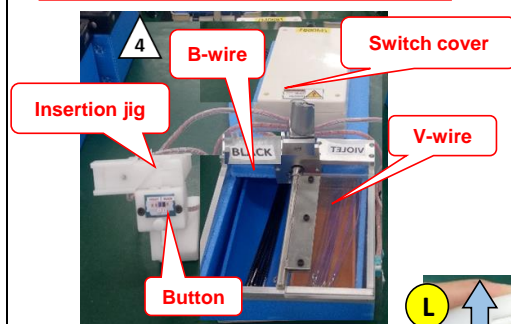
QUALITY POINTERS

2

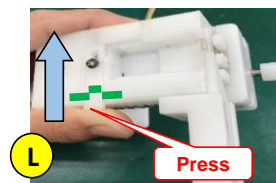
P1

Connector setting to
insertion jig
6098-3802 (W)

INSERTION JIG WITH SWITCH COVER

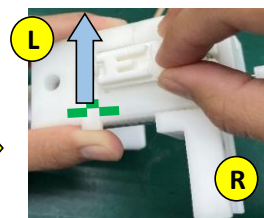


Connector Orientation

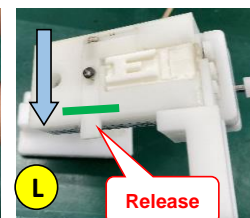


Press

1. Press the lock of insertion jig using left thumb.



R



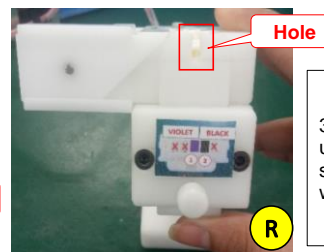
L

Release

2. Insert the connector **6098-3802** into jig using right hand and release the lock.



Guide



Hole

3. Push the guide using right hand. The slot for **Violet wire** will be opened.

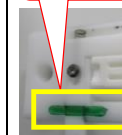
R

N/A

1. Use provided jig per model
2. No wrong usage of parts
3. No wrong orientation of connector
4. No damaged connector

Connector Orientation Illustration

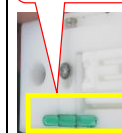
I-mark is align



1 Hole is open



I-mark is not align



GOOD

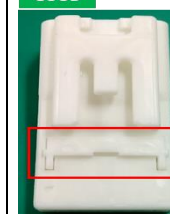
2 holes are open



NG

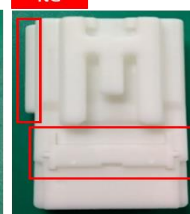
CONNECTOR ILLUSTRATION

GOOD



6098-3802 (W)

NG



6098-5668 (W)

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WORK INSTRUCTION

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Model code/Part number:

750B / 7M0681-7020A

Customer: TRJ

Car Model: TOYOTA HARRIER

Document No.:

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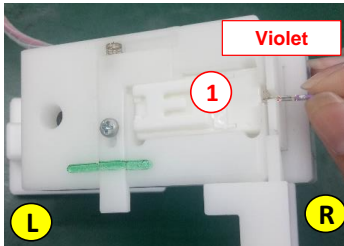
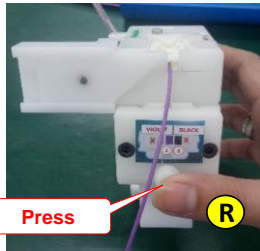
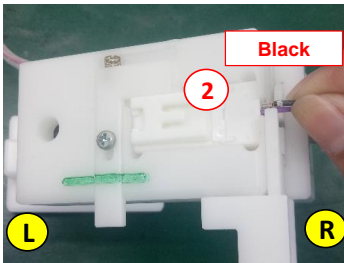
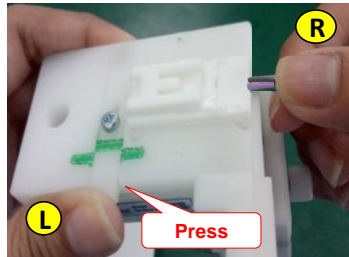
☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

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PARTS:		1. AVSSf 0.3 B-V L=789±3mm 2. Connector 6098-3802 (W)		JIG:	1. Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
3	P1 <div>4</div> Wire insertion to connector 6098-3802 (W)	<div><div><div>Wire facing</div></div><div><div>Violet</div><div>1</div><div>L R</div><div>1. Get the Violet wire then insert to terminal slot ① using right hand.</div></div><div><div>Press</div><div>R</div><div>2. After insertion of Violet wire press the button using right hand. The slot for Black wire will be opened.</div></div><div><div>Black</div><div>2</div><div>L R</div><div>3. Get the Black wire then insert to terminal slot ② using right hand.</div></div><div><div>Press</div><div>R L</div><div>4. After insertion, press 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 deformed terminal 5. No wrong wire facing</div> <div>Important reminders/Note/s: 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.</div> <div>Document references: 1. Refer to GL-PRO-ASY-029 for Pull-Push procedure. 2. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</div>

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TAPING ASSEMBLY PROCESS

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July 31, 2024

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Model code/Part number:

750B / 7M0681-7020A

Customer: TRJ

Car Model: TOYOTA HARRIER

Document No.:

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Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH


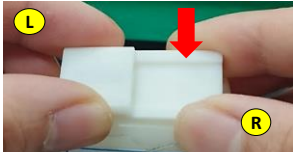



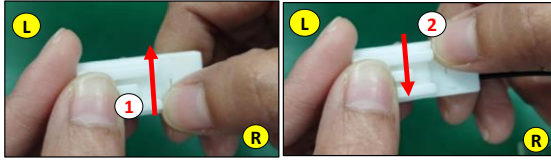


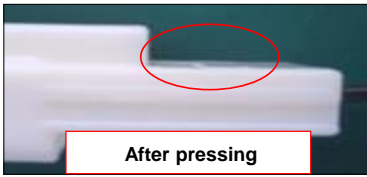
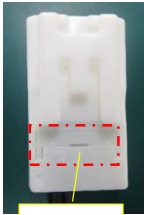
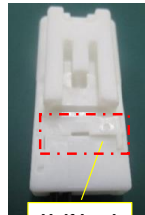
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PARTS:	1. Assy parts			JIG:	1. Locking jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
4	P1 Connector lock	<div><p>1. Load the connector into the jig holding both side of the connector, tip first.</p></div> <div><p>2. Press the lower part of connector to fully insert into the locking jig.</p></div> <div><p>Right thumb-Lower Left thumb-middle</p><p>3. Press the lower parts of connector using right hand while left hand holding the middle.</p></div> <div><p>Right thumb-upper Left thumb-middle</p><p>4. Press the upper part of connector using right hand while left hand holding the middle.</p></div> <div><p>Right thumb-middle Left thumb-middle</p><p>5. Lift then press the connector in the middle using left and right hand.</p></div> <div><p>6. Ensure that connector is in locked condition by slide touching the connector lock based on the sequence illustrated.</p></div>		<div><p>LOCKING JIG</p></div>	<p>1. Use the provided jig tool to lock the connector. 2. No unlock/half-locked connector</p> <div><p>Before pressing</p><p>After pressing</p></div> <div><div><p>GOOD Full Lock</p></div><div><p>NG Half Lock</p></div></div> <p>Important reminders/Note/s: 1. MANUAL LOCKING MAY CAUSE DAMAGED CONNECTOR</p>

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TAPING ASSEMBLY PROCESS

Effectivity Date:

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Model code/Part number:

750B / 7M0681-7020ACustomer: **TRJ**Car Model: **TOYOTA HARRIER**

Document No.:

WI-ENG-PDE-215A

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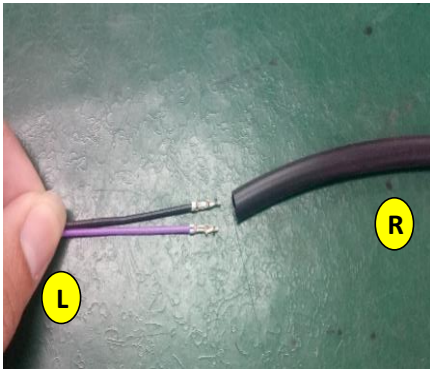

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PARTS:		1. Assy parts 2.Black SV tube (Vinyl) Ø5 L=188±3mm	JIG:	N/A
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
5	P1 <div>4</div> Wire insertion to Black SV tube (Vinyl) Ø5 L=188±3mm	<div></div> <div>1. Get Black SV tube (Vinyl) Ø5 L=188±3mm using right hand then insert Violet and Black wire using left hand.</div> <div></div>	N/A	1. No wrong use of parts 2. No deformed terminal

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TOYOTA HARRIER

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PARTS:	1. Assy parts 2. Black tape		JIG:	N/A
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
6	P1 Taping 1 Black SV tube (Vinyl) to wire near connector	<div data-bbox="768 387 1214 593"></div> <div data-bbox="725 598 1236 699"><p>1. Get the assy parts, measure the end of the SV tube (Vinyl) up to the connector 25±3mm using both hands.</p></div> <div data-bbox="723 708 994 1066"></div> <div data-bbox="1001 839 1413 971"><p>2. Hold the SV tube (Vinyl) using left hand then start taping process using both hands.</p></div> <div data-bbox="553 1086 1066 1316"></div> <div data-bbox="1072 1161 1462 1272"><p>3. After taping, check the measurement and taping condition.</p></div>	<div data-bbox="1496 679 1706 730">Measuring tape</div> <div data-bbox="1480 735 1720 834"></div>	<p>Important reminders/Note/s:</p> <p>1. Please use calibrated/verified measuring tape when getting the measurement.</p> <p>1. No loose tape 2. No peel-off tape 3. No flip-out tape 4. No wrong dimension 5. No wrong use of tape 6. No missing tape</p> <p>Document reference/s:</p> <p>1. Refer to WI-PRO-ASY-001 for taping procedure.</p>

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Customer:

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Car Model:

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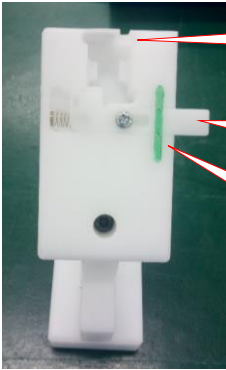
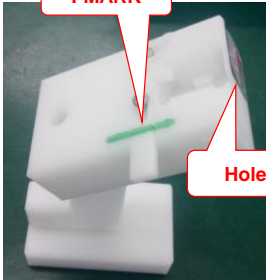

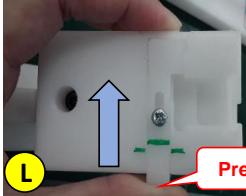
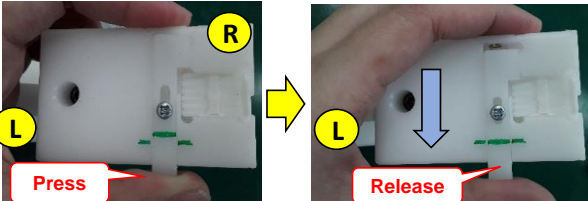




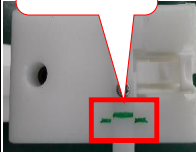


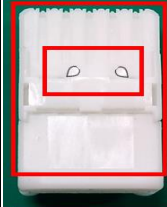
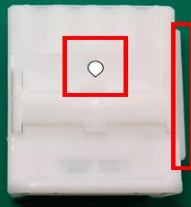
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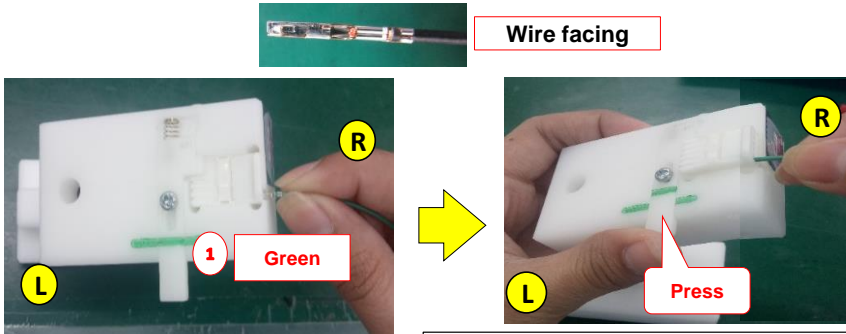
PARTS:	1. Connector 6098-3810 (W)		JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
7	P1 Connector setting to insertion jig 6098-3810 (W)	<div><div><div>INSERTION JIG</div><div></div></div><div><div><div>Insertion jig orientation</div></div><div><div>Connector orientation</div></div></div><div><div><div><div>1. Press the lock of insertion jig using left thumb.</div></div><div><div><div>2. Insert the connector 6098-3810 (W) into jig using right hand and release the lock.</div></div></div><div><div><div>3. Check the hole/terminal slot for Green wire.</div></div></div></div><div>N/A</div><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><div>Connector Orientation Illustration</div><div><div><div>I-mark is align</div></div><div><div>1 hole is open</div></div><div><div>GOOD</div></div><div><div><div>I-mark is not align</div></div><div><div>Half of hole is open</div></div><div><div>NG</div></div></div><div><div>CONNECTOR ILLUSTRATION</div><div><div><div>GOOD</div><div>6098-3810 (W)</div></div><div><div>NG</div><div>6098-5677 (W)</div></div></div></div></div></div></div></div></div></div>		

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	Process Name/Title: TAPING ASSEMBLY PROCESS				Validity Date:		n/a	
	Model code/Part number: 750B / 7M0681-7020A		Customer: TRJ	Car Model: TOYOTA HARRIER	Document No.:		WI-ENG-PDE-215A	
	Purpose: <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO				Revision No.:		4	Page No.: 8 of 11


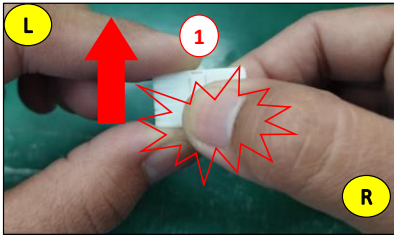
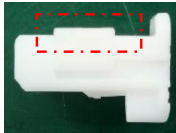


PARTS:	1. AVSSf 0.3 G L=679±3mm 2. Connector 6098-3810 (W) 3. Black SV tube (Vinyl) ø5 L=102±3mm			JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
8	P1	Wire Insertion to SV tube (Vinyl) ø5 L=102±3mm	<div><p>Get and hold the SV tube (Vinyl) ø5 L=102±3mm using left hand. Then, get the Green wire and insert to SV tube (Vinyl) using right hand.</p></div>	N/A	1. No wrong usage of parts. 2. No deformed terminal.
9		Wire insertion to connector 6098-3810 (W)	<div><p>1. Get the Green wire and insert to terminal slot ① using right hand.</p><p>2. After insertion, press the lock using left thumb and then hold the wires and gently pull out the connector from jig using right hand.</p></div>		1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deform terminal 5. No wrong wire facing Document references: 1. Refer to GL-PRO-ASY-029 for Pull-Push procedure. 2. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance Important reminders/Note/s: 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.

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	Model code/Part number: 750B / 7M0681-7020A		Customer: TRJ	Car Model: TOYOTA HARRIER	Document No.:	WI-ENG-PDE-215A		
	Purpose: <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO				Revision No.:	4	Page No.:	9 of 11

PARTS:	1. Assy parts			JIG:	1. Locking jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
10	P1	Connector Lock			
		<div><div>1. Put the connector into locking jig using right hand then press to lock 2x.</div><div>2. Ensure that connector is in locked condition by slide touching the connector lock based on the sequence illustrated.</div></div> <div><div>Before Pressing</div><div>After Pressing</div></div> <div><div>LOCKING JIG</div></div>		<div>1. Use provided jig tools per model 2. No unlock/ half-locked connector.</div> <div>Important reminders/Note/s: 1. MANUAL LOCKING MAY CAUSE DAMAGED CONNECTOR</div> <div>Document reference/s: 1. Please refer to GL-PRO-ASY-017 for the verification of connector lock.</div>	

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**WORK INSTRUCTION**

Effectivity Date:

July 31, 2024

Process Name/Title:

TAPING ASSEMBLY PROCESS

Validity Date:

n/a

Model code/Part number:

750B / 7M0681-7020A

Customer: TRJ

Car Model: TOYOTA HARRIER

Document No.:

WI-ENG-PDE-215A

Purpose:

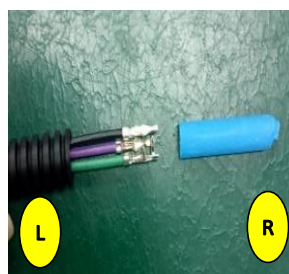
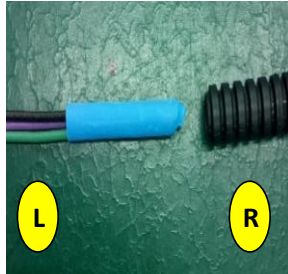
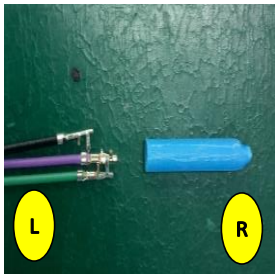

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

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PARTS:		1. Black corrugated tube (no slit) Ø5 L=438±4mm 2. Assy parts		JIG:	1. Terminal Cover Jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
11	P1	<div>Wire insertion to Black corrugated tube (no slit) Ø5 L=438±4mm</div> <div></div> <div>1. Combined the assy parts (G, V and B wire with SV tube (Vinyl)), get the terminal cover jig using right hand and insert wires using left hand.</div> <div>2. Get the Black corrugated tube (no slit) Ø5 L=438±4mm using right hand and insert the wires using left hand.</div> <div>3. After insertion, remove the terminal cover jig using right hand.</div>		<div>Terminal Cover Jig</div> 	1. No wrong use of parts 2. No deformed terminal

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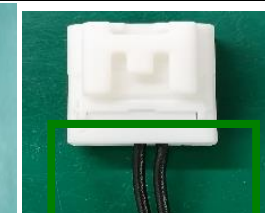
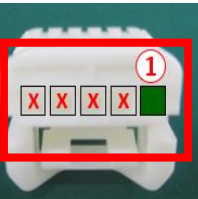
11 of 11

PARTS:

1. Assy parts

JIG:

N/A

**VISUAL INSPECTION/ QUALITY CHECKPOINTS****P1****7M0681-7020A****GOOD****GOOD****GOOD****GOOD****NO GOOD****NO GOOD****NO GOOD****NO GOOD**

① No **Unlock/**
Halflocked Connector
(on 2 connector)

② No **Wrong Insert**
(on 2 connector)

③ No **Missing Tape**

⑤ No **Deformed Terminal**

④ No **Terminal**
Backing Out

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