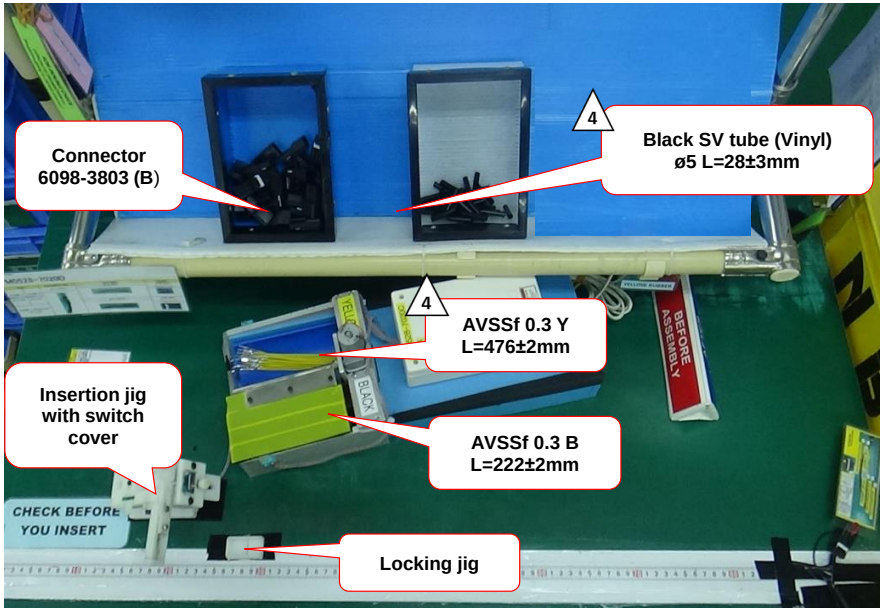
	WORK INSTRUCTION			Effectivity Date:	June 18, 2024		
	Process Name/Title:	OFFLINE ASSEMBLY PROCESS		Validity Date:	n/a		
	Model code/Part number: 310D / 7M0528-7020D	Customer: TRJ	Car Model: TOYOTA RAV4	Document No.:	WI-ENG-PDE-109		
	Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ■ MASSPRO			Revision No.:	4	Page No.:	1 of 7

PARTS: △4	1. Connector 6098-3803 (B); Black SV tube (Vinyl) ø5 L=28±3mm ; AVSSf 0.3 Y L=476±2mm ; AVSSf 0.3 B L=222±2mm	JIG:	1. Insertion jig with switch cover 2. Locking jig

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
1	Offline	△4 Table lay-out	**Table Lay-out**  	**Safety Instruction** Be sure to wear prescribed personal protective equipment during operation (gloves, finger cots, etc.) **Housekeeping** 1. Maintain and always practice 5's. 2. Personal things on the workplace is prohibited. Keep it in your locker. **Alert level** For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.	***Document references:*** *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
06/18/24	4	Change process name from Kitting assembly process to Offline assembly process. Transfer COT to wire insertion process to P1 (WI-ENG-PDE-033A) due to process improvement. Aligned switch cover to insertion jig. Standardize term of SV tube (vinyl). Inlcusion of car model "TOYOTA-RAV 4", Table lay-out, Measurement and Visual inspection/Quality checkpoints).	D.Castillo	C.Villanueva	A. Arañes	N/A	D. Castillo	C. Villanueva	A. Arañes	n/a
05/12/21	3	Removal of validity date. Apply some improvements.	M. Catapang	C. Villanueva	A. Shimamura	A. Arañes				
11/11/20	2	Changed effectivity and validity date. Remove cycle time.	M. Catapang	R. Peñaloza	A. Shimamura	A. Arañes				
Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Est. Date:	November 14, 2019		

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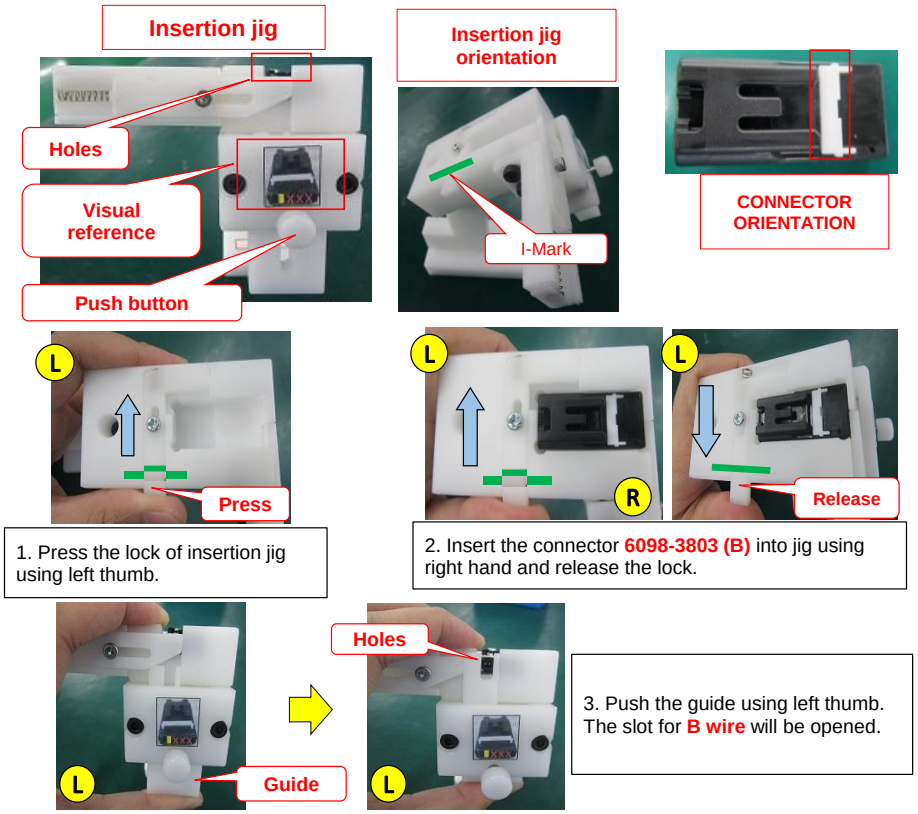
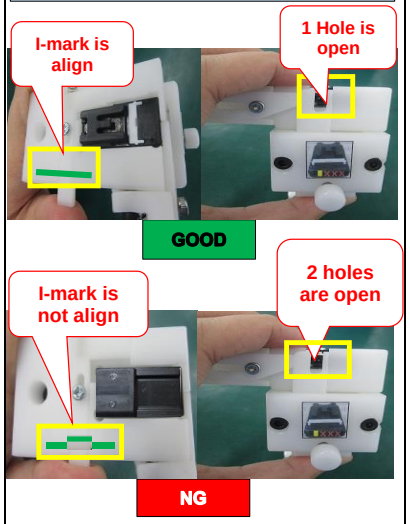
	WORK INSTRUCTION			Effectivity Date:	June 18, 2024		
	Process Name/Title:	OFFLINE ASSEMBLY PROCESS		Validity Date:	n/a		
	Model code/Part number: 310D / 7M0528-7020D	Customer: TRJ	Car Model: TOYOTA RAV4	Document No.:	WI-ENG-PDE-109		
	Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ■ MASSPRO			Revision No.:	4	Page No.:	2 of 7

PARTS:	1. Connector 6098-3803 (B)			JIG:	1. Insertion jig with switch cover
NO.	**PROCESS NAME**		**WORK PROCEDURE/ ILLUSTRATION**	**TOOLS/PPE**	**QUALITY POINTERS**
2	Offline	Connector setting to insertion jig 6098-3803 (B)	 1. Press the lock of insertion jig using left thumb. 2. Insert the connector **6098-3803 (B)** into jig using right hand and release the lock. 3. Push the guide using left thumb. The slot for **B wire** will be opened.	n/a	**Connector Orientation Illustration**  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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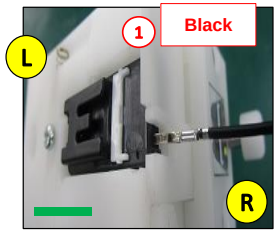
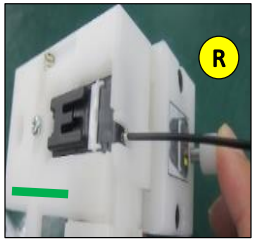
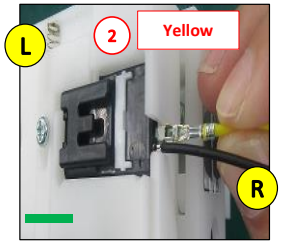
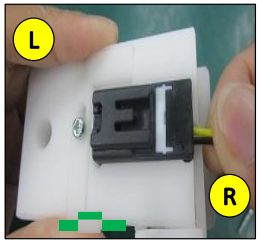
	WORK INSTRUCTION			Effectivity Date:	June 18, 2024		
	Process Name/Title:	OFFLINE ASSEMBLY PROCESS		Validity Date:	n/a		
	Model code/Part number: 310D / 7M0528-7020D	Customer: TRJ	Car Model: TOYOTA RAV4	Document No.:	WI-ENG-PDE-109		
	Purpose: ☐ PROTOTYPE	☐ PRE-LAUNCH	■ MASSPRO	Revision No.:	4	Page No.:	3 of 7

PARTS:	1. AVSSf 0.3 B L=222±2mm;AVSSf 0.3 Y L=476±2mm			JIG:	1. Insertion jig with switch cover
NO.	**PROCESS NAME**		**WORK PROCEDURE/ ILLUSTRATION**	**TOOLS/PPE**	**QUALITY POINTERS**
3	Offline	Wire insertion to connector 6098-3803 (B)	 WIRE FACING  1. Get the **B wire** then insert to terminal slot 1 using right hand. 2. After insertion of **B wire,** press the button using right hand. The slot for **Y wire** will be opened.   3. Get the **Y wire** then insert to terminal slot 2 using right hand. 4. After insertion , push the lock using left hand and then hold the wire and gently pull out the connector from jig using right hand.	n/a	***Important reminders and note/s;*** ***1.Make sure wires are properly inserted.*** ***Conduct Pull-Push-Pull-Push after insertion.*** ***Do not exert extra force.*** ***Document references:*** *1. Refer to **WI-PRO-CNC-017** for Wire and Strip length tolerance.* 1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deformed terminal 5. No wrong wire facing

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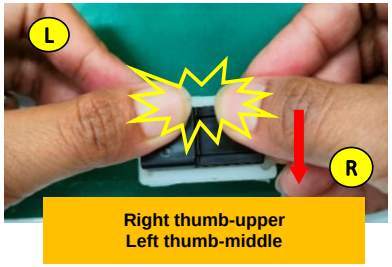
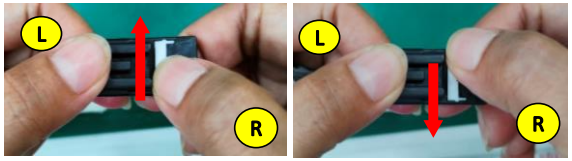
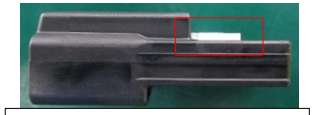
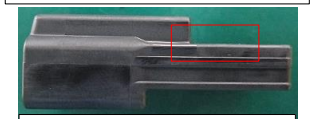
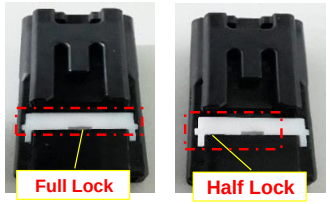
	Process Name/Title:	OFFLINE ASSEMBLY PROCESS		Validity Date:	n/a		
	Model code/Part number: 310D / 7M0528-7020D	Customer: TRJ	Car Model: TOYOTA RAV4	Document No.:	WI-ENG-PDE-109		
	Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ■ MASSPRO			Revision No.:	4	Page No.:	4 of 7

PARTS:	1. Assy parts			JIG:	1. Locking jig
NO.	**PROCESS NAME**		**4 WORK PROCEDURE/ ILLUSTRATION**	**TOOLS/PPE**	**QUALITY POINTERS**
4	Offline	Connector Lock	 1. Load the connetor into the jig holing both side of the connector, tip first. 2. Press the lower part of connector to fully insert into the locking jig. 3. Press the lower parts of connector using right hand while left hand holding the middle.  4. Press the upper part of connector using right hand while left hand holding the middle. 5. Lift then press the connector in the middle using left and right hand.  6. Ensure that connector is in locked condition by slide touching the connector lock based on the sequence illustrated.	LOCKING JIG 	1. No Unlock and half-locked 2. Use provided jig tools per model to avoid damaged lock. ***Important reminders/Note/s:*** *1. Manual locking may cause damaged connector* ***Document references***: *1.Refer **WI-PRO-KIT-001** Proper locking and checking of connector lock*  **Before pressing**  **After pressing** **GOOD** **NG** 

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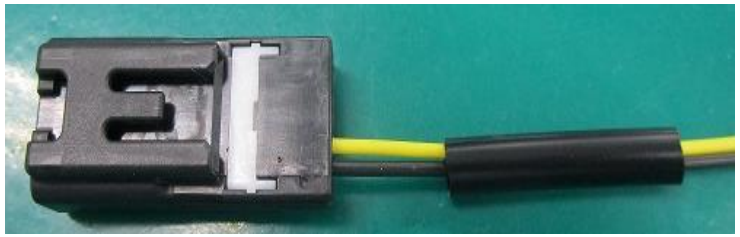
PARTS: △4	1. Assy parts 2. Black SV tube (Vinyl) ø5 L=28±3mm	JIG:	n/a

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
5	△4 Offline	Wire insertion to Black SV tube (Vinyl) ø5 L=28±3mm	 1. Get the SV tube (Vinyl) **ø5 L=28±3mm** using right hand then insert **Y wire** using left hand. 2. Continue to insert **B wire** using left hand. 	n/a	1. No wrong use of parts 2. No deformed terminal

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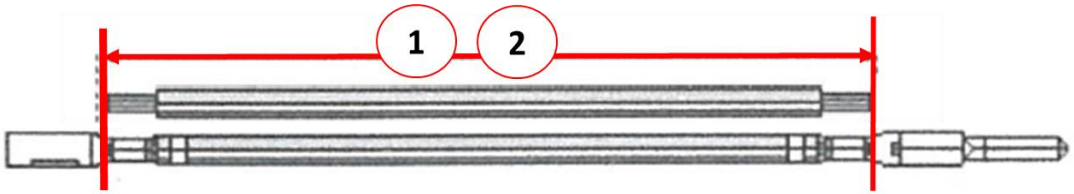
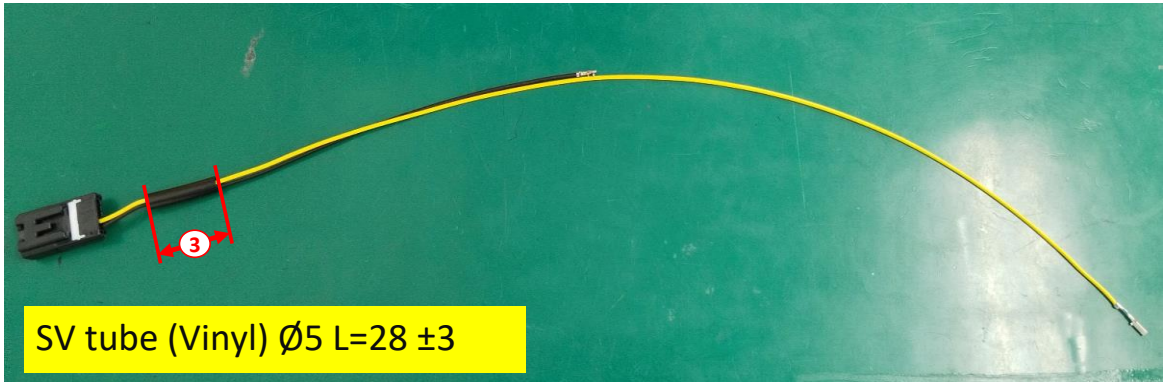
PARTS:	1. Assy parts	JIG:	n/a

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
6	Offline	Measurement	4 Note: 1. Measurement point: End of core wire to the end of core wire 2. Terminal is reference only.   	MEASURING TAPE 	***Important reminders and note/s:*** ***1. Please use calibrated/verified measuring tape when getting the measurement.*** ***2. For Hatsumono, Nakamono and Owarimono.*** ***Document reference/s:*** *1. Refer to **WI-PRO-ASY-056** for Sub-assembly Hatsumono Nakamono Owarimono Inspection* 1. No wrong dimension

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	Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ■ MASSPRO			Revision No.: 4	Page No.: 7 of 7

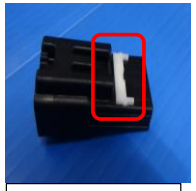
PARTS:	1. Assy parts	JIG:	n/a

4 **VISUAL INSPECTION/ QUALITY CHECKPOINTS**

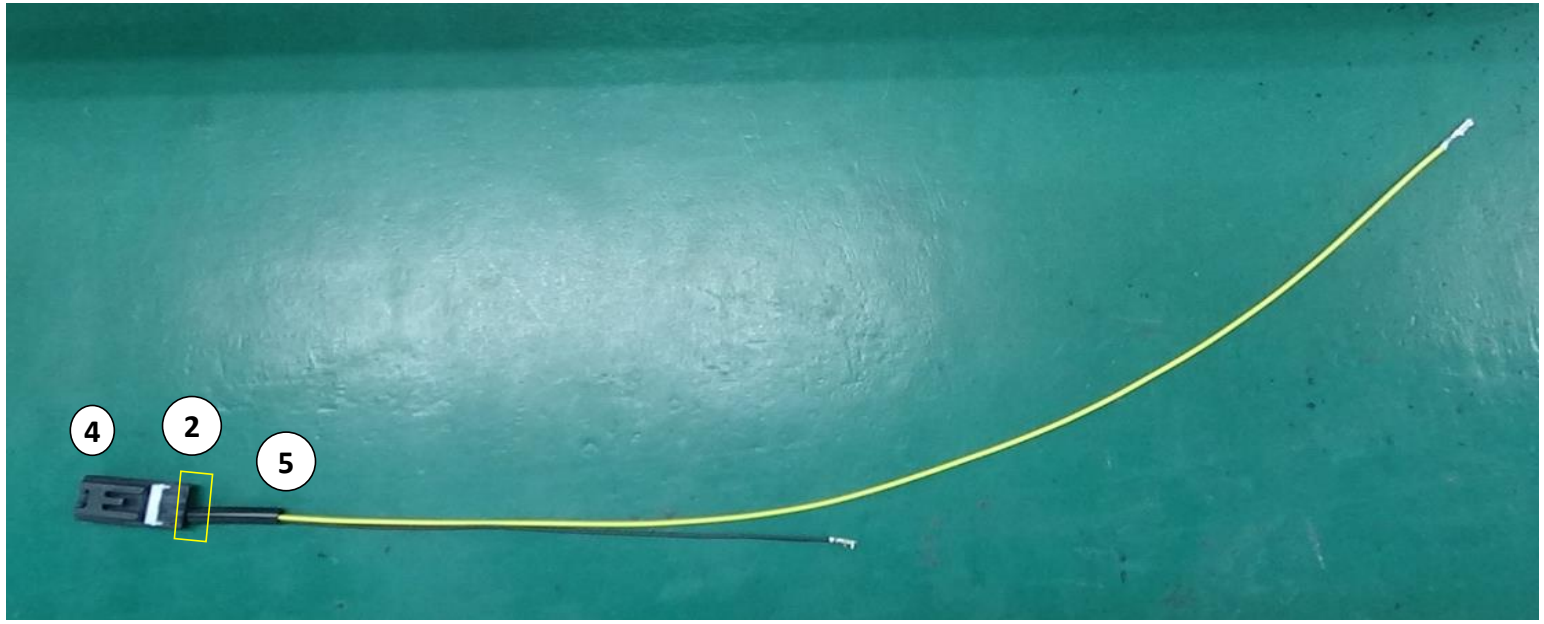
OFFLINE INSERTION	**7M0528-7020D**

1

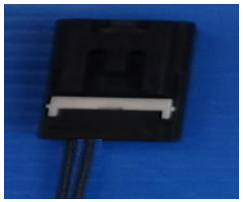
GOOD



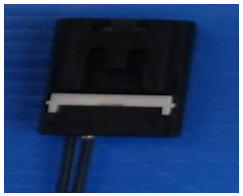
NO GOOD



3



GOOD



NO GOOD

1 No **Unlocked/Half-locked connector**

2 No **Wrong insert**

3 No **Terminal Backing Out**

4 No **Deformed terminal**

5 No **Missing SV tube (Vinyl)**

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