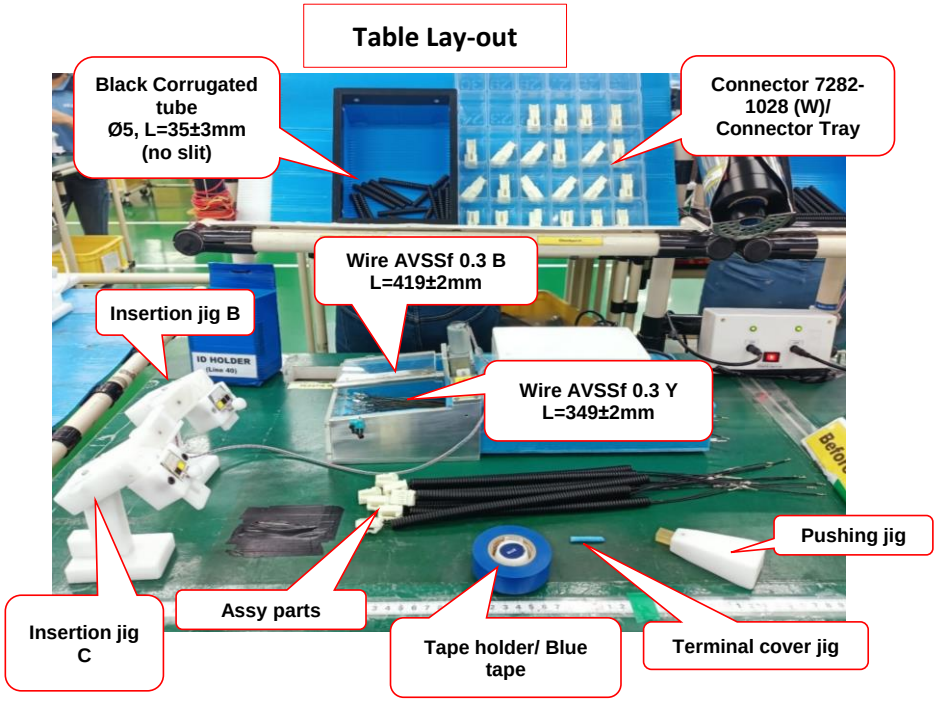
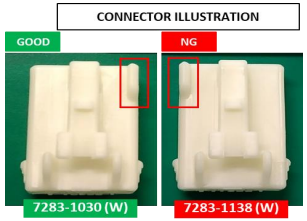
	WORK INSTRUCTION				Effectivity Date:	August 30, 2023		
	Process Name/Title:	TAPING ASSEMBLY PROCESS			Validity Date:	n/a		
	Model code/Part number:	TM3 / 7L0143-7020A	Customer: TRQSS	Car Model: SUBARU-ASCENT	Document No.:	WI-ENG-PDE-712A		
	Purpose:	☐ PROTOTYPE	☐ PRE-LAUNCH	■ MASSPRO	Revision No.:	1	Page No.:	1 of 11

PARTS:	1. All parts (Assy parts (Connector 7283-1138 (W) with inserted jointed wire (7L0143-2000A and Black corrugated tube Ø7, L=258±3mm (no slit); AVSSf 0.3 B L=419±2mm; AVSSf 0.3 Y L=349±2mm; Connector 7282-1028 (W); Black corrugated tube Ø5, L=35±3mm (no slit);Blue tape	JIG:	1. Insertion with switch cover 2. Pushing jig 3. Terminal cover jig

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
1	P1	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 work place is prohibited. Keep it in your locker. **Alert level** For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.	1. No deformed terminal 2. No wrong usage of parts ***Document references*** ***1. Refer to WI-ENG-PDE-709 for Offline assembly process*** ***2. Refer to WI-PRO-CNC-017 for Wire and strip length tolerance*** 

Revision History

Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted
08/30/23	1	Change from Pre-launch to Masspro. Inclusion of table lay-out and quality pointers. Inclusion of Connector setting to insertion jig and Wire insertion to insertion jig	M. Ariola	J.Loterte	C. Villanueva	A. Arañes
07/24/23	0	Initial issue.	M. Ariola	J.Loterte	C. Villanueva	A. Arañes

Prepared by	Reviewed by	Approved by	Noted by
M. Ariola	J. Loerte	C. Villanueva	A. Arañes
Est. Date:	July 24, 2023		

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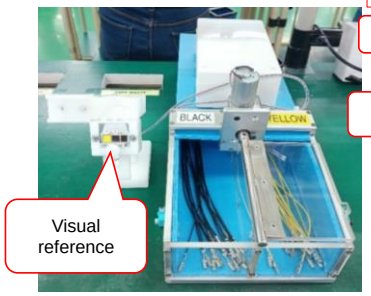
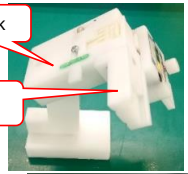
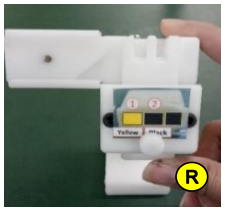
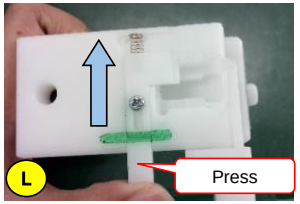
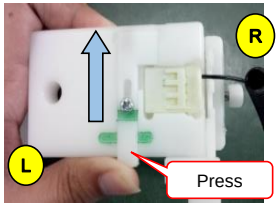
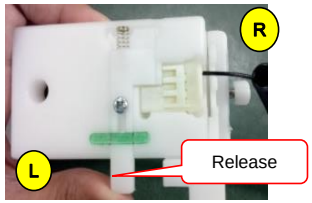
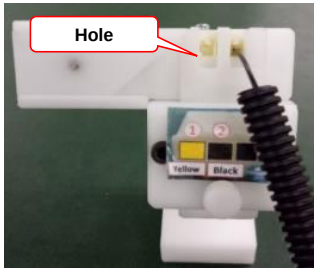
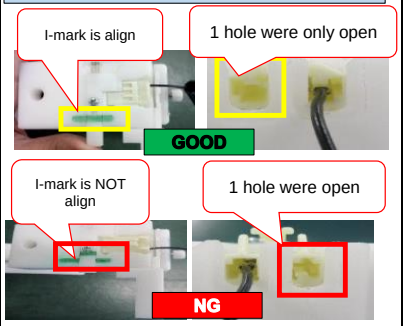
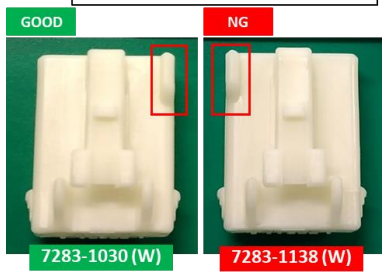
	Model code/Part number: TM3 / 7L0143-7020A	Customer: TRQSS	Car Model: SUBARU-ASCENT	Document No.:	WI-ENG-PDE-712A
	Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ■ MASSPRO			Revision No.: 1	Page No.: 2 of 11

PARTS:	1. Assy parts	JIG:	1. Insertion jig with switch cover

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
2	P1	Connector Setting to insertion jig 7283-1138 (W) (Assy parts)	**Insertion jig**  **Insertion jig orientation**  **Connector Orientation**  1. Push the lower wire guide using right hand.  2. Press the lock of insertion jig using left thumb.    3. Insert the connector **7283-1138 (W)** into jig using right hand and release the lock. ***Note: Follow the connector orientation.*** 4. Check the hole/terminal slot for **Yellow wire.**	n/a	**Connector Orientation Illustration**  **CONNECTOR ILLUSTRATION**  1. Use provided jig per model 2. No wrong usage of parts 3. No wrong orientation of connector 4. No damaged connector

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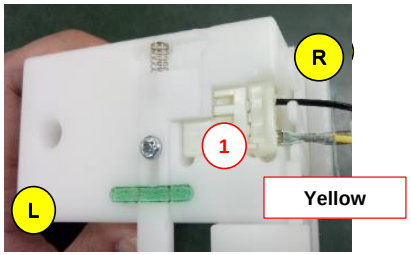
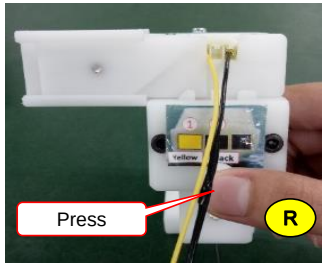
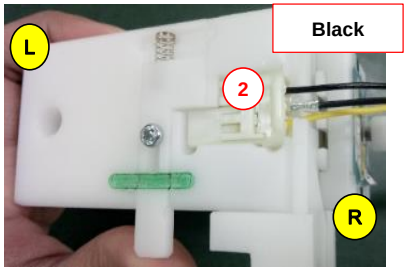
NBC	WORK INSTRUCTION			Effectivity Date:	August 30, 2023
	Process Name/Title:	TAPING ASSEMBLY PROCESS		Validity Date:	n/a
	Model code/Part number: TM3 / 7L0143-7020A	Customer: TRQSS	Car Model: SUBARU-ASCENT	Document No.:	WI-ENG-PDE-712A
	Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ■ MASSPRO			Revision No.: 1	Page No.: 3 of 11

PARTS:	1. AVSSf 0.3 B L=419±2mm 2. AVSSf 0.3 Y L=349±2mm	JIG:	1. Insertion jig with switch cover

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
3	△1 P1	Wire insertion to connector 7283-1138(W) (Assy parts)	 Wire Facing  1. Get the **Yellow wire** using right hand then insert to terminal slot **1** using right hand.  2. Press the button using right hand, the slot for **Black wire** will be opened.  3. Get the **Black wire** using right hand then insert to terminal slot **2** using right hand.	n/a	***Important reminders/Note/s:*** ***1. Please hold the wire near terminal during insertion.*** ***2. Make sure wires are properly inserted . Conduct Pull-Push-Pull-Push after insertion.*** ***Do not exert extra force*** ***Document references:*** ***1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.*** 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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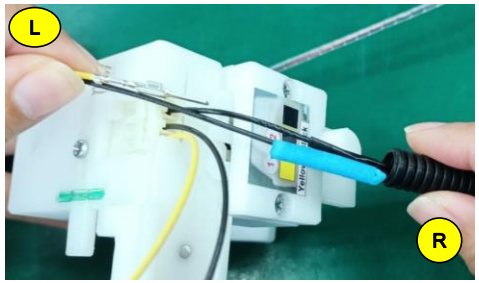
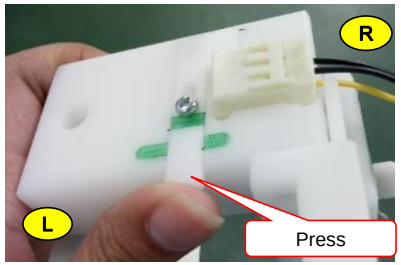
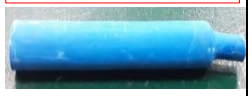
	Purpose:	☐ PROTOTYPE ☐ PRE-LAUNCH ■ MASSPRO			Revision No.:	1	Page No.: 4 of 11

PARTS:	1. Assy parts	JIG:	1. Terminal cover jig 2. Insertion jig with switch cover

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
4	P1	Wire insertion to corrugated tube Ø7, L=258±3mm (no slit) (Assy parts)	 1. Hold the wires using left hand, get the terminal cover jig using right hand then insert the B wire using left hand.  2. Hold the corrugated tube (no slit) Ø5 L=258±3mm using right hand then insert the B and Y wires using left hand.  3. After insertion, press the lock using left thumb then hold the wires and gently pull out the connector from jig using right hand.	TERMINAL COVER JIG 	1. No deformed terminal 2. No wrong usage of parts

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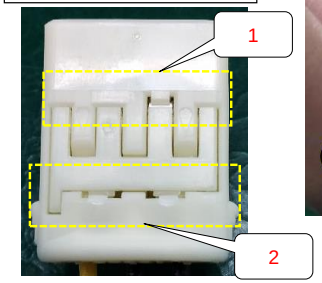
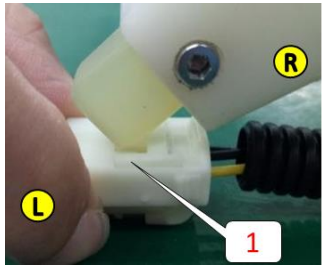
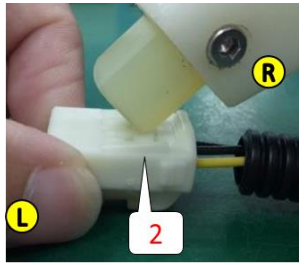
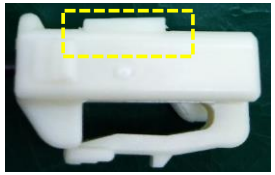
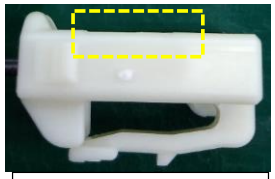
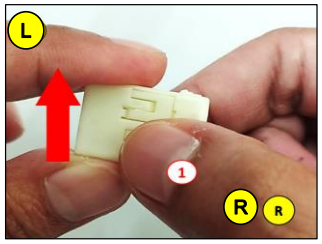
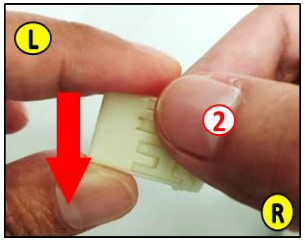
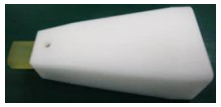
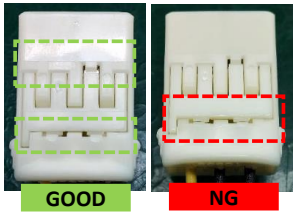
	Purpose:	☐ PROTOTYPE ☐ PRE-LAUNCH ■ MASSPRO			Revision No.:	1	Page No.: 5 of 11

PARTS:	1. Assy parts	JIG:	1. Pushing jig

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
5	P1	Connector lock	LOCKING SEQUENCE    1. Hold the connector using left hand and place on the table. Get the pushing jig using right hand and start the sequential locking based on above illustration. Push the lower part of the connector lock first and then push the upper part.  BEFORE PRESSING  AFTER PRESSING   2. Ensure that connector is in locked condition by touching the connector lock based on the sequence illustrated.	PUSHING JIG 	***Important reminders/Note/s:*** ***1. MANUAL LOCKING MAY CAUSE DAMAGED CONNECTOR LOCK*** ***2. Use provided jig tool per model to avoid damaged lock.*** 1. No unlocked/half-locked connector 2. No damage connector LOCK CONDITION 

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	Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ■ MASSPRO			Revision No.: 1	Page No.: 6 of 11

PARTS:	1. Black Corrugated tube (no slit) Ø5 L=35±3mm			JIG:	n/a
NO.	**PROCESS NAME**		**WORK PROCEDURE/ ILLUSTRATION**	**TOOLS/PPE**	**QUALITY POINTERS**
6	P1	Wire insertion to Black Corrugated tube (no slit) Ø5 L=35±3mm	 1. Get the corrugated tube Ø5 L=35±3mm using right hand then insert the Y and B jointed wire using left hand.	n/a	1. No deformed terminal 2. No wrong usage of parts

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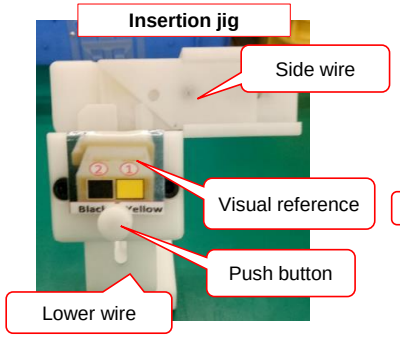
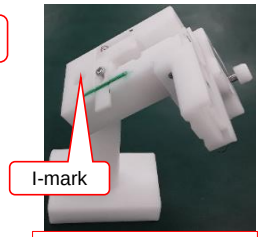
	Purpose:	☐ PROTOTYPE ☐ PRE-LAUNCH ■ MASSPRO			Revision No.:	1	Page No.: 7 of 11

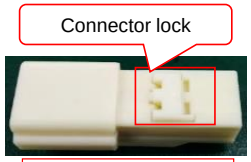
PARTS:	1. Connector 7282-1028 (W)	JIG:	1. Insertion jig

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
7	P1	Connector setting to Insertion jig 7282-1028 (W)		n/a	

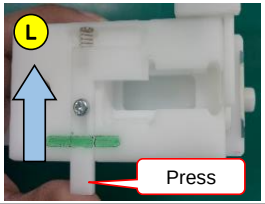




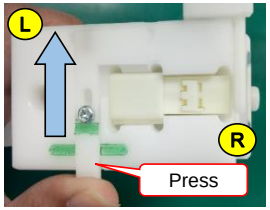
Insertion jig Orientation

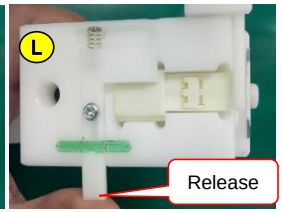


CONNECTOR ORIENTATION

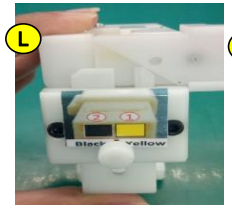


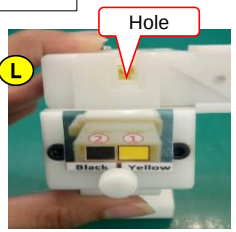
1. Press the lock of insertion jig using left thumb.





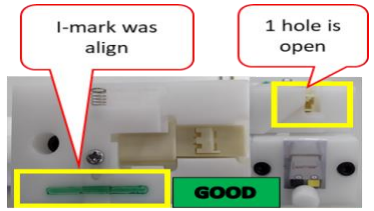
2. Insert the connector **7282-1028 (W)** into jig using right hand and release the lock.
Note: Follow the connector orientation.

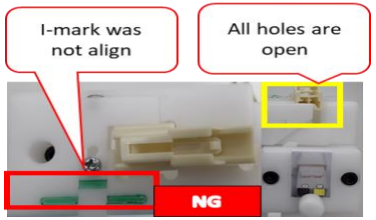




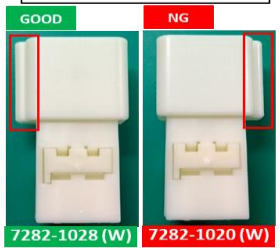
3. Push the lower guide using left thumb, the slot for **Yellow wire** will be opened.

Connector Orientation Illustration





CONNECTOR ILLUSTRATION



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

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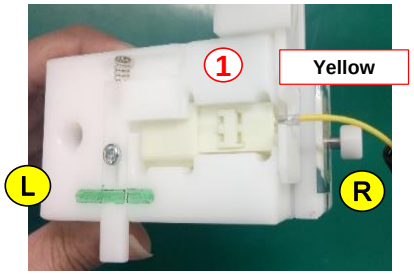
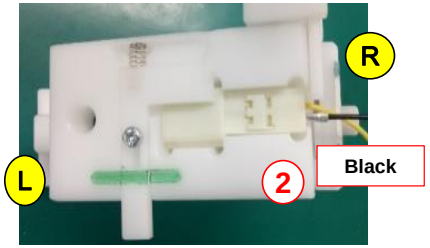
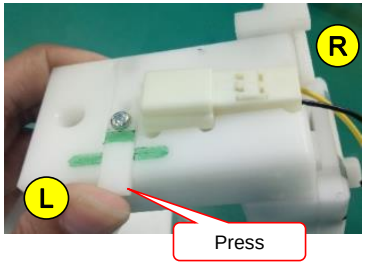
	WORK INSTRUCTION				Effectivity Date:	August 30, 2023	
	Process Name/Title:	TAPING ASSEMBLY PROCESS			Validity Date:	n/a	
	Model code/Part number:	TM3 / 7L0143-7020A	Customer: TRQSS	Car Model: SUBARU-ASCENT	Document No.:	WI-ENG-PDE-712A	
	Purpose:	☐ PROTOTYPE ☐ PRE-LAUNCH ■ MASSPRO			Revision No.:	1	Page No.: 8 of 11

PARTS:	1. Assy parts	JIG:	1. Insertion jig

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
8	1 P1	Wire insertion to connector 7282-1028 (W)	WIRE FACING  1. Insert the **Yellow wire** using right hand then insert to terminal slot **1** using right hand. 2. Press the button using right hand, the slot for **Black wire** will be opened.  3. Get **Black wire** using right hand then insert to terminal slot **2** using right hand.  4. After insertion, press the lock using left thumb then hold the wires and gently pull out the connector from jig using right hand.	n/a	***Important reminders/Note/s:*** ***1. Manual locking may cause damaged connector lock.*** ***2. Please hold the wire near terminal during insertion.*** ***Document references:*** ***1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.*** 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:	TAPING ASSEMBLY PROCESS		Validity Date:	n/a	
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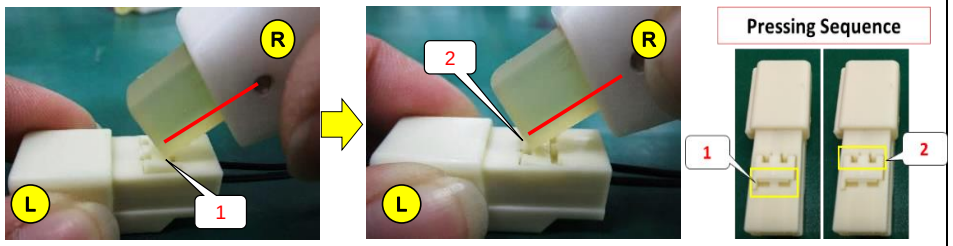
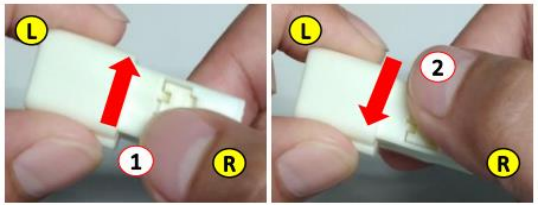
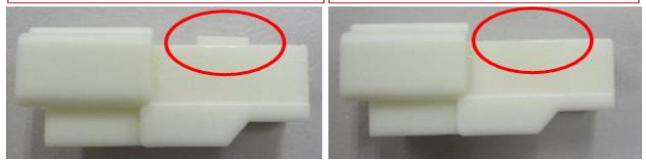
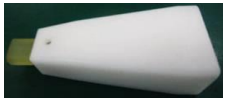
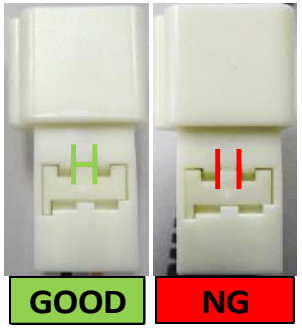
	Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ■ MASSPRO			Revision No.:	1	Page No.: 9 of 11

PARTS:	1. Assy parts	JIG:	1. Pushing jig

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
9	P1	Connector lock	 1. Hold the connector using left hand and place on the table. Get the pushing jig using right hand and start the sequential locking based on the above illustration. Push the lower part of the connector lock first and then push the upper part.  2. Ensure that connector is in locked condition by touching the connector lock based on the sequence illustrated. **Before pressing** **After pressing** 	PUSHING JIG 	***Important reminders/Note/s:*** ***1. Manual locking may cause damaged connector lock.*** ***2. Use provided jig tool per model to avoid damaged lock.*** ***3. Position of pushing jig during locking must be slanted.*** **LOCK CONDITION**  1. No unlocked/half-locked connector 2. No damage connector.

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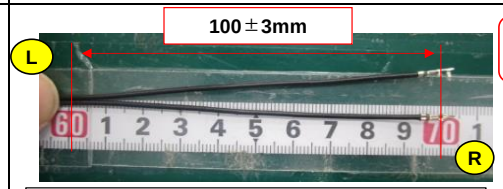
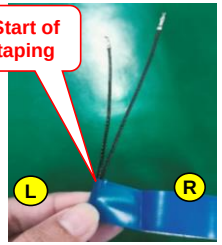
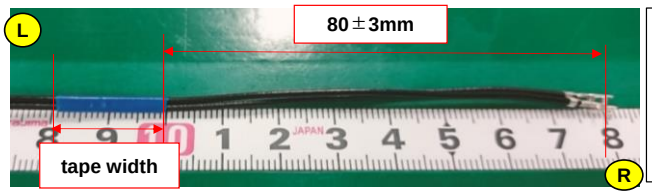
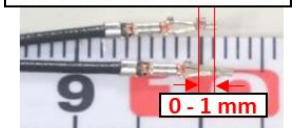
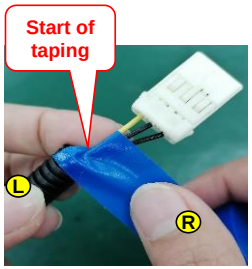
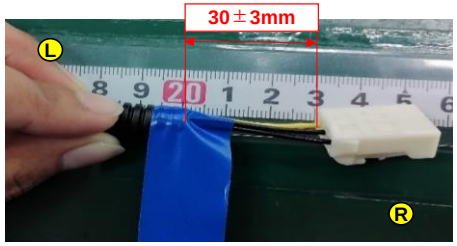
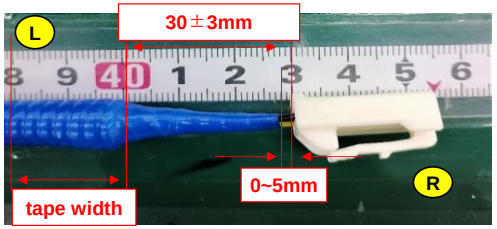
	Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ■ MASSPRO			Revision No.: 1	Page No.: 10 of 11

PARTS:	1. Assy parts 2. Blue tape	JIG:	n/a

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
10	P1	Spot taping	 1. Hold wires using left hand, measure the wire up to terminal tip 100±3mm.  2. Get the **Blue tape**, conduct **2x windings** of tape then cut using both hand.  3. After taping, check the measurement and taping condition.	**MEASURING TAPE** 	***Important reminders/Note/s:*** ***1. Please use calibrated/verified measuring tape when getting the measurement.*** ***2. Use BLUE TAPE only.*** **Wire alignment tolerance**  1. No flip-out tape 2. No peel-off tape 3. No loose tape 4. No missing tape 5. No wrong use of tape 6. No wrong dimension
11		Taping 1 Black COT to wire near connector	 1. Hold the COT using left hand, get the **Blue tape** using right hand then start pre-taping using both hands.  2. Measure from end of COT up to edge of connector **30±3mm** then continue the taping process using both hands.  3. After taping, check the measurement and taping condition.	**MEASURING TAPE** 	***Important reminders/Note/s:*** ***1. Please use calibrated/verified measuring tape when getting the measurement.*** ***2. Use BLUE TAPE only.*** 1. No flip-out tape 2. No peel-off tape 3. No loose tape 4. No missing tape 5. No wrong use of tape 6. No wrong dimension

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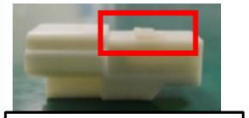
PARTS:	n/a	JIG:	n/a

⚠1 **QUALITY CHECKPOINTS**

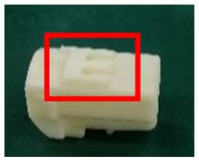
P1 7L0143-7020A

GOOD



NO GOOD

GOOD



NO GOOD

GOOD

NO GOOD

(1) (2) No Unlocked/ Half Locked Connector

(5) No Missing Tape

(3) (4) No Wrong Insert

(6) No Missing Spot Tape

(7) No Terminal Backing Out

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