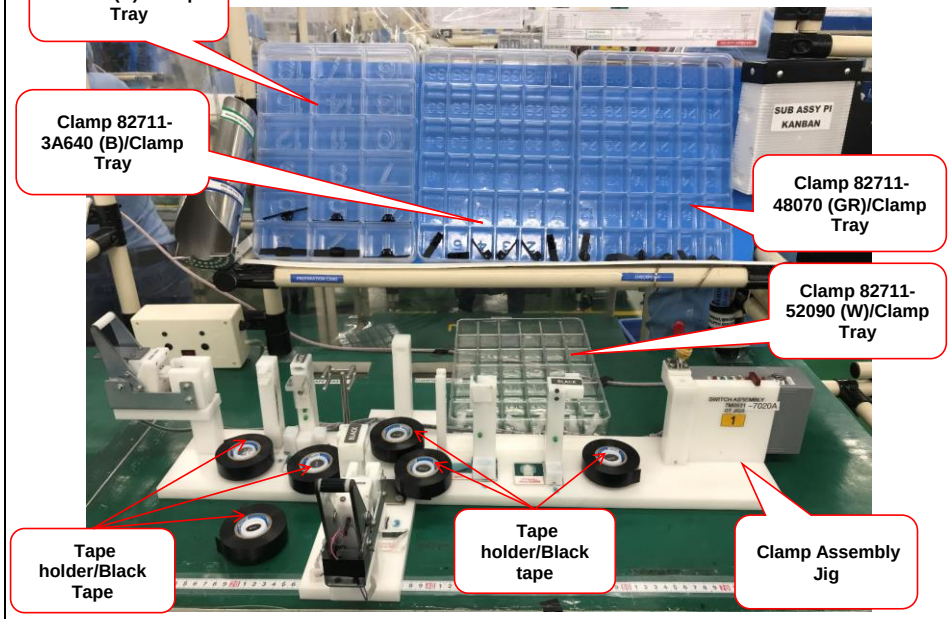
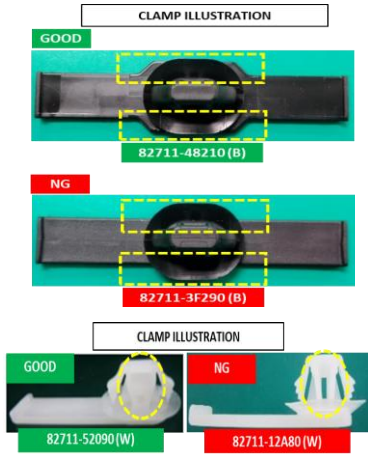
	WORK INSTRUCTION			Effectivity Date:	November 4, 2024	
	Process Name/Title:	CLAMP ASSEMBLY PROCESS		Validity Date:	n/a	
	Model code/Part number: 310B / 7M0521-7021B	Customer: TRJ	Car Model: TOYOTA-RAV4	Document No.:	WI-ENG-PDE-1128	
	Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ■ MASSPRO			Revision No.: 1	Page No.:	1 of 7

PARTS:	1. Assy parts; Clamp 82711-48210 (B); Clamp 82711-3A640 (B); Clamp 82711-48070 (GR); Clamp 82711-52090 (W); Black Tape	JIG:	1. Clamp assembly jig

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
1	Clamp Assy	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 reference/s:*** *1. Refer to **WI-ENG-PDE-416A-B** for Taping assembly process* 1. No missing parts/tools 2. No excess parts/tools 

Revision History

Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted
11/04/24	1	Change purpose from Pre-launch to Masspro.	M. Ariola	C. Villanueva	A. Arañes	n/a
10/29/24	0	Initial Issue.	M. Ariola	C. Villanueva	A. Arañes	n/a

Prepared by	Reviewed by	Approved by	Noted by
M. Ariola	C.Villanueva	A. Arañes	N/A
Est. Date:	October 29, 2024		

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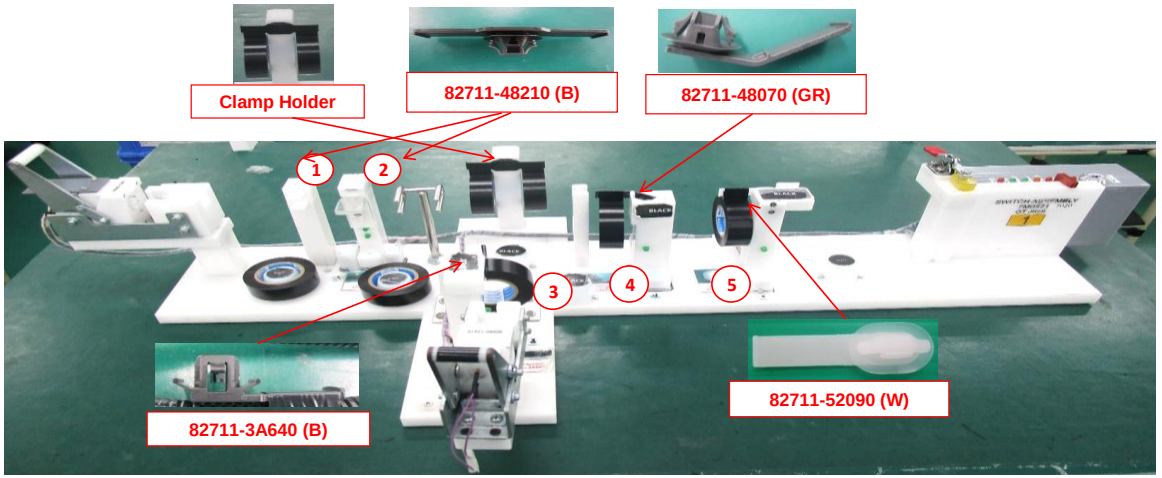
	Model code/Part number: 310B / 7M0521-7021B	Customer: TRJ	Car Model: TOYOTA-RAV4	Document No.:	WI-ENG-PDE-1128	
	Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ■ MASSPRO			Revision No.:	1	Page No.: 2 of 7

PARTS:	1. Clamp 82711-48210 (B) 2. Clamp 82711-3A640 (B) 3. Clamp 82711-48070 (GR) 4. Clamp 82711-52090 (W) 5. Black tape [7pcs.]	JIG:	1. Clamp Assembly Jig

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
2	Clamp Assy	Clamp Setting			1. No wrong use of tape 2. No wrong clamp position 3. No damaged clamp ***Important Reminders/Note/s:*** *1. Please check the Clamp first before start of assembly to avoid wrong use of clamp.*



1. Get the clamp **82711-3A640 (B)** using right hand and put to location **3** using both hands.

2. Get the clamp **82711-48070 (GR)** using right hand and put to location **4** using both hands.

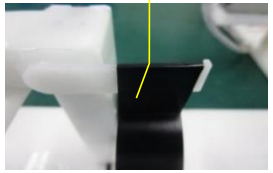
3. Get the clamp **82711-52090 (W)** using right hand and put to location **5** using both hands.

4. Initially attach black tape to location **3, 4 and 5** using both hands.

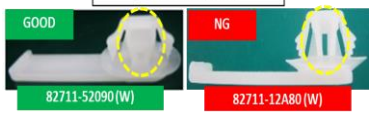
5. Get the clamp **82711-48210 (B)** using right hand then put to clamp holder and initially attach black tape using both hands.

STANDARD TAPING FOR CLAMP

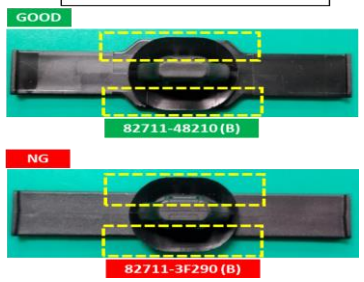
One wind for under tape



CLAMP ILLUSTRATION



CLAMP ILLUSTRATION



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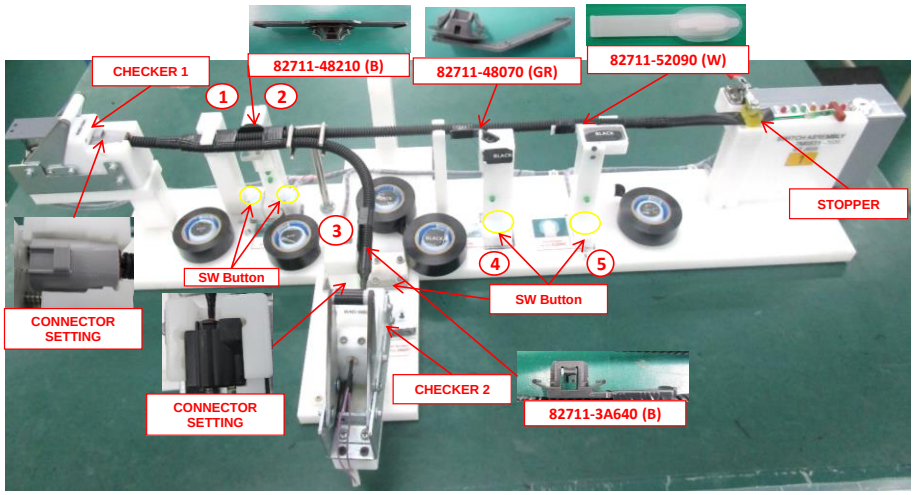
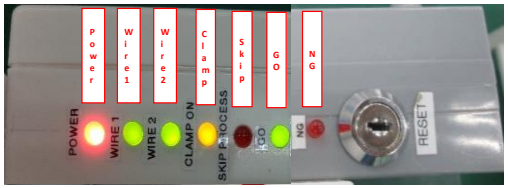
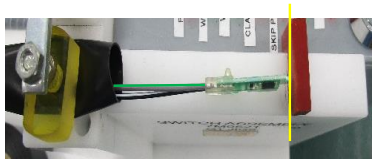
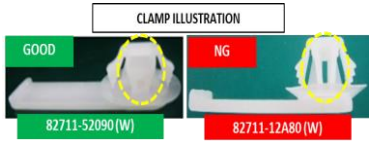
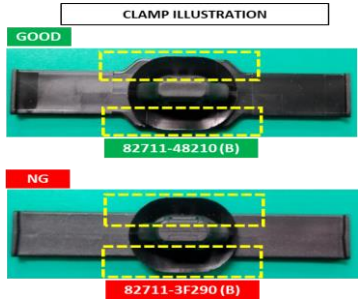
	Model code/Part number: 310B / 7M0521-7021B	Customer: TRJ	Car Model: TOYOTA-RAV4	Document No.:	WI-ENG-PDE-1128	
	Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ■ MASSPRO			Revision No.:	1	Page No.: 3 of 7

PARTS:	1. Assy parts 2. Black tape	JIG:	1. Clamp Assembly Jig

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
3	Clamp Assy	Clamp Assembly	 1. Get the assy parts then put into jig. *(See above picture for correct setting).* First, set the connector **6188-0066 (GR)** to **Checker 1** then pull the checker fixture for continuity checking. Continue to set the harness in jig. Second, set the connector (6189-1161) to **Checker 2** then push the lock for continuity checking. Last, set the end of **G/BW hotmelted wire** together within the stopper then press by **Toggle clamp**. Continue if the sequence light of **location** ① was **ON.** 2. Check if all **LED light** for **POWER ON, WIRE1, WIRE2 and CLAMP ON** was **ON**. If encountered abnormality, **STOP** and immediately **CALL** the attention of the leader. **WAIT** for further instruction and continue the process. 	n/a	1. No damaged clamp 2. No wrong usage of parts 3. No missing clamp 4. No missing tape  ***Important reminders/note/s:*** *1. Make sure no gap between stopper jig and hotmelted terminals.* *2. Make 2-3 windings for clamp taping.*  

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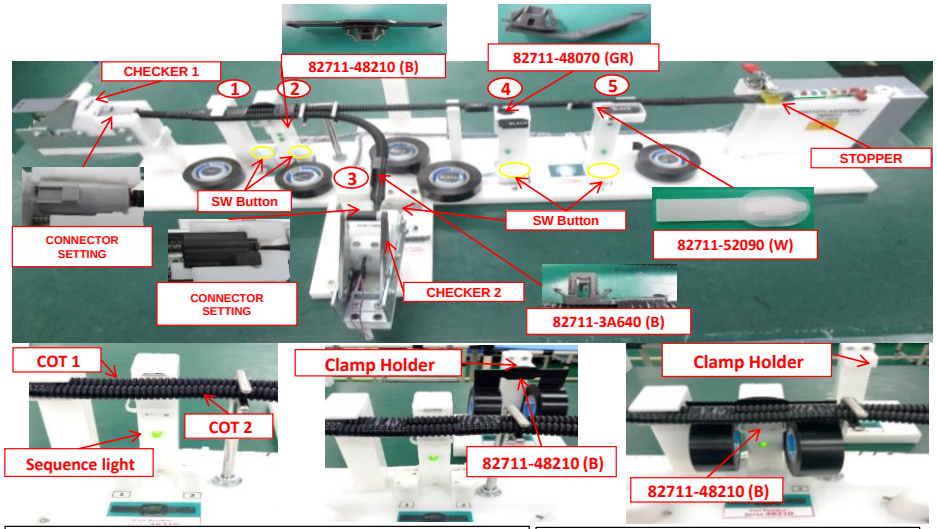
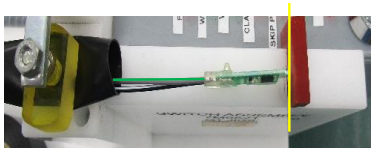
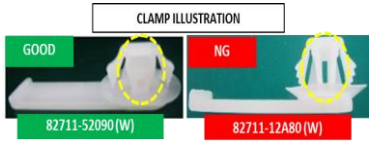
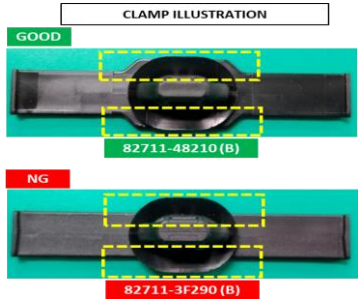
	Model code/Part number: 310B / 7M0521-7021B	Customer: TRJ	Car Model: TOYOTA-RAV4	Document No.:	WI-ENG-PDE-1128	
	Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ■ MASSPRO			Revision No.:	1	Page No.: 4 of 7

PARTS:	1. Assy parts 2. Black tape	JIG:	1. Clamp Assembly Jig

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
3	Clamp Assy	Clamp Assembly (Continuation)	 3. Fix the 2 corrugated tube and **2 windings** of tape on both sides **(tape width)** using both hands then cut the tape. 4. Get the clamp in clamp holder **(82711-48210)** and set to location **1 and 2.** 5. Hold the tape on clamp location **1** then start taping using both hands. Make **3 windings** of tape then cut the tape. Press the **SW button** after taping. Continue if sequence light on location **2** was **ON.** 6. Hold the tape on clamp location **2** then start taping using both hands. Make **3 windings** of tape then cut the tape. Press the **SW button** after taping. Continue if sequence light on location **3** was **ON.** 7. Hold the tape on clamp location **3** then start taping using both hands. Make **3 windings** of tape then cut the tape. Press the **SW button** after taping. Continue if sequence light on location **4** was **ON.**	n/a	1. No damaged clamp 2. No wrong usage of parts 3. No missing clamp 4. No missing tape  ***Important reminders/note/s:*** *1. Make sure no gap between stopper jig and hotmelted terminals.* *2. Make 2-3 windings for clamp taping.*  

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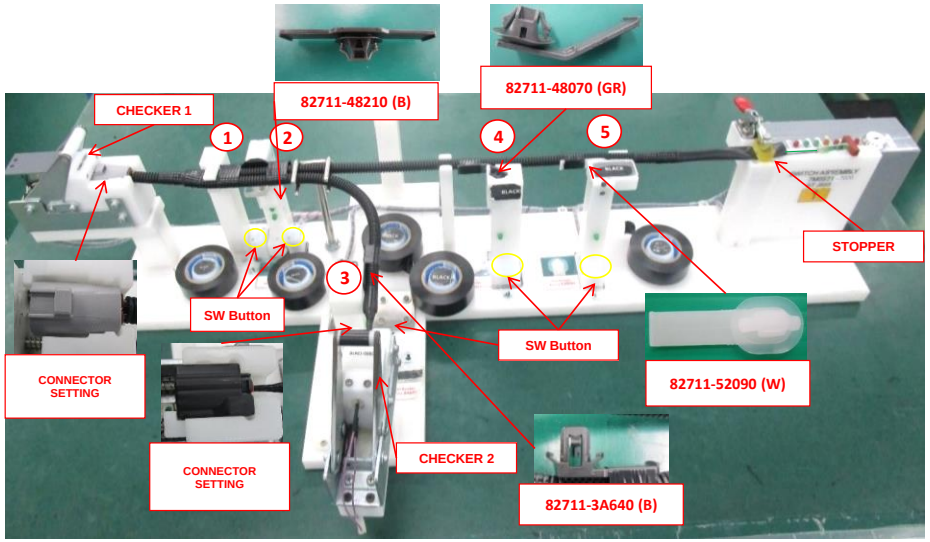
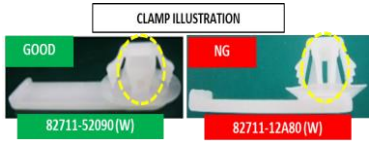
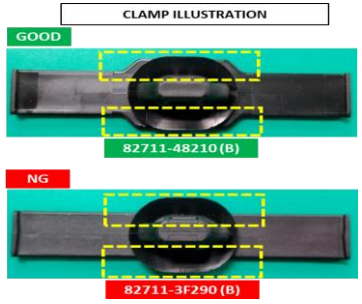
	Purpose:	☐ PROTOTYPE ☐ PRE-LAUNCH ■ MASSPRO		Revision No.:	1 / Page No.: 5 of 7

PARTS:	1. Assy parts 2. Black tape	JIG:	1. Clamp Assembly Jig

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
3	Clamp Assy	Clamp Assembly (Continuation)	 8. Hold the tape on clamp location **4** then start taping using both hands. Make **3 windings** of tape then cut the tape. Press the **SW button** after taping. Continue if sequence light on location **5** was **ON.** 9. Hold the tape on clamp location **5** then start taping using both hands. Make **3 windings** of tape then cut the tape. Press the **SW button** after taping. **Go** sound will be heard. 10. After taping, **CONDUCT POINT CHECKING** before removing of harness from jig. 11. First, pull the **2 checker fixture** (same timing) then remove the toggle clamp. Last, remove the harness from COT up to clamp.	n/a	1. No damaged clamp 2. No wrong usage of parts 3. No missing clamp 4. No missing tape ***Important reminders/note/s:*** *1. Make sure no gap between stopper jig and hotmelted terminals.* *2. Make 2-3 windings for clamp taping.*  

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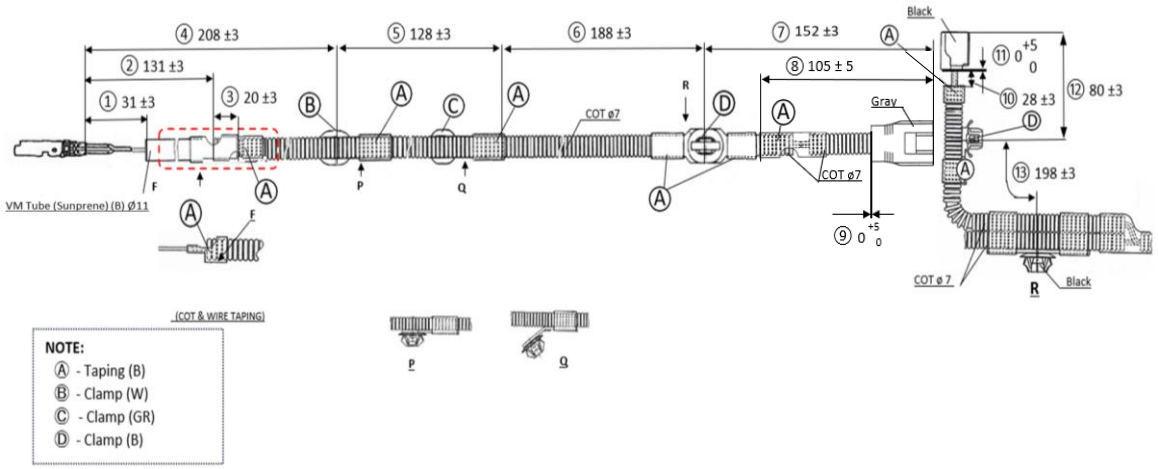
	Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ■ MASSPRO			Revision No.:	1	Page No.: 6 of 7

PARTS:	1. Assy parts	JIG:	n/a

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
4	Clamp Assy	Measurement		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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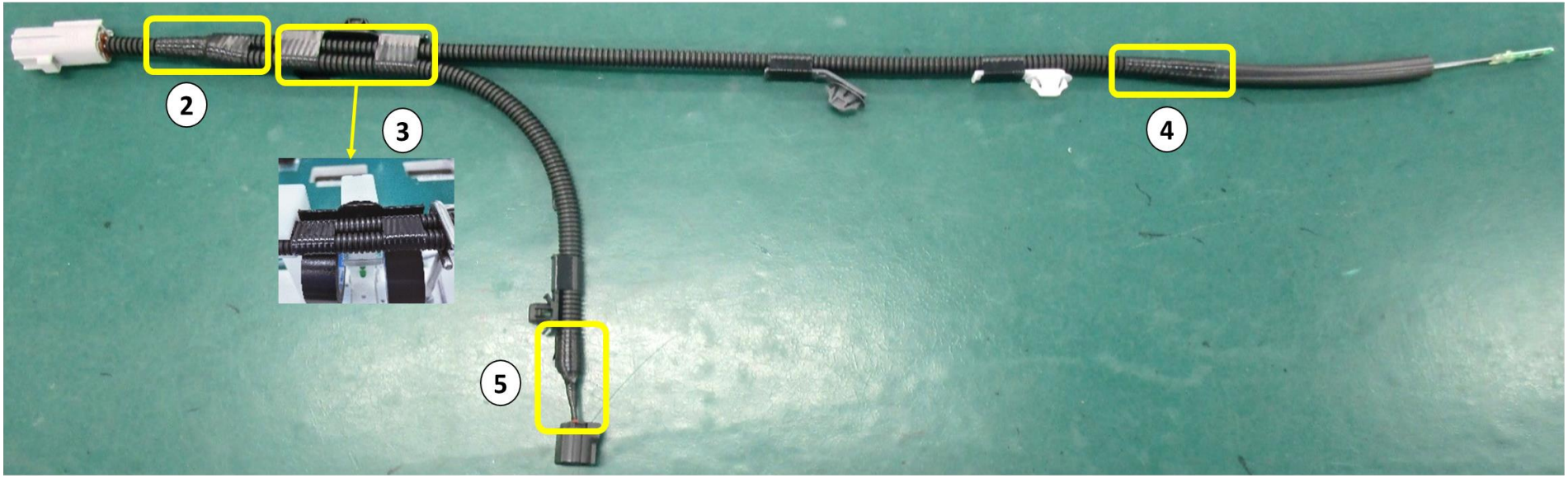
	Purpose: ☐ PROTOTYPE	☐ PRE-LAUNCH	■ MASSPRO	Revision No.: 1	Page No.: 7 of 7

PARTS:	1. Assy parts	JIG:	n/a

VISUAL INSPECTION/ QUALITY CHECKPOINTS

CLAMP ASSY 7M0521-7021B



1 No Wrong facing of clamp

2 3 4 5 No Missing Tape and Spot tape (Black tape)

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