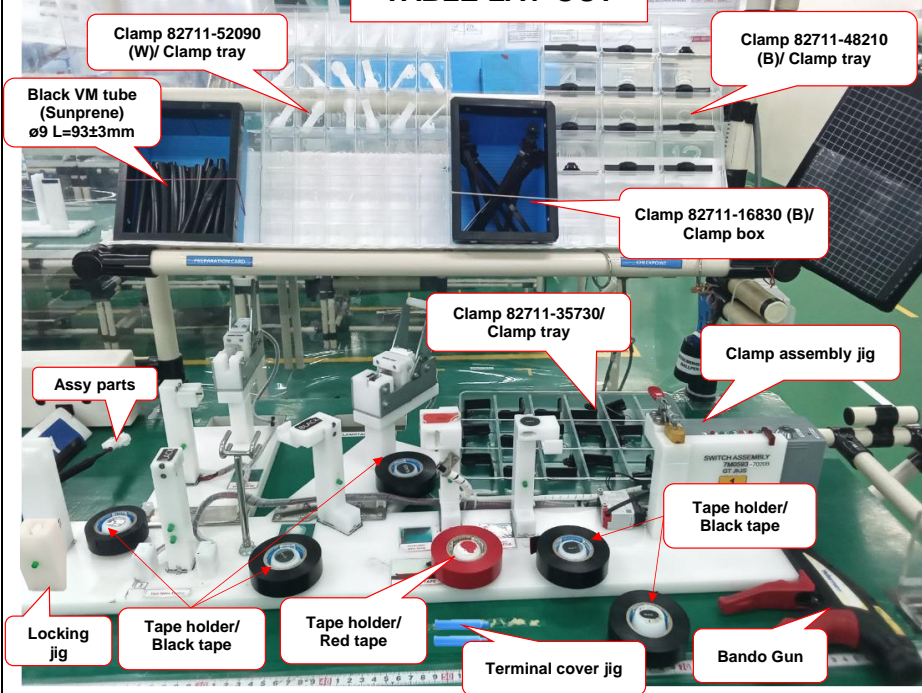
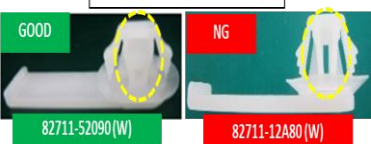
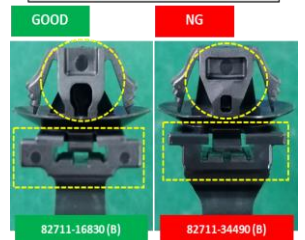
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	TAPING ASSEMBLY PROCESS				Validity Date:	n/a			
	Process Name/Title:		Model code/Part number: 100B / 7M0593-7021		Customer: TRJ	Car Model: LEXUS UX	Document No.:	WI-ENG-PDE-444D	
	Purpose: <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO				Revision No.:	3	Page No.:	1 of 12	

PARTS:		1. Assy parts; Clamp 82711-16830 (B); Clamp 82711-48210 (B); Clamp 82711-35730 (B); Clamp 82711-52090 (W);Black tape [5pcs.]; Red tape; Black VM tube (Sunprene) ø9 L=93±3mm;				JIG:		1. Clamp Assembly Jig 2. Locking jig	
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION				TOOLS/PPE		QUALITY POINTERS	
1	P4	<div> <div>TABLE LAY-OUT</div>  </div>				<div> Safety Instruction Be sure to wear prescribed personal protective equipment during operation (gloves, finger cots, etc.) </div> <div> Housekeeping 1. Maintain and always practice 5's. 2. Personal things on the workplace is prohibited. Keep it in your locker. </div> <div> Alert level For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action. </div>		<div> 1. No missing parts/ tools. 2. No excess parts/ tools. </div> <div> CLAMP ILLUSTRATION  </div> <div> BAND CLAMP ILLUSTRATION  </div>	
Revision History						Prepared by	Reviewed by	Approved by	Noted by
05/24/24	3	Transfer to New Format and inclusion of Car model "LEXUS UX". Change process sequence due to process improvement. Update work procedure/illustration Process 11.				A.Hernandez	C. Villanueva	A. Arañes	n/a
06/05/23	2	Inclusion of connector lock process, improvement due to QC claim (Unlock connector). Integrate the locking jig to Assembly jig.				D. Castillo	J. Loterte	C. Villanueva	A. Arañes
02/22/23	1	Improve Quality pointers; Reminders/notes and references on pages no. 1,2,4,6,8,9 and 10; Inclusion of Quality checkpoints. Change term 'Sunprene tube' to "VM tube (Sunprene)" to standardize the tube description.				M. Ariola	J. Loterte	C. Villanueva	A. Arañes
Eff. Date	Rev. No	Details of Change				Revised	Reviewed	Approved	Noted
						Est. Date:	March 5,2022		

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PARTS:		1. Clamp 82711-16830 (B) 2. Clamp 82711-48210 (B) 3. Clamp 82711-35730 (B)		4. Clamp 82711-52090 (W) [2pcs.] 5. Black tape [4pcs.] 6. Red tape		JIG:	1. Clamp Assembly Jig
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
2	P4	Clamp setting	<div></div> <div><div>1. Get the band clamp 82711-16830 using right hand and set to clamp location 1 using both hands.</div><div>2. Get the clamps 82711-48210 and 82711-35730 using right hand and set to clamp location 2 and 5 using both hands.</div><div>3. Get the clamp 82711-52090 (W) [2pcs] using right hand and set to clamp location 4 and 6 using both hands.</div><div>4. Get black tape then initially attach the tape on two sides of clamp 82711-48210 in location 2 and 3, then proceed to location 4 and 6.</div><div>5. Get the Red tape and initially attached on clamp location 5.</div></div>				<div>1. No damaged clamp 2. No wrong use of parts 3. No wrong use of tape</div> <div>Important reminders/Note/s: <i>1. Please check all clamp and band clamp before start of assembly to avoid wrong use of parts.</i></div> <div><div>CLAMP ILLUSTRATION</div><div><div><div>GOOD</div><div>82711-52090 (W)</div></div><div><div>NG</div><div>82711-12A80 (W)</div></div></div><div><div>BAND CLAMP ILLUSTRATION</div><div><div><div>GOOD</div><div>82711-16830 (B)</div></div><div><div>NG</div><div>82711-34490 (B)</div></div></div><div><div>CLAMP ILLUSTRATION</div><div><div><div>GOOD</div><div>82711-48210 (B)</div></div><div><div>NG</div><div>82711-3F290 (B)</div></div></div></div></div></div>

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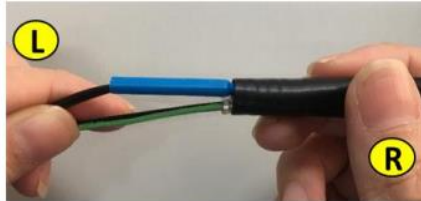
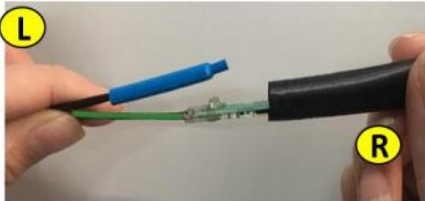
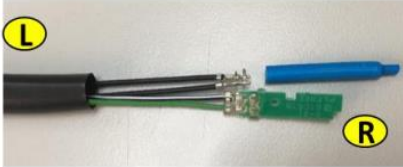
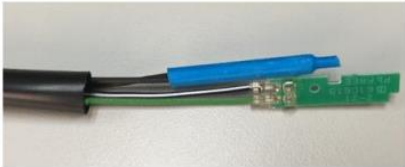

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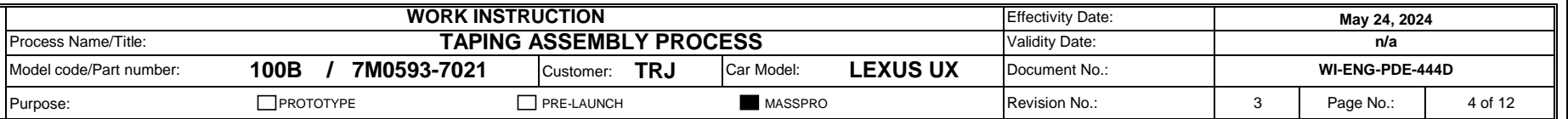
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PARTS:		1. Assy parts 2. Black VM Tube (Sunprene) $\varnothing 9$ L=93 \pm 3mm		JIG:	1. Terminal cover jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
3	P4 Wire insertion to Black VM Tube (sunprene) $\varnothing 9$ L=93 \pm 3mm	<div></div> <div>1. Get the terminal cover jig using right hand then insert the terminal B-B wires using left hand.</div> <div></div> <div>2. Hold the Black VM Tube (sunprene) $\varnothing 9$ L=93\pm3mm using right hand then Insert first the hotmelted wires and then next the B-B wires with cover jig using left hand.</div> <div></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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Customer: TRJ

Car Model:

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Document No.:

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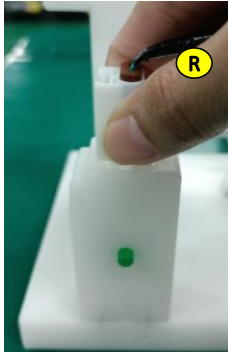



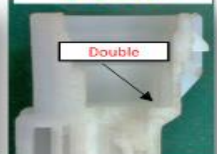

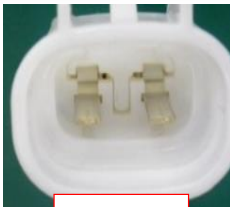

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PARTS:	1. Assy parts		JIG:	1. Locking jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
5	P4 Connector lock	<div><div></div><div><p>1. Put the connector into locking jig using right hand then press 2x to lock using both hands. Check the lock if properly locked.</p></div></div> <div><p>Coupler Cross Sectional View</p><div><div><p>NG</p><p>Double</p><p>Unlock Condition</p></div><div><p>NG</p><p>Double</p><p>Half Lock Condition</p></div><div><p>GOOD</p><p>Double</p><p>Full Lock Condition</p></div></div><div><div><p>Before lock</p></div><div><p>After lock</p></div></div></div> <div><div>LOCKING JIG</div></div> <div><p>Important reminders/Note/s:</p><p>1. MANUAL LOCKING MAY CAUSE DAMAGED CONNECTOR.</p><p>1. Use the provided locking jig per model</p><p>2. No unlock/half-locked connector</p><p>3. No skip of locking process</p></div>		

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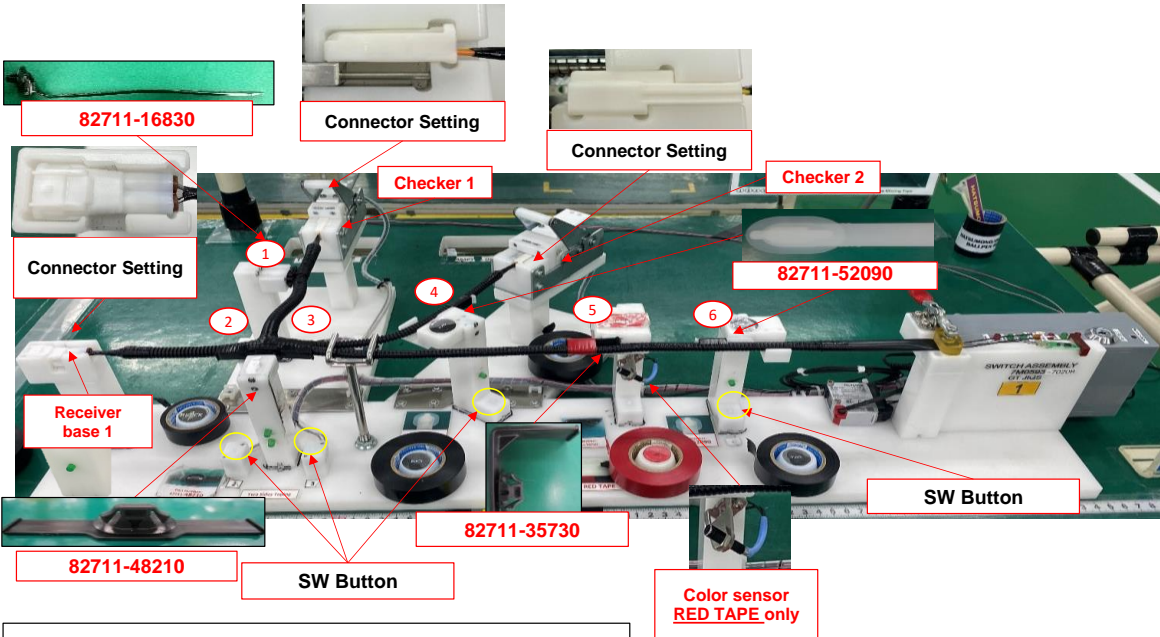
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PARTS:	1. Assy parts		JIG:	1. Clamp Assembly jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
6	P4 Clamp Assembly	<div></div> <div><p>1. Put the assy into jig. <i>(See above picture for the correct setting).</i> First, set the white connector (6188-0407) to Receiver base 1 and lock. Second, set the next white connector (6098-2220) to Checker 1 and then pull the checker fixture for continuity checking. Third, set the white connector (6098-3802) to Checker 2 then pull the checker fixture for continuity checking. Continue to set the harness in jig. Last, set the hotmelted wire and B-B wires together within stopper then press by toggle clamp.</p></div> <div><p>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.</p></div>		<div>1. No loose/tight clamp attached 2. No damage clamp 3. No missed tape 4. No missing parts 5. Make sure no clearance between the PCB and the stopper jig</div>

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PARTS:	1. Assy parts			JIG:	1. Clamp Assembly jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
6	P4 Clamp Assembly (Continuation)	<p>3. Initially tighten the band clamp on clamp location 1 using right hand.</p> <p>4. Get the bando gun using right hand then cut the band clamp on location 1. Press the SW button after cut. Continue if the sequence light on location 2 was on.</p> <p>5. Hold the Black tape using right hand and then start taping using both hands on clamp location 2 and 3. Make 3 winds then cut the tape. Press the SW button after taping. Continue if the sequence light on location 4 was on.</p> <p>BANDO GUN ALIGNMENT</p> <p>GOOD NG VERTICAL OK NG</p> <p>Note: Setting of band clamp cutter depends on the size of the COT/Vinyl tube. For: ø5 - 1~2, ø7 - 3~4</p>		<p>Bando Gun</p>	<p>1. No loose/tight clamp attached 2. No damage clamp 3. No missed tape 4. No missing parts 5. Make sure no clearance between PCB and stopper jig</p> <p>Important reminders/note/s:</p> <p>1. Make sure no gap between stopper jig and hotmelted terminals.</p> <p>2. Using steel rule, check if the band cut measurement is within the required dimension and should not exceed the allowable range (0~2mm).</p> <p>0 ~ 2mm</p> <p>BANDO GUN ILLUSTRATION</p> <p>GOOD NG EXTENDED NOSEPIECE (8mm) FLAT NOSEPIECE</p>

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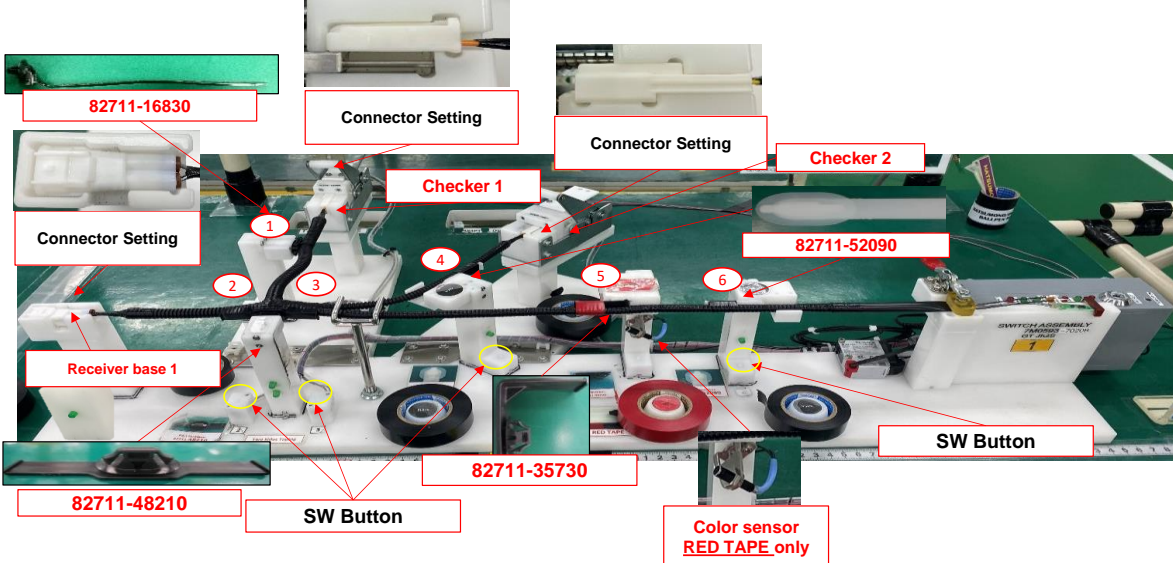
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PARTS:	1. Assy parts			JIG:	1. Clamp Assembly jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
6	P4 Clamp Assembly (Continuation)	 <p>6. Hold the Black tape using right hand and then start taping using both hands on clamp 4. Make 3 winds then cut the tape. Press the SW button after taping. Continue if the sequence light on location 5 was on.</p> <p>7. Hold the Red tape using right hand and then start taping using both hands on clamp location 5. Make 3 winds then cut the tape. Color sensor light will beep/buzz if sensor detects Red tape. Press the SW button after taping.</p> <p>8. Hold the Black tape using right hand and then start taping using both hands on clamp location 6. Make 3 winds then cut the tape. Press the SW button after taping. Go sound will be heard.</p> <p>9. Conduct POINT CHECKING of taping (COT to VM tube (sunprene), Tri-tape, COT to wire near connector) and all clamps before removing to Clamp Assy Jig.</p>			1. No loose/tight clamp attached 2. No damage clamp 3. No missed tape 4. No missing parts 5. Make sure no clearance between PCB and stopper jig

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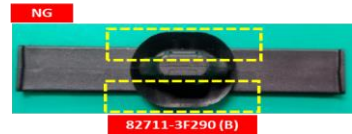
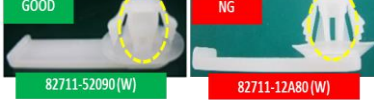
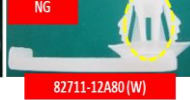
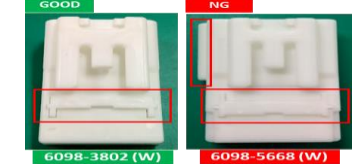

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PARTS:	1. Assy parts 2. Master sample		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
7	P4 Visual/By two's Inspection	<div data-bbox="555 389 1720 619"><p>ACTUAL PRODUCT</p></div> <div data-bbox="555 647 775 1286"><p>MASTER SAMPLE</p></div> <div data-bbox="786 975 992 1187"><p>1. Conduct alignment of harness (Master sample vs. assembled parts) using both hands.</p></div> <div data-bbox="904 655 1294 954"><p>2. Check the connector lock condition, insertion and terminal.</p></div> <div data-bbox="1016 975 1308 1171"><p>4. Check the T-taping condition.</p></div> <div data-bbox="1368 655 1704 938"><p>3. Conduct slightly bending of part with wing-type clamp.</p></div> <div data-bbox="1368 1195 1704 1311"><p>5. Check the presence of all clamp attachment, taping condition and color of tape (Must be RED TAPE only)</p></div>		<p>1. No skip checking during inspection.</p> <div data-bbox="1744 448 2072 491"><p>MASTER SAMPLE</p></div> <div data-bbox="1733 496 2128 660"></div> <div data-bbox="1744 676 2072 699"><p>CLAMP ILLUSTRATION</p></div> <div data-bbox="1744 703 2094 836"><p>GOOD</p><p>82711-48210 (B)</p></div> <div data-bbox="1744 841 2094 975"><p>NG</p><p>82711-3F290 (B)</p></div> <div data-bbox="1744 979 2116 1018"><p>CLAMP ILLUSTRATION</p></div> <div data-bbox="1744 1023 2116 1123"><p>GOOD</p><p>82711-52090 (W)</p><p>NG</p><p>82711-12A80 (W)</p></div> <div data-bbox="1744 1128 2094 1150"><p>CONNECTOR ILLUSTRATION</p></div> <div data-bbox="1744 1155 2094 1319"><p>GOOD</p><p>609B-380Z (W)</p><p>NG</p><p>609B-566B (W)</p></div>

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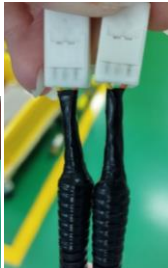
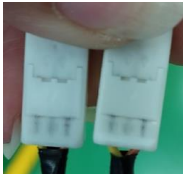
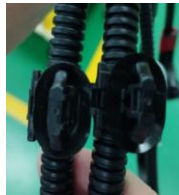





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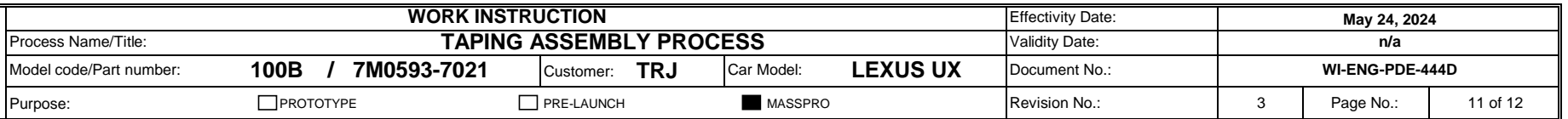
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PARTS:		1. Assy parts 2. Master sample		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
7	P4	Visual/By two's Inspection (Continuation)			
		<div><div><p>ACTUAL PRODUCT</p></div><div><div></div><div><p>6. Check the presence of all clamp attachment, band clamp cut, taping condition and color of tape.</p><p>7. Check the connector lock condition, insertion, terminal and taping condition.</p><p>8. Check the half-wrap taping.</p><p>9. Check the connector lock condition, insertion, terminal and taping condition.</p><p>10. Check the COT to Black VM tube (Sunprene) taping.</p><p>11. Check the terminal and PCB appearance. must be no deformed terminal.</p></div></div></div>		<div><p>1. No skip checking during inspection.</p><p>MASTER SAMPLE</p><p>BAND CLAMP ILLUSTRATION</p><div><div><p>GOOD</p><p>82711-16830 (B)</p></div><div><p>NG</p><p>82711-34490 (B)</p></div></div><p>Important reminders/note/s:</p><p>1. Using steel rule, check if the band cut measurement is within the required dimension and should not exceed the allowable range (0~2mm).</p><p>0 ~ 2mm</p></div>	

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Model code/Part number: 100B / 7M0593-7021

Customer: TRJ

Car Model: LEXUS UX

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PARTS:

1. Assy parts

JIG:

n/a

VISUAL INSPECTION/QUALITY CHECKPOINTS

P4

7M0593-7021



GOOD



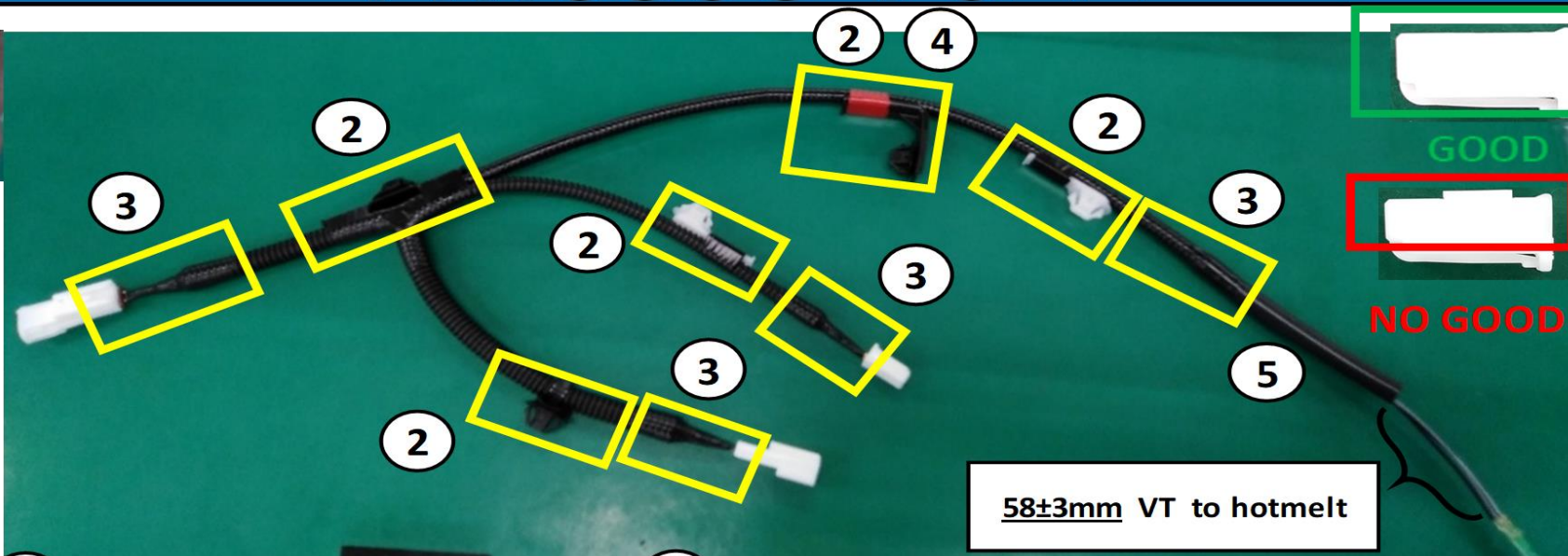
NO GOOD



GOOD



NO GOOD



1 No **WRONG INSERT**
No **UNLOCKED/HALFLOCKED**
No **TBO**

2 No **MISSING CLAMP**

3 No **MISSING TAPE**

4 No **WRONG USE OF TAPE (RED TAPE)**

5 No **MISSING VT**



GOOD



NO GOOD

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