



WORK INSTRUCTION

Process Name/Title:

TAPING ASSEMBLY PROCESS

Effectivity Date:

October 01, 2024

Model code/Part number:

241B / 7L0049-7023A

Customer:

TRQSS

Car Model:

LEXUS ES

Validity Date:

n/a

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Document No.:

WI-ENG-PDE-1067A

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NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS		
1	P1	Table Lay-out	<p>Safety Instruction Be sure to wear required personal protective equipment during operation (gloves, finger cots, etc.)</p> <p>Housekeeping 1. Maintain and always practice 5's. 2. Personal things on the workplace is prohibited. Keep it in your locker.</p> <p>Alert level For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.</p>	<p>1. Insertion jig with switch cover 2. Locking jig 3. Terminal cover jig</p> <p>Document reference/s: 1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance 2. Refer to WI-PRO-KIT-006 for Wire Taping with Vinyl Tube</p> <p>1. No missing parts/tools 2. No excess parts/tools</p>		
Revision History			Prepared by	Reviewed by	Approved by	Noted by
10/01/24	1	Change from Pre-launch to Masspro.	A. Hernandez	C. Villanueva	A. Arañes	n/a
09/24/24	0	Initial issue	A. Hernandez	C. Villanueva	A. Arañes	n/a
Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted

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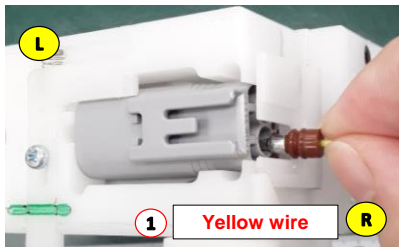
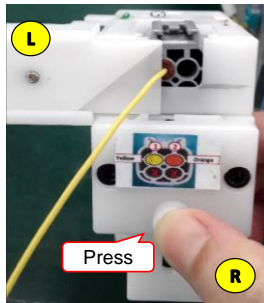
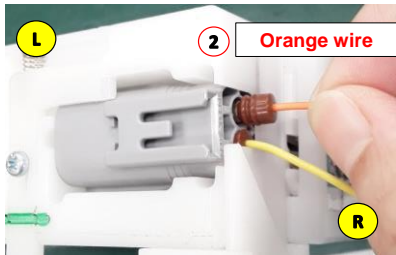
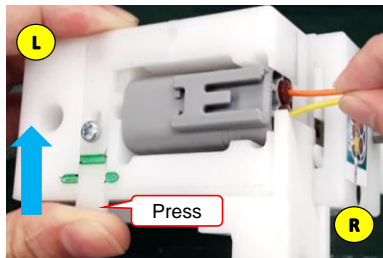
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PARTS:		1. AVSSf 0.3 wires Y-OR L=380±2mm		JIG:	1. Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
3	P1	<div><p>Terminal facing</p></div> <div><p>1. Hold the insertion jig using left hand. Get the Yellow wire and insert to connector using right hand.</p></div> <div><p>2. Press the button using right thumb. slot for Orange wire will be open.</p></div> <div><p>3. Get the Orange wire and insert to connector using right hand.</p></div> <div><p>4. After insertion, push the lock using left thumb and then hold the wires and gently pull out the connector from jig using right hand.</p></div>		N/A	<p>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deform terminal 5. No wrong wire facing</p> <p>Important reminders/Note/s:</p> <p>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.</p> <p>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</p>

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PARTS:		1. Black Corrugated tube (no slit) $\varnothing 7$ L=49 \pm 3mm 2. Black Corrugated tube (no slit) $\varnothing 7$ L=122 \pm 3mm		3. Black Corrugated tube (no slit) $\varnothing 7$ L=158 \pm 3mm 4. Assy parts		JIG:	n/a
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE		QUALITY POINTERS
4	P1	Wire insertion to COT (no slit) $\varnothing 7$ L= 49 \pm 3mm $\varnothing 7$ L= 122 \pm 3mm $\varnothing 7$ L= 158 \pm 3m	<div><div><p>1. Hold the wires using left hand. Get the Corrugated tube (no slit) $\varnothing 7$ L= 49\pm3mm using right hand and insert the wires.</p></div><div><p>2. Hold the wires using left hand. Get the Corrugated tube (no slit) $\varnothing 7$ L= 122\pm3mm using right hand and insert the wires.</p></div><div><p>3. Hold the wires using left hand. Get the Corrugated tube (no slit) $\varnothing 7$ L= 158\pm3mm using right hand and insert the wires.</p></div></div> <div><p>COT (no slit) $\varnothing 7$ L=49\pm3mm</p><p>COT (no slit) $\varnothing 7$ L=158\pm3mm</p><p>COT (no slit) $\varnothing 7$ L=122\pm3mm</p></div>		N/A	1. No wrong use of parts 2. No deformed terminal	

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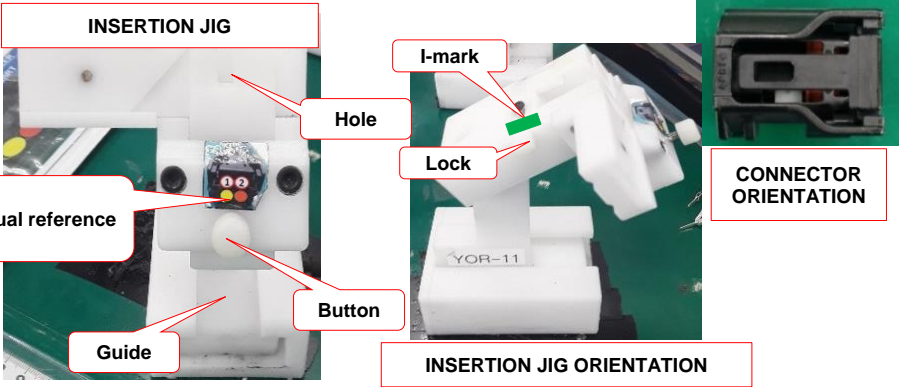
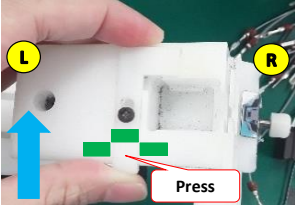
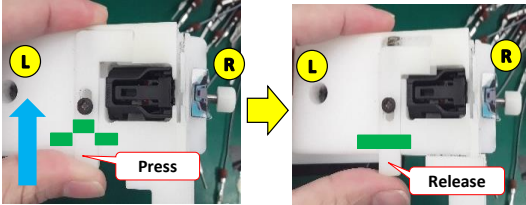
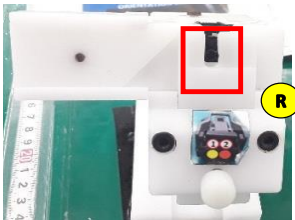

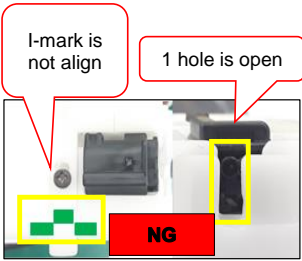
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PARTS:	1. Connector 6189-1161 (B)		JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
5	P1 Connector setting to insertion jig 6189-1161 (B)	<div><div><div>INSERTION JIG</div><div></div><div>CONNECTOR ORIENTATION</div><div>INSERTION JIG ORIENTATION</div></div><div><div></div><div></div><div></div></div><div><div>1. Press the lock using left thumb.</div><div>2. Get the connector 6189-1161 (B) using right hand and insert to insertion jig. Release the lock after insertion. <i>Note: Follow the connector orientation.</i></div><div>3. Push the lower wire guide upward using right hand. Slot for Yellow wire will be opened.</div></div></div>	N/A	<div>CONNECTOR ORIENTATION ILLUSTRATION</div> <div><div></div><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>

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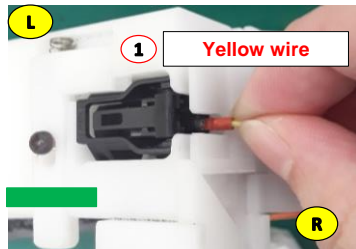
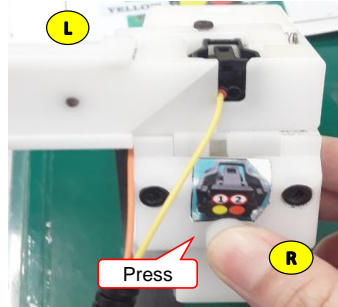
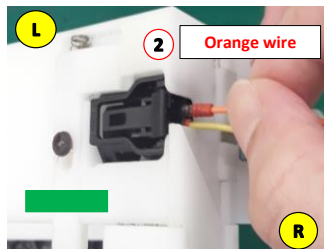
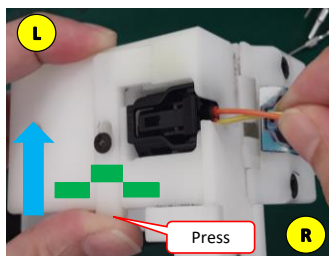
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PARTS:	1. Black tape 2. Assy parts		JIG:	1. Insertion Jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
6	P1 Wire Insertion to Connector 6189-1161 (B)	<div><div>Terminal facing</div></div> <div><div><div>1 Yellow wire</div></div><div><div>Press</div></div><div><div>2 Orange wire</div></div><div><div>Press</div></div><div>1. Hold the insertion jig using left hand. Get the Yellow wire and insert to connector using right hand.</div><div>2. Press the button using right thumb. slot for Orange wire will be open.</div><div>3. Get the Orange wire and insert to connector using right hand.</div><div>4. After insertion, push 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> <div><div>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deform 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.</div></div>		

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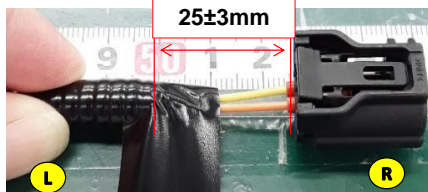
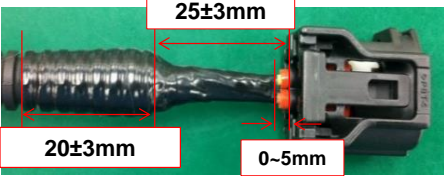

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PARTS:		1. Black tape 2. Assy parts		JIG:	1. Locking jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
7	Connector lock	 <p>1. Put the connector into locking jig and push down 2x using both hands. Check the connector lock if properly locked.</p>  <p>Before pressing</p>  <p>After Pressing</p> 			Important reminders/Note/s: 1. MANUAL LOCKING MAY CAUSE DAMAGED CONNECTOR 1. No unlock/half-locked connector 2. No damaged lock
8	Taping 1 COT to wire near connector	 <p>Start of taping</p>  <p>25±3mm</p> <p>1. Hold the assy parts using left hand, get Black tape then conduct pre-taping using both hands.</p> <p>2. Hold the assy parts using left hand and measure from COT to connector 25±3mm using both hands. Continue taping process using both hands.</p>  <p>20±3mm 25±3mm 0~5mm</p> <p>3. After taping, check the measurement and taping condition.</p>			Important reminders and Note/s: 1. Please use calibrated/verified measuring tape when getting the measurement. Document reference/s: 1. Refer to WI-PRO-ASY-001 for taping procedure. 1. No flip-out tape 2. No peel-off tape 3. No loose tape 4. No missing tape 5. No wrong dimension 6. No wrong use of tape

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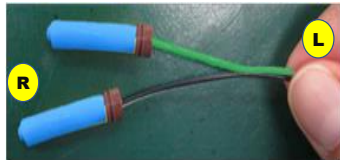

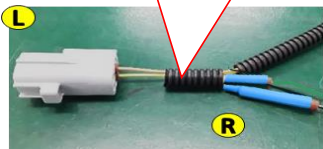

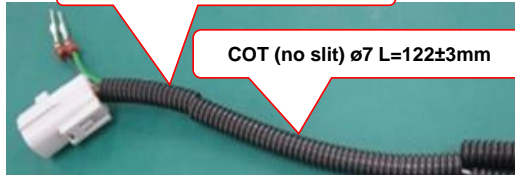

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PARTS:		1. Black Corrugated tube $\phi 7$ L=312 \pm 3mm (no slit) 2. MRSW CP (TVSSf 0.3 G-B/W L=679 \pm 3mm; Black VM tube (Sunprene) $\phi 5$ L=106 \pm 3mm) 3. Assy parts		JIG:	1. Terminal cover jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
9	P1	Wire insertion to COT $\phi 7$ L= 312 \pm 3mm (no slit)	<div><p>1. Get the terminal cover jig using right hand then insert to both terminals G-B/W wires using right hand.</p></div> <div><p>2. Get the corrugated tube $\phi 7$ L=312\pm3mm (no slit) using right hand then insert the G-B/W wires using left hand.</p></div>	<div>TERMINAL COVER JIG</div> 	1. No wrong use of parts 2. No deformed terminal
10		Wire insertion to Assy	<div><p>1. Hold the wires using right hand.</p></div> <div><p>2. Get the assy parts using left hand, insert the wires in COT $\phi 7$ L=122mm using right hand.</p></div> <div><p>3. Hold the corrugated tube $\phi 7$ L=49\pm3mm using left hand then insert the G-B/W wires using right hand.</p></div> <div><p>4. After insertion, remove the cover jig using right hand.</p></div> <div></div>	<div>TERMINAL COVER JIG</div> 	1. No wrong use of parts 2. No deformed terminal 3. No wrog insertion of parts

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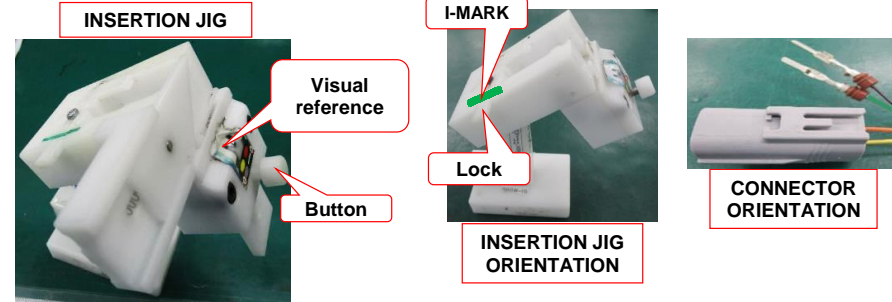
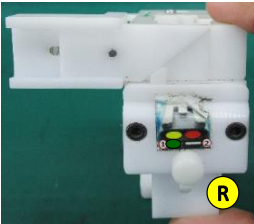
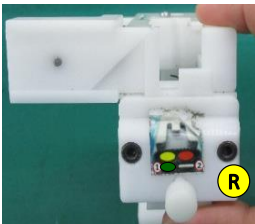
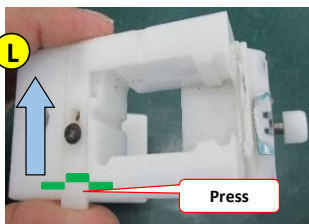
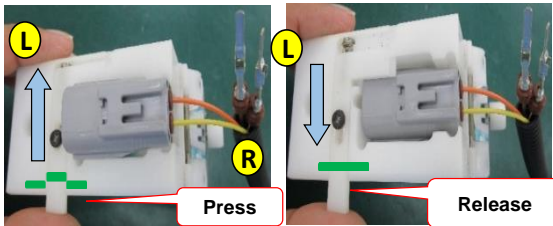
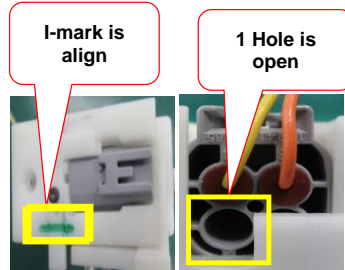
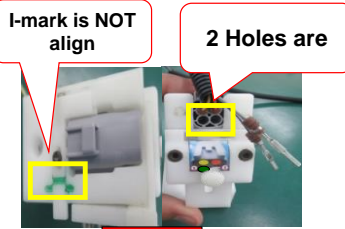
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PARTS:		1. Assy parts		JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
11	P1	<p>Connector setting to insertion jig 6188-0066 (GR) (Assy parts)</p>     <p>1. Press the guide using right thumb. The slot for G wire will be opened.</p> <p>2. Press the lock of insertion jig using left thumb.</p> <p>3. Insert the connector 6188-0066 (GR) with inserted Y-OR wire using right hand. Note: Follow the connector orientation.</p> 		N/A	 <p>GOOD</p>  <p>NG</p> <p>1. Use the provided jig per model 2. No wrong orientation of connector 3. No wrong use of connector 4. No damaged connector</p>

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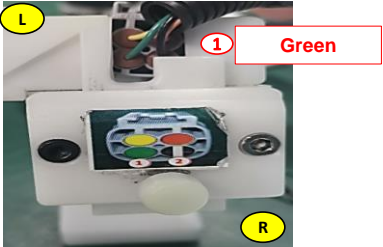
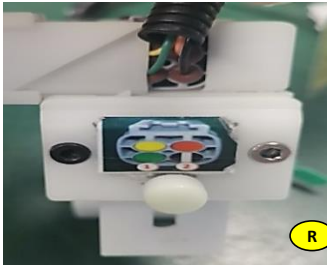
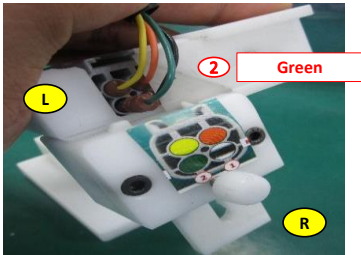
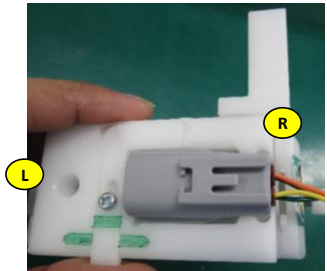
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PARTS:	1. Assy parts			JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
12	P1 Wire insertion to connector 6188-0066 (GR) (Assy parts)	<div><p>Terminal Facing</p></div> <div><p>1. Hold the insertion jig using left hand, get Green wire then insert to connector slot 1 using right hand.</p></div> <div><p>2. Press the button using right hand, slot for Black/White wire will be opened.</p></div> <div><p>3. Hold the insertion jig using left hand, get Black/White wire then insert to connector slot 2 using right hand.</p></div> <div><p>4. After insertion, push the lock using left thumb and then hold the wires and gently pull out the connector from jig using right hand.</p></div>		N/A	<p>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deform terminal 5. No wrong wire facing</p> <p>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.</p> <p>Document references: 1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</p>

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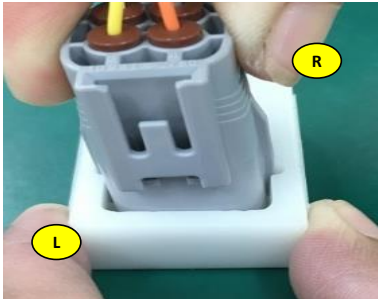



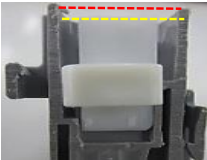
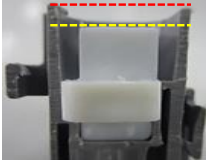
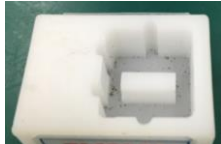
☒ MASSPRO

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PARTS:		1. Assy parts		JIG:	1. Locking Jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
13	P1	Connector lock	<div><p>1. Put the connector into locking jig using right hand then press 2x. Touch the connector lock if properly locked.</p></div> <div><p>Before pressing</p><p>After pressing</p></div> <div><p>Connector Cross Sectional View</p><div><p>NG</p><p>Unlock Condition</p></div><div><p>NG</p><p>Half Lock Condition</p></div><div><p>GOOD</p><p>Full Lock Condition</p></div></div>	<div><p>LOCKING JIG</p></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 2. No unlock/half-lock connector</p>

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**WORK INSTRUCTION**

Process Name/Title:

TAPING ASSEMBLY PROCESS

Effectivity Date:

October 01, 2024

Validity Date:

n/a

Model code/Part number:

241B / 7L0049-7023A

Customer:

TRQSS

Car Model:

LEXUS ES

Document No.:

WI-ENG-PDE-1067A

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

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1

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PARTS:

1. Assy parts

JIG:

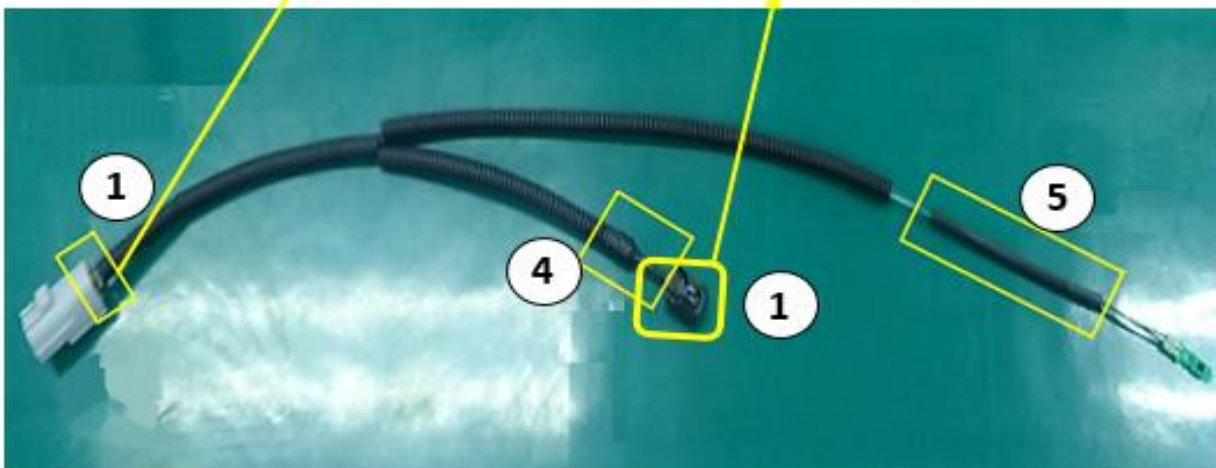
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VISUAL INSPECTION/ QUALITY CHECKPOINTS**TAPING - P1****7L0049-7023A**

2



3

1 **No Unlocked /Half-locked Connector**2 3 **No Wrong Insert**4 **No Missing Tape (Black)**5 **No Missing Black Sunprene tube**6 **No Terminal Backing out**7 **No Deformed Terminal**

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