



WORK INSTRUCTION

Process Name/Title: TAPING ASSEMBLY PROCESS

Effectivity Date:

July 10, 2024

Model code/Part number: 100B / 7M0595-7021

Customer: TRJ

Car Model: LEXUS (TOYOTA) UX

Validity Date:

n/a

Purpose:



PROTOTYPE



PRE-LAUNCH



MASSPRO

Revision No.:

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PARTS:

1. Assy parts; Connector 6188-0407 (W); Black Corrugated tube (no slit) Ø7 L=231±3mm; Black Corrugated tube (w/ slit) Ø5 L=226±3mm; Black tape

JIG:

1. Insertion jig
2. Terminal cover jig
3. COT adaptor

NO.

PROCESS NAME

3

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

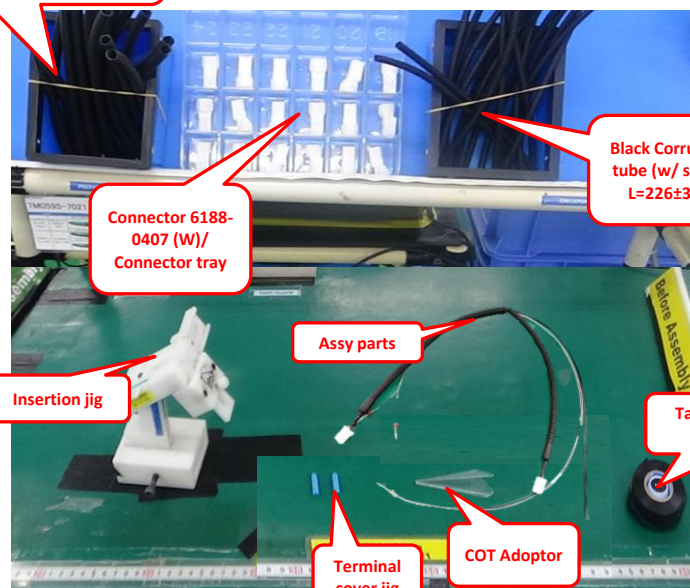
1

P2

Table Lay-out

Black Corrugated tube
(no slit) Ø7 L=231±3mm

TABLE LAY-OUT

Black Corrugated
tube (w/ slit) Ø5
L=226±3mm**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.

1. No missing parts/tools
2. No excess parts/tools

Revision History

Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Prepared by	Reviewed by	Approved by	Noted by
07/10/24	3	Integrate connector lock process to Clamp assembly jig due to improvement. Improved table lay-out and Visual inspection/Quality checkpoints. Additional Important reminders/Note/s in Process 2 (Page 8) due to customer claim countermeasure.	D.Castillo	C. Villanueva	A. Arañes	n/a				
07/21/23	2	Updated template; Inclusion of CAR MODEL "LEXUS (TOYOTA) UX"	M. Ariola	J. Loterte	C. Villanueva	A. Arañes				
02/24/23	1	Improve Quality pointers on pages no. 4,5,7 and 8; Inclusion of Quality checkpoints	M. Ariola	J. Loterte	C. Villanueva	A. Arañes				
Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Est. Date:	March 01, 2022		

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PARTS:

1. Assy parts
2. Black Corrugated tube (no slit) $\varnothing 7$ L=231 \pm 3mm

JIG:

1. Terminal cover jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

2

P2

Wire insertion to
Black Corrugated tube
 $\varnothing 7$ L=231 \pm 3mm



1. Get the terminal cover jig using right hand then insert to both terminals (G-B/W wires) using right hand.



2. Get the corrugated tube $\varnothing 7$ L= 231 \pm 3mm using right hand then insert the G-B/W wires using left hand.



3. After insertion, remove the cover jig using right hand.

TERMINAL COVER JIG



1. No wrong usage of parts
2. No damaged rubber seal

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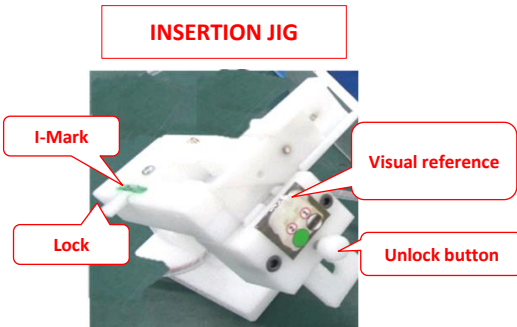
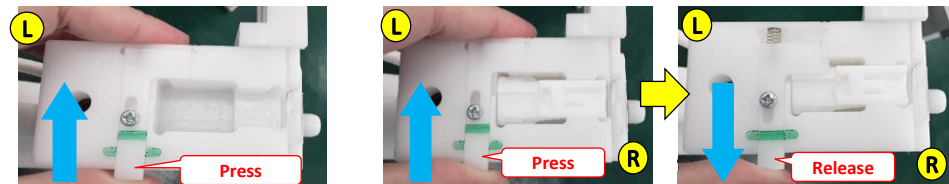
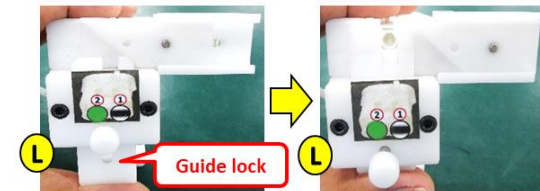
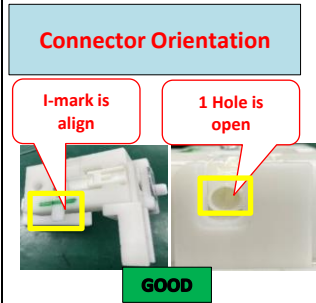
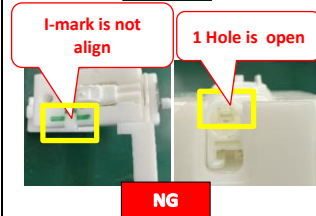
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PARTS:		1. Connector 6188-0407 (W)		JIG	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
3	P2	<div><div><div>INSERTION JIG</div><div></div></div><div><div></div><div><div></div><div><div>1. Press the lock of insertion jig using left thumb.</div><div>2. Insert the connector 6188-0407 (W) into jig using right hand and release the lock. <i>Note: Refer to above illustration for correct setting.</i></div><div>3. Push the guide upward using left hand. Hole/terminal slot for B/W wire will be opened.</div></div></div></div></div>		n/a	<div><div><div>Connector Orientation</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></div>

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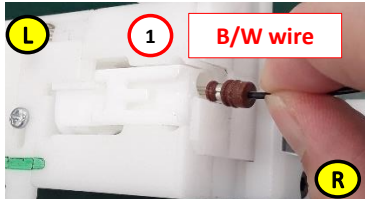
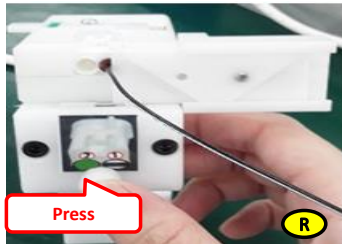

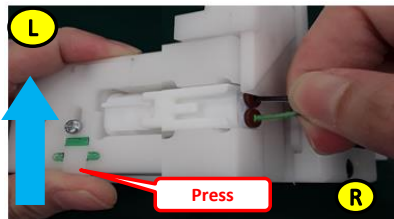
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PARTS:		1. Assy parts			JIG	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
4	P2	<div>Wire insertion to connector 6188-0407 (W)</div> <div><p>Wire facing</p></div> <div><p>1. Get the B/W wire then insert to terminal slot 1 using right hand.</p></div> <div><p>2. Push the button after insertion. Hole for G wire will be opened.</p></div> <div><p>3. Get the G wire then insert to terminal 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	<div>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deformed terminal 5. No wrong wire facing</div> <div>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.</div> <div>Document reference/s: 1. Refer to WI-PRO-CNC-017 for Wire and Length tolerance. 2. Please refer to GL-PRO-ASY-029 for Pull-Push procedure.</div>

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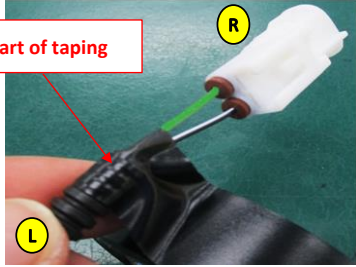
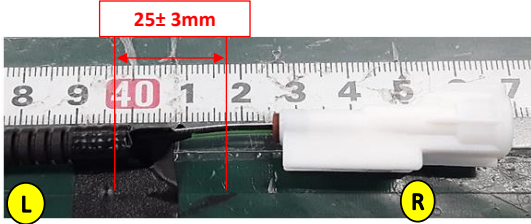
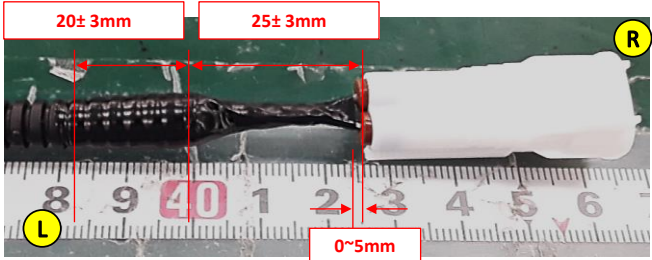

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PARTS:		1. Assy parts			JIG	1. Locking jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
5	P2 Taping 1 Black corrugated tube to wire near connector	<div><p>Start of taping</p></div> <div><p>25±3mm</p></div> <div><p>1. Hold the corrugated tube using left hand, get the black tape then start pre-taping at the middle of COT and wires using both hands.</p></div> <div><p>2. Measure from end of corrugated tube up to end of connector 25mm then continue the taping process using both hands.</p></div> <div><p>20±3mm 25±3mm 0~5mm</p></div> <div><p>3. After taping, check the measurement and taping condition.</p></div>			<div>MEASURING TAPE</div> 	<p>Important reminders and Note/s:</p> <p>1. Please use calibrated/verified measuring tape when getting the measurement.</p> <p>Document reference/s:</p> <p>1. Refer to WI-PRO-ASY-001 for taping procedure.</p> <p>1. No flip out tape 2. No tape peeling 3. No loose tape 4. No wrong use of tape 5. No wrong dimension</p>

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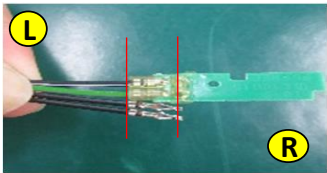
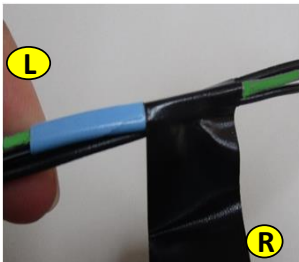
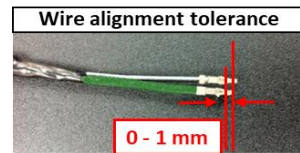
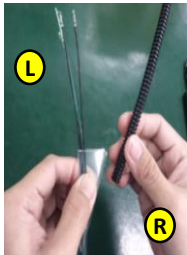
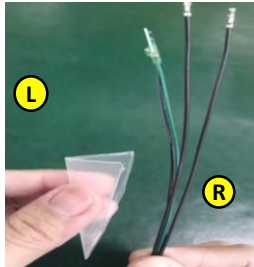
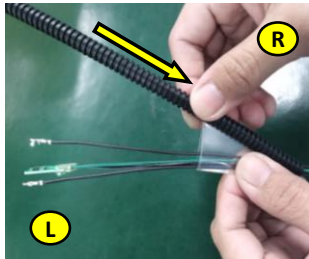

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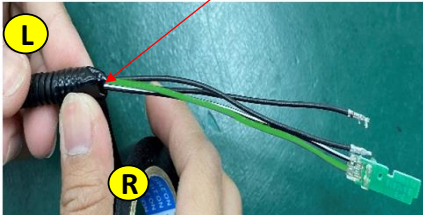

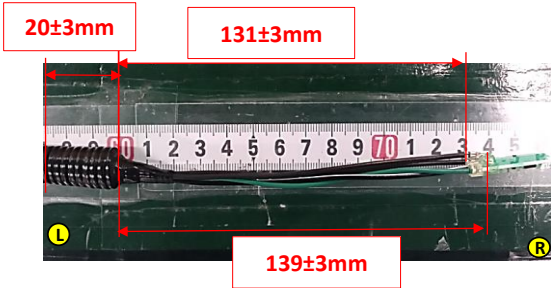

PARTS:		1. Assy parts 2. Black tape		1. Assy parts 2. Black corrugated tube (w/slit) $\phi 5$ L=226 \pm 3mm		JIG	1. COT adaptor
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS	
6	Spot taping	<div><p>1. Align the terminal pointed tip of hotmelted wires to B-B wires.</p></div> <div><p>2. Hold wires using left hand and begin taping using right hand. Tape location must be beside the G-B/W wire tape (Sky blue tape). Make 2 winds then cut the tape.</p></div>			n/a	<div><p>Wire alignment tolerance</p><p>0 - 1 mm</p></div> <p>1. No flip-out tape 2. No peel-off tape 3. No loose tape 4. No wrong use of tape 5. No wrong dimension</p>	
7	P2 Wire insertion to Black Corrugated tube (w/ slit) $\phi 5$ L=226 \pm 3mm	<div><p>1. Hold the COT adaptor using left hand and insert the wires using right hand.</p></div> <div><p>2. Hold the COT using left hand and COT adaptor using right hand. Push the adaptor and pull the COT in same timing. Make sure all wires are inserted.</p></div>			<div><p>COT Adaptor</p></div>	<p>1. No wrong use of parts 2. No wires left in between the COT with slit</p>	

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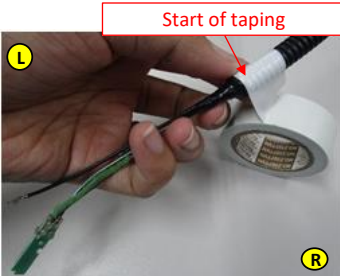
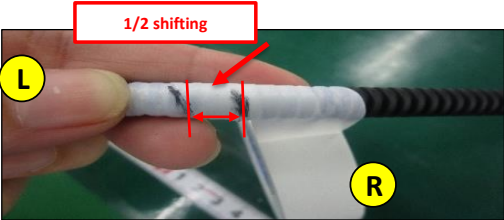
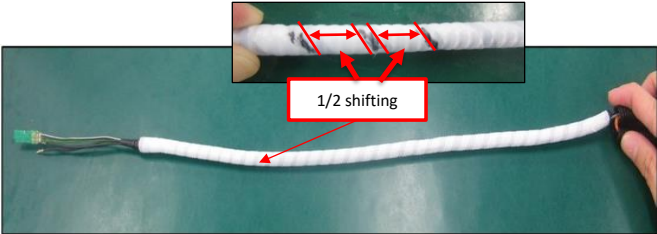
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	Purpose: <input type="checkbox"/> PROTOTYPE		<input type="checkbox"/> PRE-LAUNCH	<input checked="" type="checkbox"/> MASSPRO	Revision No.:	3	Page No.: 7 of 9

PARTS:	1. Assy parts 2. Black tape			JIG	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS	
8	P2 Taping 2 Black corrugated tube (with slit) to wire near terminal and hotmelted wire	<div> <div>  <p>Start of taping</p> </div> <div> <p>1. Hold the corrugated tube using left hand and conduct pre-taping between COT and wires using right hand.</p> </div> </div> <div> <div>  <p>131±3mm</p> </div> <div> <p>2. Measure from COT up to the hotmelted wire 131mm and continue the taping process.</p> </div> </div> <div> <div>  <p>20±3mm 131±3mm</p> <p>139±3mm</p> </div> <div> <p>3. After taping, check the measurement and taping condition.</p> </div> </div>	<div>  <p>MEASURING TAPE</p> </div>	<p>Important reminders and Note/s:</p> <p>1. Please use calibrated/verified measuring tape when getting the measurement.</p> <p>Document reference/s:</p> <p>1. Refer to WI-PRO-ASY-001 for taping procedure.</p> <p>1. No flip out tape 2. No tape peeling 3. No loose tape 4. No wrong use of tape 5. No wrong dimension</p>	

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PARTS:	1. Assy parts 2. Black tape			JIG	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS	
9	P2 Half-wrap taping	<div style="text-align: center;">  <p>1. Hold the corrugated tube using left hand and begin taping using right hand.</p> </div> <div style="text-align: center;">  <p>2. Make 1/2 shifting. Repeat the process until the end of corrugated tube. Make 3 winds and then cut the tape.</p> </div> <div style="text-align: center;">  <p>3. Check the taping condition.</p> </div>	n/a	<p>Important reminders/Note/s</p> <p>1. Please use calibrated/verified measuring tape when getting the measurement.</p> <p>2. Used <u>WHITE TAPE</u> to easily visualize the tape shifting, but actual should be <u>BLACK TAPE</u>.</p> <p>3. Internal tolerance for halfwrap taping shifting should be 0~14mm only.</p> <p>1. No peel-off tape 2. No flip out tape 3. No loose tape 4. No wrong use of tape 5. No exposed COT</p>	

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PARTS:

1. Assy parts

JIG

n/a

QUALITY CHECKPOINTS

P2

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1

2

TAPE WIDTH /
25±3MM COT TO CONNECTOR

2

FULL TAPING MUST BE HALF
WRAP (NO EXPOSE COT)

1

No Wrong insert
No TBO

2

No Missing Tape

TAPE WIDTH

131±3mm cot to hotmelt
139±3MM cot to terminal

Proper
alignment of
B-B wires
and hotmelt

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