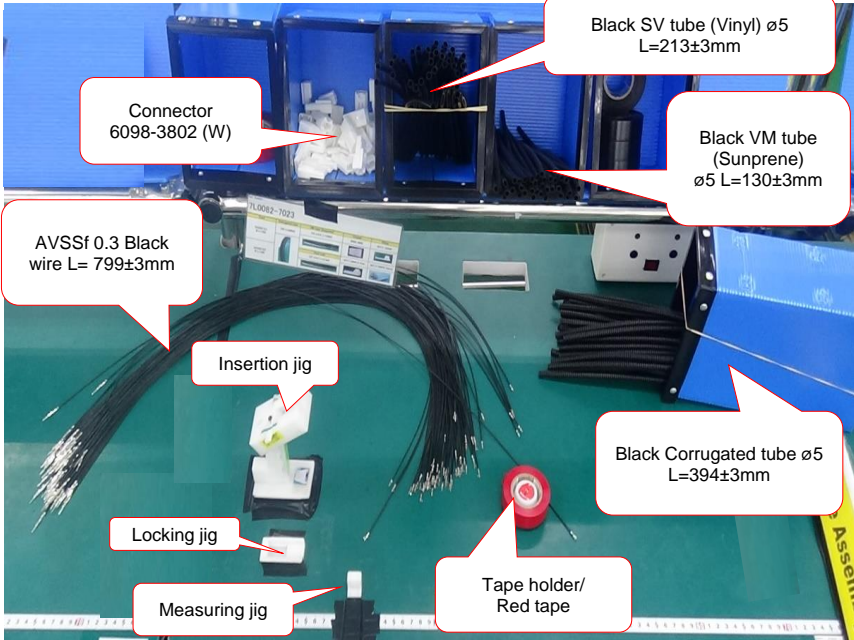
	WORK INSTRUCTION				Effectivity Date:		June 24, 2024	
	Process Name/Title: TAPING ASSEMBLY PROCESS				Validity Date:		n/a	
	Model code/Part number: 550B / 7L0082-7023		Customer: TRQSS	Car Model: TOYOTA-HIGHLANDER	Document No.:		WI-ENG-PDE-386A	
	Purpose: <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO				Revision No.:		2	Page No.: 1 of 7

PARTS:		1. All parts: Connector 6098-3802 (W); AVSSf 0.3 Black wire L= 799±3mm; Black SV tube (Vinyl) ø5 L=213±3mm; Black VM tube (Sunprene) ø5 L=130±3mm; Black Corrugated tube ø5 L=394±3mm; Red tape			JIG:		1. Locking jig 2. Measuring jig 3. Insertion jig	
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION				TOOLS/PPE	QUALITY POINTERS	
1	P1	<div>Table Lay-out</div> 				<div>Safety Instruction Be sure to wear required 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>Document reference/s: 1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</div> <div>1. No missing parts/tools 2. No excess parts/tools</div>	

Revision History						Prepared by	Reviewed by	Approved by	Noted by	
06/24/24	2	Transfer Connector setting, Wire insertion to connector and Connector lock process from Offline assembly process (WI-ENG-PDE-388) to Taping assembly process. Transfer Taping 1 and Taping 2 process to WI-ENG-PDE-386B. Update Table lay-out and Quality checkpoints. Inclusion of Car model "TOYOTA-HIGHLANDER".				D.Castillo	C.Villanueva	A. Arañes	n/a	
12/13/22	1	Merge from P2 To P1 due to Improvement Project. Change table lay-out. Improve Quality pointers: Reminders/notes and references on pages no.1,2,6,7,8 and 9 due to document improvement. Improve work procedure/illustration on process no. 10 due to process improvement. inclusion of Quality checkpoint.				M. Ariola	J. Loterte	C. Villanueva	A. Arañes	
02/04/22	0	Initial issue. Clamp quantity 82711-52090 (W) 2 clamps;(Refer to WI-ENG-PDE-386B).				K. Doria	J. Loterte	C. Villanueva	A. Arañes	
Eff. Date	Rev. No	Details of Change				Revised	Reviewed	Approved	Noted	
						Est. Date:	Februaty 4, 2022			

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PARTS:		1. Connector 6098-3802 (W)		JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
2	P1 Connector setting to insertion jig 6098-3802(W)	<div><div><div><div>INSERTION JIG</div><div></div></div><div><div></div><div></div></div></div><div><div><div></div><div>1. Press the lock of insertion jig using left thumb.</div></div><div><div></div><div>2. Insert the connector 6098-3802 (W) into jig using right hand and release the lock using left hand.</div></div><div><div></div><div>3. Check the holes/terminal slot for B-B wires.</div></div></div></div> <td>n/a</td> <td><div><div>1. Use the provided jig per model</div><div>2. No wrong orientation of connector</div><div>3. No wrong use of connector</div><div>4. No damaged connector</div></div><div><div>Connector Orientation Illustration</div><div><div><div></div><div>I-mark is align</div><div>2 Holes are open</div><div>GOOD</div></div><div><div></div><div>I-mark is not align</div><div>All holes are open</div><div>NG</div></div></div></div></td>		n/a	<div><div>1. Use the provided jig per model</div><div>2. No wrong orientation of connector</div><div>3. No wrong use of connector</div><div>4. No damaged connector</div></div> <div><div>Connector Orientation Illustration</div><div><div><div></div><div>I-mark is align</div><div>2 Holes are open</div><div>GOOD</div></div><div><div></div><div>I-mark is not align</div><div>All holes are open</div><div>NG</div></div></div></div>

n/a

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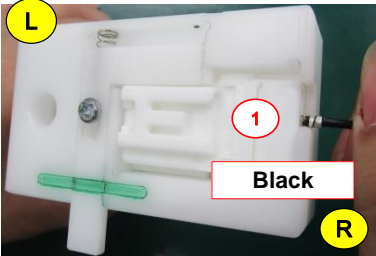
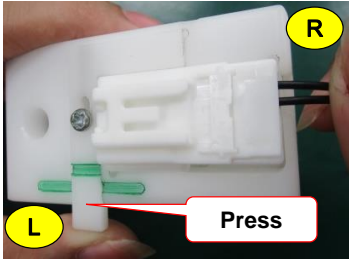
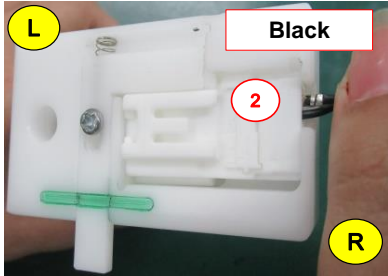

PARTS:	1. Corrugated tube ø5 L=394±3mm 2. SV tube (vinyl) ø5 L=213±3mm 3. AVSSf 0.3 Black wire L= 799mm±3mm		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
3	Wire Insertion to Corrugated tube ø5 L=394±3mm (no slit)	 <div data-bbox="730 715 1303 831">1. Get black corrugated tube L=394±3 using left hand and insert Black wires L= 799±3mm using right hand.</div>	n/a	Document references: 1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance 1. No wrong use of parts 2. No deformed terminal
4	Wire Insertion to SV tube (Vinyl) ø5 L=213±3mm	 <div data-bbox="696 1181 1317 1316">1. Hold the assy part using right hand and get the SVI tube (Vinyl) ø5 L= 213±3mm using right hand and insert the Black wires.</div>	n/a	1. No wrong use of parts 2. No deformed terminal

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	Process Name/Title:		Model code/Part number: 550B / 7L0082-7023		Customer: TRQSS	Car Model: TOYOTA-HIGHLANDER		Document No.:	WI-ENG-PDE-386A	
	Purpose:		<input type="checkbox"/> PROTOTYPE		<input type="checkbox"/> PRE-LAUNCH	<input checked="" type="checkbox"/> MASSPRO		Revision No.:	2	Page No.:

PARTS:		1. AVVSf 0.3black wire L= 799mm ; Connector 6098-3802 (W)		JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
5	P1 Wire insertion to connector 6098-3802 (W)	<div><div>1. Get the 1st B wire then insert to connector using right hand.</div><div>2. Get the 2nd B wire then insert to connector using right hand.</div><div>3. After insertion, push the lock using left thumb then hold the wires and gently pull out the connector from jig using right hand.</div></div> <div><div>WIRE FACING</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. 3. Insertion of wires must be from left to right.</div><div>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</div></div>			

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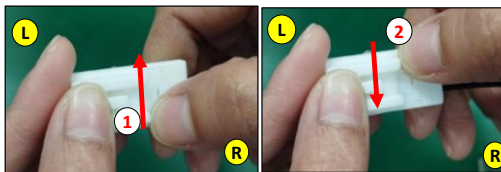

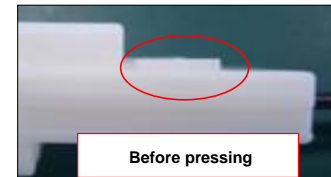
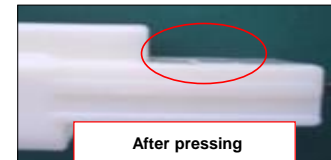


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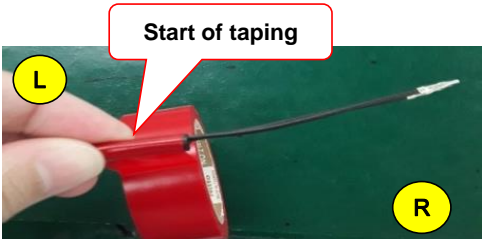
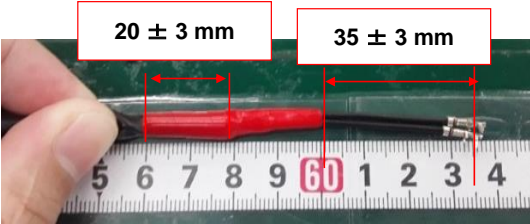

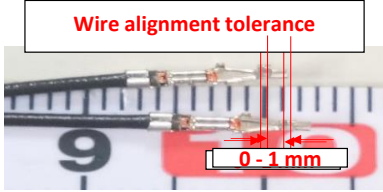
PARTS:		1.Assy Part		JIG:	1. Locking jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
6	P1	<div><div><p>1. Load the connector into the jig holding both side of the connector, tip first.</p></div><div><p>2. Press the lower part of connector to fully insert into the locking jig.</p></div><div><p>Right thumb-Lower Left thumb-middle</p><p>3. Press the lower parts of connector using right hand while left hand holding the middle.</p></div><div><p>Right thumb-upper Left thumb-middle</p><p>4. Press the upper part of connector using right hand while left hand holding the middle.</p></div><div><p>Right thumb-middle Left thumb-middle</p><p>5. Lift then press the connector in the middle using left and right hand.</p></div><div><p>6. Ensure that connector is in locked condition by slide touching the connector lock based on the sequence illustrated.</p></div></div>		<div><p>LOCKING JIG</p></div>	<div><div><p>Before pressing</p></div><div><p>After pressing</p></div><div><div><p>GOOD</p><p>Full Lock</p></div><div><p>NG</p><p>Half Lock</p></div></div><p>Important reminders/Note/s:</p><p>1. MANUAL LOCKING MAY CAUSE DAMAGED CONNECTOR</p><p>1. Use the provided jig tool to lock the connector. 2. No unlock/half-locked connector</p></div>

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PARTS:		1. Assy parts 2. Black VM tube (Sunprene) $\varnothing 5$ L=130 \pm 3mm 3. Red tape [1pc]		JIG:	N/A
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
6	Wire Insertion to Black VM tube (Sunprene) $\varnothing 5$ L=130 \pm 3mm	 <p>1. Hold the assy part using left hand then get the Black VM tube (Sunprene) $\varnothing 5$ L=130\pm3mm using right hand and insert the Black wires.</p>		n/a	1. No wrong use of parts 2. No deformed terminal
7	P1 Taping 1 Black SV tube (Vinyl) to wire near terminal	 <p>55 \pm 3mm</p>  <p>Start of taping</p>  <p>20 \pm 3 mm 35 \pm 3 mm</p> <p>1. Hold the VM tube (Sunprene) using left hand. Measure from VM tube (Sunprene) up to terminal pointed tip 55\pm3mm.</p> <p>2. Get Red tape using right hand, hold the VM tube (Sunprene) using left hand then fold the VM tube (Sunprene) and start taping using right hand.</p> <p>3. After taping check the measurement, wire alignment and taping condition.</p>		<div>MEASURING TAPE</div> 	1. No loose tape 2. No peel-off tape 3. No flip-out tape 4. No wrong dimension 5. No wrong use of tape 6. No missing tape Important reminders/Note/s: 1. Please use calibrated measuring tape when getting the measurement. 2. Use RED TAPE only. Document references: 1. Refer to WI-PRO-ASY-001 for Taping process  <p>Wire alignment tolerance 0 - 1 mm</p>

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1. Assy parts

JIG:

n/a

VISUAL INSPECTION/ QUALITY CHECKPOINTS**P1****7L0082-7023****1****No Wrong use and Missing tape (RED)**

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