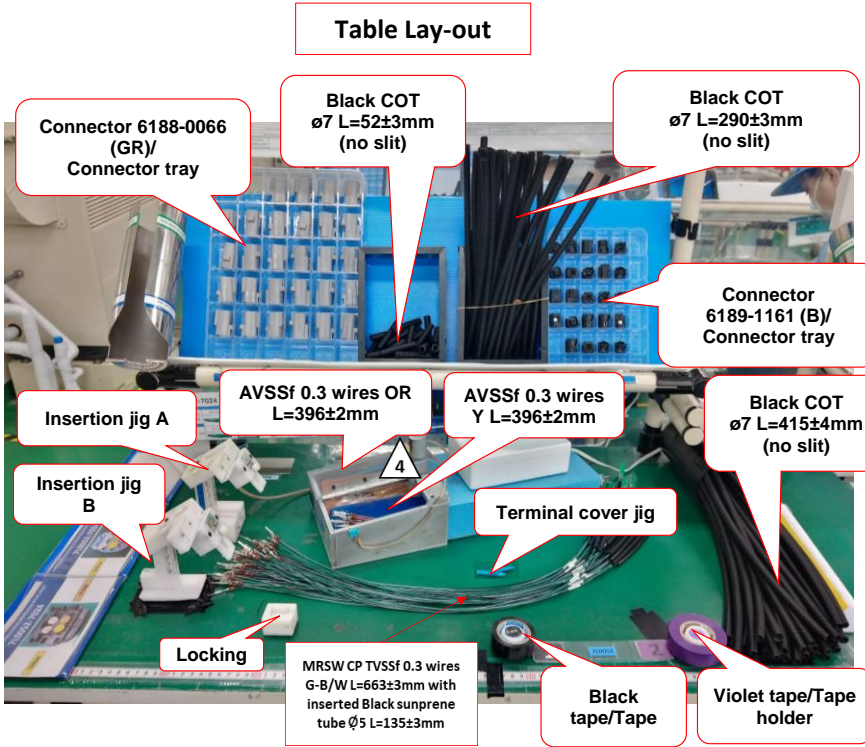




	WORK INSTRUCTION TAPING ASSEMBLY PROCESS				Effectivity Date: July 10, 2024	
	Process Name/Title:				Validity Date: n/a	
	Model code/Part number: 320B / 7L0052-7024		Customer: TRQSS		Car Model: TOYOTA-RAV4	
	Purpose: <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO				Document No.: WI-ENG-PDE-409A	
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PARTS:		1. Connector 6188-0066 (GR); Black COT $\phi 7$ L=52 \pm 3mm (no slit); Black COT $\phi 7$ L=290 \pm 3mm (no slit); Connector 6189-1161 (B); AVSSf 0.3 wires Y-OR L=396 \pm 2mm; MRSW CP TVSSf 0.3 wires G-B/W L=663 \pm 3mm with inserted Black VM tube (Sunprene) $\phi 5$ L=135 \pm 3mm; Black COT $\phi 7$ L=415 \pm 4mm (no slit); Black tape; Violet tape		JIG:		1. Insertion jig with flip cover 2. Locking jig 3. Terminal cover jig	
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS			
1	P1	Table Lay-out		<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>			Document reference/s: 1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance

Revision History						Prepared by	Reviewed by	Approved by	Noted by
07/10/24	4	Inclusion of car model "TOYOTA-RAV 4". Aligned switch cover to insertion jig.	D.Castillo	C.Villanueva	A. Arañes	n/a	 D. Castillo	 C. Villanueva	 A. Arañes
04/24/23	3	Inclusion of quality checkpoints on page no. 10 as document improvements.	M. Ariola	J. Loterte	C. Villanueva	A. Arañes			
09/17/22	2	Transfer of process from P2 to P1 - Wire insertion to assy parts process no.11. Removal of procedure no.3 in process no.10 due to additional process and capacity improvement. Additional reference in process no.1	M. Catapang	J. Loterte	C. Villanueva	A. Arañes			
Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Est. Date:	February 14, 2022	

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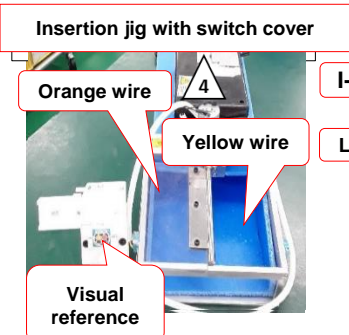


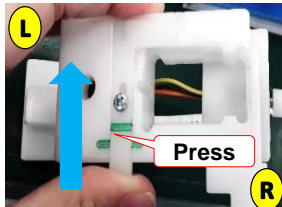
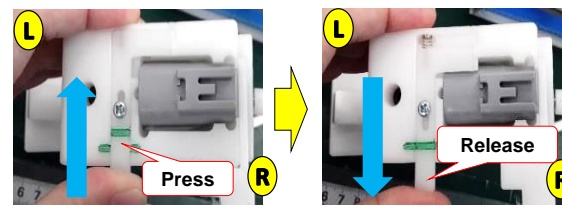



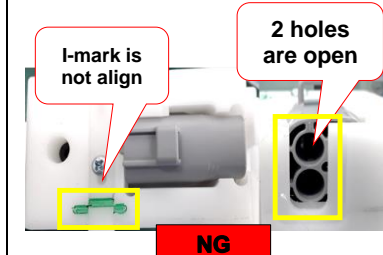
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PARTS:		1. Connector 6188-0066 (GR)		JIG:	1. Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
2	P1 Connector setting to insertion jig 6188-0066 (GR)	<div><div></div><div></div><div></div><div></div><div></div><div></div><div>1. Press the lock using left hand.</div><div>2. Get the connector 6188-0066 (GR) using right hand then insert to insertion jig. Release the lock after insertion. Note: Follow the connector orientation.</div><div>3. Push the lower wire guide upward using right hand. Slot for Yellow wire will be opened.</div></div>		n/a	<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></div>

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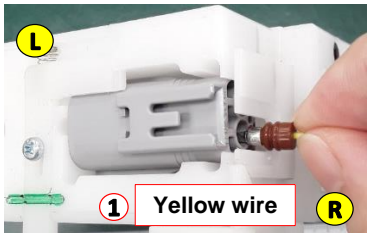

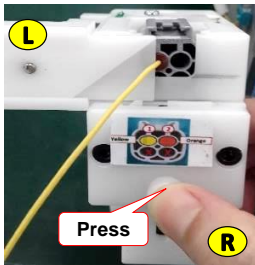
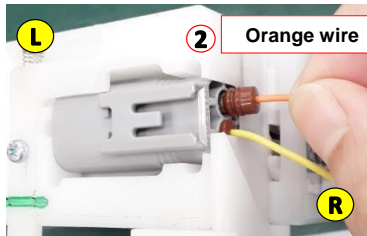
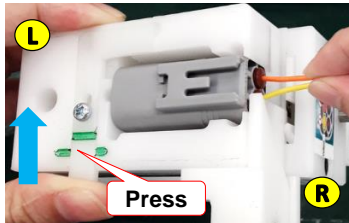
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PARTS:		1. AVSSf 0.3 wires Y L=396±2mm; OR L=396±2mm		JIG:	1. Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
3	P1 Wire Insertion to connector 6188-0066 (GR)	<div><div></div><div>WIRE FACING</div></div> <div><div></div><div>1 Yellow wire</div><div>1. Hold the insertion jig using left hand. Get the Yellow wire then insert to terminal slot 1 using right hand.</div></div> <div></div> <div><div></div><div>Press</div><div>2. Press the button using right thumb. The slot for Orange wire will be opened.</div></div> <div><div></div><div>2 Orange wire</div><div>3. Get the Orange wire then insert to terminal slot 2 using right hand.</div></div> <div><div></div><div>Press</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>		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. 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 Strip Length Tolerance 2. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</div>

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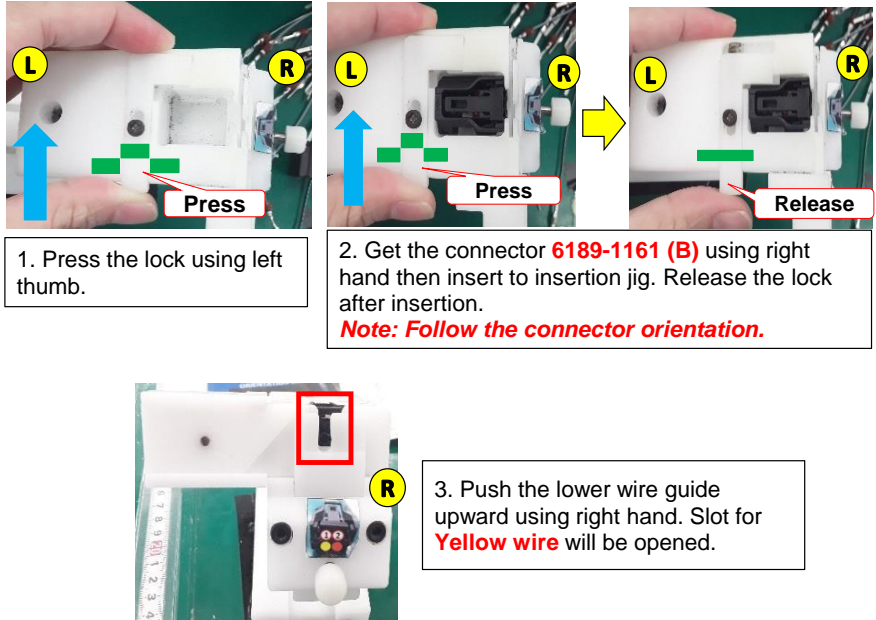
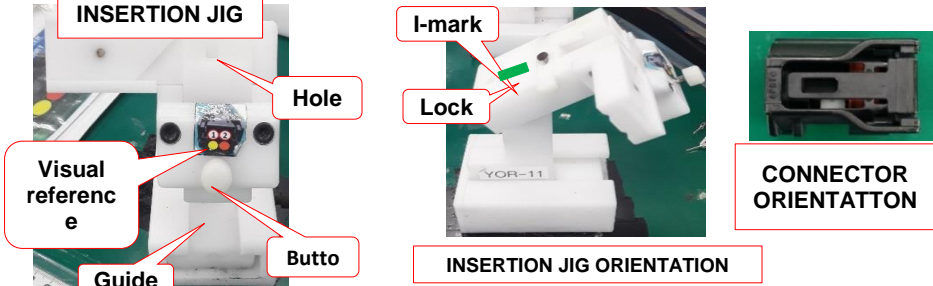


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	Purpose: <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO				Revision No.:		4	Page No.:

PARTS:		1. Assy parts 2. Black corrugated tube (no slit) Ø7 L=52±3mm		3. Black corrugated tube (no slit) Ø7 L=290±3mm		JIG:		n/a	
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION				TOOLS/PPE		QUALITY POINTERS	
4	Wire Insertion to Corrugated tube (no slit) Ø7 L=52±3mm	<div>  <div> 1. Hold the wires using left hand. Get the Corrugated tube (no slit) Ø7 L=52±3mm using right hand then insert the Yellow- Orange wires using left hand. </div> </div>				n/a		1. No wrong use of parts 2. No deformed terminal	
5	Wire insertion to Black corrugated tube (no slit) Ø7 L=290±3mm	<div>  <div> 1. Hold the wires using left hand. Get the Corrugated tube (no slit) Ø5 L=290±3mm using right hand then insert the Y-OR wires using left hand. </div> </div>				n/a		1. No wrong use of parts 2. No deformed terminal	

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	Purpose: <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO			Revision No.:	4	Page No.:	5 of 11

PARTS:		1. Connector 6189-1161 (B)		JIG:	1. Insertion jig	
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS	
6	P1	<div>Connector setting to insertion jig 6189-1161 (B)</div> <div></div>		n/a	<div>CONNECTOR ORIENTATION ILLUSTRATION</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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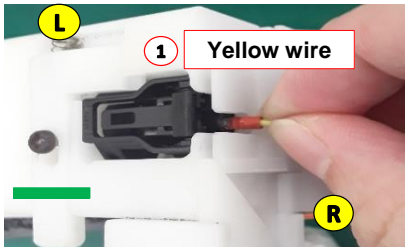
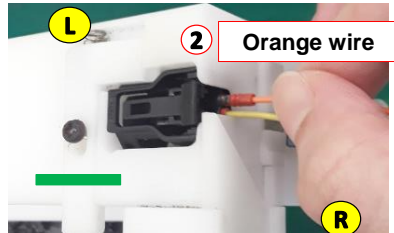
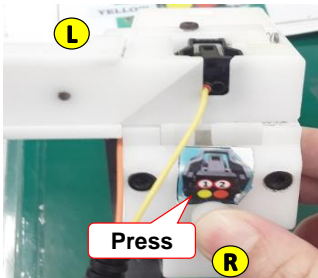
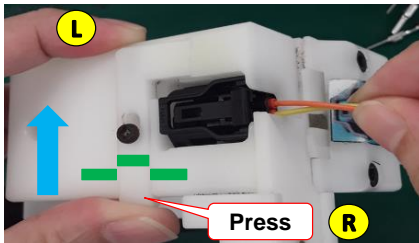
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PARTS:	1. Assy parts		JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
7	P1 Wire insertion to connector 6189-1161 (B)	<div><p>WIRE FACING</p></div> <div><p>1 Yellow wire</p><p>1. Hold the insertion jig using left hand. Get the Yellow wire then insert to terminal slot 1 using right hand.</p></div> <div><p>2 Orange wire</p><p>3. Get the Orange wire then insert to terminal slot 2 using right hand.</p></div> <div><p>Press</p><p>2. Press the button using right thumb. The slot for Orange wire will be opened.</p></div> <div><p>Press</p><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>Important reminders /Note/s:</p> <p>1. Make sure wires are properly inserted. Conduct <u>Pull-Push-Pull-Push</u> after insertion. Do not exert extra force.</p> <p>Document reference/s:</p> <p>1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</p> <p>2. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</p> <p>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deformed terminal 5. No wrong wire facing</p>

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Car Model:

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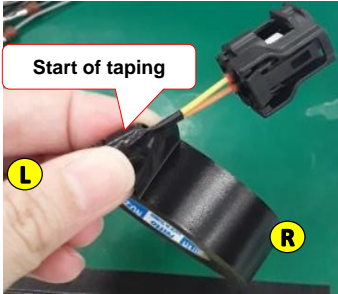
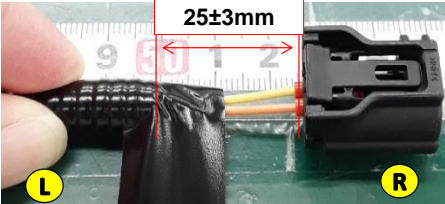
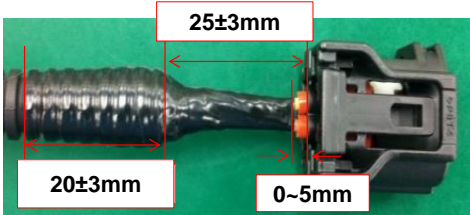
PARTS:	1. Assy parts		JIG:	1. Locking jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
8	P1	Connector lock	n/a	<div><p>Important reminders /Note/s:</p><p>1.Refer to GL-PRO-ASY-029 for Pull-Push procedure.</p><p>2.Make sure wires are properly inserted.</p><p>Conduct Pull-Push-Pull-Push after insertion.</p><p>Do not exert extra force.</p></div> <div><p>1. No loose insertion</p><p>2. No wrong insertion</p><p>3. One by one insertion</p><p>4. No deformed terminal</p><p>5. No wrong wire facing</p></div>

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	Purpose: <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO				Revision No.:		4	Page No.: 8 of 11

PARTS:		1. Assy parts 2. Black tape		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
9	P1 Taping 1 COT to wire near connector	<div><p>Start of taping</p></div> <div><p>25±3mm</p></div> <div><p>25±3mm 20±3mm 0~5mm</p></div> <div>1. Hold the assy parts using left hand, get Black tape then conduct pre-taping using both hands.</div> <div>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.</div> <div>3. After taping, check the measurement and taping condition.</div> <div>NOTE: SET ASIDE THE ASSY PARTS.</div>		n/a	<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 peel-off tape 3. No loose tape 4. No missing tape 5. No wrong dimension 6. No wrong use of tape</p>

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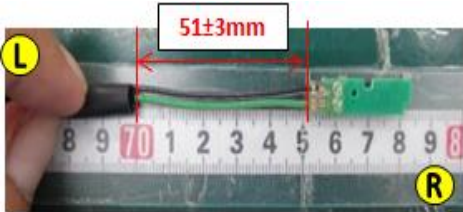
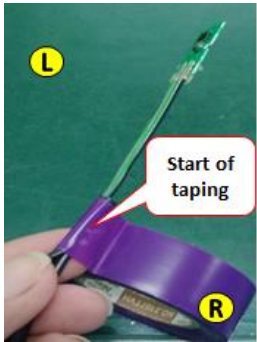
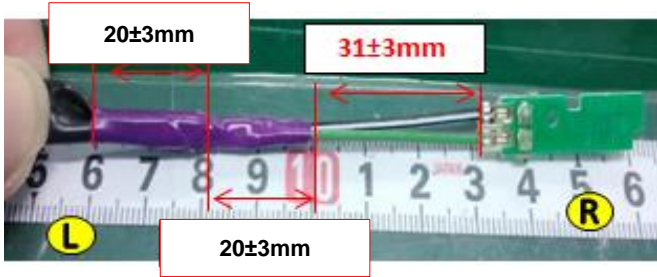
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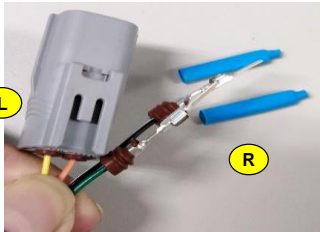

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PARTS:		1. MRSW CP (G-B/W L=663±3mm with inserted sunprene tube ø5 L=135±3mm) 2. Violet tape		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
10	P1 Taping 2 VM tube (Sunprene) to wire neat hotmelted wire	<div></div> <div><p>1. Get the hotmelted G-B/W wires with sunprene tube then measure from end of the sunprene tube up to the edge of hotmelt 51mm using both hands.</p></div> <div></div> <div><p>2. Hold the sunprene tube using left hand, get the Violet tape using right hand and begin taping process using both hands.</p></div> <div></div> <div><p>3. After taping, check the measurement and taping condition.</p></div>		n/a	<p>Important reminders and Note/s:</p> <p>1. Use VIOLET TAPE only.</p> <p>2. 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 peel-off tape 3. No loose tape 4. No missing tape 5. No wrong dimension 6. No wrong use of tape</p>

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	Purpose: <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO				Revision No.:		4	Page No.:

PARTS:		1. Assy parts 2. Black Corrugated tube (no slit) Ø7 L=415±4mm		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
11	Wire insertion to Black Corrugated tube (no slit) Ø7 L=415±4mm	<div>   </div> <div> 1. Get the terminal cover jig using right hand then insert to both terminals (G-B/W wires) using right hand. </div> <div> 2. Get the corrugated tube Ø7 L=312±3mm using right hand then insert the G-B/W wires using left hand. </div>		<div> TERMINAL COVER JIG  </div>	1. No wrong usage of parts 2. No damaged rubber seal
12	Wire insertion to assy parts	<div>   </div> <div> 1. Get the assy parts, hold the COT Ø7 L=52±3mm using left hand then insert the G-B/W wires using right hand. </div> <div>  <div> 2. After insertion, remove the cover jig using right hand. </div> </div>		<div> TERMINAL COVER JIG  </div>	1. No wrong usage of parts 2. No damaged rubber seal

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PARTS:

1. Assy parts

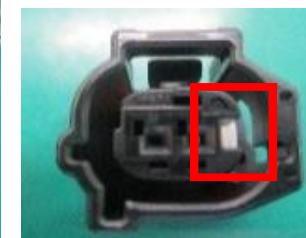
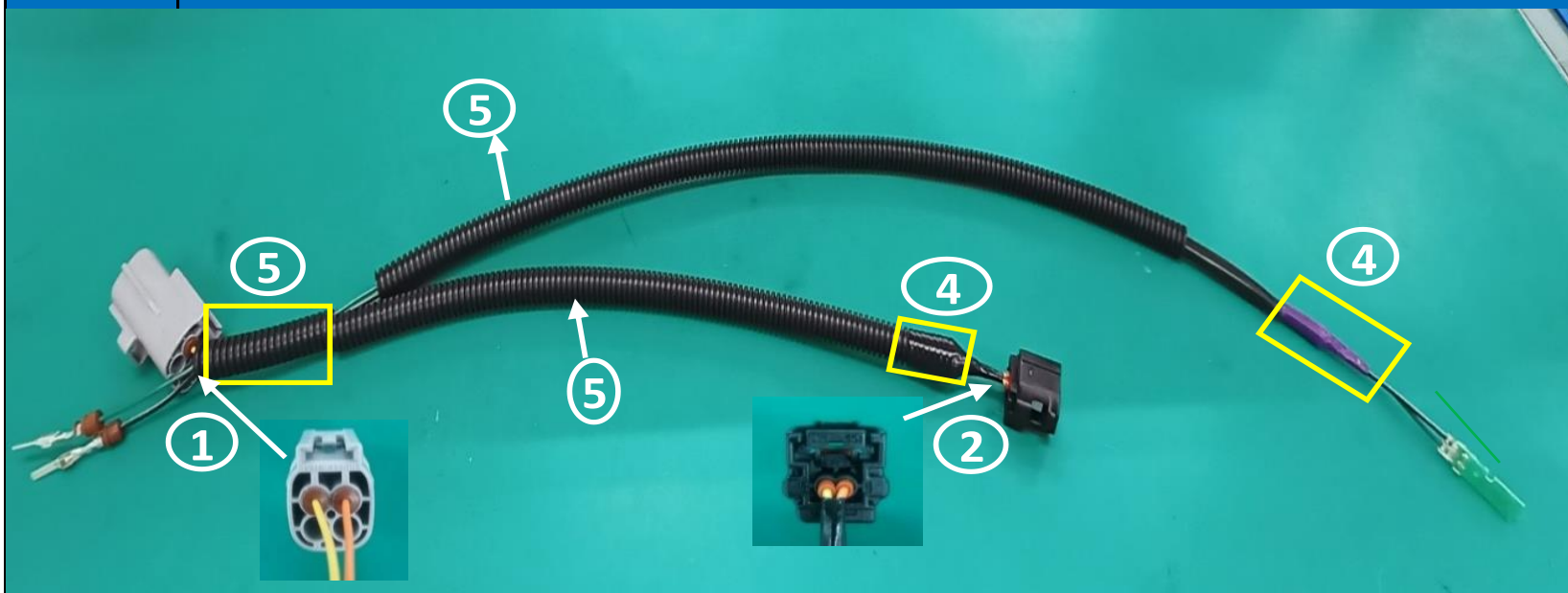
JIG:

n/a

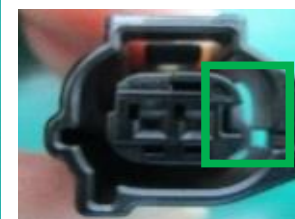
VISUAL INSPECTION/ QUALITY CHECKPOINTS

P1

7L0052-7024



NO GOOD



GOOD

①② No WRONG INSERT/ No TERMINAL BACKING OUT

④ No MISSING TAPE

③

⑤ No MISSING COT

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