

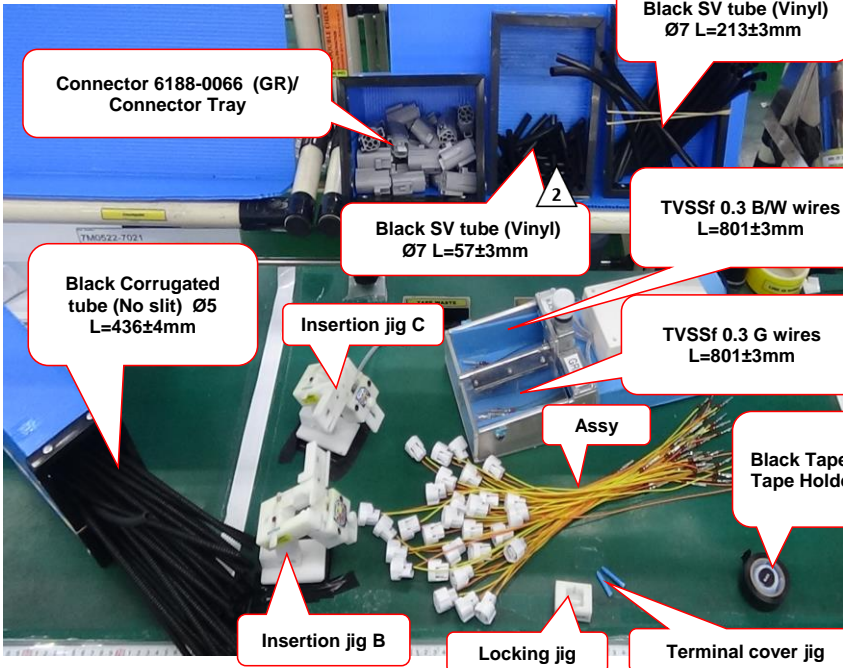

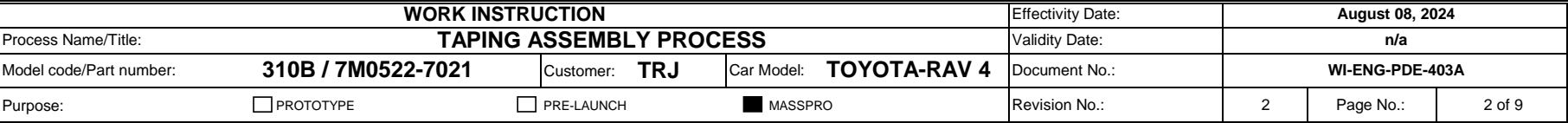






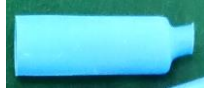
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	Process Name/Title: TAPING ASSEMBLY PROCESS				Validity Date: n/a	
	Model code/Part number: 310B / 7M0522-7021		Customer: TRJ	Car Model: TOYOTA-RAV 4	Document No.: WI-ENG-PDE-403A	
	Purpose: <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO		Revision No.: 2 Page No.: 1 of 9			

PARTS: 	1. Assy parts; Connector 6188-0066 (GR); TVSSf 0.3 G wires L=801±3mm; TVSSf 0.3 B/W wires L=801±3mm; Black Corrugated tube (No slit) Ø5 L=436±4mm; Black tape ; Black SV tube (Vinyl) Ø7 L=57±3mm ; Black Sv tube (Vinyl) Ø7 L=213±3mm			JIG:	1. Insertion jig with switch 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>	<div> Document reference/s: 1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance 2. Refer to WI-ENG-PDE-402 for Offline assembly process </div> <div> 1. No missing parts/tools 2. No excess parts/tools </div>	


Revision History						Prepared by	Reviewed by	Approved by	Noted by
08/08/24	2	Change SV tube (Vinyl) length from Ø7 L=207±3mm to Ø7 L=213±3mm to aligned in Cutting ledger. Transfer wire insertion to SV tube from Offline assembly process and transfer Taping 2 to P2 due to process improvement. Inclusion of car model "TOYOTA-RAV 4". Improved Table lay-out and Visual inspection/Quality checkpoints.	D.Castillo	C.Villanueva	A. Arañes	N/A			
05/12/23	1	Inclusion of quality checkpoints; Improve the Important reminders/note/s and document references.	J.loterte	C.Villanueva	A. Arañes	N/A			
02/19/22	0	Initial issue.	K.Doria	J.Loterte	C.Villanueva	A. Arañes			
Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Est. Date:	February 19, 2022	

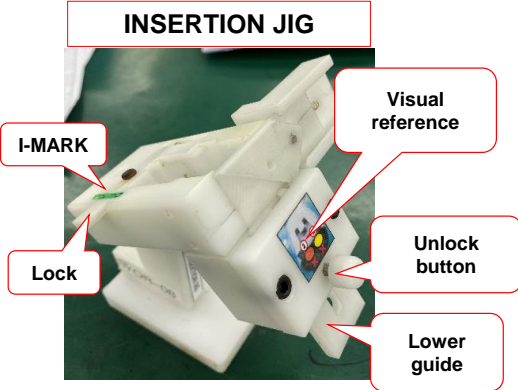

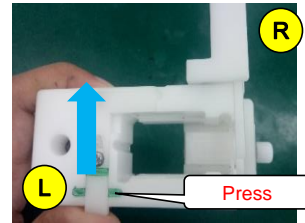
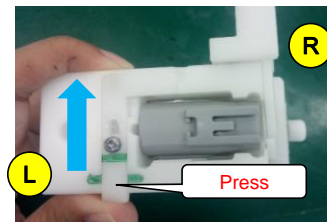
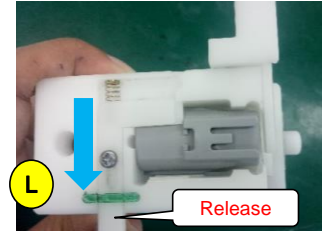
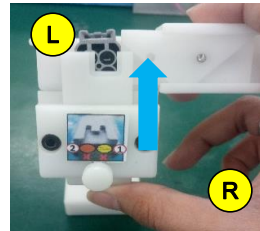


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PARTS:	1. Assy part 2. Black SV tube (Vinyl) Ø7 L=57±3mm	<div style="text-align: center;">  3. Black SV tube (Vinyl) Ø7 L=213±3mm </div>	JIG:	1. Terminal cover jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
2	P1 <div style="text-align: center;">  </div> <p>Wire Insertion to Black SV tube (Vinyl) Ø7 L=57±3mm and Black SV tube (Vinyl) Ø7 L=213±3mm</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> 1. Hold the wires using left hand, put on terminal cover jigs for both wires (Y and OR) using right hand. </div> </div> <div style="text-align: center;">  <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <div style="text-align: center;">  </div> 2. Hold the wires using left hand. Get the 1st SV tube (Vinyl) Ø7 L=57±3mm then insert the wires, get the 2nd SV tube (Vinyl) Ø7 L=213±3mm and insert the wires using right hand. </div> </div> </div> <div style="text-align: center; margin-top: 20px;">  <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> 3. Remove the terminal cover jig after insertion. </div> </div>	<div style="border: 1px solid red; padding: 5px; text-align: center; margin-bottom: 10px;"> TERMINAL COVER JIG </div> 	1. No wrong use of parts 2. No deformed terminal 3. No damage rubber seal

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	Process Name/Title: TAPING ASSEMBLY PROCESS				Validity Date:	n/a		
	Model code/Part number: 310B / 7M0522-7021		Customer: TRJ	Car Model: TOYOTA-RAV 4	Document No.:	WI-ENG-PDE-403A		
	Purpose: <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO				Revision No.:	2	Page No.:	3 of 9

PARTS:	1. Connector 6188-0066 (GR)			JIG:	1. Insertion jig			
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS		
3	P1 Connector setting to insertion jig 6188-0066 (GR)	<div><div>INSERTION JIG</div><div></div><div>CONNECTOR ORIENTATION</div><div>Press</div><div>1. Press the lock of insertion jig using left thumb.</div><div>Press</div><div>2. Insert the connector 6188-0066 (GR) into jig using right hand and release the lock.</div><div>Release</div><div>Release</div><div>3. Push the wire guide upward, slot for Yellow wire will be open.</div></div>			n/a	<div>Connector Orientation Illustration</div> <div>GOOD</div> <div>NG</div> <div>1. Use provided jig per model 2. No wrong usage of parts 3. No wrong orientation of connector 4. No damaged connector</div>		

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WORK INSTRUCTION

Process Name/Title:

TAPING ASSEMBLY PROCESS

Model code/Part number:

310B / 7M0522-7021

Customer:

TRJ

Car Model:

TOYOTA-RAV 4

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Effectivity Date:

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n/a

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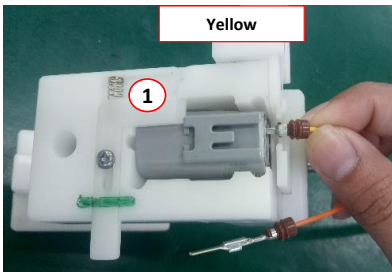
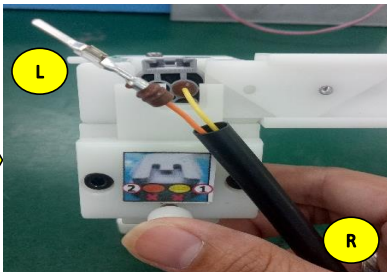
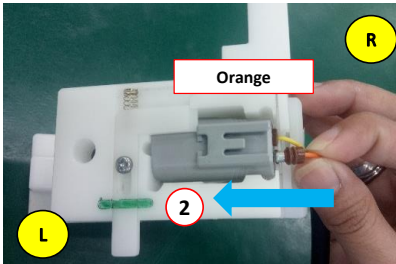
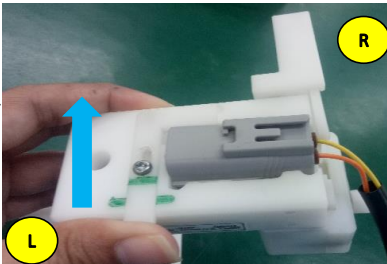
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PARTS:	1. Assy parts		JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
4	P1 Wire Insertion to Connector 6188-0066 (GR)	<div></div> <div></div> <div></div> <div><p>1. Hold the insertion jig using left hand, get Yellow wire using right hand and insert to connector.</p></div> <div></div> <div></div> <div><p>2. Press the button after insertion. Slot for Orange wire will be open.</p></div> <div><p>3. Hold the insertion jig using left hand, get Orange wire using right hand and insert to connector.</p></div> <div><p>4. Press the insertion jig lock using left hand and slowly remove the harness from jig using right hand.</p></div>	n/a	<p>Important reminders/note/s:</p> <p>1. Insertion of wire must be from left to right.</p> <p>2. Make sure wires are properly inserted.</p> <p>Conduct <u>Pull-Push-Pull-Push</u> after insertion.</p> <p>Do not exert extra force.</p> <p>Document reference/s:</p> <p>1. 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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WORK INSTRUCTION

Effectivity Date:

August 08, 2024

Process Name/Title:

TAPING ASSEMBLY PROCESS

Validity Date:

n/a

Model code/Part number:

310B / 7M0522-7021

Customer:

TRJ

Car Model:

TOYOTA-RAV 4

Document No.:

WI-ENG-PDE-403A

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

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PARTS:

1. Assy Parts
2. Black tape

JIG:

n/a

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

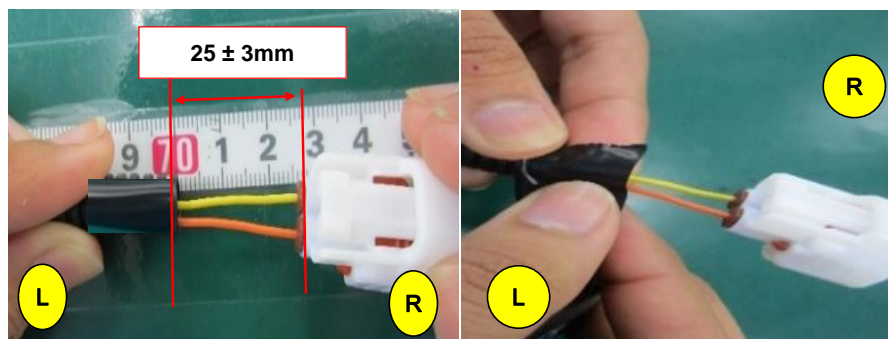
TOOLS/PPE

QUALITY POINTERS

5

P1

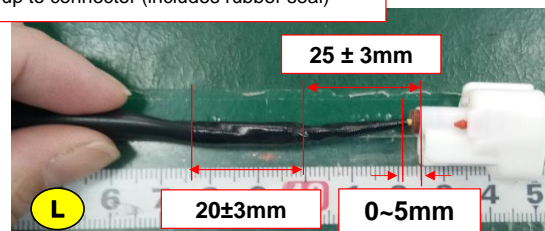
Taping 1
Vinyl tube to wire near
Connector



1. Hold the assy parts and measure from end of Vinyl tube to connector 25mm using both hands.

2. Hold the assy parts using left hand, get Black tape using right hand and begin taping process.

Note: 0 -5mm
→End tape up to connector (includes rubber seal)



3. After taping, check the measurement and taping condition.

MEASURING
TAPE



1. No flip-out tape
- 2.No peel-off tape
3. No loose tape
4. No wrong dimension
5. No wrong use of tape
6. No missing tape

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.

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Model code/Part number:

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Purpose:

☐ PROTOTYPE

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PARTS:		1. Assy Parts		JIG:	1.Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
6	P1	<div><div><div>Insertion jig</div><div><div>Terminal slot</div><div>Visual reference</div><div>Button</div><div>Wire guide</div><div>I-mark</div><div>Lock</div></div><div>CONNECTOR ORIENTATION</div></div><div><div><div><div><div>L</div><div>R</div></div><div>Press</div></div><div>1. Press the lock of insertion jig using left thumb.</div></div><div><div><div><div>L</div><div>R</div></div><div>Press</div></div><div>2. Insert the connector 6188-0066 (GR) into jig using right hand and release the lock.</div></div><div><div><div><div>L</div><div>R</div></div><div>Release</div></div><div>3. Flip the assy parts upward to make way for insertion using left hand. Push the wire guide upward using right hand. Slot for Green wire will be open.</div></div></div></div>		n/a	<div><div>Connector Orientation Illustration</div><div><div><div>I-mark is align</div><div>1 hole is open</div><div>GOOD</div></div><div><div>I-mark is NOT align</div><div>2 holes are open</div><div>NG</div></div></div><div>1. Use provided jig per model 2. No wrong usage of parts 3. No wrong orientation of connector 4. No damaged connector</div></div>

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310B / 7M0522-7021

Customer:

TRJ

Car Model:

TOYOTA-RAV 4

Document No.:

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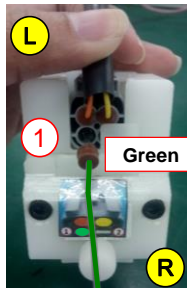
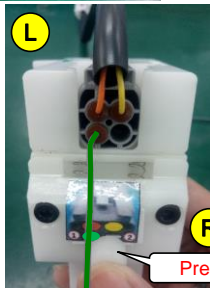
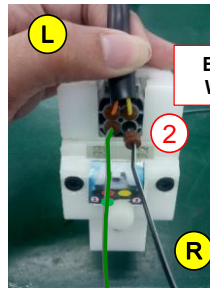


☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

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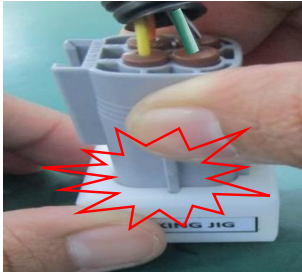

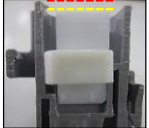
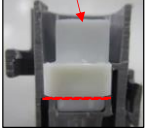


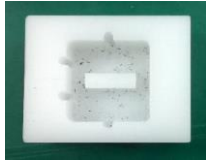
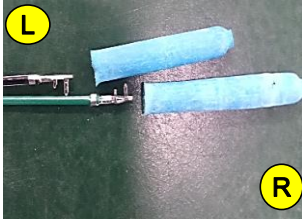

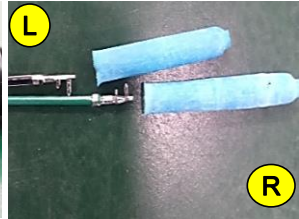

PARTS:		1. TVSSf 0.3 G wire L=801±3mm 2. TVSSf 0.3 B/W wire L=801±3mm		JIG:	1.Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
7	Wire Insertion to connector 6188-0066 (GR)	<div><div><p>1. Hold the assy parts upward using left hand. Get the Green wire and insert to connector using right hand.</p></div><div><p>2. Press the button after insertion. Slot for Black/White wire will be open.</p></div><div><p>3. Get the Black/White wire using right hand and insert to connector.</p></div></div>		n/a	Important reminders/note/s: <i>1. Insertion of wire must be from left to right.</i> <i>2. Make sure wires are properly inserted.</i> <i>Conduct Pull-Push-Pull-Push after insertion.</i> <i>Do not exert extra force.</i> Document reference/s: <i>1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</i> 1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deformed terminal 5. No wrong wire facing
8	Wire insertion to Vinyl tube with assy parts	<div><div><p>1. Hold the assy parts upward using left hand. Insert the Green and Black/White wires to SV tube (Vinyl) using right hand.</p></div><div><p>2. Press the insertion jig lock using left hand and slowly remove the harness from jig using right hand.</p></div></div>		n/a	1. No wrong use of parts 2. No deformed terminal

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	WORK INSTRUCTION				Effectivity Date:	August 08, 2024				
	TAPING ASSEMBLY PROCESS				Validity Date:	n/a				
	Process Name/Title:		Model code/Part number: 310B / 7M0522-7021		Customer: TRJ	Car Model: TOYOTA-RAV 4		Document No.:	WI-ENG-PDE-403A	
	Purpose:		<input type="checkbox"/> PROTOTYPE		<input type="checkbox"/> PRE-LAUNCH	<input checked="" type="checkbox"/> MASSPRO		Revision No.:	2	Page No.:

PARTS:	1. Assy Parts 2. Black Corrugated tube (No slit) Ø5 L=436±4mm			JIG:	1. Locking jig 2. Terminal cover jig			
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS		
9	P1 Connector Lock	<div><p>1. Put the connector into locking jig using right hand then press 2x to lock. Touch the connector lock to confirm if properly pressed.</p></div> <div>Connector Cross Sectional View</div> <div><div>NG Lock  Unlock Condition</div><div>NG Lock  Half Lock Condition</div><div>GOOD Lock  Full Lock Condition</div></div> <div> Before  After Pressing</div>			<div>LOCKING JIG</div> 	Important reminders/Note/s: <i>1. Manual locking may cause damaged lock</i> 1. No unlock/half-locked connector 2. No damage connector		
10	P1 Wire Insertion to Corrugated tube Ø5 L=436±4mm	<div><p>1. Get the terminal cover jig using right hand then insert to wires.</p></div> <div><p>2. Get the corrugated tube Ø5 L=436±4mm using right hand and insert to wires.</p></div> <div><p>3. Remove the terminal cover jig after insertion.</p></div>			<div>TERMINAL COVER JIG</div> 	1. No wrong use of parts 2. No deformed terminal		

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**WORK INSTRUCTION**

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Effectivity Date:

August 08, 2024

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Car Model:

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Validity Date:

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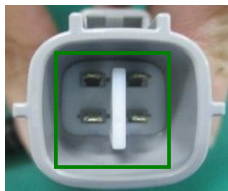
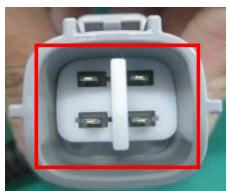
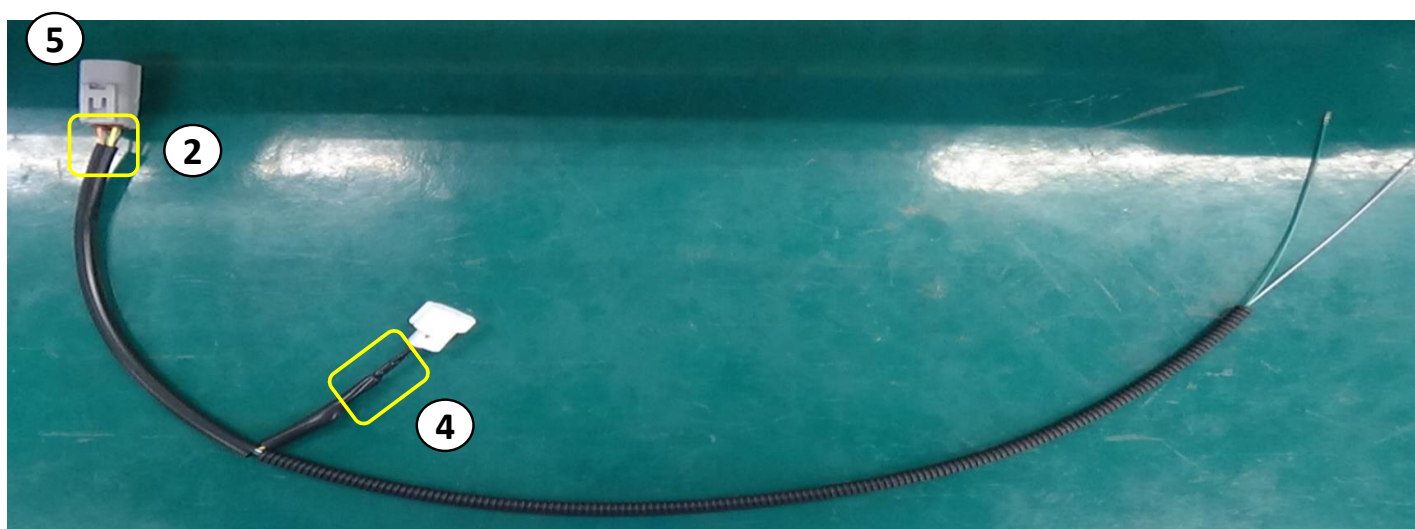
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PARTS:

1. Assy parts

JIG:

n/a

**VISUAL INSPECTION/ QUALITY CHECKPOINTS****P1****7M0522-7021****1****GOOD****NO GOOD****5****2****4****3****GOOD****NO GOOD****1****No Unlocked/ Half-locked Connector****3****No Terminal Backing Out****5****No Deformed Terminal****2****No Wrong Insert****4****No Missing Tape (Black Tape)**

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