



WORK INSTRUCTION TAPING ASSEMBLY PROCESS

Process Name/Title:

Model Code/Part Number: 370B / 4 7L0047-7023

Customer:

TRQSS

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Effectivity Date:

January 24, 2022

Validity Date:

n/a

Document No.:

WI-ENG-PDE-173A

Revision No.:

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PARTS:

4

All parts; Connector 6189-1142(W); Connector 6189-1161(B); AVSSf 0.3 wires Y L=414±2mm; AVSSf 0.3 wires OR L=414±2mm; Corrugated tube (no slit) ø7 L=312±3mm; Corrugated tube (no slit) ø7 L=187±3mm; Corrugated tube (no slit) ø5 L=178±3mm; MR SW CP A7475-7L00472-7040; Sunprene tube ø5 L= 106±3mm; Black tape

JIG:

1. Insertion jig with switch cover
2. Locking jig
3. Terminal cover jig

NO.

PROCESS NAME

4 WORK PROCEDURE/ ILLUSTRATION

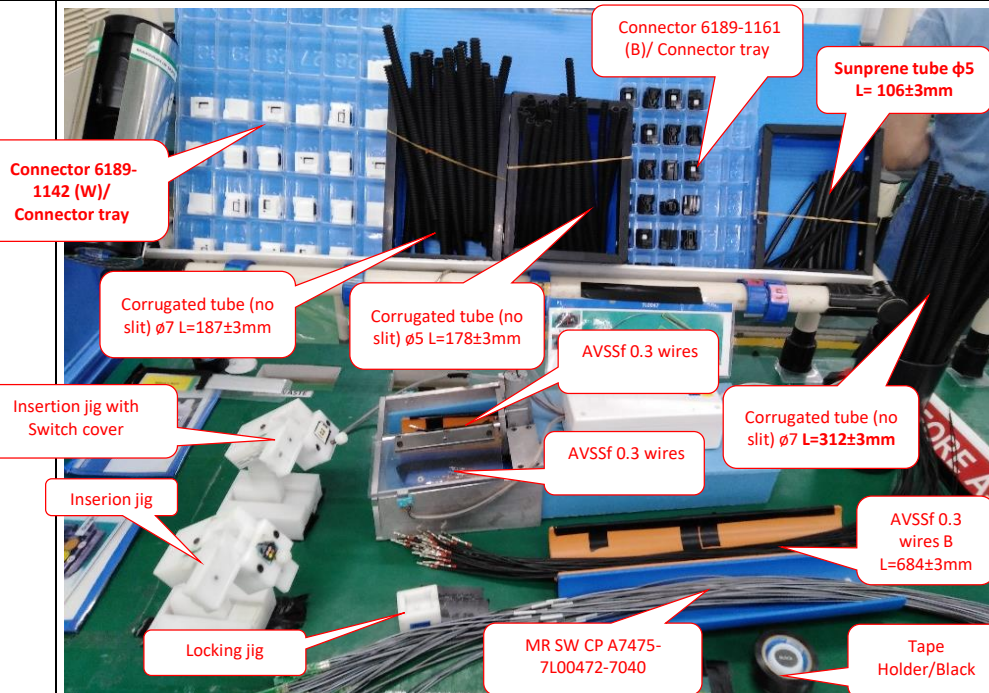
TOOLS/PPE

QUALITY POINTERS

1

P1

Table Lay-out

**Safety Instruction**

Be sure to wear required 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.

Note: Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance

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
01/24/22	4	Change part number from 7L0047-7022 to 7L0047-7023 due to additional quantity of clamp (82711-52090 (W)) from 2pcs. to 3 pcs. (Refer to WI-ENG-PDE-173C). Improve work procedure. Additional table lay-out, checkpoint in checking of wire tolerance (Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance)	M.Ariola	J. Loterte	C. Villanueva	A. Arañes				
03/29/21	3	Change connector color in accordance with color standardization for plastic parts refer to GL-COM-003; Put assy parts in pg. 3 parts section	J. Loterte	R. Peñaloza	A. Shimamura	A. Arañes				
09/24/20	2	Transfer process owner fro Production (WI-PRO-ASY-074A) to Engineering (WI-ENG-PDE-173A) Apply some improvements/pictures	J. Loterte	R. Peñaloza	A. Shimamura	A. Arañes				
Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Est. Date:	April 04, 2018		

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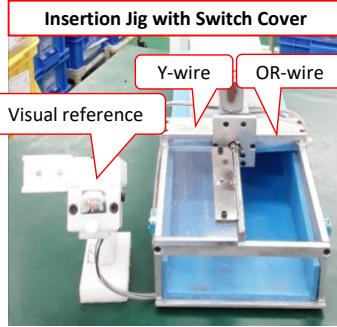
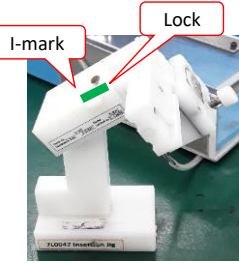

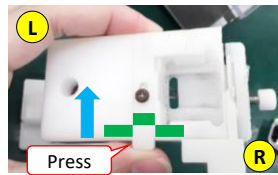
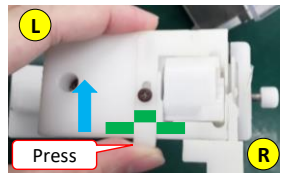
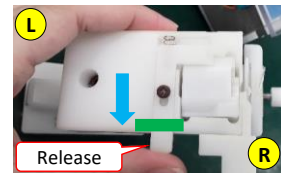

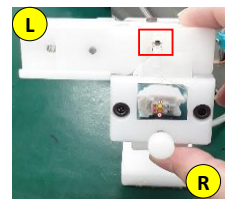
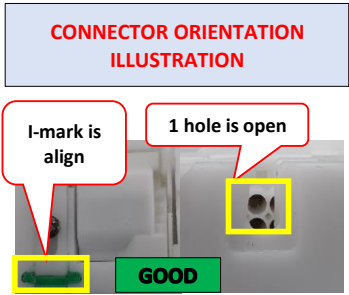
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PARTS:		1. Connector 6189-1142 (W)			JIG	1. Insertion jig
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
2	P1	Connector setting to Insertion jig 6189-1142 (W)	<div><div><p>Visual reference</p><p>Y-wire</p><p>OR-wire</p></div><div><p>I-mark</p><p>Lock</p><p>Insertion Jig Orientation</p></div><div><p>Connector Orientation</p></div></div> <div><div><p>Press</p><p>1. Press the insertion jig lock using left hand.</p></div><div><div><p>Press</p><p>Release</p><p>2. Get the connector 6189-1142 (W) using right hand and insert to insertion jig. Release the lock after insertion. Note: Follow the connector orientation.</p></div><div><div><p>3. Push the lower wire guide upward using right hand. Slot for yellow wire will be opened.</p></div></div></div></div>		n/a	<div><div><p>CONNECTOR ORIENTATION ILLUSTRATION</p><p>I-mark is align</p><p>1 hole is open</p><p>GOOD</p></div><div><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></div></div>

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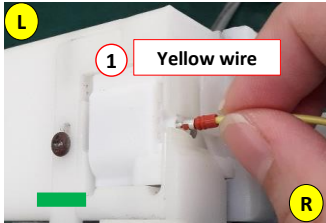
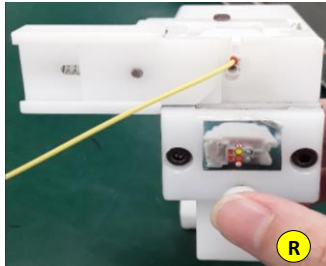
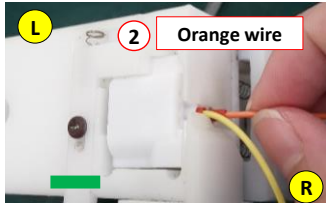
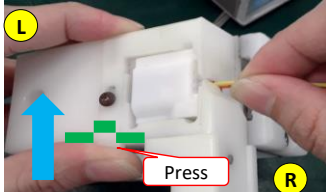
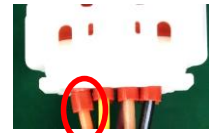
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PARTS:		1. AVSSf 0.3 wires Y L=414±3mm, OR L=414±3mm			JIG	1. Insertion jig
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
2	P1	Wire Insertion to connector 6189-1142 (W)	<div><div><p>Wire facing</p></div><div><p>1. Hold the insertion jig using left hand. Get the Yellow wire then insert to terminal slot 1 using right hand.</p></div><div><p>2. Press the button using right thumb. The slot for Orange wire will be opened.</p></div><div><p>3. Get the Orange 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></div>		n/a	<div><div><p>4 <i>Note: Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</i></p><div><p>Note: During insertion, hold the wire not <u>rubber seal</u> to prevent sagging.</p></div><div><p>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deformed terminal 5. No wrong wire facing</p><p>Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.</p><p>4 <i>Note: Refer to GL-PRO-ASY-029 for Pull-Push procedure.</i></p></div></div></div>

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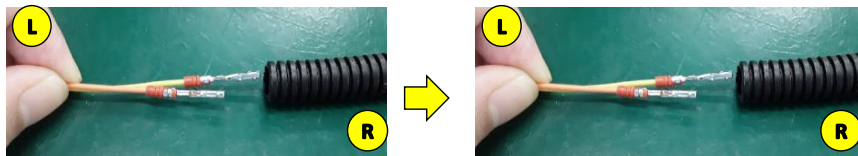
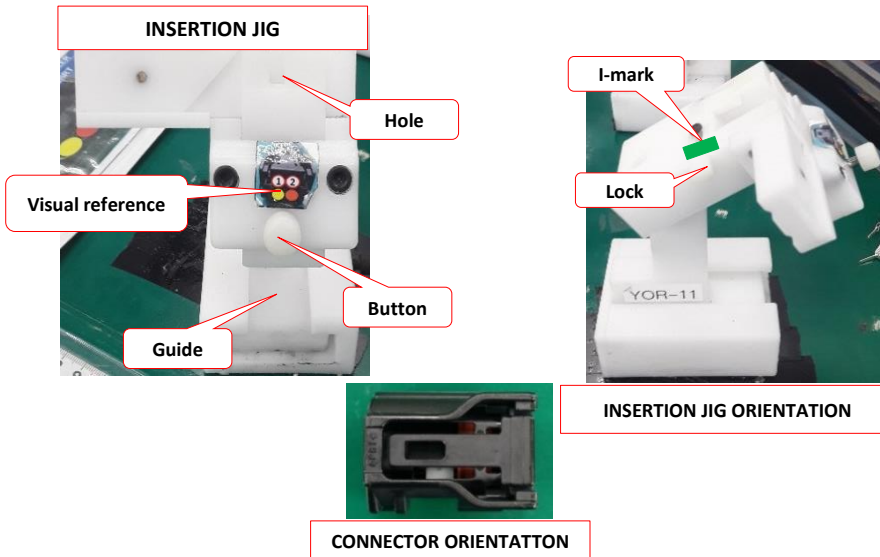
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PARTS:		1. Assy parts 2. Black corrugated tube (no slit) $\varnothing 7$ L=187 \pm 3mm 3. Black corrugated tube (no slit) $\varnothing 5$ L=178 \pm 3mm 4. Connector 6189-1161 (B)	JIG	1. Insertion jig
NO.	PROCESS NAME	4 WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
4	Wire insertion to Black corrugated tube (no slit) $\varnothing 7$ L= 187 \pm 3mm (1ST) $\varnothing 5$ L= 178 \pm 3mm (2ND)	 <p>1. Hold the wires using left hand. Get the Corrugated tube (no slit) $\varnothing 7$ L=187\pm3mm using right hand then insert then Y-OR wires using left hand.</p> <p>2. Hold the wires using left hand. Get the Corrugated tube (no slit) $\varnothing 5$ L=178\pm3mm using right hand then insert then Y-OR wires using left hand.</p>	n/a	1. No wrong use of parts 2. No deformed terminal
5	P1 Connector setting to insertion jig 6189-1161 (B)		n/a	1. Use the provided jig per model 2. No wrong orientation of connector 3. No wrong use of connector 4. No damaged connector

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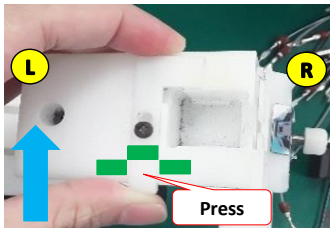
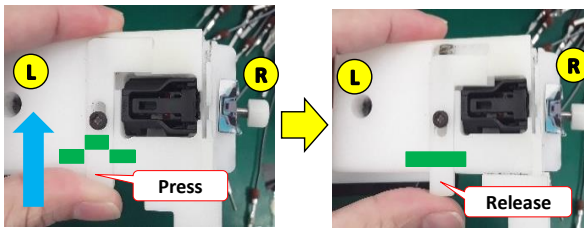
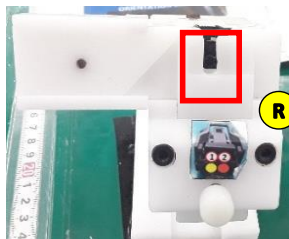


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PARTS:		n/a		JIG	1. Insertion jig
NO.	PROCESS NAME	4 WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
5	P1	<p>Connector setting to insertion jig 6189-1161 (B) (Continuation)</p> <div><p>1. Press the lock using left thumb.</p></div> <div><p>2. Get the connector 6189-1161 (B) using right hand and insert to insertion jig. Release the lock after insertion. Note: Follow the connector orientation.</p></div> <div><p>3. Push the lower wire guide upward using right hand. Slot for Yellow wire will be opened.</p></div>		n/a	<div><p>CONNECTOR ORIENTATION ILLUSTRATION</p><div><p>I-mark is align 1 hole is open</p><p>GOOD</p></div><div><p>I-mark is not align 1 hole is open</p><p>NG</p></div><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></div>

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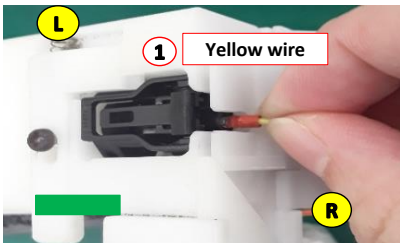
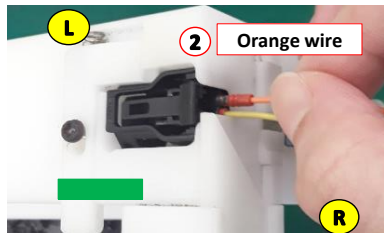
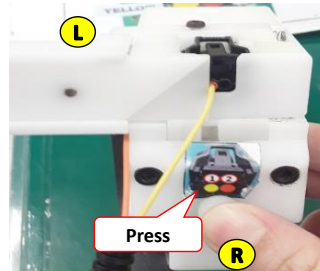
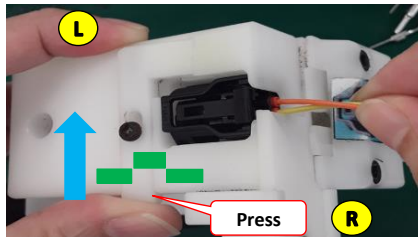
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PARTS:		1. Assy parts			JIG	1. Insertion jig
NO.	PROCESS NAME	4 WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
6	P1 Wire insertion to connector 6189-1161 (B)	<div><p>WIRE FACING</p></div> <div><p>1. Hold the insertion jig using left hand. Get the Yellow wire then insert to terminal slot 1 using right hand.</p></div> <div><p>3. Get the Orange wire then insert to terminal slot 2 using right hand.</p></div> <div><p>2. Press the button using right thumb. The slot for Orange wire will be opened.</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>Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.</div> <div>4 Note: Refer to GL-PRO-ASY-029 for Pull-Push procedure.</div>

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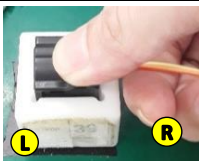




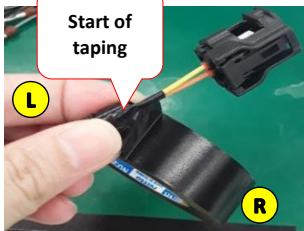
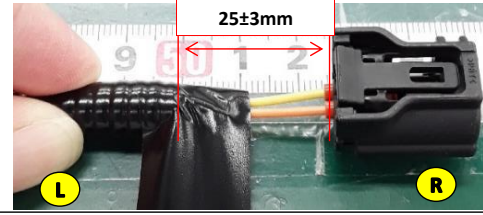
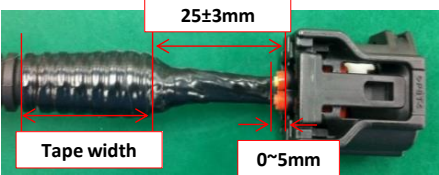

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PARTS:		1. Assy parts 2. Black tape			JIG	1. Locking jig
NO.	PROCESS NAME	4 WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
7	Connector lock	 <p>1. Put the connector into locking jig and push down 2x using both hands. Check the connector lock if properly locked.</p>  <p>Before pressing</p>  <p>After Pressing</p>  <p>UNLOCK CONDITION HALF LOCKED CONDITION FULLY LOCKED CONDITION</p>			 <p>LOCKING JIG</p>	<p>Note: MANUAL LOCKING MAY CAUSE DAMAGED CONNECTOR LOCK.</p> <p>1. No unlock/half-locked connector 2. No damaged lock</p>
8	P1 Taping 1 COT to wire near connector	 <p>Start of taping</p> <p>1. Hold the assy parts using left hand, get Black tape then conduct pre-taping using both hands.</p>  <p>25±3mm</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. Note: Refer to WI-PRO-ASY-001 for taping procedure.</p>  <p>25±3mm</p> <p>Tape width 0~5mm</p> <p>3. After taping, check the measurement and taping condition.</p>			 <p>MEASURING JIG</p>	<p>Note: Please use calibrated/verified measuring tape when getting the measurement.</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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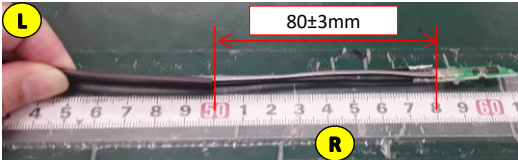
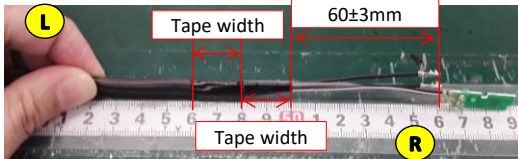

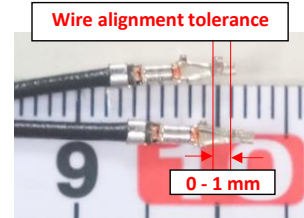
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PARTS:		1. AVSSf 0.3 wires B L=684mm [2pcs] 2. MR SW CP A7475-7L00472-7040		3. Black Sunprene tube $\phi 5$ L= 106 \pm 3mm 4. Black tape		JIG	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE		QUALITY POINTERS
8		Wire Insertion to Sunprene tube $\phi 5$ L=106 \pm 3mm	 <p>1. Hold the GR, B/W and 2 Black wires using left hand. Get the Sunprene tube $\phi 5$ L= 106\pm3mm using right hand. Insert the wires using left hand. Insertion must be 2 wires at a time.</p>			n/a	1. No wrong use of parts 2. No deformed terminal
9	P1	Taping 2 Sunprene tube to wire near terminal/hotmelted wire	 <p>1. Measure from end of sunprene tube up to end of terminal pointed tip and edge of hotmelted wire 80\pm3mm using both hands.</p>  <p>2. Hold the vinyl tube using left hand, get the Black tape then start taping using both hands. Refer to WI-PRO-ASY-001 for taping procedure.</p> <p>3. After taping, check the measurement, wire alignment & tape condition.</p>			 <p>MEASURING TAPE</p>  <p>Wire alignment tolerance</p> <p>0 - 1 mm</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

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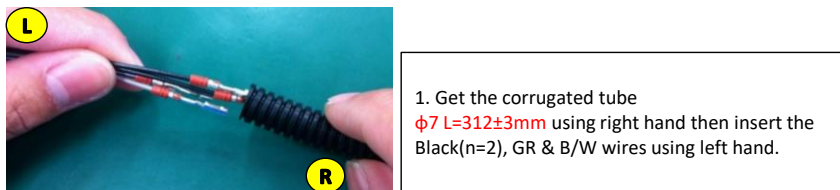
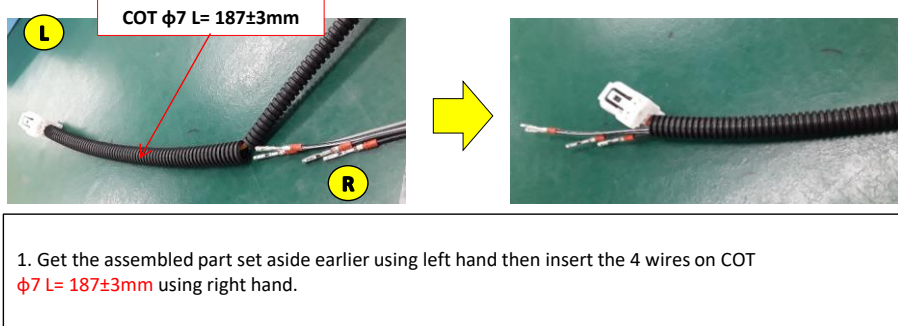
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PARTS:		1. Black Corrugated tube $\phi 7$ L=312 \pm 3mm (no slit) 2. Assy parts			JIG	n/a
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
10	P1	Wire insertion to Corrugated tube $\phi 7$ L=312 \pm 3mm	<div></div>		n/a	1. No wrong use of parts 2. No deformed terminal
11		Wire insertion to Assy parts	<div></div>		n/a	1. No wrong insertion 2. No deformed terminal

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