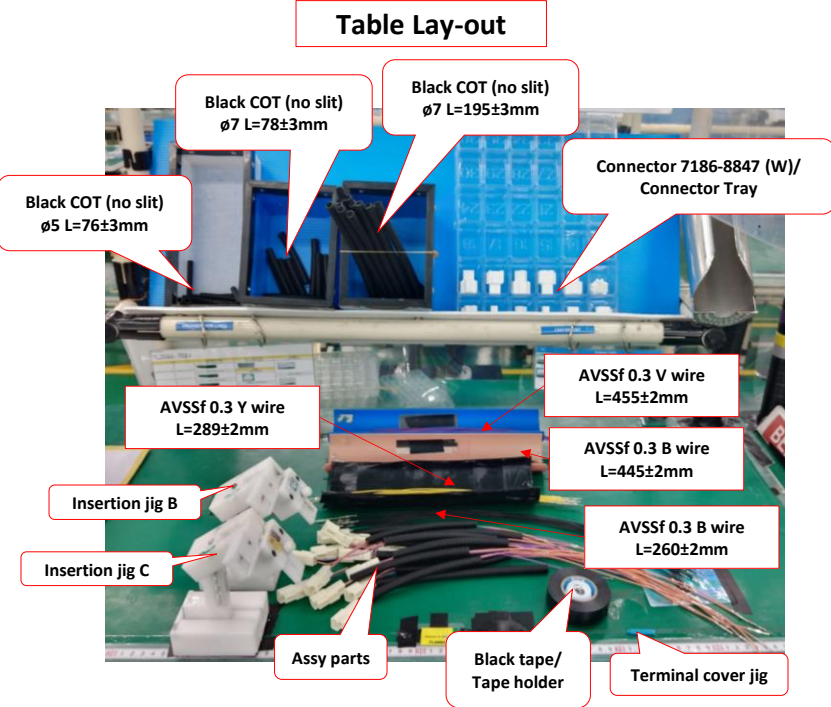

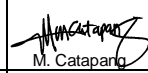
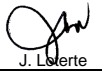


	WORK INSTRUCTION TAPING ASSEMBLY PROCESS				Effectivity Date:		October 07, 2022	
	Process Name/Title:				Validity Date:		n/a	
	Model Code/Part Number: TP1 / 7L0092-7021		Customer: TRQSS		Document No.:		WI-ENG-PDE-063A	
	Purpose: <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO				Revision No.:		7	Page No.: 1 of 9

PARTS:		1. Assy parts: Connector 7186-8847 (W); Black COT (no slit) $\phi 5$ L=76 \pm 3mm; Black COT (no slit) $\phi 7$ L=78 \pm 3mm; Black COT (no slit) $\phi 7$ L=195 \pm 3mm; AVSSf 0.3 V wire L=455 \pm 2mm; AVSSf 0.3 Y wire L=289 \pm 2mm; AVSSf 0.3 B wire L=445 \pm 2mm; AVSSf 0.3 B wire L=260 \pm 2mm; Black tape [1pc.]		JIG:		1. Insertion jig 2. Terminal cover jig	
NO.	PROCESS NAME	WORK PROCEDURE/ILLUSTRATION		TOOLS/PPE		QUALITY POINTERS	
1	P1	<p>Table Lay-out</p> 		<p>Safety Instruction Be sure to wear prescribed personal protective equipment during operation (gloves, finger cots, etc.)</p> <p>Housekeeping 1. Maintain and always practice 5's. 2. Personal things on the workplace is prohibited. Keep it in your locker.</p> <p>Alert level For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.</p>		<p>Document reference/s:  7 1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance 2. Refer to WI-ENG-PDE-062 7L0092-7021 - OFFLINE ASSEMBLY PROCESS</p> <p>1. No missing parts/tools 2. No excess parts/tools</p>	

Revision History								Prepared by	Reviewed by	Approved by	Noted by
10/07/22	7	Improve quality pointers: References in process no.1,3,5,6,7,8,9 and 10 due to document improvement. Change of tolerance from end of tape up to terminal pointed tip 35+3mm/-3mm to 35+3mm/-1mm as countermeasure due to encountered minimum dimension. Work procedure/illustration in process no.6 and 9 as countermeasure due to encountered terminal backing out.	M. Catapang	J. Loterte	C.Villanueva	A. Arañes	 M. Catapang	 J. Loterte	 C. Villanueva	 A. Arañes	
04/12/22	6	Additional table layout. Transfer process no. 7 - 10 from P2 to P1 as improvement in overall process.	M. Catapang	J. Loterte	C.Villanueva	A. Arañes					
02/15/21	5	Change part number from 7L0092-7020A to 7L0092-7021 due to change in tape color from Black tape to Gray tape in process COT to wire near connector. Change COT length from L=79 \pm 3mm to L=76 \pm 3mm; L=69 \pm 3mm to L=66 \pm 3mm; $\phi 7$ L=200 \pm 3mm to L=195 \pm 3mm due to encounter maximum dimension from T-Taping to terminal. Conduct review of documents.	M. Catapang	C. Villanueva	A. Shimamura	A. Arañes					
Eff. Date	Rev. No	Details of Change		Revised	Reviewed	Approved	Noted	Est. Date:	January 03, 2020		

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Customer: TRQSS

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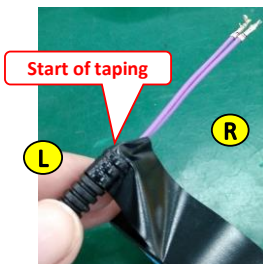
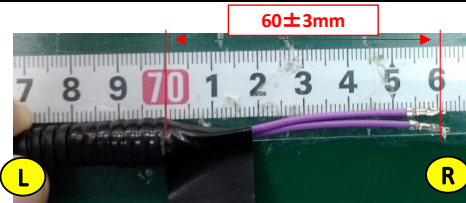
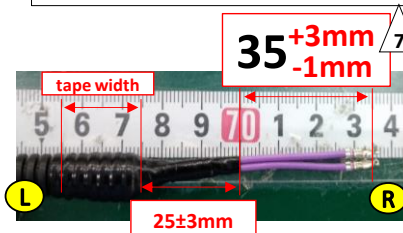


Purpose: ☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

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PARTS:		1. Assy parts 2. Black Corrugated tube (no slit) $\varnothing 5$ L=76 \pm 3mm 3. Back tape		JIG	1. Terminal cover jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
2	P1	Wire insertion to Black Corrugated tube (no slit) $\varnothing 5$ L=76 \pm 3mm	<div><p>1. Get the assy part and combine the V wire L=455mm using right hand and get the terminal cover jig using right hand</p></div> <div><p>2. Get the corrugated tube (no slit) $\varnothing 5$ L=76\pm3mm using right hand and insert the wires using left hand.</p></div> <div><p>3. Remove the terminal cover jig after insertion using right hand.</p></div>	<div>TERMINAL COVER JIG</div> 	1. No wrong usage of parts 2. No deformed terminal
3		Taping 1 COT to wire near terminal	<div><p>1. Hold the corrugated tube using left hand and get the Black tape then start taping using right hand.</p></div> <div><p>2. Measure from end of COT up to terminal pointed tip 60\pm3mm then continue taping process using both hands.</p></div> <div><p>3. After taping, check the dimension, taping condition and wire alignment.</p></div>	<div>MEASURING TAPE</div> 	<div>7</div> <div>Wire alignment tolerance</div>  <p>1. No flip-out tape 2. No peel-off tape 3. No loose tape 4. No missing tape 5. No wrong use of tape 6. No wrong dimension</p> <p>Important reminders/Note/s: 1. Please use calibrated/verified measuring tape when getting the measurement.</p> <p>Document references: 1. Refer to WI-ENG-PDE-588 for Tape and tube end standard tolerance</p>

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**WORK INSTRUCTION****TAPING ASSEMBLY PROCESS**

Effectivity Date:

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Purpose:



PROTOTYPE



PRE-LAUNCH



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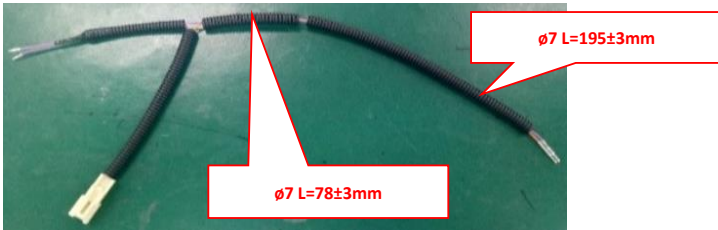
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3 of 9**PARTS:**

1. Assy parts
2. Black Corrugated tube (no slit) $\phi 7$ L=78 \pm 3mm & $\phi 7$ L=195 \pm 3mm

JIG

n/a

NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
4	P1 Wire insertion to Black Corrugated tube (no slit) $\phi 7$ L=78 \pm 3mm $\phi 7$ L=195 \pm 3mm	 <p>1. Get the corrugated tube (no slit) $\phi 7$ L=78\pm3mm using right hand then insert the V-OR wires using left hand.</p>  <p>2. Get the corrugated tube (no slit) $\phi 7$ L=195\pm3mm using right hand then insert the V-OR wires using left hand.</p>  <p>$\phi 7$ L=78\pm3mm</p> <p>$\phi 7$ L=195\pm3mm</p>	n/a	<ol style="list-style-type: none">1. No wrong usage of parts2. No deformed terminal

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WORK INSTRUCTION
TAPING ASSEMBLY PROCESS

Process Name/Title:

Model Code/Part Number: **TP1 / 7L0092-7021**

Purpose: ☐ PROTOTYPE

☐ PRE-LAUNCH

Customer: **TRQSS**

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PARTS:

1. Connector 7186-8847 (W)

JIG

1. Insertion jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

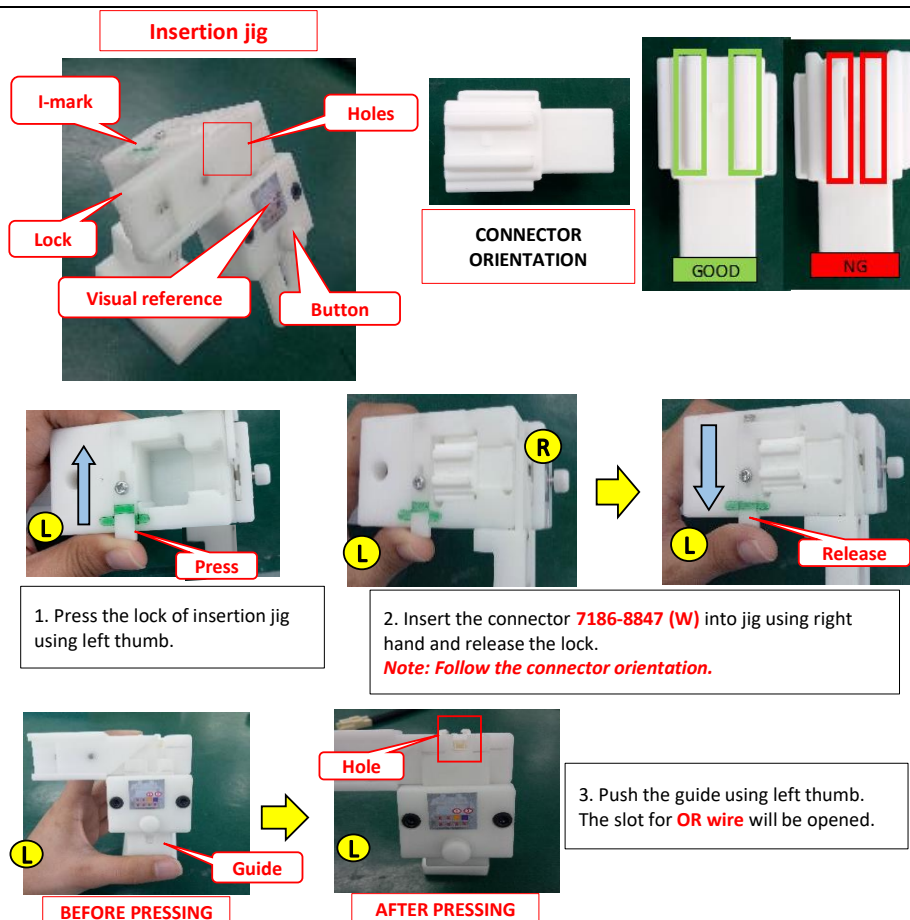
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QUALITY POINTERS

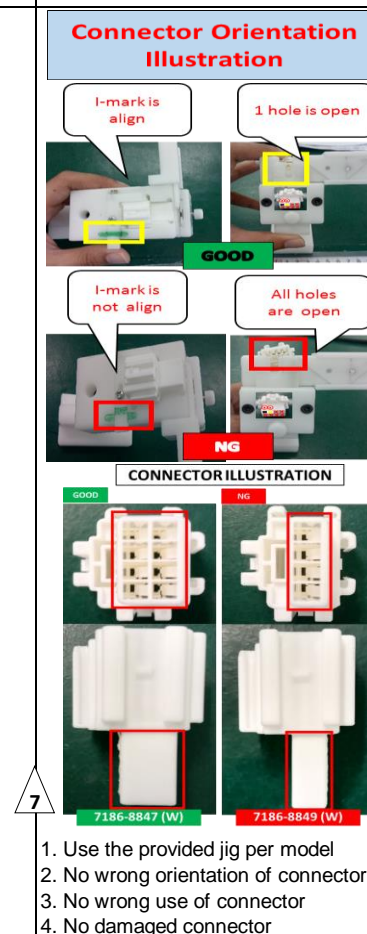
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P1

Connector setting to
insertion jig
7186-8847 (W)



n/a



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PARTS:

1. Assy parts

JIG

1. Insertion jig

NO.

PROCESS NAME

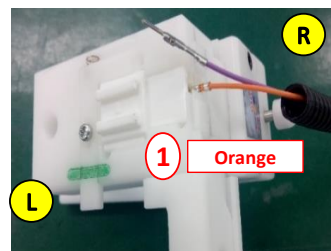
WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

6

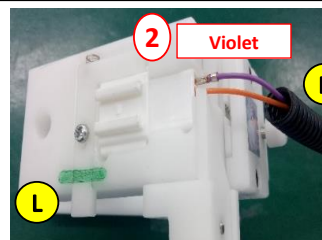
P1

Wire insertion to Connector
7186-8847 (W)

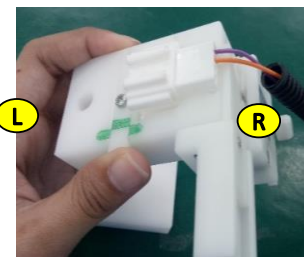
1. Hold the **OR wire** then insert to terminal slot **1** using right hand.



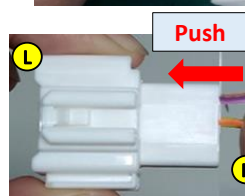
2. After insertion of **OR wire**, press the button using left hand. The slot for **V wire** will be opened.



3. Hold the **V wire** then insert to terminal slot **2** using right hand.



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.



5. After removing the connector from jig, conduct **Pushing (1x)** of **OR wire** using right hand to confirm that wire is fully inserted. Repeat the process for **V wire**.

n/a

1. No loose insertion
2. No wrong insertion
3. One by one insertion
4. No deformed terminal
5. No wrong wire facing

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 jig will alarm if will not conduct **Pull-Push-Pull-Push** method.
4. Insertion jig will alarm if Yellow wire will not insert before 5 seconds.
5. Conduct **Pushing** of wires after removing the connector from jig.
6. Pushing of wires will be done one by one of every inserted wires

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

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WORK INSTRUCTION

TAPING ASSEMBLY PROCESS

Process Name/Title:

Model Code/Part Number: **TP1 / 7L0092-7021**

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

Customer: **TRQSS**

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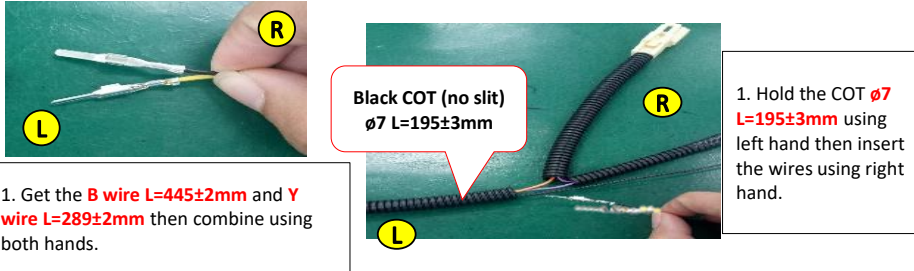
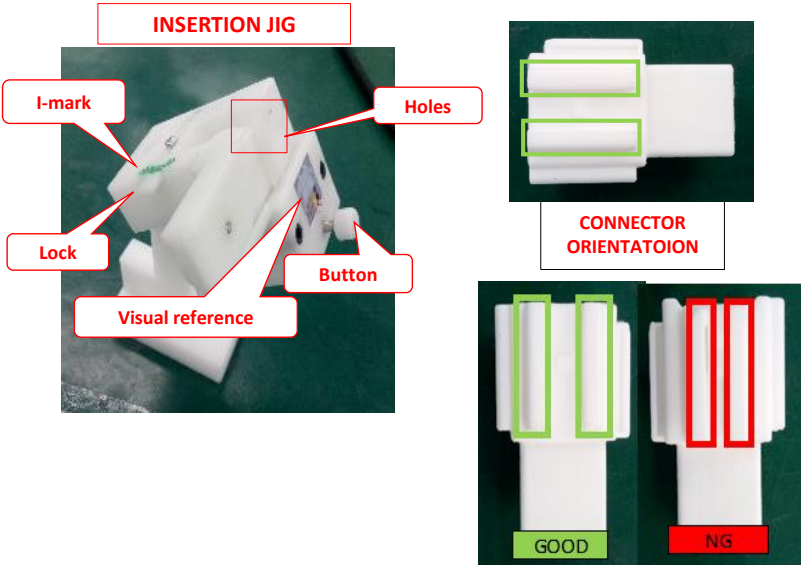
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PARTS:		1. Assy parts 2. AVSSf 0.3 Black wire L=445±2mm & Y L=289±2mm		JIG	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
7	Wire insertion to Black Corrugated tube (no slit) (Assy parts)			n/a	<p>7</p> <p>Document references: 1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</p> <p>1. No wrong usage of parts 2. No deformed terminal</p>
8	Connector setting to insertion jig 7186-8847 (W) (assy part)			n/a	<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>

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WORK INSTRUCTION

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☐ PROTOTYPE

☐ PRE-LAUNCH

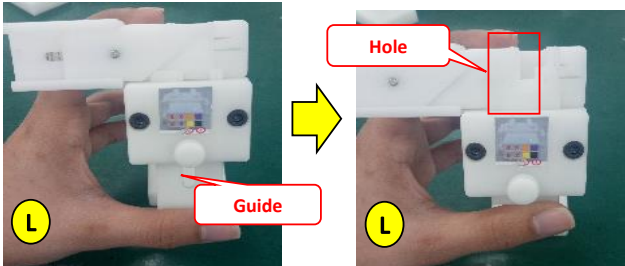
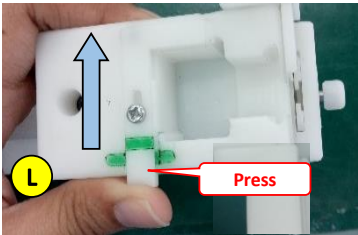
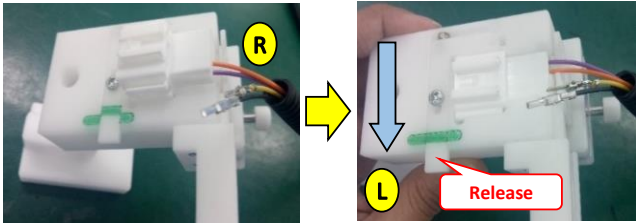
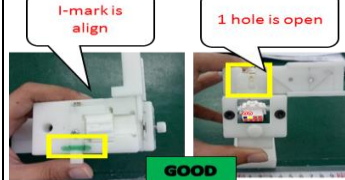

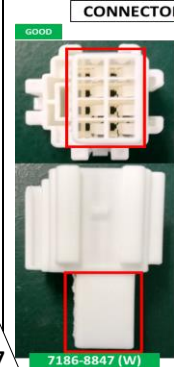

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PARTS:		1. Assy parts		JIG	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
8	P1	<div><div><p>1. Push the guide using left hand. The slot for Y wire will be opened.</p></div><div><p>2. Press the lock of insertion jig using left thumb.</p></div><div><p>3. Insert the connector 7186-8847 (W) with assy part into jig using right hand and release the lock. Note: Follow the connector orientation.</p></div></div>		n/a	<div><h3>Connector Orientation Illustration</h3><div><p>GOOD</p></div><div><p>NG</p></div><h3>CONNECTOR ILLUSTRATION</h3><div><p>GOOD</p></div><div><p>NG</p></div></div> <p>7</p> <ol style="list-style-type: none">1. Use the provided jig per model2. No wrong orientation of connector3. No wrong use of connector4. No damaged connector

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WORK INSTRUCTION

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Model Code/Part Number: **TP1 / 7L0092-7021**

Purpose:

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PARTS:

1. Assy parts

JIG

1. Insertion jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

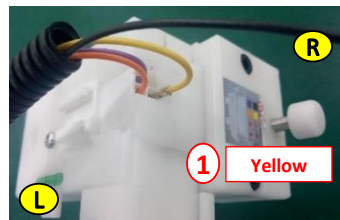
TOOLS/PPE

QUALITY POINTERS

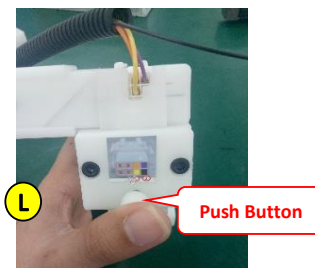
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P1

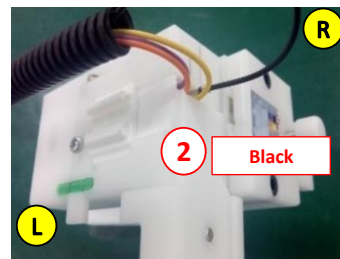
Wire insertion to Connector
7186-8847 (W)



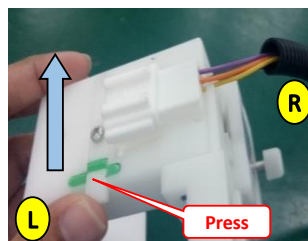
1. Hold the **Y wire** then insert to terminal slot **1** using right hand.



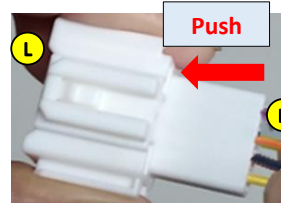
2. After insertion of **Y wire** press the button using left hand. The slot for **B wire** will be opened.



3. Hold the **B wire** insert to terminal slot **2** using right hand.



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.



5. After removing the connector from jig, conduct **Pushing (1x)** of **Y wire** using right hand to confirm that wire is fully inserted. Repeat the process for **B wire**.

n/a

1. No loose insertion
2. No wrong insertion
3. One by one insertion
4. No deformed terminal
5. No wrong wire facing

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 jig will alarm if will not conduct **Pull-Push-Pull-Push** method.
4. Insertion jig will alarm if Yellow wire will not insert before 5 seconds.
5. Conduct Pushing of wires after removing the connector from jig.
6. Pushing of wires will be done one by one of every inserted wires

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

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WORK INSTRUCTION

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Model Code/Part Number: TP1 / 7L0092-7021

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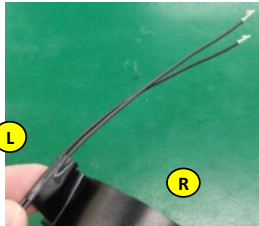
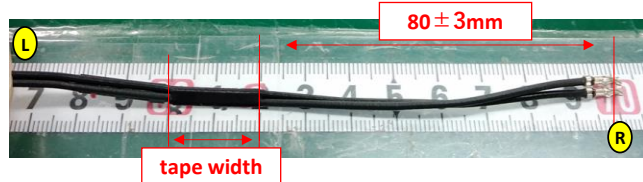

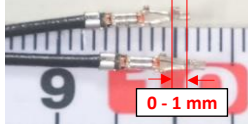
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PARTS:		1. AVSSf 0.3 Black wire L=260±2mm 2. Black tape		JIG	n/a
NO.	PROCESS NAME	7	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
10	P1 Spot taping	7	<div><div><p>100 ± 3mm</p></div><div><p>1. Combine the B wire L=260±2mm to B wire L=445±2mm then measure the wire to terminal tip 100mm using both hands.</p></div><div><p>2. Get the Black tape then conduct 2x windings of tape then cut using both hands.</p></div><div><p>80 ± 3mm</p><p>tape width</p></div><div><p>3. After taping, check the measurement and taping condition.</p></div></div> <div><div>MEASURING TAPE</div></div> <div><div>7</div><p>Wire alignment tolerance</p><p>0 - 1 mm</p><div><div>1. No flip-out tape</div><div>2. No peel-off tape</div><div>3. No loose tape</div><div>4. No missing tape</div><div>5. No wrong use of tape</div><div>6. No wrong dimension</div></div><div><div>Important reminders/Note/s:</div><div>1. Please use calibrated/verified measuring tape when getting the measurement.</div></div><div><div>Document references:</div><div>1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</div></div></div>		

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