

**WORK INSTRUCTION**

Process Name/Title:

TAPING ASSEMBLY PROCESS

Effectivity Date:

September 30, 2022

Model Code/Part Number:

TP1 / 7L0091-7022

Customer:

TRQSS

Validity Date:

n/a

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Document No.:

WI-ENG-PDE-061A

Revision No.:

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PARTS:

1. Assy parts
2. Black Vinyl tube Ø5 L=75±3mm

3. Black Corrugated tube (no slit) Ø5 L=195±3mm
4. AVSSf 0.3 B L=532mm

JIG:

n/a

NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
1	Wire insertion to Black Vinyl tube Ø5 L=75±3mm	 <div>Get the black vinyl tube (Ø5 L=75±3mm) using right hand then insert the Y and B wire.</div>	Safety Instruction Be sure to wear prescribed 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.	<ol style="list-style-type: none">1. Use the provided jig per model2. No wrong orientation of connector3. No wrong use of connector.4. No damage Connector.  Document references: 1. Refer to WI-ENG-PDE-136 for Offline Assembly Process
2	Wire insertion to Black Corrugated tube (no slit) Ø5 L=195±3mm	 <div>Get the black wire (B L=532±3mm) and corrugated tube (Ø5 L=195±3mm) using right hand then insert the Y and B wire.</div>	Alert level For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.	<ol style="list-style-type: none">1. Use the provided jig per model2. No wrong orientation of connector  Document references: 1. Refer to WI-PRO-CNC-017 for Wire and Strip length tolerance.

Revision History

Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Prepared by	Reviewed by	Approved by	Noted by
09/30/22	5	Change of tolerance from 35+/-3mm to 35(+3/-1mm) as countermeasure of encountered NG dimension from end of tape up to terminal tip on process no.7. Improve: Work procedure/illustration on process no. 1, 2, 3, 4, 5, 6, and 8; Quality pointers and notes on pg. 1 to 6	M. Ariola	J. Loterte	C. Villanueva	A. Arañes				
02/19/21	4	Change part number due to change color tape from COT to wire near connector taping process.	D. Castillo	C. Villanueva	A. Shimamura	A. Arañes				
10/24/20	3	Improved insertion jig and change taping method of COT to wire taping (near connector & terminal) process. Remove cycle time.	D. Castillo	R. Peñaloza	A. Shimamura	A. Arañes				
Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Est. Date:	Dec 13, 2019		

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PARTS:

1. Connector 7186-8847 (W)

JIG

Insertion jig

NO.

PROCESS NAME

5

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

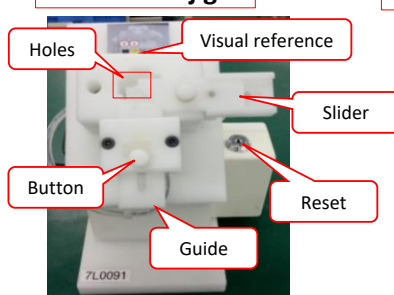
QUALITY POINTERS

3

P1

Connector setting to
insertion jig
7186-8847(W)

Insertion jig



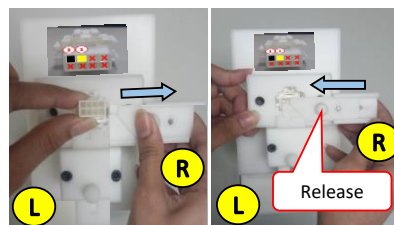
Insertion jig (Back view)



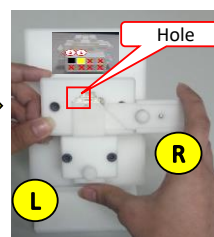
Insertion jig Orientation



Connector Orientation



2. Insert the connector (7186-8847) into jig using left hand and release the side lock.



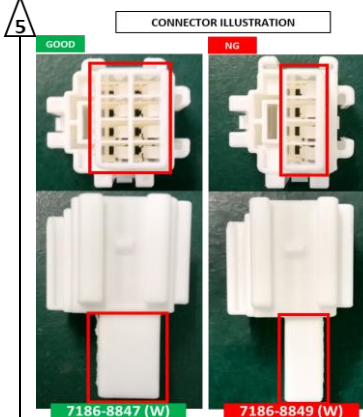
3. Push the guide using right hand. The slot for Yellow wire will be opened.

n/a

1. Use the provided jig tool per model
2. No wrong orientation of connector

Important reminders/Note/s:

1. Cannot insert the inverted connector.



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PARTS:

1. Assy part

JIG

Insertion jig

NO.

PROCESS NAME

5

WORK PROCEDURE/ ILLUSTRATION

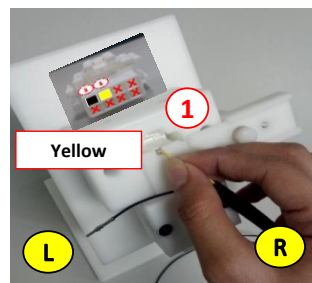
TOOLS/PPE

QUALITY POINTERS

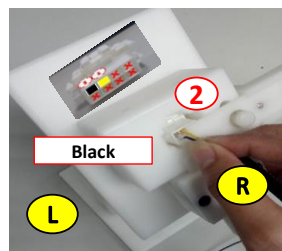
4

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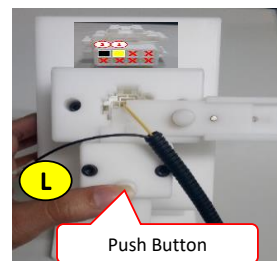
Wire insertion to
Connector
7186-8847 (W)



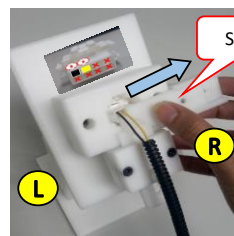
1. Get **Yellow wire** then insert to terminal slot ① using right hand. Conduct Pull-Push-Pull-Push after insertion.



3. Get **Black wire** then insert to terminal slot ② using right hand. Conduct Pull-Push-Pull-Push.



2. Press the button using left hand. The slot for **Black wire** will be open.



4. After insertion, **GO** sound will be heard. Slide the slide lock using right thumb and then hold the wires and gently pull out the connector from jig using left hand.

Wire facing

Push Button

Slide

Slide

n/a

5

Important reminder/Notes:

1. No loose insertion
 2. No wrong insertion
 3. One by one insertion
 4. No deformed terminal
 5. No wrong wire facing
1. Insertion jig will alarm if will not conduct **Pull-Push-Pull-Push** method.
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 black wire will not insert before 5 seconds.

5

Document references:

1. Refer to GL-PRO-ASY-029 For Pull-Push procedure.

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PARTS:

1. Assy part

2. Clamp Nippon 7067-0(POP) (W)

1. Gray tape

JIG

n/a

NO.

PROCESS NAME



WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

5

Clamp Attachment



CLIP ORIENTATION



1. Hold the connector using left hand, get the clip **7067-0 (POP) (W)** then insert using right hand.

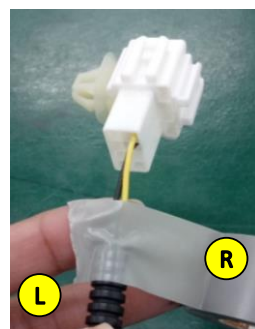
n/a

1. No loose attachment
2. No wrong usage of parts
3. No missing clamp

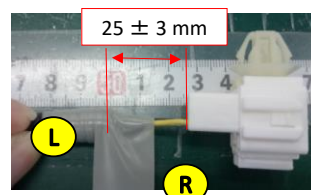
6

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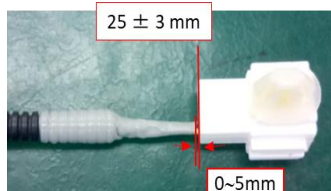
Taping 1
Corrugated tube to wire
near connector



1. Get the **Gray tape**, hold corrugated tube using left hand then start pre-taping.

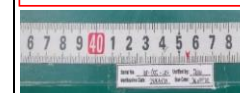


2. Measure the end of the corrugated tube up to the edge of connector **25mm**. Then continue taping using right hand.



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 missing tape
5. No wrong dimension
6. No wrong use of tape

Important reminders/Note/s:
1. Please use calibrates/verified measuring tape when getting the measurement.

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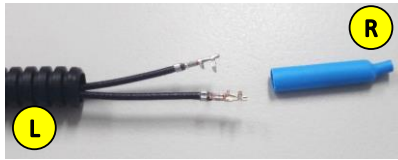

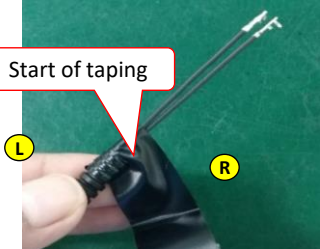

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PARTS:		1. Black tape 2. Black Corrugated tube (no slit) Ø5 L=247±3mm	JIG	1. Terminal cover jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
7	P1	<div><div><p>1. Get the terminal cover jig using right hand and insert the wires using left hand.</p></div><div><p>2. Get the corrugated tube Ø5 L=247±3mm using right hand and insert the wires using left hand.</p></div><div><p>3. Remove the terminal cover jig after insertion.</p></div></div>	<div>TERMINAL COVER JIG </div>	1. No wrong usage of parts 2. No deformed terminal.
8		<div><p>Start of taping</p><p>1. Hold the COT using left hand, get the Black tape using right hand then start pre-taping using both hands.</p></div>	<div>MEASURING TAPE </div>	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 Important reminders/Note/s: 1. Please use calibrated/Verified measuring tape when getting the measurement.

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PARTS:

1. Assy parts
2. Black tape

JIG

n/a

NO.

PROCESS NAME



WORK PROCEDURE/ ILLUSTRATION

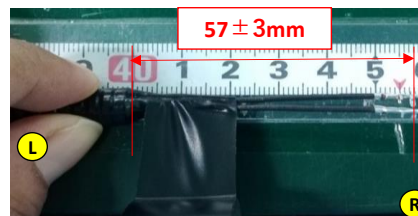
TOOLS/PPE

QUALITY POINTERS

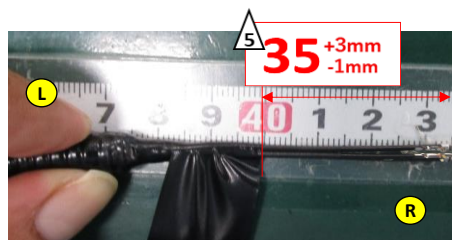
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P1

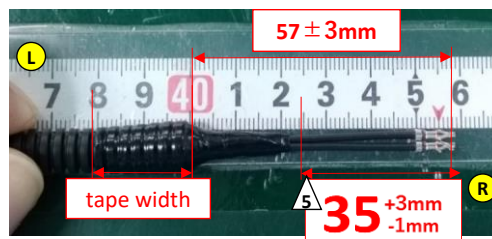
Taping 2
Corrugated tube to wire
near terminal



2. Measure from end of COT up to terminal pointed tip **57±3mm** then continue the taping process using both hands.



3. Confirm measurement of **35 (+3/-1mm)** from end of tape up to terminal pointed tip then continue the taping process using both hands.



4. After taping, check the measurement, taping condition and terminal appearance.

MEASURING TAPE



Important reminders/Note/s:

1. Please use calibrated/verified measuring tape when getting the measurement.



Document references:

1. Refer to WI-ENG-PDE-588 for Tape and Tube standard tolerance.

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