

**WORK INSTRUCTION**Process Name/Title: **OFFLINE ASSEMBLY PROCESS**

Effectivity Date:

**February 28, 2023**Model Code/Part Number: **TM3 / 7L0117-7020A** Customer: **TRQSS**

Validity Date:

**n/a**Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ☒ MASSPRO

Document No.:

**WI-ENG-PDE-365**

Revision No.:

**3**

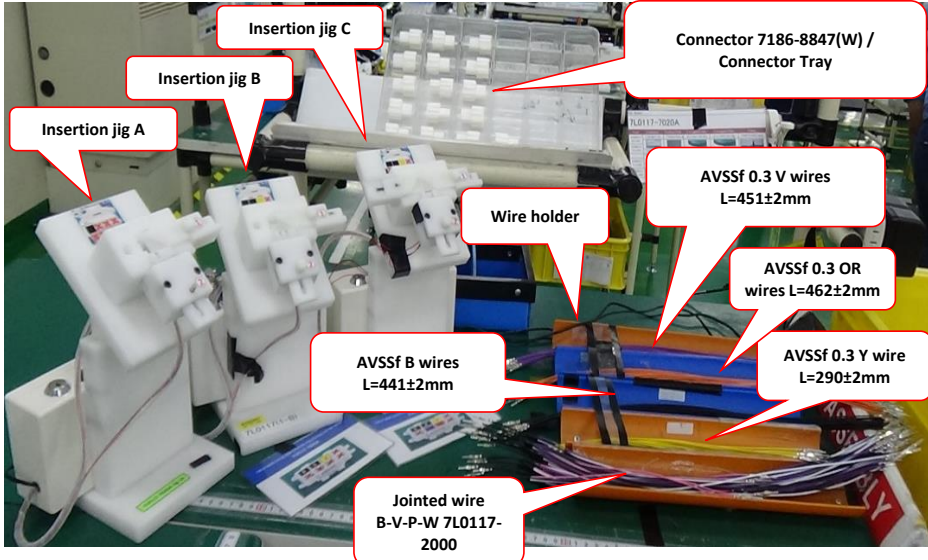
Page No.:

**1 of 7****PARTS:**

1. All part: Connector 7186-8847 (W); Jointed wire B-V-P-W 7L0117-2000; AVSSf 0.3 V wires L=451±2mm; AVSSf B wires L=441±2mm; AVSSf 0.3 OR wires L=462±2mm; AVSSf 0.3 Y wire L=290±2mm

JIG:

1. Insertion jig

NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
1	n/a	Table Lay-out 	<b>Safety Instruction</b> Be sure to wear prescribed personal protective equipment during operation (gloves, finger cots, etc.)  <b>Housekeeping</b> 1. Maintain and always practice 5's. 2. Personal things on the workplace is prohibited. Keep it in your locker.  <b>Alert level</b> For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.	<b>Document reference/s:</b> <b>1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</b>  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
02/28/23	3	Improve quality pointers and notes in process no.3, 5 and 7 as document improvement. Removal of notes related to the function of insertion jig. Addition of " Must have slightly movement of after insertion. inclusion of Quality Checkpoints.	M. Ariola	J. Loterte	C. Villanueva	A. Arañes				
10/11/22	2	Transfer process no.4,5,6 and 7 from P1 to offline Assembly Process due to Process Improvement. Change Table Lay-out illustration.	M. Ariola	J. Loterte	C. Villanueva	A. Arañes				
09/01/22	1	Change document title from 'Kitting assembly process' to 'Offline assembly process'. Improve quality pointers and notes in process no.1, 2 and 3 as document improvement. Additional process in: Process no.3, procedure4 as countermeasure for encountered customer claim.	M. Catapang	J. Loterte	C. Villanueva	A. Arañes	M. Ariola	J. Loterte	C. Villanueva	A. Arañes
							Est. Date:	October 15, 2021		

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### PARTS:

1. Connector 7186-8847 (W)

### JIG

1. Insertion jig

### NO.

### PROCESS NAME

### WORK PROCEDURE/ ILLUSTRATION

### TOOLS/PPE

### QUALITY POINTERS

2

n/a

Connector setting to  
insertion jig  
7186-8847 (W)

Insertion jig

Visual reference

Slider lock

Button

Guide

Insertion jig (Back view)

Reset

Adjustable

Insertion jig Orientation

Connector Orientation

GOOD

NG

Slide

1. Slide the slide lock using right thumb..

Slide lock

Release

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

Hole

3. Push the guide using left thumb. The slot for **B Jointed wire** will be opened.

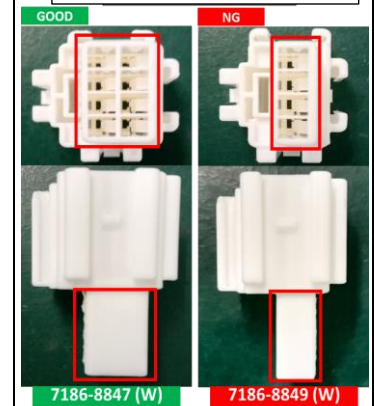
n/a

### Important reminders/Note/s:

**1. Cannot insert the inverted connector.**

1. Use provided jig per model
2. No wrong usage of parts
3. No wrong orientation of connector
4. No damaged connector

### CONNECTOR ILLUSTRATION



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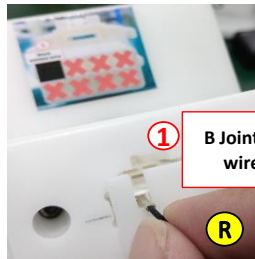
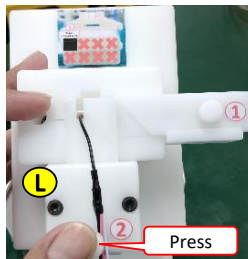
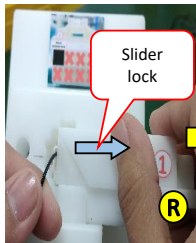
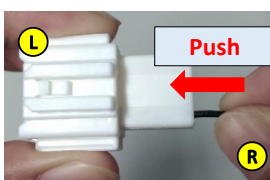
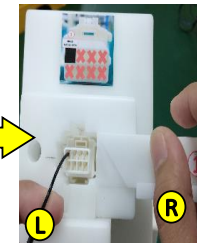
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### PARTS:

1. Assy parts
2. Jointed wire B-V-P-W 7L0117-2000

### JIG

1. Insertion jig

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
3	n/a	Wire insertion to connector 7186-8847 (W)	<div><p>Wire facing</p></div> <div><p>1 B Jointed wire</p></div> <div><p>2 Press</p></div> <div><p>1. Get <b>B Jointed wire</b> then insert to terminal slot <b>1</b> using right hand. Conduct <b>Pull-Push-Pull-Push</b> after insertion.</p></div> <div><p>Slider lock</p></div> <div><p>Push</p></div> <div><p>2. Press the button using left thumb. <b>GO</b> sound will be heard.</p></div> <div><p>3. After insertion, slide the slider lock using right thumb and then hold the jointed wire and gently pull out the connector from jig using left hand.</p></div> <div><p>4. After removing the connector from jig, conduct <b>Pushing (1x)</b> of wires using right hand to confirm that wire is fully inserted.</p></div>		<div><p>3</p><p>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deformed terminal 5. No wrong wire facing 6. Must have slightly movement after insertion.</p><p><b>Important reminders/Note/s:</b> <b>1. Please hold the wire near terminal.</b> <b>2. Make sure wires are properly inserted.</b> <b>Conduct Pull-Push-Pull-Push after insertion.</b> <b>Do not exert extra force.</b> <b>3. Conduct Pushing of wires after removing the connector from jig.</b> <b>4. Pushing of wires will be done one by one of every inserted wires</b></p><p><b>Document references:</b> <b>1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</b></p></div>

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### PARTS:

1. Assy parts

### JIG

1. Insertion jig

### NO.

### PROCESS NAME

### WORK PROCEDURE/ ILLUSTRATION

### TOOLS/PPE

### QUALITY POINTERS

4

n/a

Connector setting to  
insertion jig  
7186-8847 (W)  
(Assy parts)

**Insertion jig**

Visual reference

Slider lock

Button

Guide

**Insertion jig (Back view)**

Reset

Adjustable

**Insertion jig Orientation**

Slide

**Connector Orientation**

**GOOD**

**NG**

Slide lock

Release

Hole

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

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

1. Slide the slider lock using right thumb..

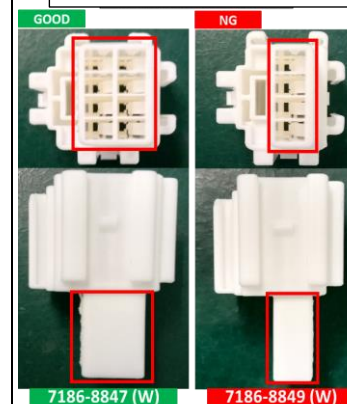
n/a

### Important reminders/Note/s:

1. Follow the connector orientation
2. Cannot insert the inverted connector.

1. Use provided jig per model
2. No wrong usage of parts
3. No wrong orientation of connector
4. No damaged connector

### CONNECTOR ILLUSTRATION



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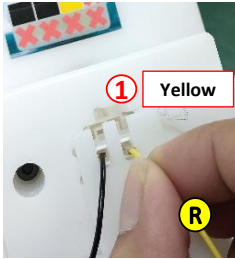
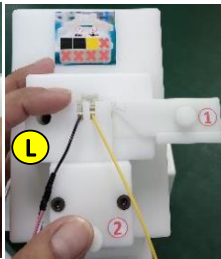
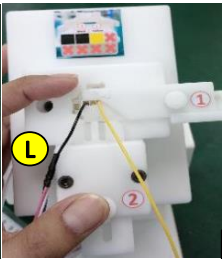
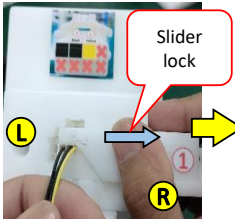
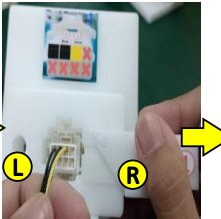
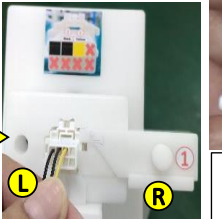
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### PARTS:

1. Assy parts
2. Y wire L=290±2mm; B wire L=441±2mm

1. Insertion jig

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
5	n/a	Wire insertion to connector 7186-8847 (W) (Assy parts)	<div><p>Wire facing</p></div> <div><p>① Yellow</p></div> <div><p>②</p></div> <div><p>③ Black</p></div> <div><p>1. Get <b>Yellow wire</b> then insert to terminal slot <b>1</b> using right hand. Conduct Pull-Push-Pull-Push after insertion.</p><p>2. Press the button using left hand. The slot for <b>Black wire</b> will be opened.</p><p>3. Get <b>Black wire</b> then insert to terminal slot <b>2</b> using right hand. Conduct Pull-Push-Pull-Push after insertion.</p></div> <div><div><p>Slider lock</p></div><div><p>Push</p></div><div><p>④</p></div><div><p>4. After insertion, slide the slider lock using right thumb and then hold the wires and gently pull out the connector from jig using left hand.</p><p>5. After removing the connector from jig, conduct <b>Pushing (1x) of B wires</b> using right hand to confirm that wire is fully inserted. Repeat the process for <b>Y wire</b>.</p></div></div>	n/a	<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><p>6. Must have slightly movement after insertion.</p></div> <div><p><b>Important reminders/Note/s:</b></p><p>1. Please hold the wire near terminal.</p><p>2. Make sure wires are properly inserted.</p><p><b>Conduct Pull-Push-Pull-Push after insertion.</b></p><p>Do not exert extra force.</p><p>3. Conduct Pushing of wires after removing the connector from jig.</p><p>4. Pushing of wires will be done one by one of every inserted wires</p></div> <div><p><b>Document references:</b></p><p>1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</p><p>2. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</p></div>	

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☐ PRE-LAUNCH

☒ MASSPRO

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### PARTS:

1. Assy parts

### JIG

1. Insertion jig

### NO.

### PROCESS NAME

### WORK PROCEDURE/ ILLUSTRATION

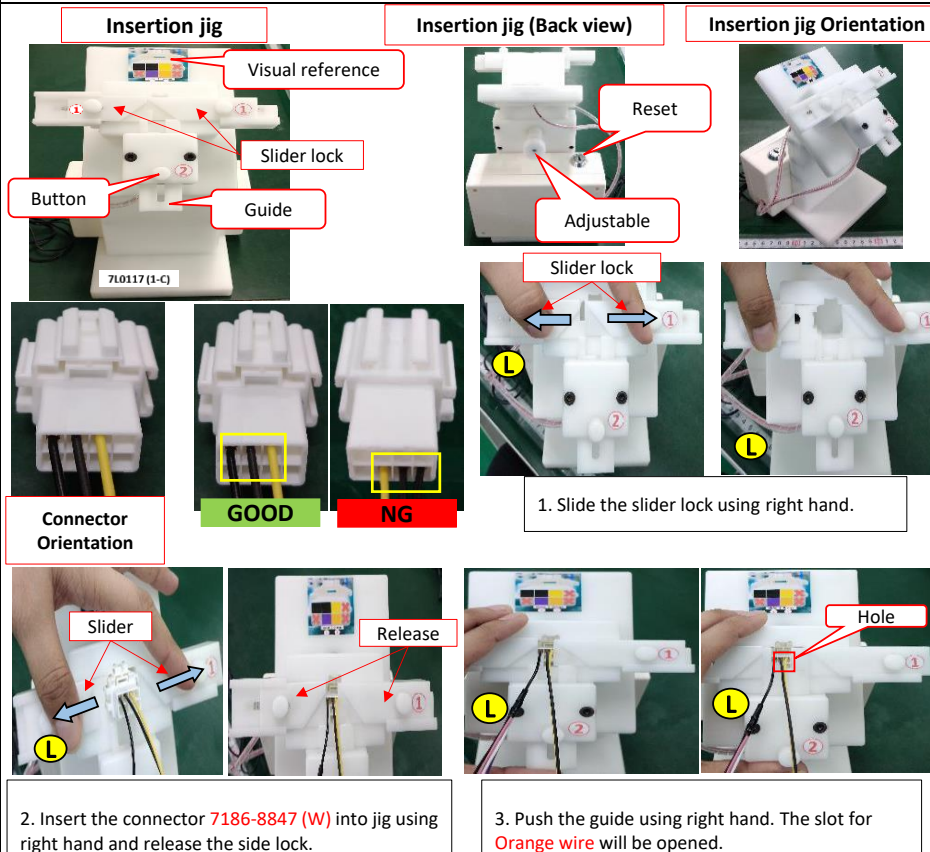
### TOOLS/PPE

### QUALITY POINTERS

6

n/a

Connector setting to  
insertion jig  
7186-8847 (W)  
(Assy parts)



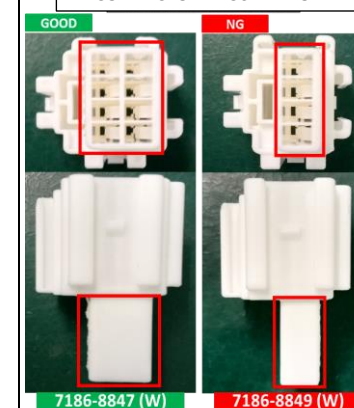
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### Important reminders/Note/s:

1. Follow the connector orientation
2. Cannot insert the inverted connector.

1. Use provided jig per model
2. No wrong usage of parts
3. No wrong orientation of connector
4. No damaged connector

### CONNECTOR ILLUSTRATION



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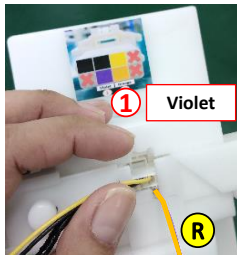
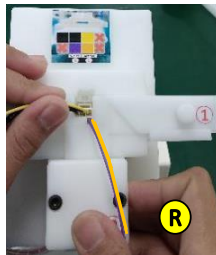
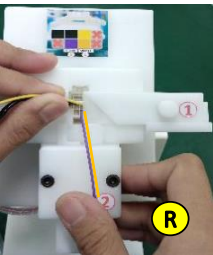
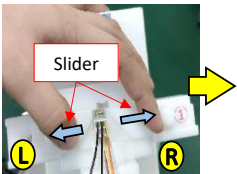
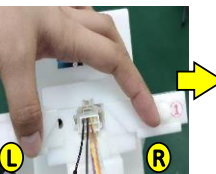
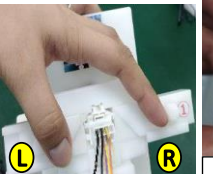
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### PARTS:

1. Assy parts
2. OR wire L=462±2mm; V wire L=451±2mm

### JIG

1. Insertion jig

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
7	n/a	Wire insertion to connector 7186-8847 (W) (Assy parts)	<div><p>Wire facing</p></div> <div><p>① Violet</p></div> <div><p>② Orange</p></div> <div><p>③</p></div> <div><p>1. Get <b>Orange wire</b> then insert to terminal slot <b>1</b> using right hand. Conduct Pull-Push-Pull-Push after insertion.</p><p>2. Press the button using right hand. The slot for <b>Violet wire</b> will be opened.</p><p>3. Get <b>Violet wire</b> then insert to terminal slot <b>2</b> using right hand. Conduct Pull-Push-Pull-Push after insertion.</p></div> <div><div><p>Slider</p></div><div><p>Push</p></div><div><p>④</p></div><div><p>4. After insertion, slide the slider lock using left thumb and then hold the jointed wire and gently pull out the connector from jig using left hand.</p><p>5. After removing the connector from jig, flip the connector then conduct <b>Pushing (1x)</b> of <b>OR wire</b> using right hand to confirm that wire is fully inserted. Repeat the process for <b>V wire</b>.</p></div></div>	n/a	<div><p>③</p><p>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deformed terminal 5. No wrong wire facing 6. Must have slightly movement after insertion.</p><p><b>Important reminders/Note/s:</b></p><p><b>1. Please hold the wire near terminal.</b></p><p><b>2. Make sure wires are properly inserted.</b></p><p><b>Conduct Pull-Push-Pull-Push after insertion.</b></p><p><b>Do not exert extra force.</b></p><p><b>3. Conduct Pushing of wires after removing the connector from jig.</b></p><p><b>4. Pushing of wires will be done one by one of every inserted wires.</b></p><p><b>Document references:</b></p><p><b>1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</b></p><p><b>2. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</b></p></div>	

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