



## WORK INSTRUCTION

## TAPING ASSEMBLY PROCESS

Effectivity Date:

February 16, 2023

Process Name/Title:

Validity Date:

n/a

Model Code/Part Number: 164B / 7M0610-7021

Customer: TRJ

Document No.:

WI-ENG-PDE-398A

Purpose: ☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

1

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## PARTS:

1. All parts: Connector 6188-0066 (GR); Black corrugated tube (no slit)  $\phi 7$  L= 24 $\pm$ 3mm; Black corrugated tube (no slit)  $\phi 5$  L= 258 $\pm$ 3mm; Black Corrugated tube (no slit)  $\phi 7$  L=456 $\pm$ 4mm; AVSSf 0.3 Y/OR L=364 $\pm$ 2mm; Connector 6189-1161 (B); MRSW CP G-B/W L=658 $\pm$ 3mm; Black tape

## JIG:

1. Insertion jig w/ Switch cover
2. Terminal cover jig
3. Locking jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

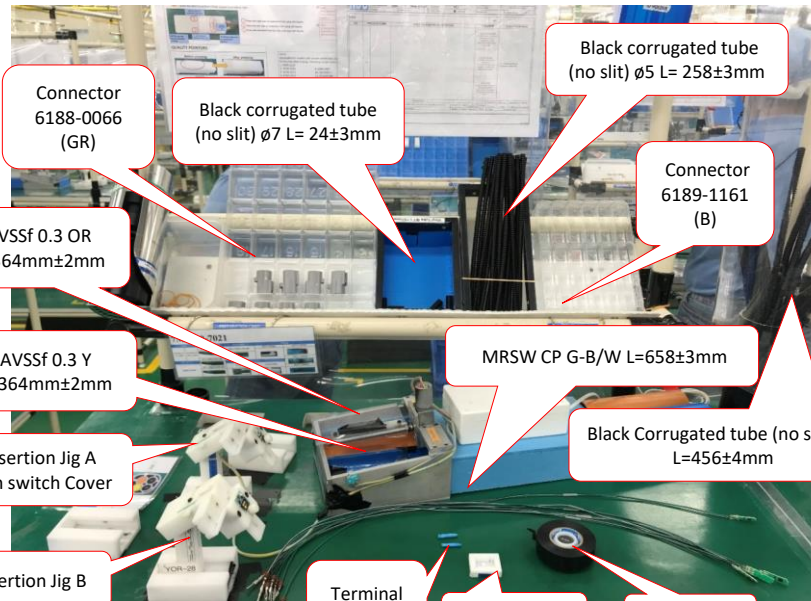
QUALITY POINTERS

1

P1

Table Lay-out

## Table Lay-out

**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.

**Alert level**

For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.

**Document reference/s:**

1. Refer to WI-PRO-CNC-071 Wire and Strip Length Tolerance

1. No missing parts/tools
2. No excess parts/tools
3. No wrong positions of parts/tools

## Revision History

Prepared by

Checked by

Approved by

Noted by

02/16/23 1 Work instruction improvement: Update Quality pointers. Inclusion of Quality checkpoint (Page 9).

D.Castillo

J. Loterte

C. Villanueva

A.Arañes

02/12/22 0 Initial Issue. PCB from 2 chips (61C619-0002) to 1 chip (7N0994-7060). Wire color from Gray (GR) to Green (G).

K. Doria

J. Loterte

C. Villanueva

A.Arañes

Eff. Date Rev. No Details of Change

Revised

Checked

Approved

Noted

Est. Date:

February 12, 2022

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### PARTS:

1. Connector 6188-0066 (GR)

### JIG

1. Insertion jig with Switch cover

### NO.

### PROCESS NAME

### WORK PROCEDURE/ ILLUSTRATION

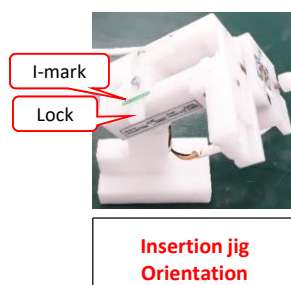
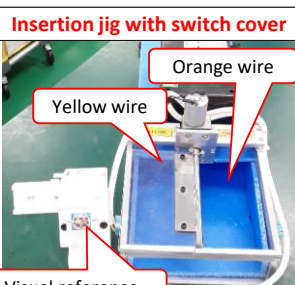
### TOOLS/PPE

### QUALITY POINTERS

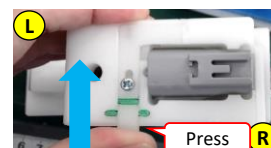
2

P1

Connector setting to  
Insertion jig  
6188-0066  
(GR)



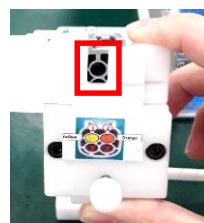
1. Press the lock using left hand.



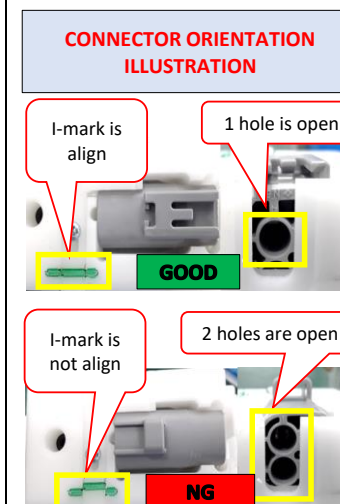
2. Get the connector **6188-0066 (GR)** using right hand and insert to insertion jig. Release the lock after insertion.



3. Push the lower wire guide upward using right hand. Slot for yellow wire will be open.



n/a



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

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## PARTS:

1. AVSSf 0.3 Y L=364±2mm; OR L=364±2mm

## JIG

1. Insertion jig

## NO.

## PROCESS NAME

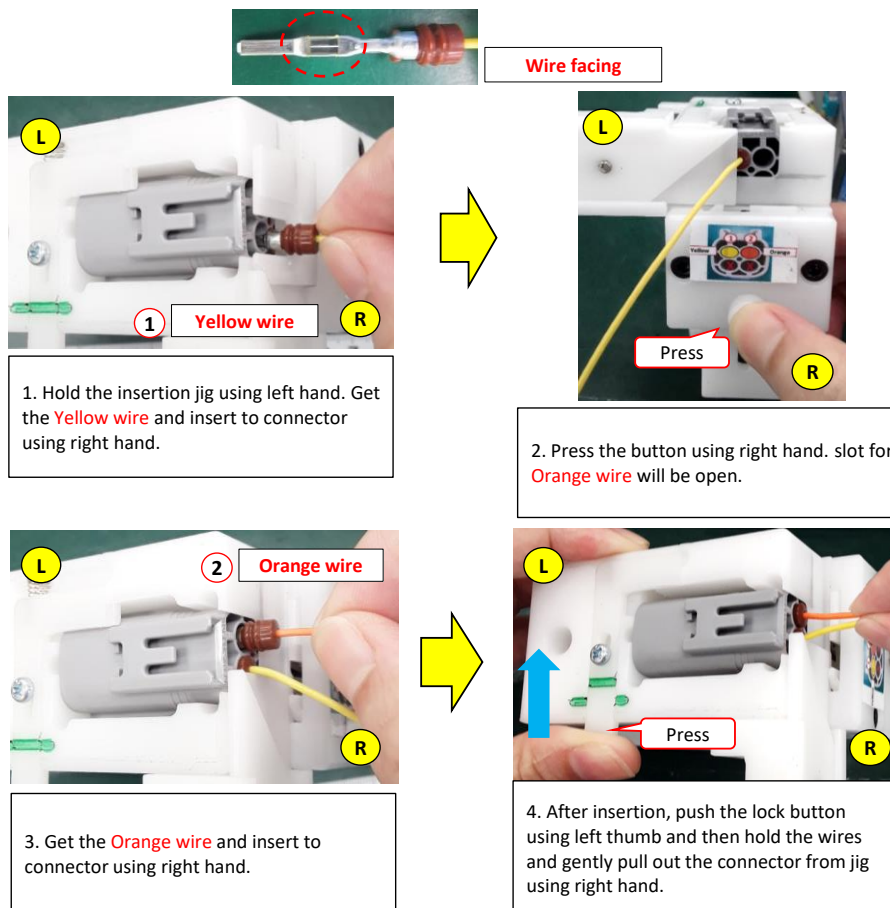
## WORK PROCEDURE/ ILLUSTRATION

## TOOLS/PPE

## QUALITY POINTERS

3

P1

Wire Insertion to  
connector  
6188-0066  
(GR)

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 during insertion.
2. Insertion of wire must be inserted.
3. Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.

## Document reference/s:

1. Refer to WI-PRO-CNC-017 for Wire and Strip length Tolerance
2. Please refer to GL-PRO-ASSY-029 for Pull-Push procedure.

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### PARTS:

1. Black corrugated tube (no slit)  $\phi 7$  L= 24 $\pm$ 3mm
2. Black corrugated tube (no slit)  $\phi 5$  L= 258 $\pm$ 3mm

3. Connector 6189-1161 (B)
4. Assy parts

### JIG

1. Insertion jig

NO.

PROCESS NAME

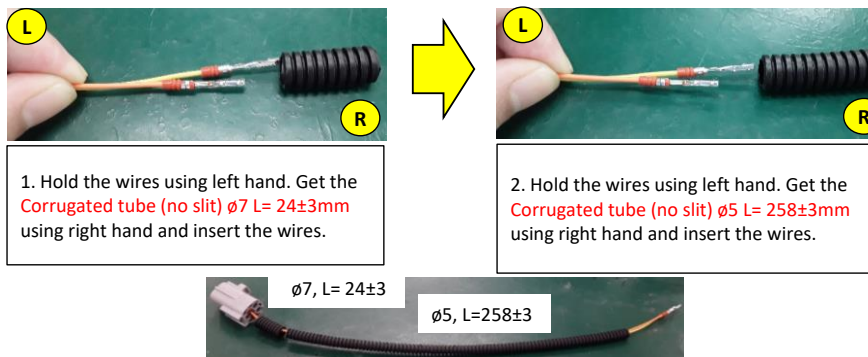
WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

4

Wire insertion to COT  
(no slit)  
 $\phi 7$  L= 24 $\pm$ 3mm  
 $\phi 5$  L= 258 $\pm$ 3mm



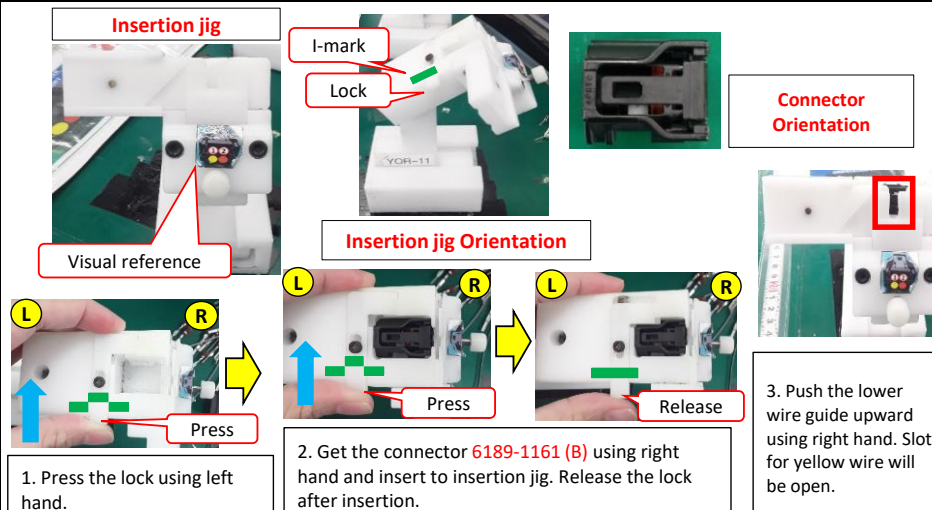
n/a

1. No wrong use of parts

5

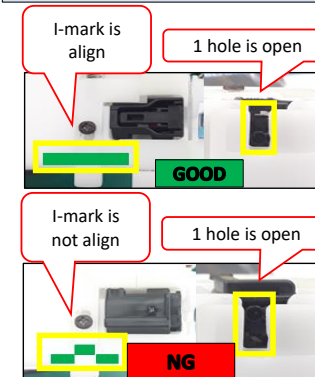
P1

Connector setting to  
insertion jig  
6189-1161 (B)



n/a

### CONNECTOR ORIENTATION ILLUSTRATION



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

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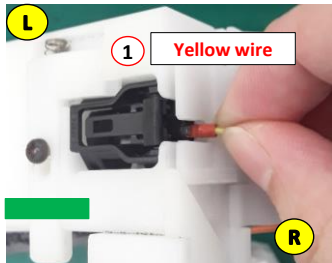
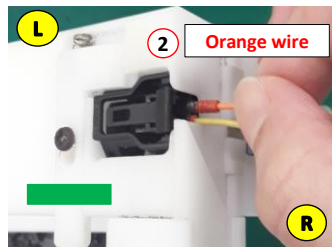
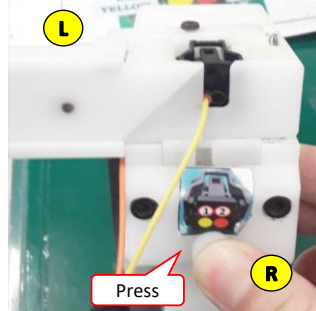
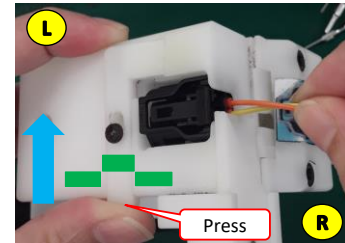
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PARTS:		1. Assy parts			JIG	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
6	P1	<div><p>Wire facing</p></div> <div><p>1. Hold the insertion jig using left hand. Get the <b>Yellow wire</b> and insert to connector using right hand.</p></div> <div><p>3. Get the <b>Orange wire</b> and insert to connector using right hand.</p></div> <div><p>2. Press the button using right hand. slot for <b>Orange wire</b> will be open.</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><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><b>Important reminders/Note/s:</b></p><p>1. Please hold the wire near terminal during insertion. 2. Insertion of wire must be inserted. 3. Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.</p><p><b>Document reference/s:</b></p><p>1. Refer to WI-PRO-CNC-017 for Wire and Strip lenght Tolerance 2. Please refer to GL-PRO-ASSY-029 for Pull-Push procedure.</p></div>

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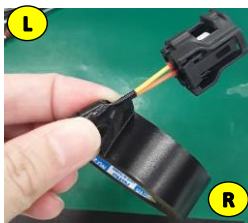

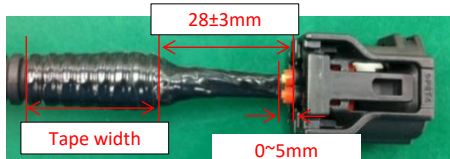

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PARTS:		1. Black tape 2. Assy parts		JIG	1. Locking jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
7	P1	Connector lock	<div><p>1. Put the connector into locking jig and push down <b>2x</b> using both hands. Check the connector lock if properly locked.</p><div><p>Before pressing</p><p>After Pressing</p></div><div></div></div>	LOCKING JIG 	<div><p><b>Important reminders/Note/s:</b></p><p>1. <b>Manual locking may cause damaged connector lock</b></p><p>1. No unlock/half-locked connector 2. No damaged lock</p></div>
8		Taping 1 COT to wire near connector	<div><p>1. Hold the assy parts using left hand, get Black tape and conduct pre-taping using right hand.</p><p>2. Hold the assy parts using left hand and measure from COT to connector <b>28±3mm</b>.</p><div><p>Tape width: 28±3mm 0~5mm</p><p>3. Check the measurement and taping condition after taping.</p></div></div>	MEASURING TAPE 	<div><p><b>Important reminders/Note/s:</b></p><p>1. <b>Please use calibrated/verified measuring tape when getting the measurement.</b></p><p><b>Document references:</b></p><p>1. <b>Please refer to WI-PRO-ASY-001 for taping procedure.</b></p><p>1. No flip out tape 2. No tape peeling 3. No loose tape 4. No wrong use of tape 5. No wrong dimension 6. No missing tape</p></div>

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## PARTS:

1. MRSW CP G-B/W L=658±3mm  
2. Black tape

3. Black Corrugated tube Ø7 (no slit) , L=456±4mm

## JIG

1. Terminal cover jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

9

Wire insertion to COT  
Ø7 L= 456±4mm

1. Get the terminal cover jig using right hand then insert to both terminals (G-B/W wires) using right hand.



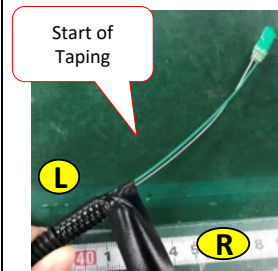
2. Get the corrugated tube Ø7, L=456±4mm using right hand then insert the G wire and B/W wire using left hand. After insertion, remove the cover jig using right hand.

TERMINAL COVER JIG

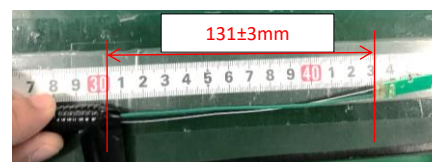


1. No wrong use of parts

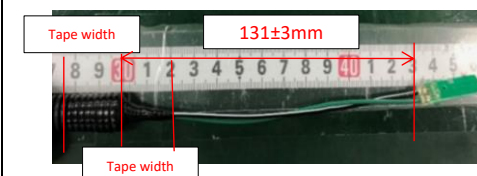
P1

Taping 2  
COT to wire near  
hotmelted wires

1. Hold the corrugated tube using left hand and start taping using right hand.



2. Hold the COT using left hand and measure the COT up to the end of melted wire 131±3mm and continue taping using right hand.



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

MEASURING TAPE



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

**Document references:**  
1. Please refer to WI-PRO-ASY-001 for taping procedure.

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

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### PARTS:

1. Assy parts

### JIG

1. Terminal cover jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

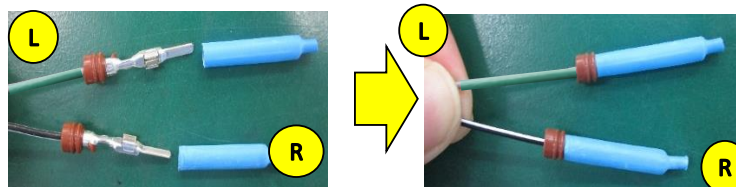
TOOLS/PPE

QUALITY POINTERS

11

P1

Wire insertion to assy parts



1. Get the terminal cover jig using right hand then insert to both terminals (G-B/W wires) using left hand.



2. Hold the COT  $\phi 7$  L= 24 $\pm$ 3mm using left hand then insert the G-B/W wires using right hand.



3. After insertion, remove the terminal cover jig using right hand.

TERMINAL COVER JIG



1. No wrong use of parts

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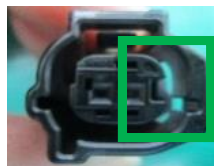
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**9 of 9****PARTS:**

1. Assy parts

**JIG**

n/a

**QUALITY CHECKPOINTS****P1****7M0610-7021****NO GOOD****GOOD****1** No **Wrong insert****2** NO **Unlock/HALFLOCK****3** No **Missing tape****4** No **Missing COT**

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