



WORK INSTRUCTION

Process Name/Title:

TAPING ASSEMBLY PROCESS

Product Name/Code:

164B

/

7M0610-7020B

Customer:

TRJ

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Effectivity Date:

March 29, 2021

Validity Date:

n/a

Document No.:

WI-ENG-PDE-159A

Revision No.:

5

Page No.:

1 of 7

PARTS:		1. Connector 6188-0066 (GR)				<div><div></div></div> JIG:		1. Insertion jig with Switch cover									
NO.		PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION				TOOLS/PPE		QUALITY POINTERS							
1		P1		<div><div><div><div>Insertion jig with switch cover</div><div><div>Orange wire</div><div>Yellow wire</div><div>I-mark</div><div>Lock</div></div><div>Visual reference</div></div><div><div>L</div><div>Press</div><div>R</div></div><div><div>L</div><div>Press</div><div>R</div></div><div><div>L</div><div>Release</div><div>R</div></div><div><div>1. Press the lock using left hand.</div><div>2. Get the connector 6188-0066 (GR) using right hand and insert to insertion jig. Release the lock after insertion.</div><div><div>3. Push the lower wire guide upward using right hand. Slot for yellow wire will be open.</div></div></div><div>Connector setting to Insertion jig 6188-0066 (GR)</div></div><div><div><div>Safety Instruction</div><div>Be sure to wear prescribed personal protective equipment during operation (gloves, finger cots, etc.)</div></div><div><div>Housekeeping</div><div>1. Maintain and always practice 5's.</div><div>2. Personal things on the workplace is prohibited. Keep it in your locker.</div></div><div><div>Alert level</div><div>For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.</div></div></div><div><div>CONNECTOR ORIENTATION ILLUSTRATION</div><div><div>I-mark is align</div><div>1 hole is open</div><div>GOOD</div></div><div><div>I-mark is not align</div><div>2 holes are open</div><div>NG</div></div><div>1. Use the provided jig per model</div><div>2. No wrong orientation of connector</div></div></div>													
Revision History										Prepared by		Reviewed by		Approved by		Noted by	
03/29/21		5		Remove Cycle time; Put assy parts on pg 3 and 5 parts section				J. Loterte		C. Villanueva		A. Shimamura		A. Arañes			
09/15/20		4		Transferred process owner from Production (WI-PRO-ASY-88A) to Engineering (WI-ENG-PDE-159A); Apply some improvements; Added Cycle time				J. Loterte		R. Peñaloza		A. Shimamura		A. Arañes			
05/23/19		3		Include the insertion jig				J. Silang		W. Carbillon		O. Merin		n/a			
Eff. Date		Rev. No		Details of Change				Revised		Checked		Approved		Noted		Est. Date: September 9, 2018	

CONFIDENTIAL: Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

NBC (Philippines)
MASTER COPY

DCC Stamp

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

Process Name/Title:

Product Name/Code: **164B / 7M0610-7020B**Customer: **TRJ**

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Effectivity Date:

March 29, 2021

Validity Date:

n/a

Document No.:

WI-ENG-PDE-159A

Revision No.:

5

Page No.:


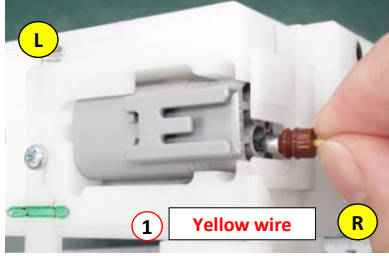
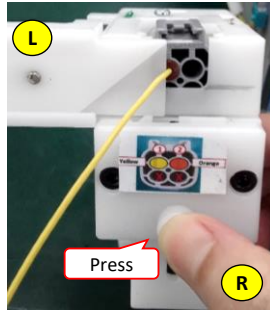
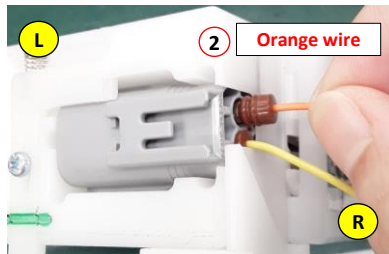
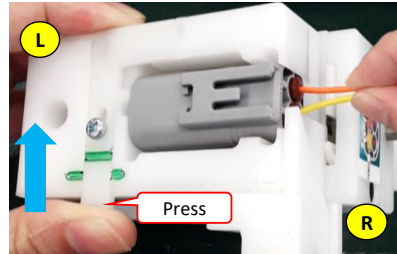
2 of 7

PARTS:

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

JIG

1. Insertion jig

NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
2	P1 Wire Insertion to connector 6188-0066 (GR)	 <p>Wire facing</p>  <p>1. Hold the insertion jig using left hand. Get the Yellow wire and insert to connector using right hand.</p>  <p>2. Press the button using right thumb. slot for Orange wire will be open.</p>  <p>3. Get the Orange wire and insert to connector using right hand.</p>  <p>4. After insertion, push the lock button using left thumb and then hold the wires and gently pull out the connector from jig using right hand.</p>	n/a	<ul style="list-style-type: none">1. No loose insertion2. No wrong insertion3. One by one insertion4. No deformed terminal5. No wrong wire facing <p>Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.</p>

CONFIDENTIAL: Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

NBC (Philippines)
MASTER COPY

DCC Stamp



WORK INSTRUCTION

TAPING ASSEMBLY PROCESS

Effectivity Date:

March 29, 2021

Process Name/Title:

Validity Date:

n/a

Product Name/Code: **164B / 7M0610-7020B**Customer: **TRJ**

Document No.:

WI-ENG-PDE-159A



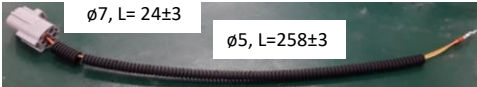

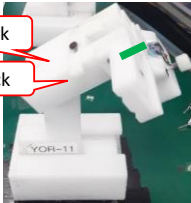
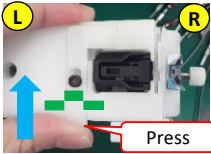


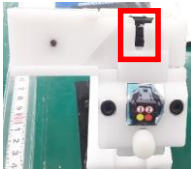


Purpose: ☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

5

Page No.:

3 of 7

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		<div><div><div><div></div><div>S</div></div></div><div>3. Connector 6189-1161 (B) 4. Assy parts</div></div>	JIG	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS	
3	<div><div><div><div></div><div>S</div></div></div><div>Wire insertion to COT (no slit) $\phi 7$ L= 24\pm3mm $\phi 5$ L= 258\pm3mm</div></div>	<div><div><div><div><div>L</div><div>R</div></div><div></div><div>1. Hold the wires using left hand. Get the Corrugated tube (no slit) $\phi 7$ L= 24\pm3mm using right hand and insert the wires.</div></div><div><div><div><div>L</div><div>R</div></div><div></div><div>2. Hold the wires using left hand. Get the Corrugated tube (no slit) $\phi 5$ L= 258\pm3mm using right hand and insert the wires.</div></div></div><div><div><div><div><div><div>$\phi 7$, L= 24\pm3</div></div><div><div>$\phi 5$, L=258\pm3</div></div></div></div><div></div></div></div></div></div>		n/a	1. No wrong use of parts	
4	<div><div><div><div>P1</div><div><div><div></div><div>S</div></div></div></div><div>Connector setting to insertion jig 6189-1161 (B)</div></div></div>	<div><div><div><div><div><div><div>Insertion jig</div><div></div><div>Visual reference</div></div></div><div><div><div><div>I-mark</div><div>Lock</div></div><div></div><div>Insertion jig Orientation</div></div></div><div><div><div><div><div>L</div><div>R</div></div><div></div><div>Press</div></div><div><div><div><div>L</div><div>R</div></div><div></div><div>Release</div></div></div></div><div>1. Press the lock using left hand.</div><div>2. Get the connector 6189-1161 (B) using right hand and insert to insertion jig. Release the lock after insertion.</div><div>3. Push the lower wire guide upward using right hand. Slot for yellow wire will be open.</div></div><div><div><div><div><div><div>Connector Orientation</div><div></div></div></div><div><div><div><div><div>L</div><div>R</div></div><div></div></div></div></div></div></div></div></div></div></div></div>		n/a	<div><div><div><div><div><div>CONNECTOR ORIENTATION ILLUSTRATION</div><div><div><div><div><div>I-mark is align</div><div>1 hole is open</div></div><div></div><div>GOOD</div></div></div><div><div><div><div><div>I-mark is not align</div><div>1 hole is open</div></div><div></div><div>NG</div></div></div></div></div><div>1. Use the provided jig per model 2. No wrong orientation of connector</div></div></div></div></div></div>	

CONFIDENTIAL: Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

NBC (Philippines)
MASTER COPY

DCC Stamp



WORK INSTRUCTION

TAPING ASSEMBLY PROCESS

Process Name/Title:

Product Name/Code: **164B / 7M0610-7020B**

Customer: **TRJ**

Purpose: ☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Effectivity Date:

March 29, 2021

Validity Date:

n/a

Document No.:

WI-ENG-PDE-159A

Revision No.:

5

Page No.:

4 of 7

PARTS:

1. Assy parts

JIG

1. Insertion jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION


TOOLS/PPE

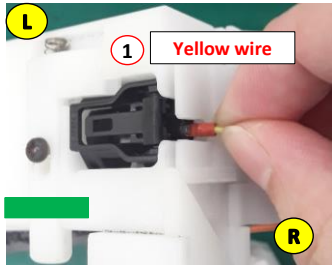
QUALITY POINTERS

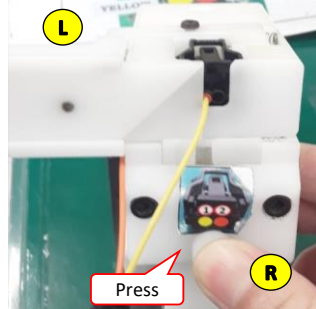
5

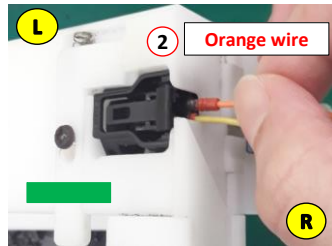
P1

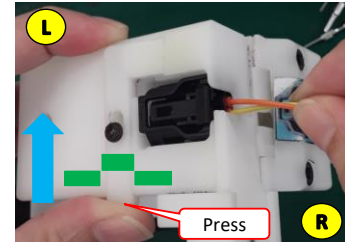
Wire Insertion to connector 6189-1161 (GR)

 **Wire facing**

 **1 Yellow wire**

 **Press**

 **2 Orange wire**

 **Press**

1. Hold the insertion jig using left hand. Get the **Yellow wire** and insert to connector using right hand.

2. Press the button using right thumb. slot for **Orange wire** will be open.

3. Get the **Orange wire** and insert to connector using right hand.

4. After insertion, push the lock button using left thumb and then hold the wires and gently pull out the connector from jig using right hand.

n/a

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

Make sure wires are properly inserted. Conduct **Pull-Push-Pull-Push** after insertion. Do not exert extra force.

CONFIDENTIAL: Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

NBC (Philippines)
MASTER COPY

DCC Stamp



WORK INSTRUCTION

TAPING ASSEMBLY PROCESS

Effectivity Date:

March 29, 2021

Process Name/Title:

Validity Date:

n/a

Product Name/Code: 164B / 7M0610-7020B

Customer: TRJ

Document No.:

WI-ENG-PDE-159A

Purpose: ☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

5

Page No.:

5 of 7






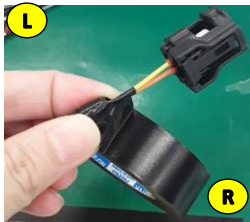

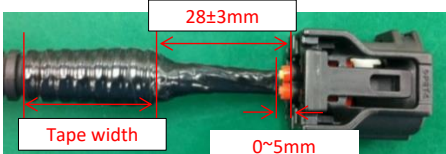

PARTS:



1. Black tape
2. Assy parts

JIG

1. Locking jig

NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
6	Connector lock	 1. Put the connector into locking jig and push down using right thumb.  Before pressing  After Pressing 	LOCKING JIG 	<ol style="list-style-type: none">1. No unlock/half-locked connector2. No damaged lock
7	Taping 1 COT to wire near connector	 1. Hold the assy parts using left hand, get Black tape and conduct pre-taping using right hand.  2. Hold the assy parts using left hand and measure from COT to connector 28 ± 3 mm. Continue taping process. <i>Note: Refer to WI-PRO-ASY-001 for taping procedure.</i>  3. Check the measurement and taping condition after taping.	MEASURING TAPE 	<p><i>Note:</i> Please use calibrated/verified measuring tape when getting the measurement.</p> <ol style="list-style-type: none">1.No flip out tape.2.No tape peeling.3.No loose tape

CONFIDENTIAL: Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

NBC (Philippines)
MASTER COPY

DCC Stamp

**WORK INSTRUCTION**Process Name/Title: **TAPING ASSEMBLY PROCESS**Product Name/Code: **164B / 7M0610-7020B**Customer: **TRJ**Purpose: ☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Effectivity Date:

March 29, 2021

Validity Date:

n/a

Document No.:







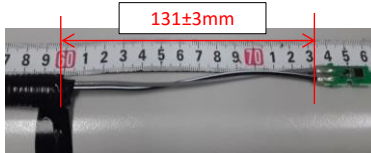
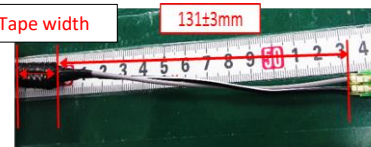

WI-ENG-PDE-159A

Revision No.:

5

Page No.:

6 of 7

PARTS:		1. MRSW CP 7M0610-7040A 2. Black tape		3. Black Corrugated tube $\phi 7$ (no slit) , L=456 \pm 4mm	JIG	1. Terminal cover jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
8	<div><div>5</div></div> Wire insertion to COT $\phi 7$ L= 456 \pm 4mm	<div></div> <div>1. Get the terminal cover jig using right hand then insert to both terminals (GR-B/W wires) using right hand.</div> <div><div>3. After insertion, remove the cover jig using right hand.</div></div> <div>2. Get the corrugated tube $\phi 7$, L=456\pm4mm using right hand then insert the GR wire and B/W wire using left hand.</div>	TERMINAL COVER JIG 	1. No wrong use of parts		
9	P1 <div><div>5</div></div> Taping 2 COT to wire near hotmelted wires	<div><div>Start of taping</div></div> <div><div>131\pm3mm</div></div> <div><div>Tape width 131\pm3mm</div></div>	<div>1. Hold the corrugated tube using left hand and start taping using right hand.</div> <div>2. Hold the COT using left hand and measure the COT up to the end of melted wire 131\pm3mm and continue taping using right hand. <i>Refer to WI-PRO-ASY-001 for taping procedure.</i></div> <div>3. After taping, check the dimension and taping condition.</div>	MEASURING TAPE 	<div><i>Note:</i> <i>Please use calibrated/verified measuring tape when getting the measurement.</i></div> <div>1.No flip out tape. 2.No tape peeling. 3.No loose tape</div>	

CONFIDENTIAL: Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

NBC (Philippines)
MASTER COPY

DCC Stamp



WORK INSTRUCTION

TAPING ASSEMBLY PROCESS

Process Name/Title:

Product Name/Code:

164B

/

7M0610-7020B

Customer:

TRJ

Purpose:



PROTOTYPE



PRE-LAUNCH



MASSPRO

Effectivity Date:

March 29, 2021

Validity Date:

n/a

Document No.:

WI-ENG-PDE-159A

Revision No.:

5

Page No.:

7 of 7

PARTS:

1. Assy parts

JIG

1. Terminal cover jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

10

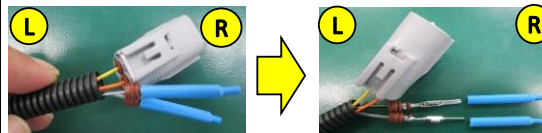
P1

Wire insertion to assy parts



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

2. Hold the COT $\phi 7$ L= 24 \pm 3mm using left hand then insert the GR-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

CONFIDENTIAL: Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

NBC (Philippines)
MASTER COPY

DCC Stamp