

	WORK INSTRUCTION				Effectivity Date:		December 13, 2022	
	TAPING ASSEMBLY PROCESS				Validity Date:		n/a	
	Process Name/Title:		Model Code/Part Number: 100B / 7M0592-7021		Customer: TRJ		Document No.: WI-ENG-PDE-423A	
	Purpose:		<input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO		Revision No.:		1	Page No.: 1 of 12

PARTS:	1. All parts: Connector 6189-0451 (W); AVSSf 0.3 wires Y-OR L=245±2mm; Black COT (no slit) Ø7 L=32±3mm; Black COT (no slit) Ø7 L=125±3mm; Connector 6188-0066 (GR); Black COT (no slit) Ø7 L=111±3mm; MRSW CP TVSSf 0.3 G-B/W wires L=830±3mm; Black tape [1pc.]			JIG:	1. Insertion jig with switch cover 2. Locking jig 3. Terminal cover jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	1. QUALITY POINTERS	
1	P1 Table Lay-out	<div style="text-align: center; border: 1px solid black; padding: 5px; margin-bottom: 10px;">TABLE LAYOUT</div>	<div style="border: 1px dashed red; padding: 5px; margin-bottom: 10px;"> Safety Instruction Be sure to wear prescribed personal protective equipment during operation (gloves, finger cots, etc.) </div> <div style="border: 1px dashed red; padding: 5px; margin-bottom: 10px;"> Housekeeping 1. Maintain and always practice 5's. 2. Personal things on the workplace is prohibited. Keep it in your locker. </div> <div style="border: 1px dashed red; padding: 5px;"> Alert level For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action. </div>	Document reference/s: 1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance 2. Refer to WI-PRO-KIT-005 for Wire Taping without Vinyl Tube 1. No missing parts/tools 2. No excess parts/tools	

Revision History				Prepared by	Reviewed by	Approved by	Noted by
12/13/22	1	Improve quality pointers: Reminders/notes and references. Inclusion of Quality checkpoints	M. Catapang	J. Loterte	C. Villanueva	A. Arañes	
02/24/22	0	Initial issue	M. Catapang	J. Loterte	C. Villanueva	A. Arañes	
Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Est. Date: February 24, 2022

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

Effectivity Date:

December 13, 2022

Model Code/Part Number:

100B / 7M0592-7021

Customer:

TRJ

Document No.:

WI-ENG-PDE-423A

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

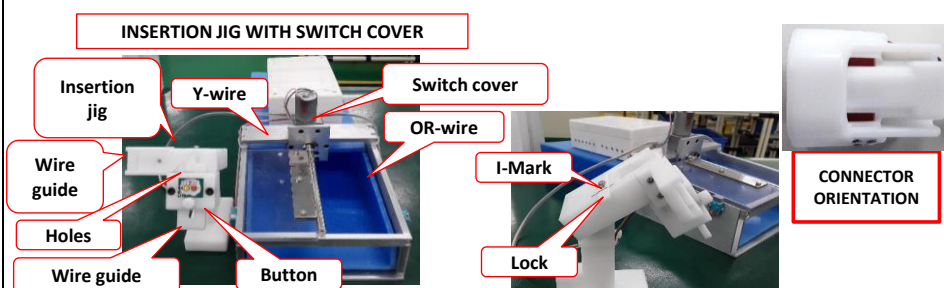
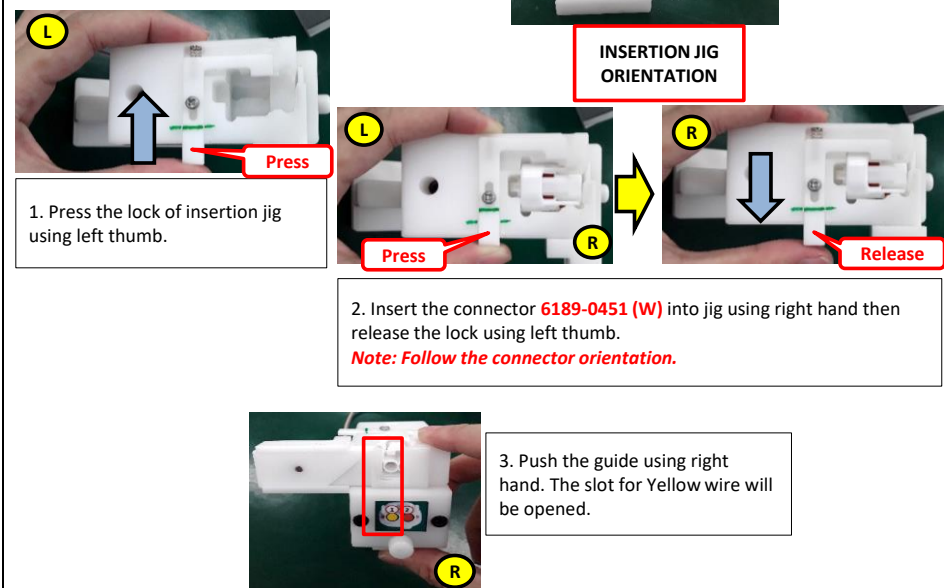

☒ MASSPRO

Revision No.:

1

Page No.:

2 of 12

PARTS:		1. AVSSf 0.3 Y/OR wire L=245±2mm		JIG	1. Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
2	P1	<p>Connector setting to insertion jig 6189-0451 (W)</p>  <p>INSERTION JIG ORIENTATION</p>  <p>1. Press the lock of insertion jig using left thumb.</p> <p>2. Insert the connector 6189-0451 (W) into jig using right hand then release the lock using left thumb. Note: Follow the connector orientation.</p> <p>3. Push the guide using right hand. The slot for Yellow wire will be opened.</p>		n/a	<p>Connector Orientation Illustration</p>  <p>I-mark is align</p> <p>1 hole is open</p> <p>GOOD</p> <p>I-mark is NOT align</p> <p>1 hole is open</p> <p>NG</p> <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>

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

Effectivity Date:

December 13, 2022

Model Code/Part Number:

100B / 7M0592-7021

Customer:

TRJ

Document No.:

WI-ENG-PDE-423A

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH


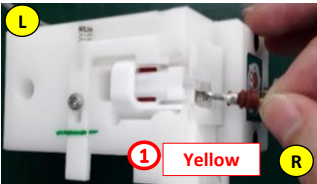
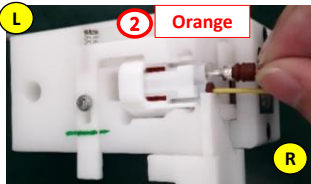
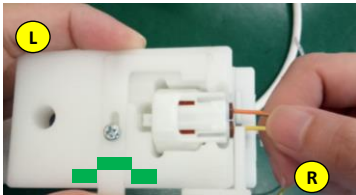
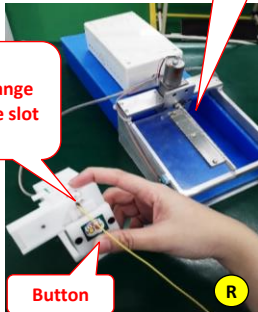
☒ MASSPRO

Revision No.:

1

Page No.:

3 of 12

PARTS:		1. AVSSf 0.3 Y/OR wire L=245±2mm		JIG	1. Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	1 QUALITY POINTERS
3	P1	<div><p>WIRE FACING</p></div> <div><p>1. Hold the insertion jig using left hand, get Yellow wire and insert to connector slot 1 using right hand.</p></div> <div><p>3. Hold the insertion jig using left hand, get Orange wire and insert to connector slot 2 using right hand.</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> <div><p>2. Press the button using right thumb, slot for Orange wire will be opened.</p></div> <p>Orange wire slot</p> <p>Button</p> <p>Orange wire</p>		n/a	<div><p>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deform terminal 5. No wrong wire facing</p><p>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.</p><p>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</p></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

Effectivity Date:

December 13, 2022

Process Name/Title:

TAPING ASSEMBLY PROCESS

Validity Date:

n/a

Model Code/Part Number: **100B / 7M0592-7021**

Customer:

TRJ

Document No.:

WI-ENG-PDE-423A

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

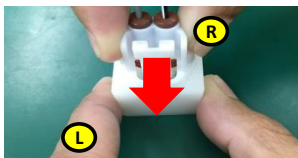








☒ MASSPRO

Revision No.:

1

Page No.:

4 of 12

PARTS:		1. Assy parts 2. Black corrugated tube (no slit) Ø7 L=32±3mm 3. Black corrugated tube (no slit) Ø7 L=125±3mm		JIG	1. Locking jig 2. Terminal cover jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	1 QUALITY POINTERS
4	P1	Connector lock	<div><p>1. Put the connector into locking jig using right hand then press 2x. Touch the connector lock if properly locked.</p></div> <div><p>Before pressing</p><p>After pressing</p></div>	<div><p>LOCKING JIG</p></div>	<p>Important reminders/Note/s:</p> <p>1. MANUAL LOCKING MAY CAUSE DAMAGED CONNECTOR</p> <p>1. Use the provided locking jig per model 2. No unlock/half-lock connector</p>
5		Wire insertion to Black corrugated tube (no slit) Ø7 L=32±3mm Ø7 L=125±3mm	<div><p>1. Get the cover jig then insert to Y-OR wires using right hand.</p></div> <div><p>2. Get the corrugated tube (no slit) Ø7 L=32±3mm using right hand then insert the Y-OR wires using left hand.</p></div> <div><p>3. Get the corrugated tube (no slit) Ø7 L=125±3mm using right hand then insert the Y-OR wires using left hand.</p></div> <div><p>4. After insertion, remove the cover jig using right hand.</p></div>	<div><p>TERMINAL COVER JIG</p></div>	<p>1. No wrong usage of parts 2. No damaged rubber seal</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

Process Name/Title:

TAPING ASSEMBLY PROCESS

Effectivity Date:

December 13, 2022

Model Code/Part Number:

100B / 7M0592-7021

Customer:

TRJ

Document No.:

WI-ENG-PDE-423A

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Revision No.:

1

Page No.:

5 of 12

PARTS:		1. Connector 6188-0066 (GR)		JIG	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
6	P1	<div><div><div>INSERTION JIG FOR Y/OR</div><div><div>Wire guide</div><div>Holes</div><div>Wire guide</div><div>Visual Reference</div><div>Button</div></div></div><div><div>INSERTION JIG ORIENTATION</div><div><div>I-MARK</div><div>Lock</div></div><div>CONNECTOR ORIENTATION</div></div><div><div><div>L</div><div>↑</div><div>Press</div></div><div><div>L</div><div>→</div><div>Press</div></div><div><div>L</div><div>↓</div><div>Release</div></div></div><div><div>1. Press the lock of insertion jig using left thumb.</div><div><div>2. Insert the connector 6188-0066 (GR) into jig using right hand then release the lock.</div><div><div>Note: Follow the connector orientation.</div></div></div><div><div><div><div></div><div>R</div></div><div><div></div><div>R</div></div></div><div><div>3. Push the guide using right thumb. The slot for Y wire will be opened.</div></div></div></div></div>		n/a	<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> <div><div>1. Use the provided jig per model</div><div>2. No wrong orientation of connector</div><div>3. No wrong use of connector</div><div>4. No damaged connector</div></div>

n/a

Connector Orientation Illustration

I-mark is align

1 hole is open

GOOD

I-mark is NOT align

2 holes are open

NG

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

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

Effectivity Date:

December 13, 2022

Process Name/Title:

TAPING ASSEMBLY PROCESS

Validity Date:

n/a

Model Code/Part Number: 100B / 7M0592-7021

Customer:

TRJ

Document No.:

WI-ENG-PDE-423A

Purpose:


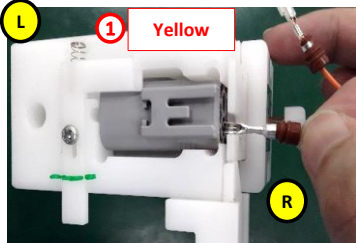
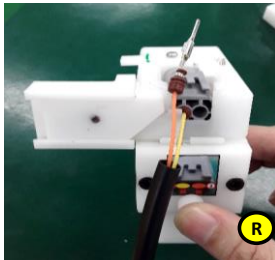
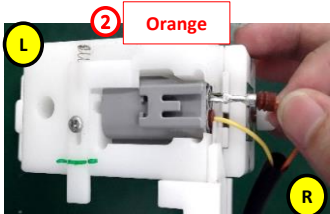
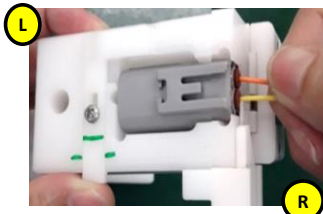
☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

1

Page No.:

6 of 12

PARTS:		1. Assy parts		JIG	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	1 QUALITY POINTERS
7	P1	Wire insertion to connector 6188-0066 (GR)	<div><p>WIRE FACING</p></div> <div><p>1. Hold the insertion jig using left hand. Get the assy parts, insert the Yellow wire to connector slot 1 using right hand.</p></div> <div><p>2. Press the button using right thumb, slot for Orange wire will be opened.</p></div> <div><p>3. Get Orange wire then insert to connector slot 2 using right hand.</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	<p>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deform terminal 5. No wrong wire facing</p> <p>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.</p> <p>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</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

Effectivity Date:

December 13, 2022

Process Name/Title:

TAPING ASSEMBLY PROCESS

Validity Date:

n/a

Model Code/Part Number: **100B / 7M0592-7021**

Customer:

TRJ

Document No.:

WI-ENG-PDE-423A

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Revision No.:

1

Page No.:

7 of 12

PARTS:

1. Assy parts
2. Black tape

JIG

n/a

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

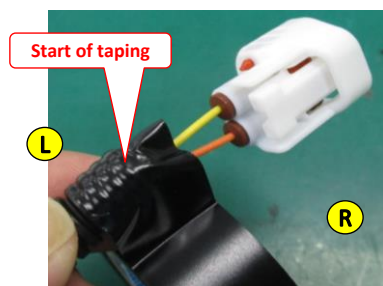
TOOLS/PPE

1 QUALITY POINTERS

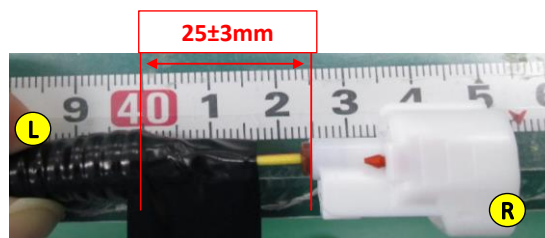
8

P1

Taping 1
Black corrugated tube (no slit) to wire near connector

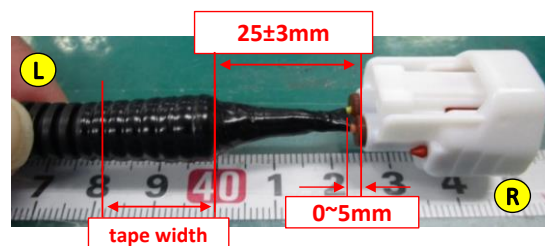


1. Hold the corrugated tube using left hand then start taping using right hand.



2. Measure from end of the corrugated tube up to connector **25±3mm** then continue the taping process using both hands.

Note: Refer to WI-PRO-ASY-001 for taping procedure



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

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

Effectivity Date:

December 13, 2022

Model Code/Part Number:

100B / 7M0592-7021

Customer:

TRJ

Document No.:

WI-ENG-PDE-423A

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH






☒ MASSPRO

Revision No.:

1

Page No.:

8 of 12

PARTS:		1. MRSW CP TVSSf 0.3 G-B/W wires L=830±3mm 2. Black corrugated tube (no slit) Ø7 L=111±3mm 3. Assy parts		JIG	1. Terminal cover jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
9	P1	Wire insertion to Black corrugated tube (no slit) Ø7 L=111±3mm	 1. Get the cover jig then insert to G-B/W wires using right hand.  2. Get the corrugated tube (no slit) Ø7 L=111±3mm using right hand then insert the G-B/W wires using left hand.		
10		Wire insertion to assy parts	 1. Hold the corrugated tube (no slit) Ø7 L=125±3mm using left hand then insert G-B/W wires using right hand.  2. After insertion, remove the cover jig using right hand.		1. No wrong usage of parts 2. No damaged rubber seal

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

Effectivity Date:

December 13, 2022

Process Name/Title:

TAPING ASSEMBLY PROCESS

Validity Date:

n/a

Model Code/Part Number: **100B / 7M0592-7021**

Customer:

TRJ

Document No.:

WI-ENG-PDE-423A

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

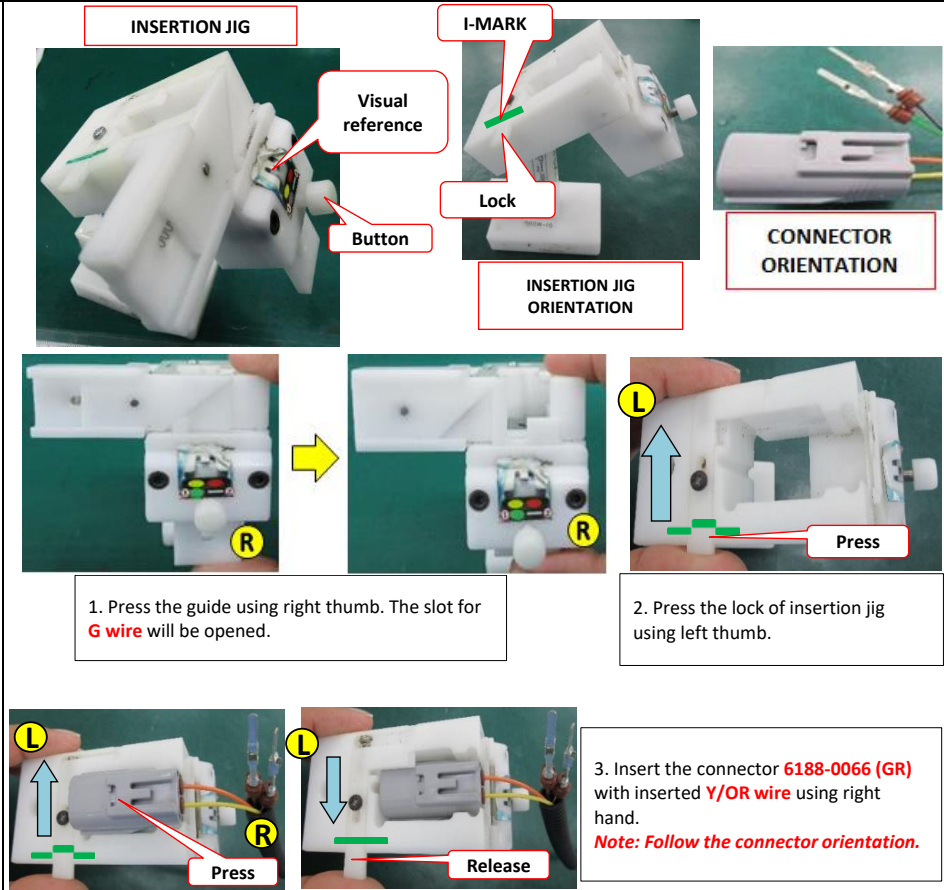
☒ MASSPRO

Revision No.:

1

Page No.:

9 of 12

PARTS:		1. Assy parts		JIG	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
11	P1	<p>Connector setting to insertion jig 6188-0066 (GR) (Assy parts)</p>  <p>1. Press the guide using right thumb. The slot for G wire will be opened.</p> <p>2. Press the lock of insertion jig using left thumb.</p> <p>3. Insert the connector 6188-0066 (GR) with inserted Y/OR wire using right hand. <i>Note: Follow the connector orientation.</i></p>		n/a	<p>Connector Orientation Illustration</p> <p>I-mark is align</p> <p>1 Hole is open</p> <p>GOOD</p> <p>I-mark is NOT align</p> <p>2 Holes are opened</p> <p>NG</p> <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>

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**

Model Code/Part Number: **100B / 7M0592-7021**

Customer: **TRJ**

Purpose: ☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Effectivity Date:

December 13, 2022

Validity Date:

n/a

Document No.:

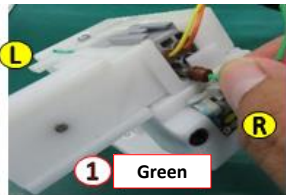

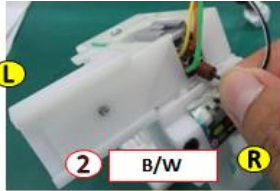


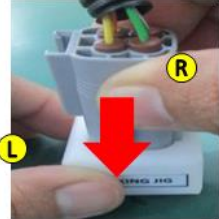

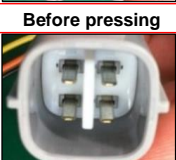
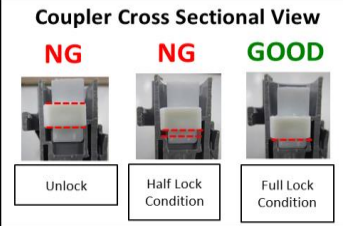

WI-ENG-PDE-423A

Revision No.:

1

Page No.:

10 of 12

PARTS:	1. Assy parts			JIG	1. Insertion jig 2. Locking jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	1. QUALITY POINTERS
12	P1	<div><p>1 Hold the G wire then insert to terminal slot 1 using right hand.</p></div> <div><p>2. Press the button using right thumb. The slot for B/W wire will be opened.</p></div> <div><p>3. Hold the B/W wire then insert to terminal slot 2 using right hand.</p></div> <div><p>4. After insertion, push the lock using left thumb then hold the wires and gently pull out the connector from jig using right hand.</p></div>		n/a	<div> QUALITY POINTERS</div> <div>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deformed terminal 5. No wrong wire facing</div> <div>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.</div> <div>Document references: 1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</div>
13	Connector Lock	<div><p>1. Put the connector into locking jig using both hands and then press 2x. Check the connector if properly locked.</p></div> <div><p>Before pressing</p></div> <div><p>After pressing</p></div> <div><p>Coupler Cross Sectional View</p><p>NG NG GOOD</p><p>Unlock Half Lock Condition Full Lock Condition</p></div>		<div>LOCKING JIG</div> 	<div>Important reminders/Note/s: 1. MANUAL LOCKING MAY CAUSE DAMAGED CONNECTOR</div> <div>1. Use the provided locking jig per model 2. No unlock/half-locked connector 3. No damage connector</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

Process Name/Title:

TAPING ASSEMBLY PROCESS

Effectivity Date:

December 13, 2022

Model Code/Part Number:

100B / 7M0592-7021

Customer:

TRJ

Document No.:

WI-ENG-PDE-423A

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Revision No.:

1

Page No.:

11 of 12

PARTS:

1. Assy parts
2. Black tape

JIG

n/a

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

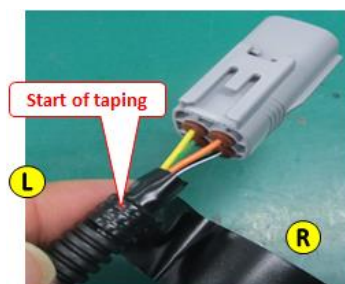
TOOLS/PPE

1 QUALITY POINTERS

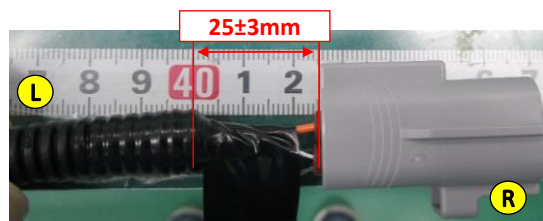
14

P1

Taping 2
Black corrugated tube (no slit) to wire near connector

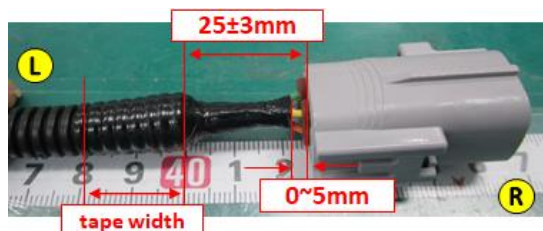


1. Hold the corrugated tube using left hand then start taping using right hand.



2. Measure from end of the corrugated tube up to connector **25±3mm** then continue the taping process using both hands.

Note: Refer to WI-PRO-ASY-001 for taping procedure



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

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:

December 13, 2022

Process Name/Title:

Model Code/Part Number: **100B / 7M0592-7021**

Customer: **TRJ**

Validity Date:

n/a

Document No.:

WI-ENG-PDE-423A

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Revision No.:

1

Page No.:

12 of 12

PARTS:

1. Assy parts
2. Black tape

JIG

n/a

1 QUALITY CHECKPOINTS

P1

7M0592-7021

NO GOOD

GOOD

GOOD

NO GOOD

NO GOOD

TAPE WIDTH / $25 \pm 3\text{MM}$ COT TO CONNECTOR

TAPE WIDTH / $25 \pm 3\text{MM}$ COT TO CONNECTOR

1 No WRONG INSERT

No UNLOCKED/HALFLOCKED

NO TBO

2 No MISSING TAPE

3 No MISSING COT

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