







# WORK INSTRUCTION TAPING ASSEMBLY PROCESS

Effectivity Date:	October 6, 2021		
Validity Date:	n/a		
Document No.:	WI-ENG-PDE-043A		
Revision No.:	4	Page No.:	1 of 11

Process Name/Title:	TAPING ASSEMBLY PROCESS		
Model code/Part number:	500B / 7L0084-7021	Customer:	TRQSS
Purpose:	<input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO		

PARTS:		1. Connector 6189-0451 (W)		JIG:	1. Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
1	P1	<p>Connector setting to insertion jig 6189-0451 (W)</p> <p><b>INSERTION JIG ORIENTATION</b></p> <p>1. Press the lock of insertion jig using left thumb.</p> <p>2. Insert the connector <b>6189-0451 (W)</b> into jig using right hand then release the lock using left thumb. <b>Note: Follow the connector orientation.</b></p> <p>3. Push the guide using right thumb. The slot for <b>Yellow wire</b> will be opened.</p>		<p><b>Safety Instruction</b> Be sure to wear prescribed personal protective equipment during operation (gloves, finger cots, etc.)</p> <p><b>Housekeeping</b> 1. Maintain and always practice 5's. 2. Personal things on the workplace is prohibited. Keep it in your locker.</p> <p><b>Alert level</b> For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.</p>	<p><b>CONNECTOR ORIENTATION ILLUSTRATION</b></p> <p>I-mark is align 1 hole is open <b>GOOD</b></p> <p>I-mark is NOT align 1 hole is open <b>NG</b></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>

Revision History								Prepared by	Reviewed by	Approved by	Noted by
10/06/21	4	Change part number from 7L0084-7020A to 7L0084-7021 due to design change. Additional guidelines for Pull-Push-Pull-Push method (Refer to GL-PRO-ASY-029 for Pull-Push procedure).	D.Castillo	J.Loterte	C. Villanueva	A. Arañes					
02/20/21	3	Remove cycle time; Change 2x pulling to Pull-Push-Pull-Push; Change connector colors in accordance with color standardization for plastic parts (Please refer to GL-COM-003).	J. Loterte	C. Villanueva	A. Shimamura	A. Arañes					
10/28/19	0	Initial issue	J. Loterte	A. Shimamura	A. Arañes	-					
Eff. Date	Rev. No	Details of Change		Revised	Reviewed	Approved	Noted	Est. Date:	October 28, 2019		

**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:

October 6, 2021

Model code/Part number:

500B

/

7L0084-7021

Customer:

TRQSS

Document No.:

WI-ENG-PDE-043A

Purpose:



PROTOTYPE



PRE-LAUNCH




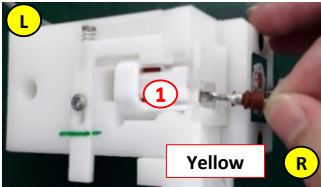
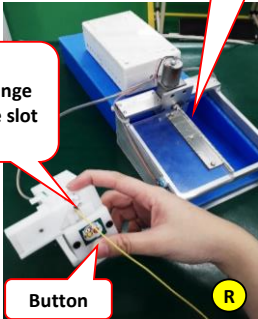
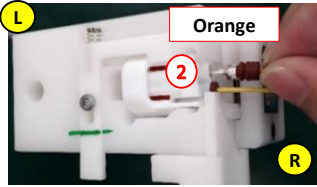
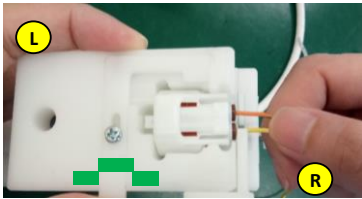

MASSPRO

Revision No.:

4

Page No.:

2 of 11

PARTS:		1. AVSSf wire Yellow L=329mm 2. AVSSf wire Orange L=329mm			JIG	1. Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
2	P1	<div><p>WIRE FACING</p></div> <div><p>1. Hold the insertion jig using left hand, get <b>Yellow wire</b> and insert to connector slot <b>1</b> using right hand.</p></div> <div><p>2. Press the button using right thumb, slot for <b>Orange wire</b> will be opened.</p></div> <div><p>3. Hold the insertion jig using left hand, get <b>Orange wire</b> and insert to connector slot <b>2</b> 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	<div><div>1. No loose insertion</div><div>2. No wrong insertion</div><div>3. One by one insertion</div><div>4. No deformed terminal</div><div>5. No wrong wire facing</div><div>Make sure wires are properly inserted. Conduct <b>Pull-Push-Pull-Push</b> after insertion. Do not exert extra force.</div><div> <b>Note: Refer to GL-PRO-ASY-029 for Pull-Push procedure.</b></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

Process Name/Title: **TAPING ASSEMBLY PROCESS**

Model code/Part number: **500B / 7L0084-7021**

Customer: **TRQSS**

Purpose: ☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Effectivity Date:

**October 6, 2021**

Validity Date:

**n/a**

Document No.:

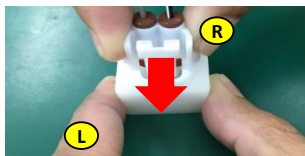







**WI-ENG-PDE-043A**

Revision No.:

**4**

Page No.:

**3 of 11**

PARTS:		1. Assy parts 2. Black Vinyl tube Ø7 L=57±3mm			3. Black tape	JIG	1. Locking jig 2. Terminal cover jig
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
3	P1	Connector lock	<div></div> <div>1. Put the connector into locking jig using right hand then press <b>2x</b>. Touch the connector lock if properly locked.</div> <div></div>			<div>LOCKING JIG</div> 	<div>NOTE: MANUAL LOCKING MAY CAUSE</div> <div>1. Use the provided locking jig per model 2. No unlock/half-lock connector</div>
4		Wire insertion to Black vinyl tube Ø7 L=57±3mm	<div></div> <div>1. Get the cover jig then insert to <b>Y-OR wires</b> using right hand.</div> <div></div> <div>2. Get the vinyl tube Ø7 L=57±3mm using right hand then insert the <b>Y-OR wires</b> using left hand.</div> <div></div> <div>3. After insertion, remove the cover jig using right hand.</div>			<div>TERMINAL COVER JIG</div> 	<div>1. No wrong usage of parts 2. No damaged rubber seal</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**

Model code/Part number: **500B / 7L0084-7021**

Customer: **TRQSS**

Purpose: ☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Effectivity Date:

**October 6, 2021**

Validity Date:

**n/a**

Document No.:

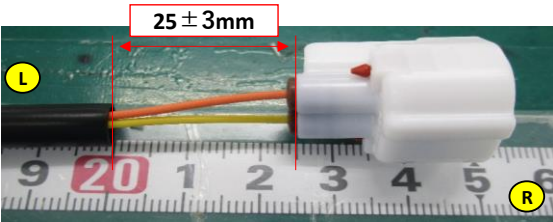
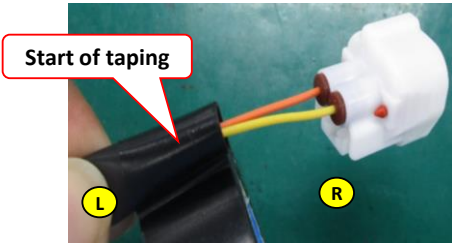
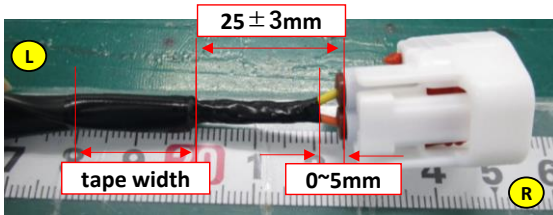

**WI-ENG-PDE-043A**

Revision No.:

**4**

Page No.:

**4 of 11**

PARTS:		1. Assy parts 2. Black tape	JIG	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
5	P1 Taping 1 Black vinyl tube to wire near connector	<div><p>1. Measure from end of vinyl tube up to edge of connector <b>25±3mm</b> using both hands.</p></div> <div><p>2. Get the <b>Black tape</b> using right hand then start taping process using both hands. <i>Note: Please refer to WI-PRO-ASY-001 for taping procedure.</i></p></div> <div><p>3. After taping, check the measurement, wire alignment and taping condition.</p></div>	<div><b>MEASURING TAPE</b></div> 	<p><b>Note:</b> Please use calibrated/verified measuring tape when getting the measurement.</p> <ol style="list-style-type: none"><li>1. No flip-out tape</li><li>2. No peel-off tape</li><li>3. No loose tape</li><li>4. No missing tape</li><li>5. No wrong use of tape</li><li>6. No wrong dimension</li></ol>

**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:

**500B / 4 7L0084-7021**

Customer:

**TRQSS**

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Effectivity Date:

**October 6, 2021**

Validity Date:

**n/a**

Document No.:





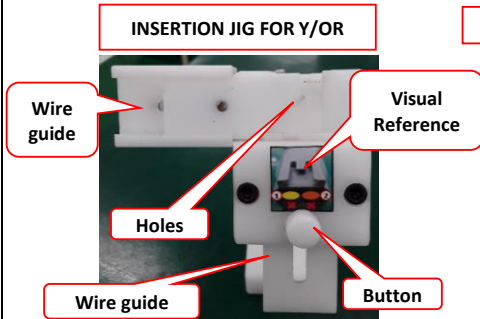
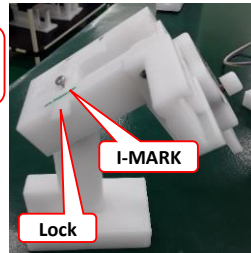

**WI-ENG-PDE-043A**

Revision No.:

**4**

Page No.:

**5 of 11**

PARTS:		1. Assy parts 2. Black vinyl tube Ø7 L=189±3mm			3. Connector 6188-0066 (GR)		JIG	1. Terminal cover jig 2. Insertion jig	
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE		QUALITY POINTERS	
6	P1	Wire insertion to Black vinyl tube Ø7 L=189±3mm	<div></div> <div><p>1. Get the cover jig then insert to <b>Y-OR wires</b> using right hand.</p></div> <div></div> <div><p>2. Get the vinyl tube <b>Ø7 L=189±3mm</b> using right hand then insert the <b>Y-OR wires</b> using left hand.</p></div> <div></div> <div><p>3. After insertion, remove the cover jig using right hand.</p></div>			<div>TERMINAL COVER JIG</div> 		1. No wrong usage of parts 2. No damaged rubber seal	
7		Connector setting to insertion jig 6188-0066 (GR)	<div></div> <div></div> <div></div> <div>CONNECTOR ORIENTATION</div>			n/a		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

## Process Name/Title: TAPING ASSEMBLY PROCESS

Model code/Part number: **500B / 4 7L0084-7021**

Customer: **TRQSS**

Purpose: ☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Effectivity Date:

**October 6, 2021**

Validity Date:

**n/a**

Document No.:

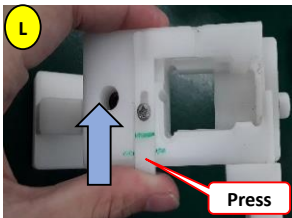
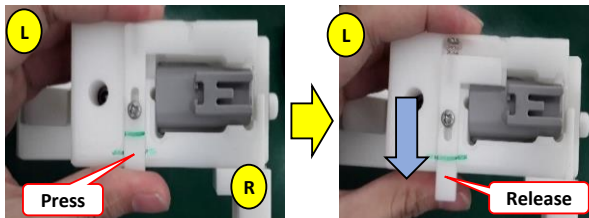
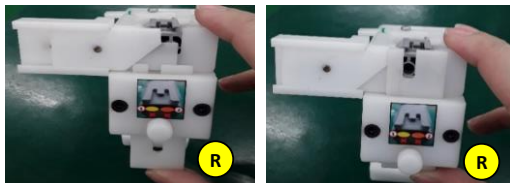


**WI-ENG-PDE-043A**

Revision No.:

**4**

Page No.:

**6 of 11**

PARTS:		n/a		JIG	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
7	P1	<p>Connector setting to insertion jig 6188-0066 (GR) (Continuation)</p> <div>  <p>1. Press the lock of insertion jig using left thumb.</p> </div> <div>  <p>2. Insert the connector <b>6188-0066 (GR)</b> into jig using right hand then release the lock. <i>Note: Follow the connector orientation.</i></p> </div> <div>  <p>3. Push the guide using right thumb. The slot for <b>Y wire</b> will be opened.</p> </div>		n/a	<p><b>Connector Orientation Illustration</b></p> <div>  <p>I-mark is align 1 hole is open <b>GOOD</b></p> </div> <div>  <p>I-mark is NOT align 2 holes are open <b>NG</b></p> </div> <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:

**October 6, 2021**

Model code/Part number: **500B / 7L0084-7021**

Customer: **TRQSS**

Validity Date:

**n/a**

Document No.:

**WI-ENG-PDE-043A**

Purpose: ☐ PROTOTYPE

☐ PRE-LAUNCH



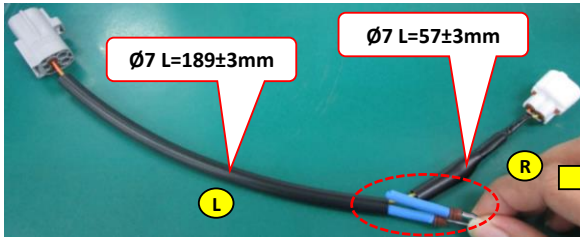


☒ MASSPRO

Revision No.:

**4**

Page No.:

**8 of 11**

PARTS:		1. Black Corrugated tube Ø7 L=397±3mm (no slit) 2. MRSW CP A7475-7L0084-7050 (TVSSf wires GR/BW L=808mm; Sunprene tube Ø5 L=106±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=397±3mm	<div></div> <div></div> <div>1. Get the cover jig then insert to <b>GR-B/W wires</b> using right hand.</div> <div>2. Get the corrugated tube (no slit) <b>Ø7 L=397±3mm</b> using right hand then insert the <b>GR-B/W wires</b> using left hand.</div>				
10		Wire insertion to assy parts	<div></div> <div></div> <div>1. Hold the vinyl tube(no slit) <b>Ø7 L=189±3mm</b> using left hand then insert <b>GR-B/W wires</b> using right hand.</div> <div></div> <div>2. After insertion, remove the cover jig using right hand.</div>		<div>1. No wrong usage of parts</div> <div>2. No damaged rubber seal</div> <div>3. No wrong insertion</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

Model code/Part number: **500B / 4 7L0084-7021**

Customer: **TRQSS**

Purpose: ☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Effectivity Date:

**October 6, 2021**

Validity Date:

**n/a**

Document No.:

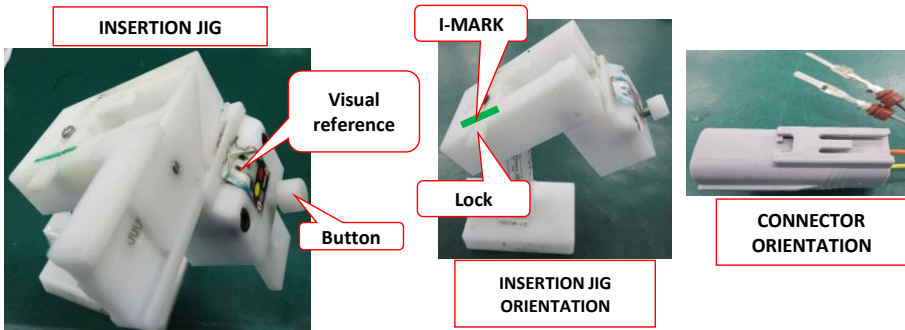
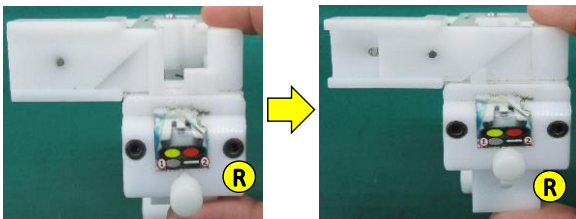
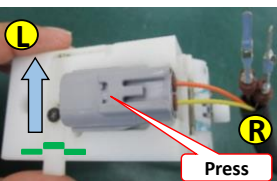
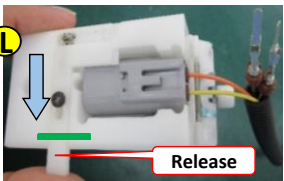
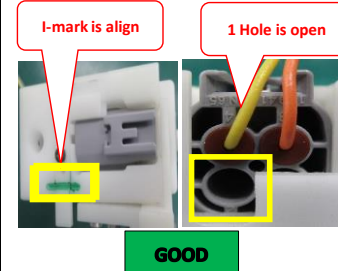
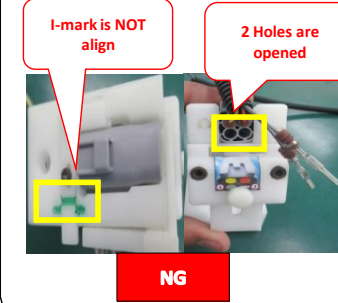
**WI-ENG-PDE-043A**

Revision No.:

**4**

Page No.:

**9 of 11**

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 <b>GR wire</b> will be opened.</p>   <p>2. Press the lock of insertion jig using left thumb.</p> <p>3. Insert the connector <b>6188-0066 (GR)</b> with inserted <b>Y/OR wire</b> using right hand. <i>Note: Follow the connector orientation.</i></p>		n/a	<p><b>Connector Orientation Illustration</b></p>   <p>4. 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:

**October 6, 2021**

Model code/Part number: **500B / 4 7L0084-7021**

Customer: **TRQSS**

Validity Date:

**n/a**

Purpose: ☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Document No.:

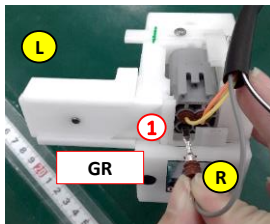
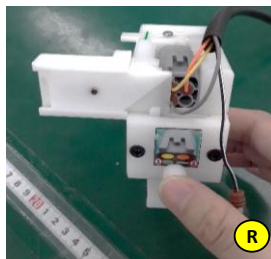
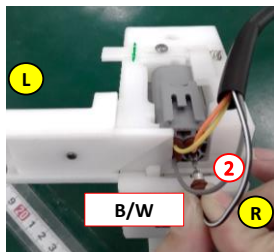


**WI-ENG-PDE-043A**

Revision No.:

**4**

Page No.:

**10 of 11**

PARTS:		1. Assy parts			JIG	1. Insertion jig
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
12	P1	Wire insertion to Connector 6188-0066 (GR)	<div><div><p>1 Hold the <b>GR wire</b> then insert to terminal slot <b>1</b> using right hand.</p></div><div><p>2. Press the button using right thumb. The slot for <b>B/W wire</b> will be opened.</p></div><div><p>3. Hold the <b>B/W wire</b> then insert to terminal slot <b>2</b> 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><div><p>WIRE FACING</p></div></div> <td>n/a</td> <td><div><div>1. No loose insertion</div><div>2. No wrong insertion</div><div>3. One by one insertion</div><div>4. No deformed terminal</div><div>5. No wrong wire facing</div></div><div>Make sure wires are properly inserted. Conduct <b>Pull-Push-Pull-Push</b> after insertion. Do not exert extra force.</div><div><div>4</div><p>Note: Refer to GL-PRO-ASY-029 for Pull-Push procedure.</p></div></td>		n/a	<div><div>1. No loose insertion</div><div>2. No wrong insertion</div><div>3. One by one insertion</div><div>4. No deformed terminal</div><div>5. No wrong wire facing</div></div> <div>Make sure wires are properly inserted. Conduct <b>Pull-Push-Pull-Push</b> after insertion. Do not exert extra force.</div> <div><div>4</div><p>Note: Refer to GL-PRO-ASY-029 for Pull-Push procedure.</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

Process Name/Title:

## TAPING ASSEMBLY PROCESS

Effectivity Date:

October 6, 2021

Model code/Part number:

500B / 4 7L0084-7021

Customer:

TRQSS

Validity Date:

n/a

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Document No.:

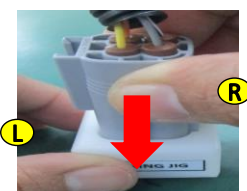


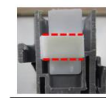


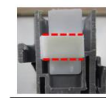



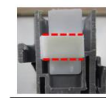


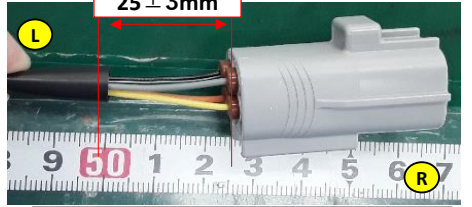
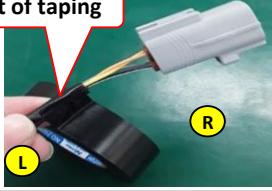
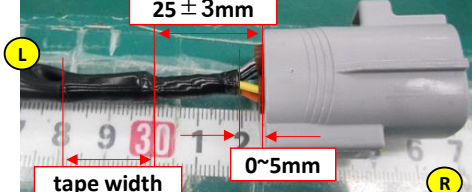

WI-ENG-PDE-043A

Revision No.:

4

Page No.:

11 of 11

PARTS:		1. Assy parts 2. Black tape		JIG	1. Locking jig									
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS									
13	Connector lock	<div><div><p>1. Put the connector into locking jig using both hands and then press <b>2x</b>. Check the connector if properly locked.</p></div><div><p>Before pressing</p><p>After pressing</p></div><div><p>Coupler Cross Sectional View</p><table><tr><td>NG</td><td>NG</td><td>GOOD</td></tr><tr><td></td><td></td><td></td></tr><tr><td>Unlock</td><td>Half Lock Condition</td><td>Full Lock Condition</td></tr></table></div></div>		NG	NG	GOOD				Unlock	Half Lock Condition	Full Lock Condition	<div>LOCKING JIG</div> 	<div>NOTE: MANUAL LOCKING MAY CAUSED DAMAGED LOCK</div> <div>1. No half-locked and unlock 2. No lock deformation 3. Use provided jig tool to lock the connector</div>
NG	NG	GOOD												
														
Unlock	Half Lock Condition	Full Lock Condition												
14	P1 Taping 2 Black vinyl tube to wire near connector	<div><div><p>25 ± 3mm</p><p>1. Measure from end of vinyl tube up to edge of connector <b>25±3mm</b> using both hands.</p></div><div><p>Start of taping</p><p>2. Get the <b>Black tape</b> using right hand then start taping process using both hands. <i>Note: Please refer to WI-PRO-ASY-001 for taping procedure.</i></p></div><div><p>25 ± 3mm</p><p>tape width</p><p>0~5mm</p><p>3. After taping, check the measurement and taping condition.</p></div></div>		<div>MEASURING TAPE</div> 	<div>Note: Please use calibrated/verified measuring tape when getting the measurement.</div> <div>1. No flip-out tape 2. No peel-off tape 3. No loose tape 4. No missing tape 5. No wrong use of tape 6. No wrong dimension</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