

**WORK INSTRUCTION**Process Name/Title: **TAPING 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-316B**

Revision No.:

**4**

Page No.:

**1 of 7****PARTS:**1. Assy parts; Connector 7282-1020 (W); Black Corrugated tube  $\phi 5$  L=76 $\pm$ 3mm (no slit); Black Corrugated tube  $\phi 5$  L=66 $\pm$ 3mm (no slit); Black tape

JIG:

1. Terminal cover jig
2. Pushing jig
3. Insertion jig

NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
1	P2	Table Lay-out	<div><b>Safety Instruction</b> Be sure to wear prescribed personal protective equipment during operation (gloves, finger cots, etc.)</div> <div><b>Housekeeping</b> 1. Maintain and always practice 5's. 2. Personal things on the workplace is prohibited. Keep it in your locker.</div> <div><b>Alert level</b> For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.</div>	<ol style="list-style-type: none"><li>1. No missing parts/tools</li><li>2. No excess parts/tools</li></ol>

## Revision History

Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Prepared by	Reviewed by	Approved by	Noted by
02/28/23	4	Inclusion of Quality Checkpoints. Improve Quality pointers on page no.3.	M. Ariola	J. Loterte	C. Villanueva	A. Arañes				
10/11/22	3	Change of tolerance from 35+/-3mm to 35+3/-1mm as countermeasure of encountered NG dimension from end of tape up to terminal tip on process no.6 and 8; Transfer process no.8,9 and 10 from P1 to P2 due to process improvement.	M. Ariola	J. Loterte	C. Villanueva	A. Arañes				
09/01/22	2	Improve quality pointers and notes in: Process no.3,5 and 6; Additional taping method for the confirmation of measurement in process no.3 and 5 as document improvement	M. Catapang	J. Loterte	C. Villanueva	A. Arañes				
Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Est. Date:	August 10, 2021		

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### PARTS:

1. Connector 7282-1020 (W)

### JIG

1. Insertion jig

### NO.

### PROCESS NAME

### WORK PROCEDURE/ ILLUSTRATION

### TOOLS/PPE

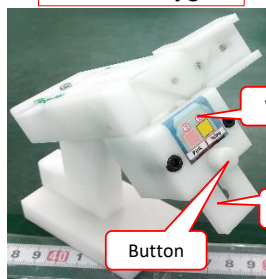
### QUALITY POINTERS

2

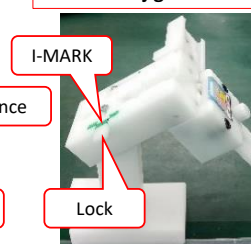
P2

Connector setting to  
insertion jig  
7282-1020 (W)

#### Insertion jig



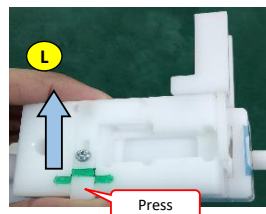
#### Insertion jig Orientation



#### Double lock

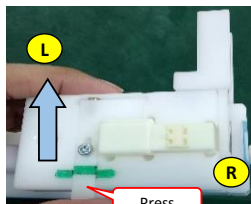


#### CONNECTOR ORIENTATION

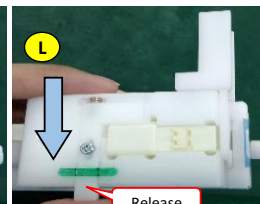


Press

1. Press the lock of insertion jig  
using left thumb.

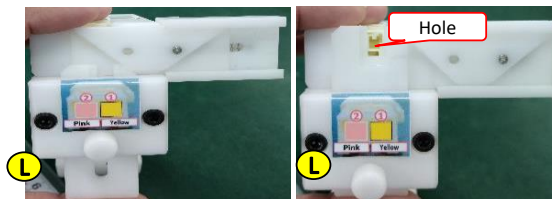


Press



Release

2. Insert the connector **7282-1020 (W)** into jig using right  
hand and release the lock.



Hole

3. Push the lower guide using left  
thumb, the slot for **Yellow wire** will  
be opened.

n/a

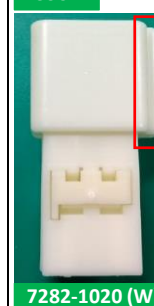
#### Important reminders/Note/s:

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

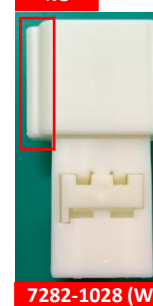
#### CONNECTOR ILLUSTRATION

**GOOD**



**7282-1020 (W)**

**NG**



**7282-1028 (W)**

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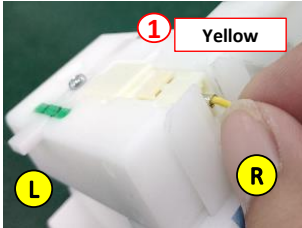
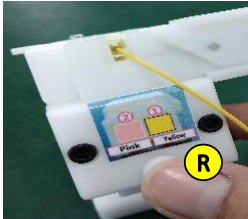
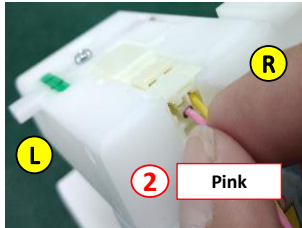
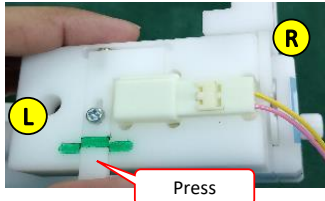
☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

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PARTS:		1. Assy parts			JIG	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
3	P2	<div><div>WIRE FACING</div></div> <div><div>1. Hold the <b>Yellow</b> wire then insert to terminal slot <b>1</b> using right hand.</div></div> <div><div>2. Press the button using right hand, the slot for <b>Pink jointed wire</b> will be opened.</div></div> <div><div>3. Hold the <b>Pink</b> wire then insert to terminal slot <b>2</b> using right hand.</div></div> <div><div>4. After insertion, press the lock using left thumb then hold the wires and gently pull out the connector from jig using right hand.</div></div>			n/a	<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>6. Must have slightly movement after insertion.</div> <div><b>Important reminders/Note/s:</b></div> <div>1. <b>Please hold the wire near terminal.</b></div> <div>2. <b>Make sure wires are properly inserted.</b></div> <div><b>Conduct Pull-Push-Pull-Push after insertion.</b></div> <div><b>Do not exert extra force.</b></div> <div>3. <b>Conduct Pushing of wires after removing the connector from jig.</b></div> <div>4. <b>Pushing of wires will be done one by one of every inserted wires</b></div> <div><b>Document references:</b></div> <div>1. <b>Refer to GL-PRO-ASY-029 for Pull-Push procedure.</b></div> <div>2. <b>Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</b></div>

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Purpose:

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☐ PRE-LAUNCH

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#### PARTS:

1. Assy parts

#### JIG

1. Pushing jig

#### NO.

#### PROCESS NAME

#### WORK PROCEDURE/ ILLUSTRATION

#### TOOLS/PPE

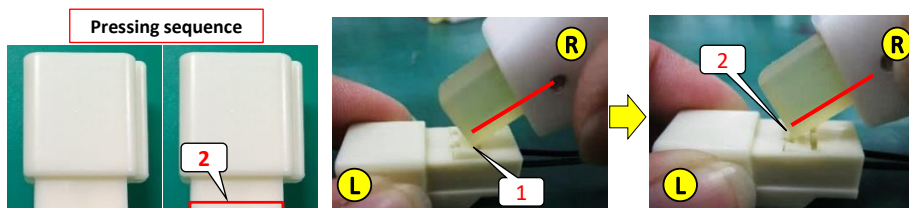
#### QUALITY POINTERS

4

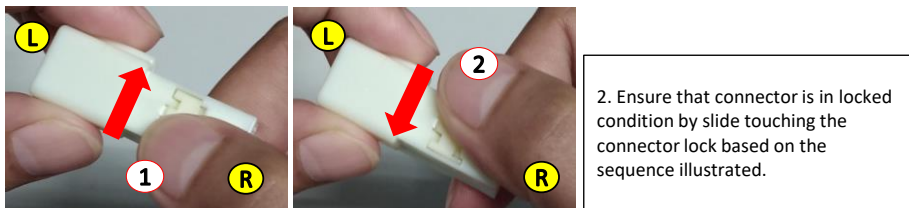
P2

Connector lock

**Pressing sequence**

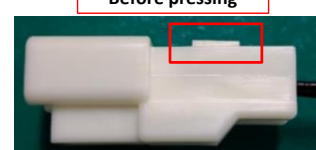


1. Hold the connector using left hand and place on the table. Get the pushing jig using right hand and start the sequential locking based on the above illustration. Push the lower part of the connector lock first and then push the upper part.

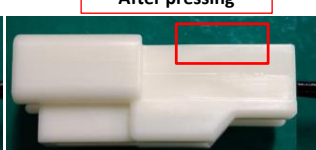


2. Ensure that connector is in locked condition by slide touching the connector lock based on the sequence illustrated.

**Before pressing**



**After pressing**

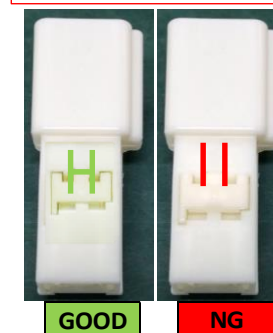


#### Pushing jig



1. No unlocked/half-locked connector
2. No damage connector

#### LOCKED CONDITION



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### PARTS:

1. Assy parts
2. Black Corrugated tube  $\phi 5$  L=76 $\pm$ 3mm (no slit)

3. Black tape

JIG:

1. Terminal cover jig

NO.

PROCESS NAME

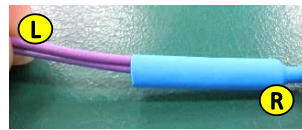
WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

5

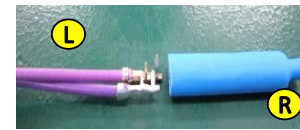
Wire insertion to  
Black corrugated tube  
 $\phi 5$  L=76 $\pm$ 3mm (no slit)



1. Hold the wires using left hand, get the terminal cover jig using right hand then insert the **V-V jointed wires** using left hand.



2. Get the corrugated tube (**no slit**)  $\phi 5$  L=76 $\pm$ 3mm using right hand then insert the **V-V jointed wires** using left hand.



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

TERMINAL COVER JIG

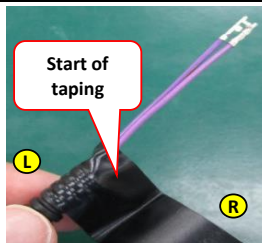


1. No wrong usage of parts
2. No deformed terminal tip

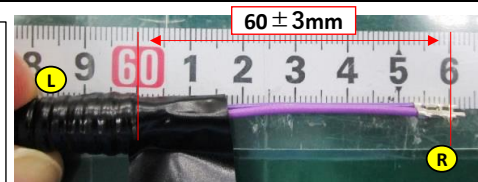
6

P2

Taping 1  
Black corrugated tube to  
wire near terminal  
(V-V jointed wires)

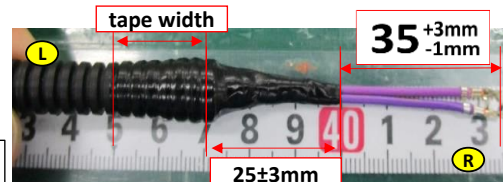


1. Hold the COT using left hand, get the **Black tape** using right hand then start pre-taping using both hands.



3. Confirm measurement of **35 $\pm$ 3/-1mm** from end of tape up to terminal pointed tip then continue the taping process using both hands.

2. Measure from end of COT up to terminal pointed tip **60 $\pm$ 3mm** then continue the taping process using both hands.

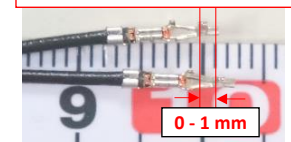


4. After taping, check the measurement, taping condition and terminal appearance.

MEASURING TAPE



Wire alignment tolerance



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

**Important reminders/Note/s:**

1. Please use calibrated/verified measuring tape when getting the measurement.

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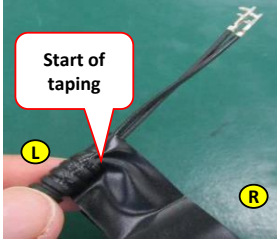
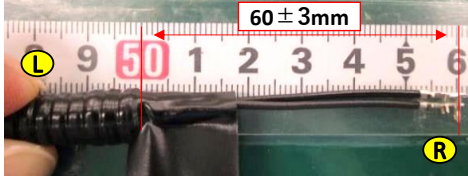
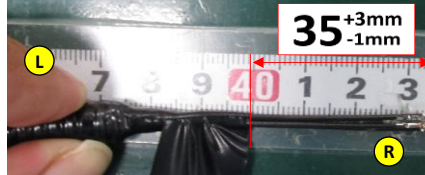
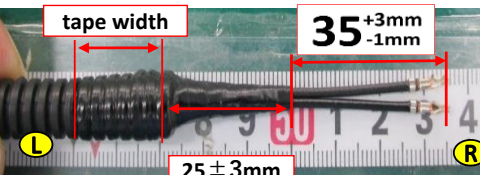

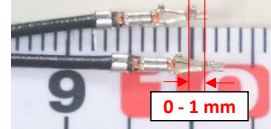
### PARTS:

1. Assy parts
2. Black Corrugated tube  $\phi 5$  L=66 $\pm$ 3mm (no slit)

3. Black tape

JIG:

1. Terminal cover jig

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
7		Wire insertion to Black corrugated tube ø5 L=66±3mm (no slit)	 <p>1. Hold the wires using left hand, get the terminal cover jig using right hand then insert the <b>B-B jointed wires</b> using left hand.</p>	 <p>2. Get the corrugated tube (<b>no slit</b>) ø5 L=66±3mm using right hand then insert the <b>B-B jointed wires</b> using left hand.</p>	 <p>3. After insertion, remove the terminal cover jig using right hand.</p>	<div>TERMINAL COVER JIG</div> 	1. No wrong usage of parts 2. No deformed terminal tip
8	P2	Taping 2 Black corrugated tube to wire near terminal (B-B jointed wires)	<div><p>1. Hold the COT using left hand, get the <b>Black tape</b> using right hand then start pre-taping using both hands.</p></div> <div><p>2. Measure from end of COT up to terminal pointed tip <b>60±3mm</b> then continue the taping process using both hands.</p></div> <div><p>3. Confirm measurement of <b>35+3/-1mm</b> from end of tape up to terminal pointed tip then continue the taping process using both hands.</p></div> <div><p>4. After taping, check the measurement, taping condition and terminal appearance.</p></div>	<div>MEASURING TAPE</div> 	<div>Wire alignment tolerance</div>  <p>0 - 1 mm</p> <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> <div><b>Important reminders/Note/s:</b> <b>1. Please use calibrated/verified measuring tape when getting the measurement.</b></div>		

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PARTS:

n/a

JIG:

n/a

**4**

## QUALITY CHECKPOINTS

**P2**

**7L0117-7020A**

**TAPE WIDTH &  
25±3MM TAPING  
MEASUREMENT ON  
WIRE**

**35±3 -1 MM END  
OF TAPE TO  
TERMINAL**

**1**

**No WRONG INSERT  
No UNLOCKED/HALFLOCKED  
NO TBO**

**2**

**No Missing Tape  
NO LOOSE TAPE**

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