

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

Effectivity Date:

**June 10, 2022**Model Code/Part Number: **101D / 7N0097-7020A**Customer: **TRJ**

Validity Date:

**n/a**

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Document No.:

**WI-ENG-PDE-534A**

Revision No.:

**1**

Page No.:

**1 of 11**

PARTS:		1. All parts: Connector 6098-2220 (W); Connector 6098-3802 (W); AVSSf 0.3 B wires L=791±3mm; AVSSf 0.3 Y-OR wires L=713±3mm; Black corrugated tube ø5 L=316±3mm; Black corrugated tube ø5 L=171±3mm; Black corrugated tube ø5 L=275±3mm; Black vinyl tube ø5 L=182±3mm; Black sunprene tube ø9 L=120±3mm				JIG:		1. Insertion jig with switch cover															
NO.		PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION				TOOLS/PPE		QUALITY POINTERS													
1		P1		<div><div>Table Lay-out</div><div><div>Black corrugated tube ø5 L=316±3mm</div><div>Black corrugated tube ø5 L=171±3mm</div><div>Connector 6098-3802 (W)/ Connector tray</div><div>Connector 6098-2220 (W)/ Connector tray</div><div>Black sunprene tube ø9 L=120±3mm</div><div>Black vinyl tube ø5 L=182±3mm</div><div>AVSSf 0.3 Y-OR wires L=713±3mm</div><div>Black corrugated tube ø5 L=275±3mm</div><div>Insertion jig A</div><div>Insertion jig B</div><div>AVSSf 0.3 B wires L=791±3mm</div><div>Black tape/Tape holder</div></div></div>				<div><div><div><b>Safety Instruction</b></div><div>Be sure to wear required personal protective equipment during operation (gloves, finger cots, etc.)</div></div><div><div><b>Housekeeping</b></div><div>1. Maintain and always practice 5's. 2. Personal things on the workplace is prohibited. Keep it in your locker.</div></div><div><div><b>Alert level</b></div><div>For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.</div></div></div>		<div>Note: Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</div> <div>1. No missing parts/tools 2. No excess parts/tools</div>													
Revision History										Prepared by		Reviewed by		Approved by		Noted by							
6/10/2022		1		Change purpose from Pre-launch to Masspro.				K. Doria		J. Loterte		C. Villanueva		A. Arañes		<div><div></div><div>K. Doria</div></div>		<div><div></div><div>J. Loterte</div></div>		<div><div></div><div>C. Villanueva</div></div>		<div><div></div><div>A. Arañes</div></div>	
6/2/2022		0		Initial Issue.				K. Doria		J. Loterte		C. Villanueva		A. Arañes									
Eff. Date		Rev. No		Details of Change				Revised		Reviewed		Approved		Noted		Est. Date:		June 2, 2022					

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☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Revision No.:

1

Page No.:

2 of 11

### PARTS:

1. Connector 6098-2220 (W)

### JIG

1. Insertion jig with switch cover

### NO.

### PROCESS NAME

### WORK PROCEDURE/ ILLUSTRATION

### TOOLS/PPE

### QUALITY POINTERS

2

P1

Connector setting to  
insertion jig  
6098-2220 (W)

**INSERTION JIG WITH SWITCH COVER**

**CONNECTOR ORIENTATION**

2. Insert the connector **6098-2220 (W)** into jig using right hand and release the lock.  
*Note: Follow the connector orientation.*

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

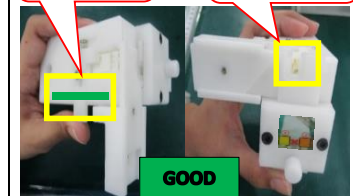
3. Push the guide using left hand.  
The slot for **Y wire** will be opened.

n/a

### Connector Orientation Illustration

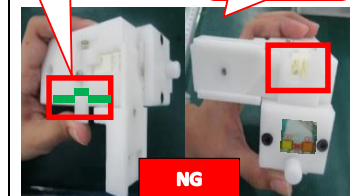
I-mark is align

1 hole is open



I-mark is not align

All holes were open



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

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☒ MASSPRO

Revision No.:

1

Page No.:

3 of 11

### PARTS:

1. AVSSf 0.3 Y/OR wires L=713±3mm

### JIG

1. Insertion jig with switch cover

### NO.

### PROCESS NAME

### WORK PROCEDURE/ ILLUSTRATION

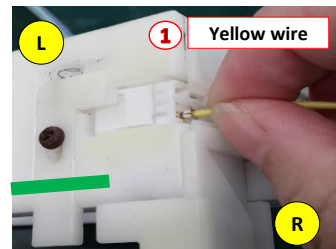
### TOOLS/PPE

### QUALITY POINTERS

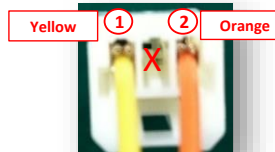
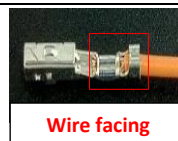
3

P1

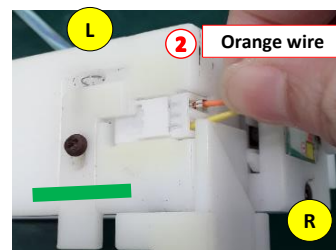
Wire insertion to  
connector  
6098-2220 (W)



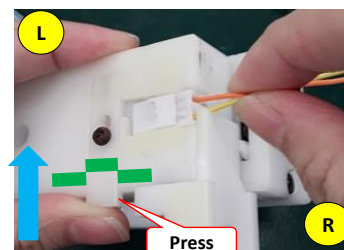
1. Hold the insertion jig using left hand. Get the **Y wire** and insert to connector using right hand.



2. Press the button using right thumb the slot for **OR wire** will be opened.



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



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.

n/a

*Note: Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance*

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

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

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☐ PRE-LAUNCH


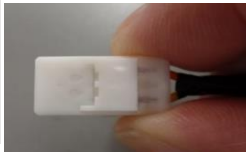
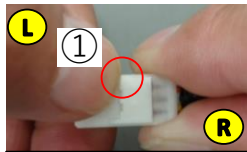
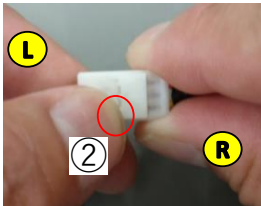
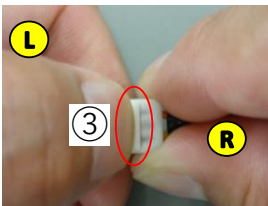


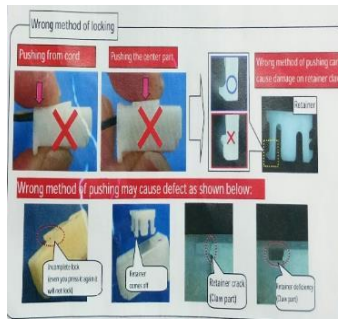
☒ MASSPRO

Revision No.:

1

Page No.:

4 of 11

PARTS:		n/a			JIG	n/a
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
4	P1	Connector lock	<div><div><p><b>Sequence of Pressing the Double Lock:</b> ① - ② - ③</p><p><b>Method:</b> Press one by one using one thumb</p></div><div></div><div><p>1. Hold the 6098-2220 connector using right hand</p></div><div><p>2. Press at location (1) of connector lock using your left thumb.</p></div><div><p>3. Press at location (2) of connector lock using your left thumb.</p></div><div><p>4. Press at location (3) of connector lock near the terminal insertion side with your left thumb.</p></div><div><div><p>BEFORE LOCK</p><p>Lock is visible</p></div><div><p>AFTER LOCK</p><p>Lock is not visible</p></div><div><p>5. Check the locking condition</p></div></div></div> <div><p>n/a</p></div> <div><div><p><b>Wrong Locking Method</b></p></div><div><p>1. No unlocked/half-locked connector 2. No one time pressing of double lock 3. Make sure not to hit the portion ③ (bottom side) when pressing ① &amp; ②</p></div></div>			

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☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

**1**

Page No.:

**5 of 11**

PARTS:		1. Assy parts 2. Black corrugated tube (no slit) $\Phi 5$ L=316 $\pm$ 3mm 3. Black corrugated tube (no slit) $\Phi 5$ L=171 $\pm$ 3mm 4. Black vinyl tube $\Phi 5$ L=182 $\pm$ 3mm			JIG	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS	
5	P1	Wire insertion to Black corrugated tube (no slit) $\Phi 5$ L=316 $\pm$ 3mm $\Phi 5$ L=171 $\pm$ 3mm	 	<div>1. Get the corrugated tube <math>\Phi 5</math> L=316<math>\pm</math>3mm using right hand then insert the Y-OR wire using left hand.</div> <div>1. Get the corrugated tube <math>\Phi 5</math> L=171<math>\pm</math>3mm using right hand then insert the Y-OR wire using left hand.</div>	n/a	1. No wrong use of parts 2. No deformed terminal
6		Wire insertion to Black vinyl tube $\Phi 5$ L=182 $\pm$ 3mm		<div>1. Get the vinyl tube <math>\Phi 5</math> L=182<math>\pm</math>3mm using right hand then insert the Y-OR wire using left hand.</div>	n/a	1. No wrong use of parts 2. No deformed terminal

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**WI-ENG-PDE-534A**

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☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Revision No.:

1

Page No.:

6 of 11

### PARTS:

1. Connector 6098-3802 (W)

### JIG

1. Insertion jig

### NO.

### PROCESS NAME

### WORK PROCEDURE/ ILLUSTRATION

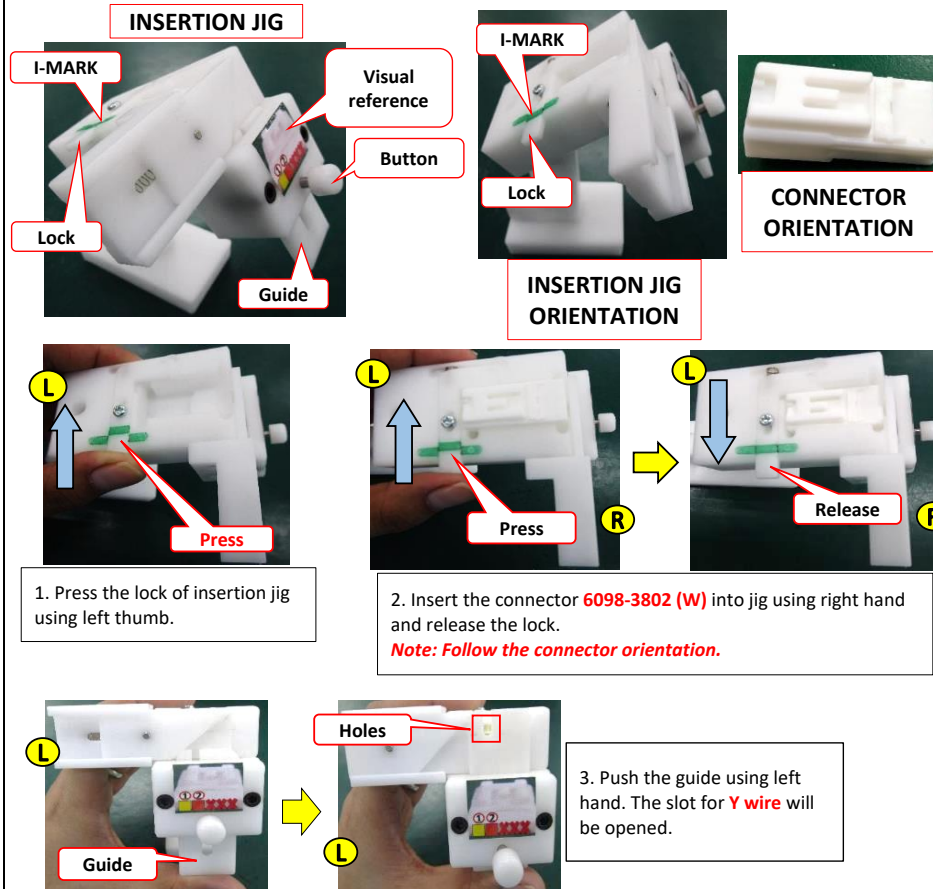
### TOOLS/PPE

### QUALITY POINTERS

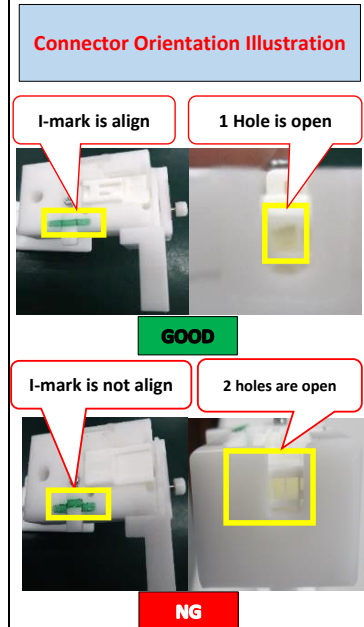
7

P1

Connector setting to  
insertion jig  
6098-3802 (W)



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

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Revision No.:

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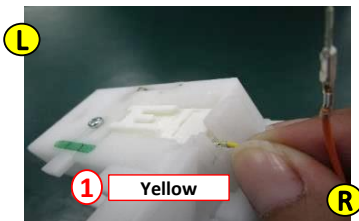
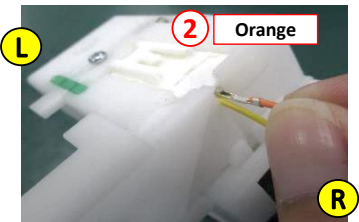
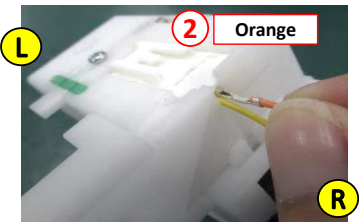
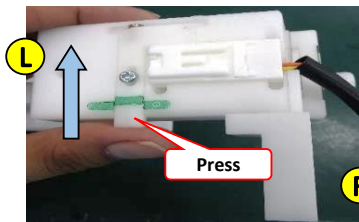
Page No.:

**7 of 11****PARTS:**

1. Assy parts

**JIG**

1. Insertion jig

NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
8	P1 Wire insertion to connector 6098-3802 (W)	<div><b>WIRE FACING</b></div> <div><p>1. Get the assy part and hold the <b>Y wire</b> then insert to terminal slot <b>1</b> using right hand.</p></div> <div><p>2. After insertion of <b>Y wire</b> press the button using right thumb. Slot for <b>OR wire</b> will be opened.</p></div> <div><p>3. Get the <b>OR 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 and then hold the wires and gently pull out the connector from jig using right hand.</p></div> <div><b>NOTE: Set aside the assy parts.</b></div>	n/a	<ol style="list-style-type: none"><li>1. No loose insertion</li><li>2. No wrong insertion</li><li>3. One by one insertion</li><li>4. No deform terminal</li><li>5. No wrong wire facing</li></ol> <p>Make sure wires are properly inserted. Conduct <b>Pull-Push-Pull-Push</b> after insertion. Do not exert extra force.</p>

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WI-ENG-PDE-534A

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☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

1

Page No.:

8 of 11


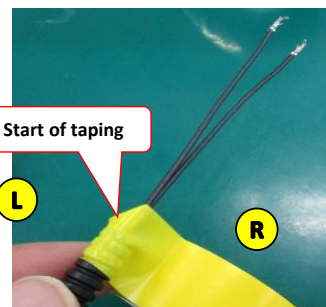
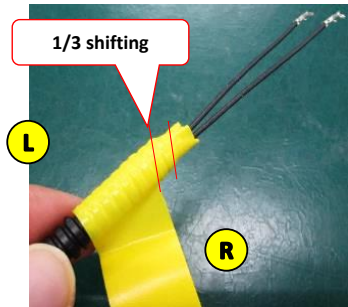

## PARTS:

1. Assy parts
2. AVSSf 0.3 B/B wires L=791±3mm [2pcs.]

3. Black corrugated tube (no slit)  $\Phi 5$  L=275±3mm
4. Black tape

JIG

n/a

NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
9	Wire insertion to Black Corrugated tube (no slit) $\Phi 5$ L=275±3mm	 1. Get the black corrugated tube (no slit) $\Phi 5$ L=275±3mm using right hand and insert Black wires L=791mm (n=2) using left hand.	n/a	<i>Note: Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</i>  1. No wrong usage of parts 2. No deformed terminal
10	Taping 1 Black corrugated tube to wire near terminal	 1. Get the Black tape using right hand then make 2 windings of tape at the middle of COT and wire using both hands.  2. Make 1/3 shifting using both hands going to the side of COT until it reach 25mm then make 2 windings of tape before shifting to other side.	 MEASURING TAPE	<b>NOTE:</b> <b>USE YELLOW TAPE FOR EASY VISUALIZATION OF SHIFTING LINES, BUT ACTUAL SHOULD BE BLACK TAPE.</b>  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  <b>Note:</b> Please use calibrated/verified measuring tape when getting the measurement.

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☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Revision No.:

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Page No.:

9 of 11

### PARTS:

1. Assy parts
2. Black tape

JIG

n/a

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

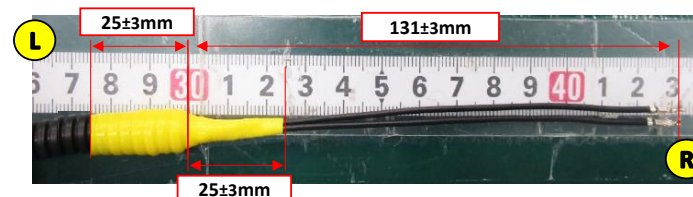
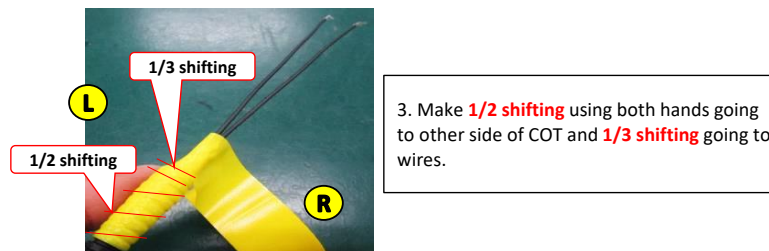
TOOLS/PPE

QUALITY POINTERS

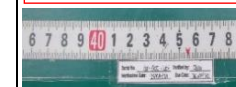
10

P1

Taping 1  
Black corrugated tube to  
wire near terminal  
(Continuation)



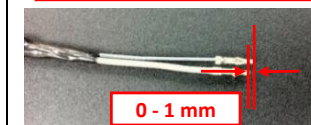
MEASURING TAPE



**NOTE:**  
**USE YELLOW TAPE FOR EASY VISUALIZATION OF SHIFTING LINES, BUT ACTUAL SHOULD BE BLACK TAPE.**

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

Wire alignment tolerance



**Note:**  
Please use calibrated/verified measuring tape when getting the measurement.

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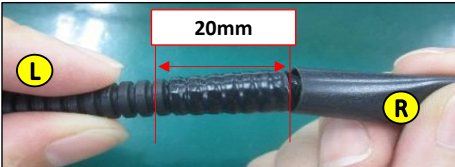
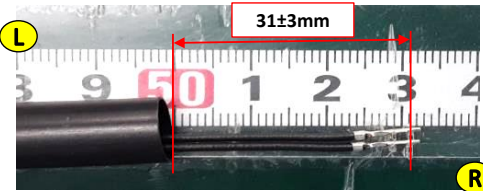
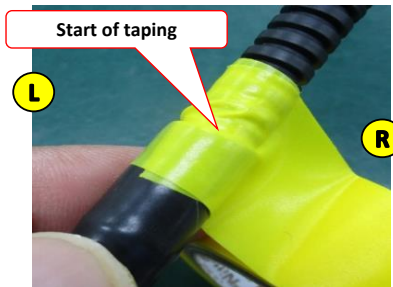

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Revision No.:

1

Page No.:

10 of 11

PARTS:		1. Assy parts 2. Black sunprene tube $\Phi 9$ L=120 $\pm$ 3mm 3. Black tape		JIG	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
11	P1 Wire insertion to Black sunprene tube $\Phi 9$ L=120 $\pm$ 3mm	 <p>1. Get the black sunprene tube <math>\Phi 9</math> L=120<math>\pm</math>3mm using right hand then insert the assy parts using left hand.</p>  <p>2. Insert the Sunprene tube to COT 20mm (Tape width)</p>		n/a	1. No wrong use of parts 2. No deformed terminal
12	P1 Taping 2 Black sunprene tube to Black corrugated tube (no slit) near terminal	 <p>1. Measure from end of sunprene tube up to terminal pointed tip 31<math>\pm</math>3mm using both hands.</p>  <p>2. Get the Black tape using right hand then make 2 windings of tape at the middle of sunprene and COT using both hands.</p>		 <p><b>MEASURING TAPE</b></p>	<p><b>NOTE:</b> USE YELLOW TAPE FOR EASY VISUALIZATION OF SHIFTING LINES, BUT ACTUAL SHOULD BE BLACK TAPE.</p> <p>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</p>

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Validity Date:

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Model Code/Part Number: 101D / 7N0097-7020A

Customer:

TRJ

Document No.:

WI-ENG-PDE-534A

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

1

Page No.:

11 of 11

## PARTS:

1. Assy parts
2. Black tape

JIG

n/a

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

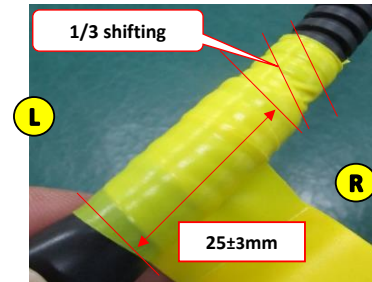
TOOLS/PPE

QUALITY POINTERS

12

P1

Taping 2  
Black sunprene tube  
to  
Black corrugated tube (no  
slit)  
near terminal  
(Continuation)



3. Make **1/3 shifting** using both hands going to the side of sunprene until it reach **25±3mm** then make **2 windings** of tape before shifting to other side.



4. Make **1/2 shifting** using both hands going to other side of COT then make **3 windings** of tape and cut the tape.



5. After taping, check the taping condition and measurement.

## MEASURING TAPE



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

**Note:**

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

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