



# WORK INSTRUCTION

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

Effectivity Date:

January 31, 2023

Model Code/Part Number: **373D / 7N0174-7020**

Customer: **TRJ**

Validity Date:

n/a

Purpose: ☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Document No.:

**WI-ENG-PDE-605B**

Revision No.:

1

Page No.:

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## PARTS:

1. Assy parts: Black SV tube (Vinyl) Ø5 L=108±3mm; Black tape; White tape (10mm)

JIG:

1. Continuity jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

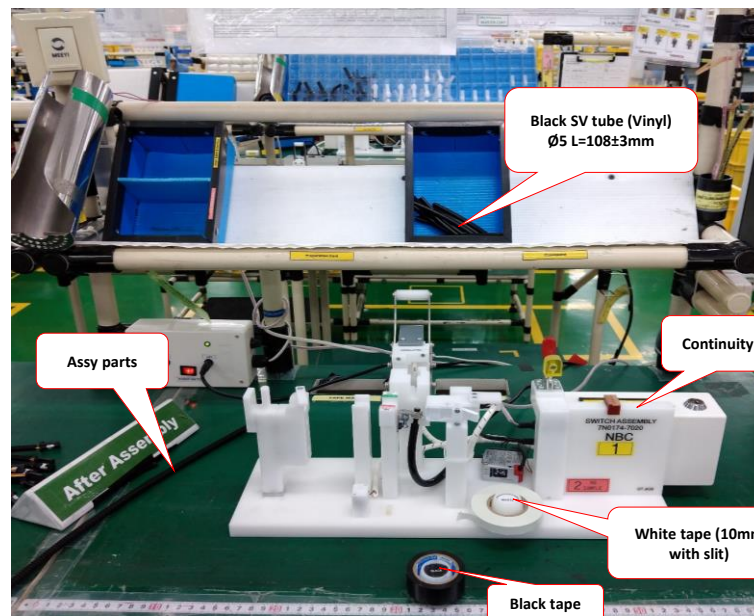
QUALITY POINTERS

1

P2

Table Lay-out

### Table Lay-out



### Safety Instruction

Be sure to wear required personal protective equipment during operation (gloves, finger cots, etc.)

### Housekeeping

1. Maintain and always practice 5's.
2. Personal things on the workplace is prohibited. Keep it in your locker.

### Alert level

For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.

1. No missing parts/tools
2. No excess parts/tools

## Revision History

Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Prepared by	Reviewed by	Approved by	Noted by
01/31/23	1	Change document purpose from prelaunch to masspro. Provide jigs: Continuity jig. Inclusion of table layout. Improve work procedure and illustration, additional quality pointers. Change of Y-taping measuring (COT and vinyl) from tape width to range (20~22mm) to meet the required dimension of end tape up to terminal pointed tip.	M. Catapang	J. Loterte	C. Villanueva	A. Arañes	M. Catapang	J. Loterte	C. Villanueva	A. Arañes
12/09/22	0	Initial issue	M. Catapang	J. Loterte	C. Villanueva	A. Arañes	M. Catapang	J. Loterte	C. Villanueva	A. Arañes

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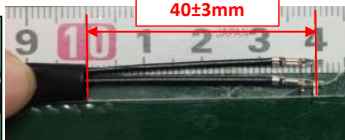
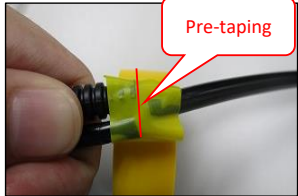
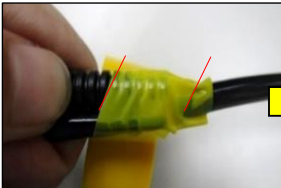

## TAPING ASSEMBLY PROCESS

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Model Code/Part Number: **373D / 7N0174-7020** Customer: **TRJ**

Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ☒ MASSPRO

<b>PARTS:</b>		1. Assy parts 2. Black tape	<b>JIG</b>	n/a
<b>NO.</b>	<b>PROCESS NAME</b>	<b>WORK PROCEDURE/ ILLUSTRATION</b>	<b>TOOLS/PPE</b>	<b>QUALITY POINTERS</b>
2		<p>Wire insertion to Black vinyl tube Ø5 L=108±3mm</p>  <p>1. Get the Viny tube <b>Ø5 L=108±3mm</b> using right hand then insert the <b>B-B wire</b> using left hand.</p>	n/a	1. No wrong use of parts
3	P2 Y-taping	<p><b>No gap between tubes</b></p>  <p>1. Fix the COT and vinyl tube. Make sure no gap in between.</p> <p><b>40±3mm</b></p>  <p>2. Measurement from end of Vinyl tube up to terminal tip. Must be <b>40±3mm</b>.</p> <p><b>Pre-taping</b></p>  <p>3. Get the tape and fix the COT to vinyl tube. Make <b>1 wind pre-taping</b> before shifting.</p> <p><b>20~22mm</b></p>  <p>4. Make <b>1 shifting to the left</b> until tape width then wind the tape <b>2x</b>.</p>	<p><b>MEASURING TAPE</b></p> 	<p><b>Important reminders/Note/s:</b></p> <p>1. Use <b>YELLOW TAPE</b> for easy visualization of shifting lines, but actual should be <b>BLACK TAPE</b>.</p> <p>2. Please use calibrated/verified measuring tape when getting the measurement.</p> <p>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</p>

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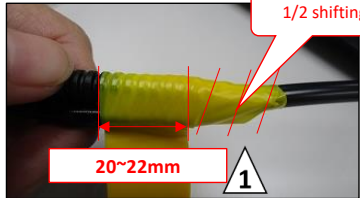

Process Name/Title:  
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Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ☒ MASSPRO

PARTS:

1. Assy parts
2. Black tape

JIG

n/a

NO.	PROCESS NAME	1 WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
3	P2 Y-taping (Continuation)	<p><b>1</b></p>  <p>170 ± 3mm</p> <p>5. Confirm measurement from end of tape up to terminal pointed tip <b>170±3mm</b> using both hands then continue the taping process.</p>  <p>1/3 shifting</p> <p>tape width</p> <p>6. Make <b>1/3 shifting to the right</b> side until tape width on vinyl tube</p>  <p>1/2 shifting</p>  <p>1/2 shifting</p> <p>20~22mm</p> <p><b>1</b></p> <p>6. Make <b>1/2 shifting to the left</b> until tape width then wind the tape 2x.</p>	<p>MEASURING TAPE</p> 	<p><b>Important reminders/Note/s:</b></p> <ol style="list-style-type: none"><li>1. Use <b>YELLOW TAPE</b> for easy visualization of shifting lines, but actual should be <b>BLACK TAPE</b>.</li><li>2. Please use calibrated/verified measuring tape when getting the measurement.</li></ol> <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 dimension</li><li>6. No wrong use of tape</li></ol>

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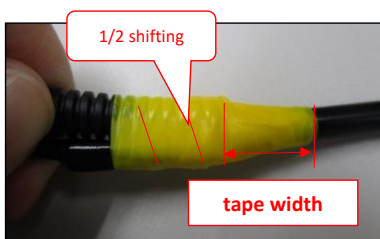
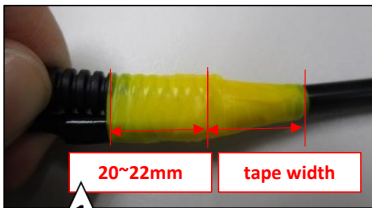
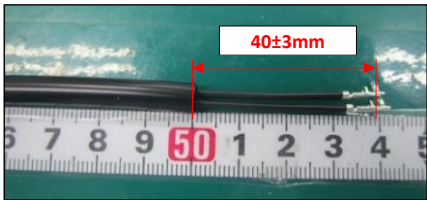

Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ☒ MASSPRO

PARTS:

1. Assy parts
2. Black tape

JIG

n/a

NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
3	P2 Y-taping (Continuation)	  <p>7. Make <b>1/2 shifting to the right</b> until tape width on vinyl tube, wind the tape <b>2x</b> then cut the tape.</p>   <p>8. After taping, check the measurement from vinyl tube up to terminal pointed <b>40±3mm</b> and taping condition.</p>	<p><b>MEASURING TAPE</b></p> 	<p><b>Important reminders/Note/s:</b></p> <ol style="list-style-type: none"><li>1. Use <b>YELLOW TAPE</b> for easy visualization of shifting lines, but actual should be <b>BLACK TAPE</b>.</li><li>2. Please use calibrated/verified measuring tape when getting the measurement.</li></ol> <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 dimension</li><li>6. No wrong use of tape</li></ol>

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Purpose: ☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

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### PARTS:

1. Assy parts
2. White tape (10mm)

### JIG

1. Continuity jig

### NO.

### PROCESS NAME

1

### WORK PROCEDURE/ ILLUSTRATION

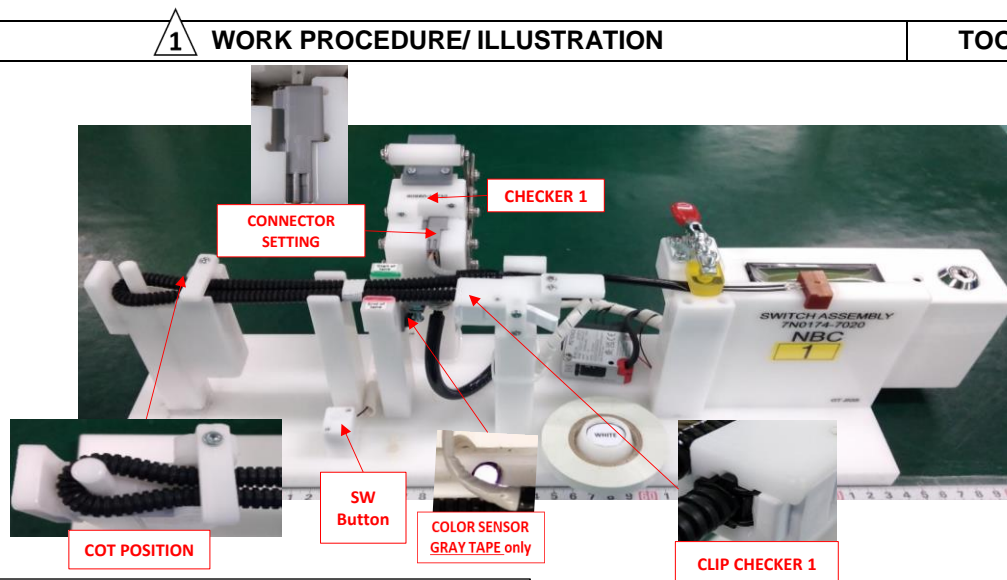
### TOOLS/PPE

### QUALITY POINTERS

2

P2

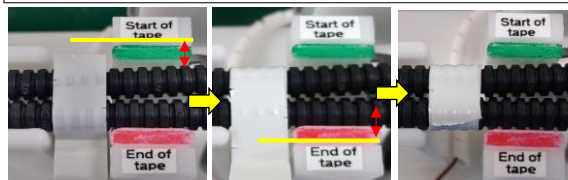
Continuity testing



1. Get the assy part and then put into jig. (See above illustration). First, set the connector **6098-5673 (GR)** to **Checker 1** then pull the checker fixture for continuity checking. Second, set the **Y-taping in hook**. Third, set the connector **6098-6663 (B)** to **Clip checker 1** then lock. Next, set the COT in COT holder then lock. Last, set the **B-B wires** together within the stopper jig and then press by toggle clamp. **Color sensor** light will be/buzz if sensor detects **Gray tape**.

2. Check if all **LED light** for **POWER ON, COLOR SENSOR** was **ON**. If encountered abnormality, **STOP** and immediately **CALL** the attention of the leader. **WAIT** for further instruction and continue the process.

3. Get the **WHITE NITTO TAPE 2107TVH** (with slit) and begin taping using both hands. Make **1.5 windings of tape** then cut using both hands. (Follow below instructions for taping procedure)



4. **Start of tape** must be within the **GREEN MARK**. Wind the tape **1.5 windings** using both hands then cut within **RED MARK**.



### Important reminders/Note/s:

1. Make sure no gap between stopper and terminals

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

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PARTS:

1. Assy parts

JIG

1. Continuity jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

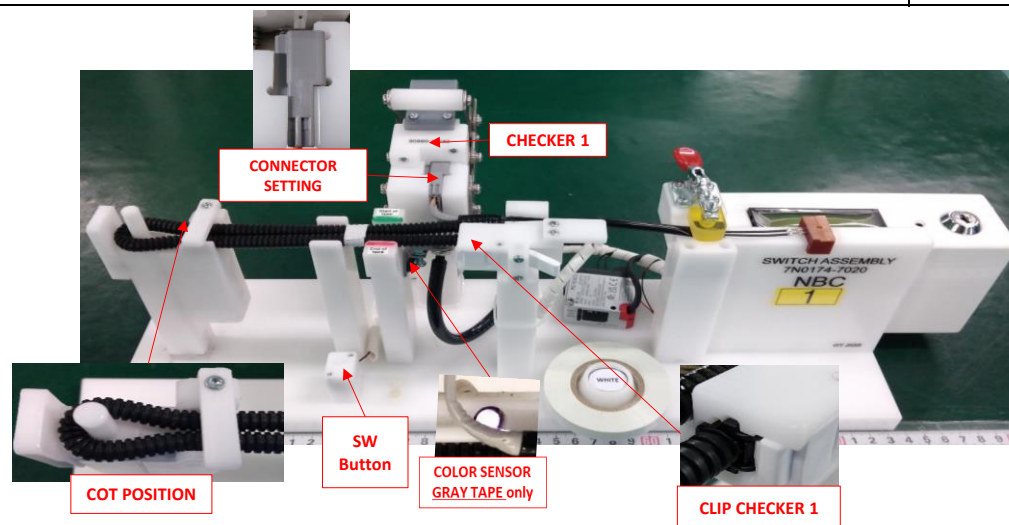
TOOLS/PPE

QUALITY POINTERS

2

P2

Continuity testing



5. Press the **SW button**, **Go** sound will be heard if the result is **GOOD**.

6. Conduct **POINT CHECKING** before removing the harness from jig. First, remove the **unlock the COT** then remove the assy. Second, remove the **toggle clamp**. Third, push the **Checker fixture** then remove the connector **6098-5673 (GR)**. Last, **press the clip** then remove the connector **6098-6663 (B)**.



**Important reminders/Note/s:**  
**1. Make sure no gap between stopper and terminals**

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

1

REFERENCE AFTER TAPING USING NITTO  
TAPE 2107TVH



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Purpose:



PROTOTYPE



PRE-LAUNCH



MASSPRO

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**PARTS:**

1. Assy parts

**JIG**

n/a


**NO.****PROCESS NAME****WORK PROCEDURE/ ILLUSTRATION****TOOLS/PPE****QUALITY POINTERS**

14


P1

Visual/By two's inspection


**ACTUAL PRODUCT**



**Assembled parts**



**Master sample**



1. Conduct **alignment of harness (Master sample vs. assembled parts)** using both hands.

2. Check the **terminal, connector lock, insertion and taping condition.**

3. Check the **Y-taping condition.**

4. Check the **connector lock and insertion**

5. Check the **presence of spot tape (White 10mm with slit)**

6. Check the **terminal appearance.** Must be **no deformed terminal.**



1. No skip checking during inspection

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☐ PRE-LAUNCH

☒ MASSPRO

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### PARTS:

1. Assy parts

JIG

n/a

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

15

P1

Measurement

### MEASURING TAPE



Note:

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

65 ± 3mm

0 ~ 3mm

170 ± 3mm

0 ~ 5mm

229 ± 3mm

45 ± 3mm

Y-Taping to Spot tape

Important reminders/Note/s:  
1. FOR HATSUMONO AND  
OWARIMONO

1. No wrong dimension

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PARTS:

1. Assy parts

JIG

n/a

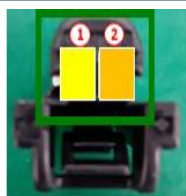
## QUALITY CHECKPOINTS

P2

7N0174-7020



GOOD



GOOD

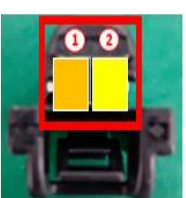
REFERENCE AFTER TAPING USING  
NITTO TAPE 2107TVH

GOOD: 1.5 windings

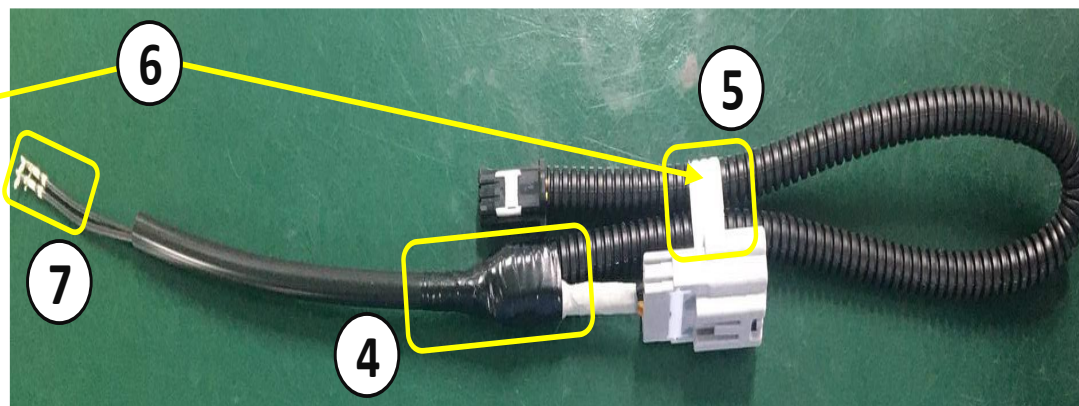
NG: 1 winding



NO GOOD



NO GOOD



GOOD



NO GOOD

④ No Missing Tape  
(for y-taping)

⑤ No Wrong Used of Tape  
(Spot Taping white tape)

⑥ Spot Taping must be 1.5  
windings

⑦ No Deformed Terminal

① No Unlock/Halflock  
Connector (2 connector)

② No Wrong Insert

③ No Terminal Backing Out

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