

**WORK INSTRUCTION****TAPING ASSEMBLY PROCESS**

Effectivity Date:

February 22, 2023

Process Name/Title:

Model Code/Part Number: **150B / 7L0060-7023**

Customer:

TRQSS

Validity Date:

n/a

Document No.:

WI-ENG-PDE-385B

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

1

Page No.:

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PARTS:

1. Assy parts; Assy parts; Clamp 82711-52090 (W); Clamp 82711-60640 (B); Black tape [2pcs.]; Black sponge tape (7M0531-0021) t=5; width=50; L=50±1mm; Red tape

JIG:

1. Clamp Assembly Jig

NO.	PROCESS NAME	WORK PROCEDURE/ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
1	P2	Table Lay-out	<div>TABLE LAY-OUT</div> <div>Safety Instruction Be sure to wear prescribed personal protective equipment during operation (gloves, finger cots, etc.)</div> <div>Housekeeping 1. Maintain and always practice 5's. 2. Personal things on the workplace is prohibited. Keep it in your locker.</div> <div>Alert level For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.</div>	<div>1. No missing parts/tools 2. No excess parts/tools 3. No wrong positions of parts/tools</div> <div>CLAMP ILLUSTRATION GOOD: 82711-60640 (B) NG: 82711-21020 (B)</div> <div>CLAMP ILLUSTRATION GOOD: 82711-52090 (W) NG: 82711-12A80 (W)</div>

Revision History

Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Established Date:	Prepared by	Reviewed by	Approved by	Noted by
02/22/23	1	Work instruction improvement. Improved By two's inspection and quality pointers. Change term Black sunprene tube to Black VM tube (Sunprenel). Inclusion of Quality checkpoints (Page 8).	D. Castillo	J. Loterte	C. Villanueva	A.Arañes					
01/29/22	0	Initial Issue.	K. Doria	J. Loterte	C. Villanueva	A.Arañes					
		Change of PCB from 2 chips (61C619-0002) to 1 chip (7N0994-7060); Change wire color from Gray (GR) to Green (G).									
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PARTS:

1.Clamp 82711-52090 (W)
2.Clamp 82711-60640 (B)

3. Black tape [2pcs]

JIG

Clamp Assembly Jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

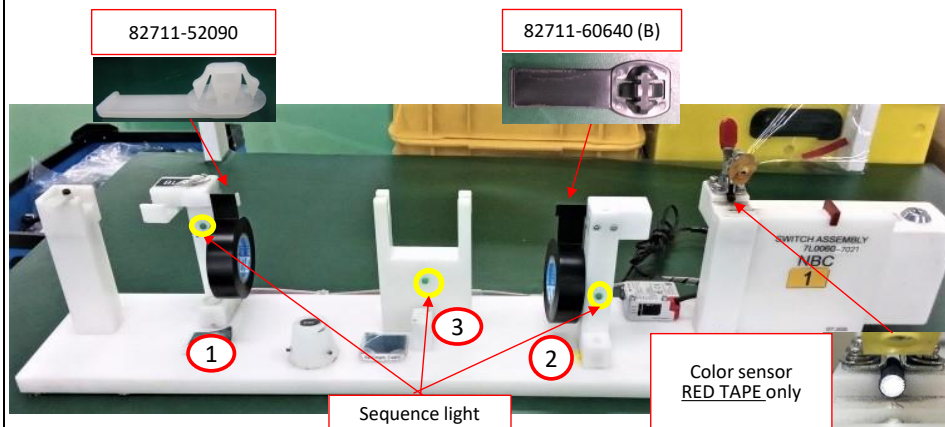
TOOLS/PPE

QUALITY POINTERS

2

P2

Clamp setting



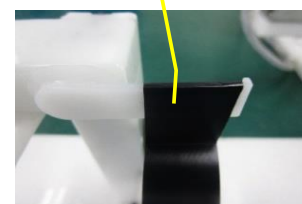
1. Get the clamp **82711-52090 (W)** using right hand and set to location **1** using both hands.

2. Get 1 pc. of clamp **82711-60640 (B)** then set to clamp location **2** using both hands

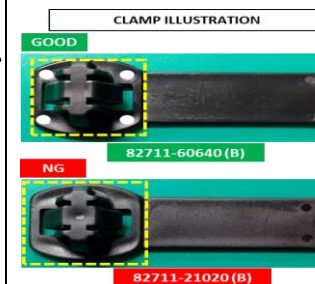
3. Get the Black tape then attach to clamp location **1** and **2** using both hands.

STANDARD TAPING FOR CLAMP

One side tape under clamp



n/a



Important reminders/Note/s:

1. Please check the clamp before start of assembly to avoid wrong use of parts.

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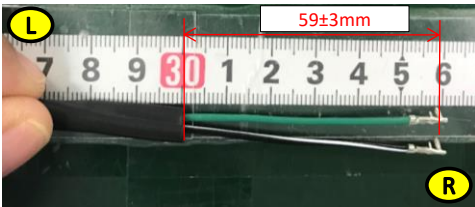
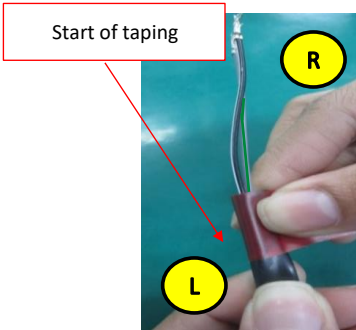
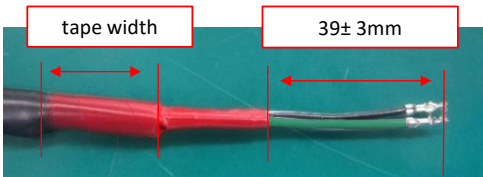

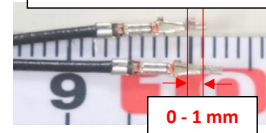
3 of 6

PARTS:

1. Assy parts
2. Red tape

JIG

n/a

NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
3	P2 Taping 3 VM tube (Sunprene) to wire near terminal	  	 MEASURING TAPE	<p>Important reminders/Note/s:</p> <ol style="list-style-type: none">1. Please use calibrated/verified measuring tape when getting the measurement.2. Please refer to WI-PRO-ASY-001 for taping procedure.  Wire alignment tolerance 0 - 1 mm

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PARTS:

1. Assy parts

JIG

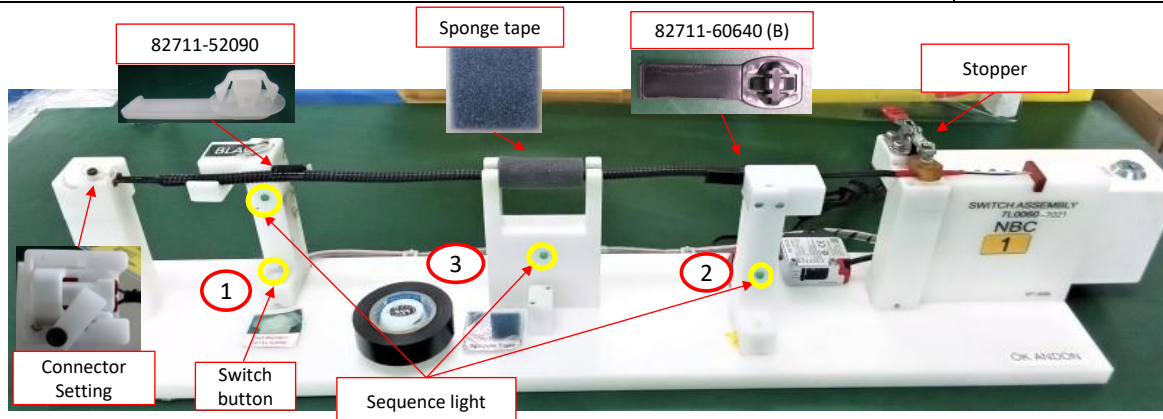
1. Clamp Assembly jig

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

4

P2

Clamp Assembly



1. Get the assy part and set to jig. (See below picture for correct setting). First, set the connector to **Receiver base** and lock. Last, set the **G-B/W wires** with terminal end together within the stopper and **Color sensor** will beep/buzz if sensor detects the **Red tape** then press the Toggle clamp.

2. Check if all **LED light** for **POWER ON, CLAMP ON, COLOR SENSOR** was **ON**. Check also if **clamp location ①** sequence light is **ON**. If encountered abnormality, **STOP** and immediately **CALL** the attention of the leader. **WAIT** for further instruction then continue the process. Continue if the sequence light of **location ①** was **ON**.
Note: Location 1 will ON if sensor detect the Red tape.

3. Hold the **clamp** on **location ①** using left hand and start taping using right hand. Press the **SW button** after taping. Continue to **location ②** if light was **ON**.

4. Hold the **clamp** on **location ②** using left hand and start taping using right hand. Press the **SW button** after taping. Continue to **location ③** if light was **ON**.

5. Attach sponge tape. (Refer to the next page for detailed process) Press the SW button after attachment. **GO** sound will be heard.

6. Conduct **POINT CHECKING** before removing the harness from jig.

**Important reminders/ Note/s:**

1. Make sure no gap between terminal and stopper jig.



1. No damaged clamp
2. No missed tape
3. No missing clamp
4. Taping should be one side under (taping side of clamp before taping with COT)
5. No loose attachment of clamp

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☐ PROTOTYPE

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PARTS:

1. Black sponge tape (width=50; L=50±1mm)

JIG

1. Clamp Assembly Jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

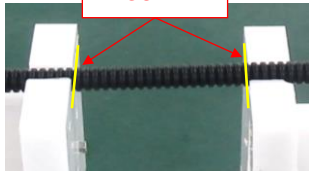
QUALITY POINTERS

6

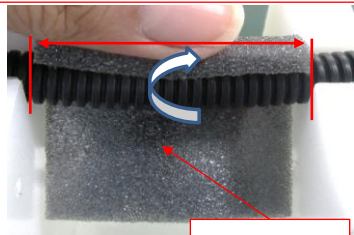
P2

Sponge Tape Attachment

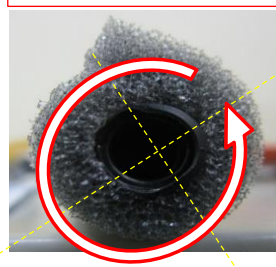
GUIDE



Size of sponge tape should fit the jig



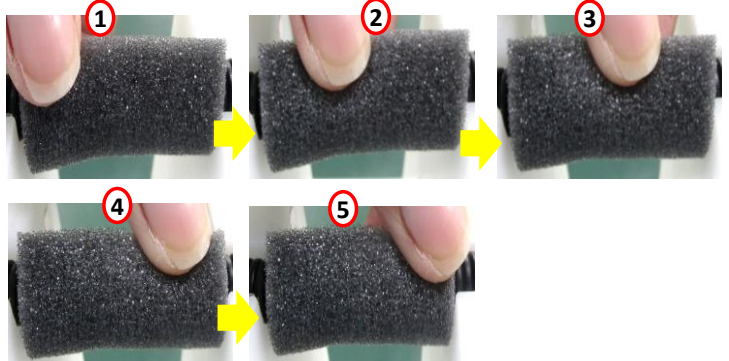
Standard attachment



1 Get **sponge tape(width=50; L=50±1mm)** then attach to corrugated tube using left hand and slowly wrap to COT. Follow the guide for the correct location of sponge tape.
Note: Do not stretch or pull the sponge tape

2. Press the sponge tape using both palm and roll 3 times to make sure that the sponge tape attachment is GOOD.

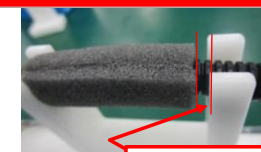
1 **2** **3** **4** **5**



L **R**

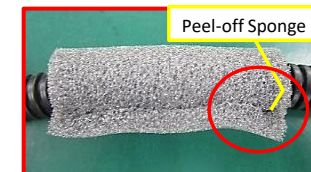
1. No peel-off attachment
2. No loose/tight attachment
3. No wrong attachment
- 4.No missing sponge
- 5.No wrong use of sponge
- 6.No damage sponge

NO GOOD ATTACHMENT OF SPONGE TAPE

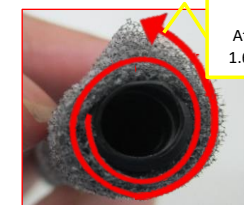


With gap on guide of jig.

Peel-off Sponge



Tight Attachment
1.6-1.7 Wrap



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PARTS:

n/a

JIG

n/a

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

7

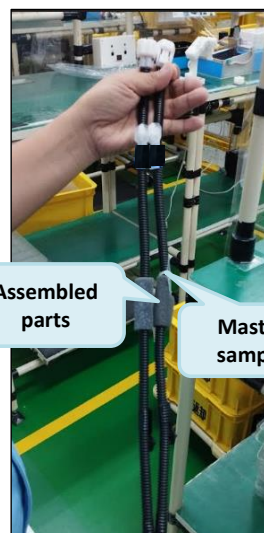
P2

Visual/By Two's Inspection

1



ACTUAL PRODUCT



Assembled parts

Master sample

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



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



3. Check the **presence of all clamp attachment and taping condition.**



4. Check the **presence of Black sponge tape**



5. Check the **taping condition and tape color. Must be RED TAPE**



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

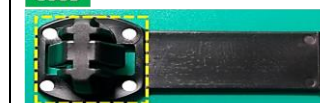
MASTER SAMPLE



1

CLAMP ILLUSTRATION

GOOD



82711-60640 (B)

NG



82711-21020 (B)

CLAMP ILLUSTRATION

GOOD



82711-52090 (W)

NG



82711-12A80 (W)

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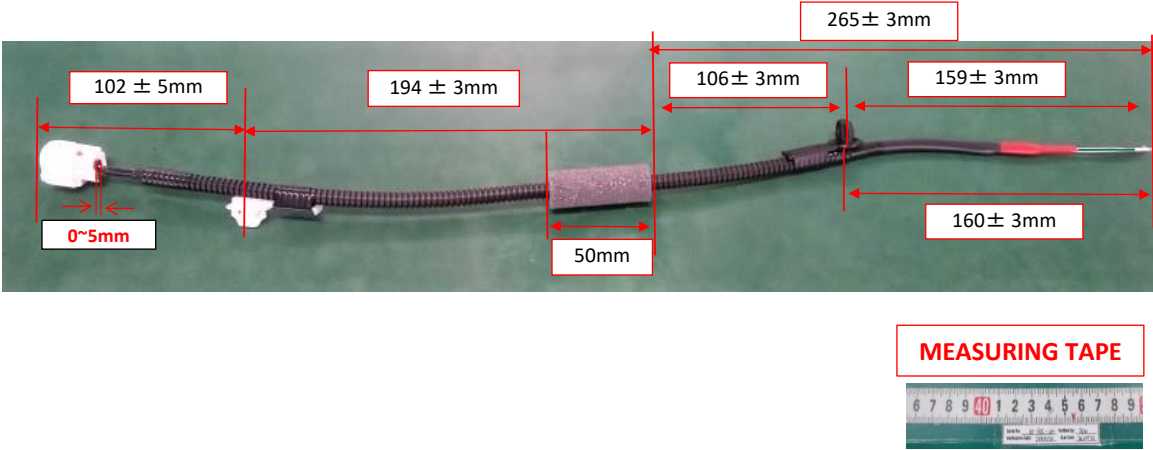

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

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PARTS:		n/a		JIG	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
8	Measurement				<div>1. No wrong dimension</div> <div></div> <div>Important reminders/Note/s:</div> <div>1. Please use calibrated/ verified measuring tape when getting the measurement.</div> <div>2. For Hatsumono and Owarimono</div>
	P2				

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PROTOTYPE



PRE-LAUNCH



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PARTS:

n/a

JIG

n/a



QUALITY CHECKPOINTS

P2

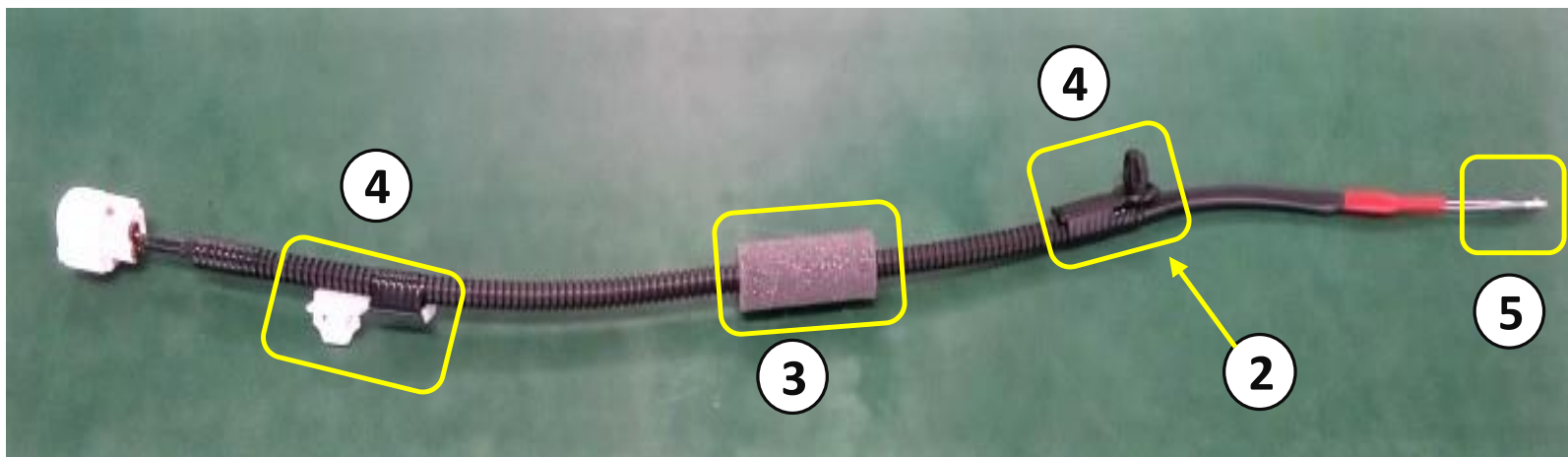
7L0060-7023



GOOD



NO GOOD



1 No **Unlock/Halflock Connector**

2 No **Missing Tape**
(conduct bending on COT to SV tube)

3 No **Missing Sponge**

4 No **Missing Clamp(2pcs.)**

5 No **Deformed Terminal**

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