



WORK INSTRUCTION

TAPING ASSEMBLY PROCESS

Effectivity Date:

February 28, 2024

Process Name/Title:

Validity Date:

n/a

Model code/Part number:

310D / 7N0190-7020A

Customer: TRJ

Car Model: TOYOTA RAV4

Document No.:

WI-ENG-PDE-804B

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

1

Page No.:

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PARTS:

1. Assy parts
2. Black SV tube (vinyl) ø5 L=107±3mm

3. Blue Tape
4. White tape (10mm with slit)

JIG:

1. Continuity Checking jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

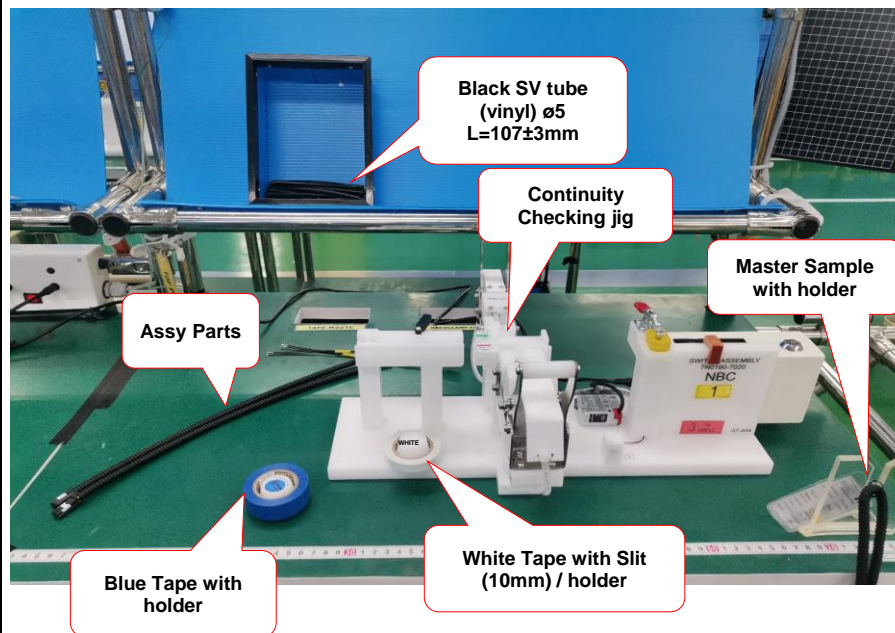
QUALITY POINTERS

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

Prepared by

Reviewed by

Approved by

Noted by

02/28/24 1 Change Pre-launch to Mass pro. Inclusion of table lay-out.

A.Hernandez C.Villanueva A. Arañes n/a

01/17/24 0 Initial issue

A.Hernandez C.Villanueva A. Arañes n/a

Eff. Date Rev. No Details of Change

Revised Reviewed Approved Noted

Est. Date:

January 17, 2024

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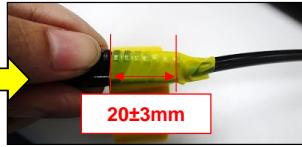
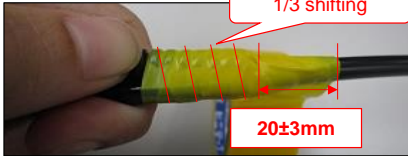

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

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PARTS:		1. Assy parts 2. Blue tape 3.Black SV (vinyl) tube Ø5 L=107±3mm		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
2	Wire insertion to Black SV (vinyl) tube Ø5 L=107±3mm	<div></div> <div>1. Get the Viny tube Ø5 L=107±3mm using right hand then insert the B-B wire using left hand.</div>		n/a	1. No wrong use of parts
3	P2 Y-Taping	<div><div></div><div></div><div></div><div>1. Fix the COT and vinyl tube. Make sure no gap in between.</div><div>2. Measurement from end of Vinyl tube up to terminal tip. Must be 40±3mm.</div><div></div><div></div><div></div><div>3. Get the tape and fix the COT to vinyl tube. Make 1 wind pre-taping before shifting.</div><div>4. Make 1 shifting to the left until tape width then wind the tape 2x.</div><div></div><div>5. Make 1/3 shifting to the right side until tape width on vinyl tube</div></div> <div><div>MEASURING TAPE</div></div>		<div>1. No loose tape 2. No flip-out tape 3. No peel-off tape 4. No wrong use of tape 5. No wrong dimension 6. No wide interval between the COT 7. No exposed wire</div> <div>Important reminders/Note/s: 1. Please use calibrated/verified measuring tape when getting the measurement. 2. Use <u>YELLOW</u> tape to easily visualize the tape shifting. But actual should be <u>BLUE TAPE</u>.</div>	

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☐ PRE-LAUNCH

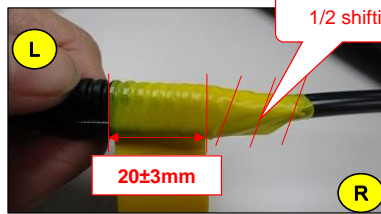



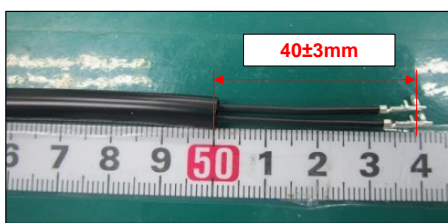
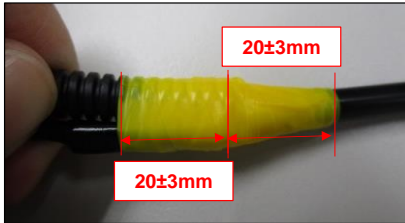

☒ MASSPRO

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PARTS:		1. Assy parts 2. Blue tape 3.Black SV (vinyl) tube Ø5 L=107±3mm		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
4	P2 Y-Taping (Continuation)	<div><div><p>6. Make 1/2 shifting to the left until tape width then wind the tape 2x.</p><p>7. Make 1/2 shifting to the right until tape width on vinyl tube, wind the tape 2x then cut the tape.</p><p>8. After taping, check the measurement from vinyl tube up to terminal pointed 40±3mm and taping condition.</p></div></div> <div><p>MEASURING TAPE</p></div>		<p>Important reminders/Note/s:</p> <p>1. Use <u>YELLOW TAPE</u> for easy visualization of shifting lines, but actual should be <u>BLUE TAPE</u>. 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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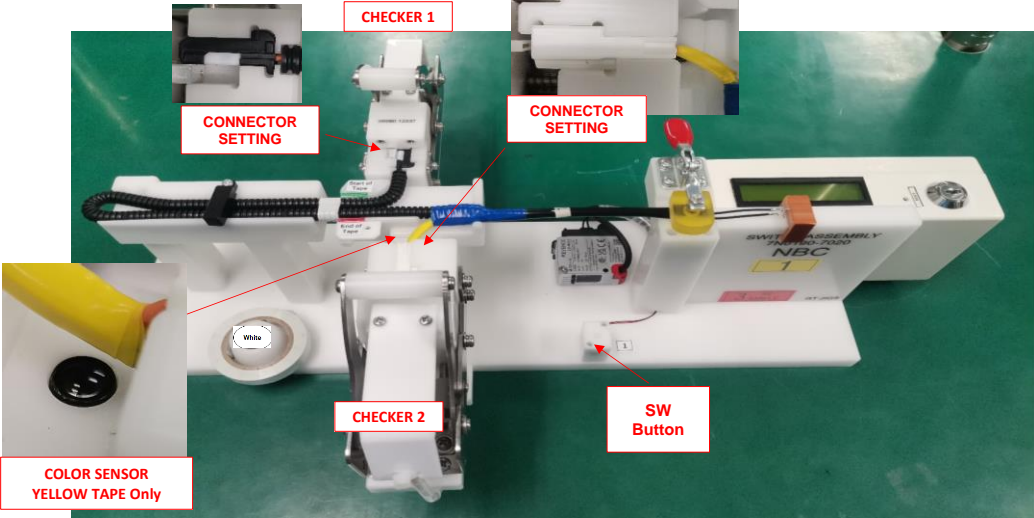
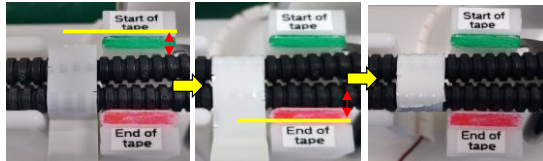


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PARTS:		1. Assy parts 2. White (10mm with slit)		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
5	P2 Spot taping White (10mm with slit)	<div></div> <div><p>1. Get the assy part and then put into jig. (See above illustration). First, set the connector 6098-6663 (B) to Clip Checker 1 then lock. Second, set the connector 6098-5668 (W) to Checker 2 then pull the checker fixture for continuity checking. Next, set the B-B wires together within the stopper jig and then press by toggle clamp. Color sensor light will bee/buzz if sensor detects Yellow tape. Last set the Y-taping in Y-Taping Guide.</p><p>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.</p><p>3. Get the White tape (10mm 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)</p><div></div><p>4. Start of tape must be within the GREEN MARK. Wind the tape 1.5 windings using both hands then cut within RED MARK.</p></div> <div><div><p>Important reminders/Note/s:</p><p>1. Make sure no gap between stopper and terminals</p></div><div><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></div><div><p>REFERENCE AFTER TAPING USING NITTO TAPE 2107TVH</p><div><p>GOOD: 1.5 windings</p><p>NG: 1 winding</p></div></div></div>			

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☐ PROTOTYPE

☐ PRE-LAUNCH

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PARTS:

1. Assy parts
2. White (10mm with slit)

JIG:

n/a

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

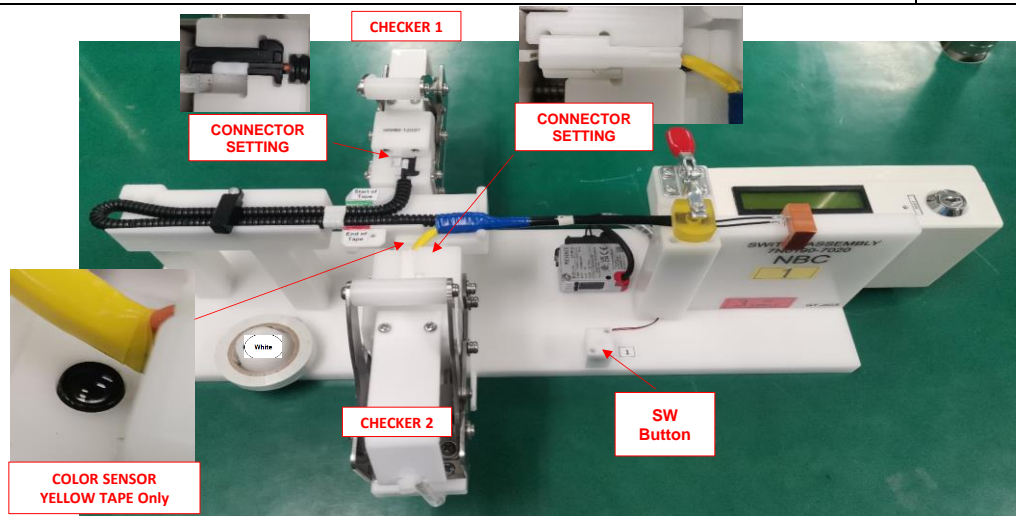
TOOLS/PPE

QUALITY POINTERS

6

P2

Assembly
(Continuation)



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, **unlock the COT** then remove the assy. Second, remove the **toggle clamp**. Third, push the **Checker fixture** then remove the connector **6098-3870 (B)**. 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

REFERENCE AFTER TAPING USING NITTO
TAPE 2107TVH



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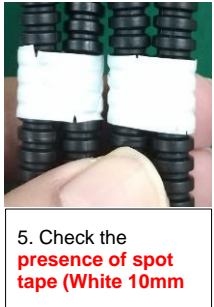

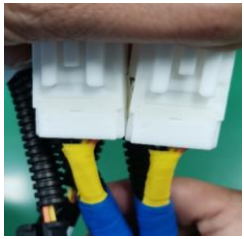

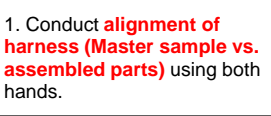
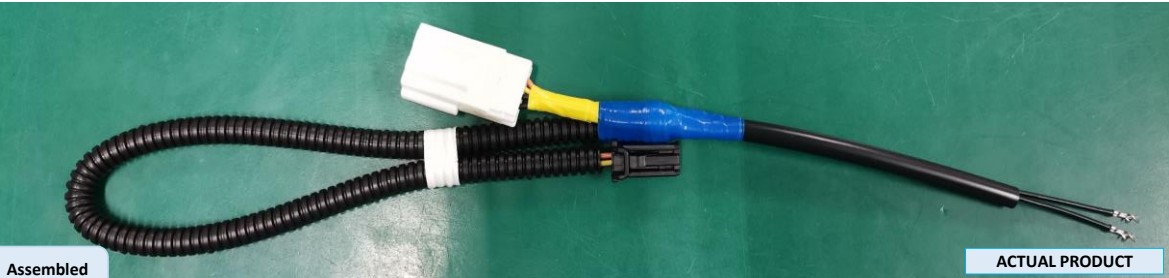


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PARTS:		1. Assy parts 2. Master Sample		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
7	P2	<div>Visual/By two's inspection</div> <div></div> <div>1. Conduct alignment of harness (Master sample vs. assembled parts) using both hands.</div> <div>2. Check the terminal, connector lock, insertion and taping condition.</div> <div>3. Check the Y-taping condition.</div> <div>4. Check the connector lock and insertion.</div> <div>5. Check the presence of spot tape (White 10mm)</div> <div>6. Check the terminal appearance. Must be no deformed terminal.</div>			1. No skip checking during inspection

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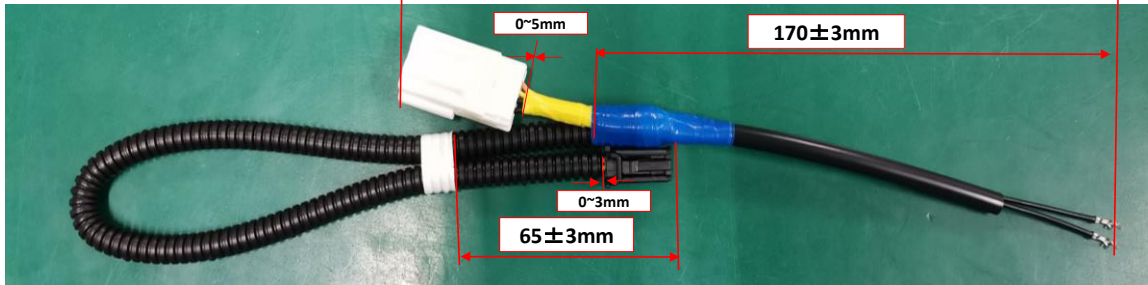
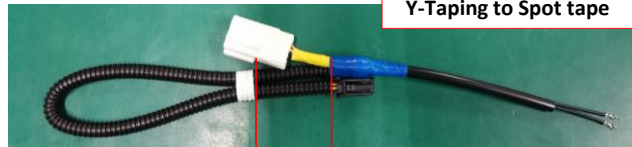
WI-ENG-PDE-804B

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PARTS:	1. Assy parts		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
8	P2	Measurement	<div><div><div>MEASURING TAPE</div><div></div></div><div><div>Note:</div><div>Please use calibrated/verified measuring tape when getting the measurement.</div></div><div><div><div>230±3mm</div><div></div></div><div><div><div>Y-Taping to Spot tape</div><div></div></div><div><div>45±3mm</div></div></div></div><div><div>Important reminders/Note/s:</div><div><div>1. Please use calibrated/verified measuring tape when getting the measurement.</div><div>2. For Hatsumono, Nakamono and Owarimono.</div></div><div><div>Document reference/s:</div><div>1. Refer to WI-PRO-ASY-056 for Sub assembly Hatsomono, Nakamono, and Owarimono Inspection.</div></div><div>1. No wrong dimension</div></div></div>	

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PARTS:

n/a

JIG:

n/a

QUALITY CHECKPOINTS

P2

7N0190-7020A



GOOD



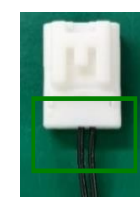
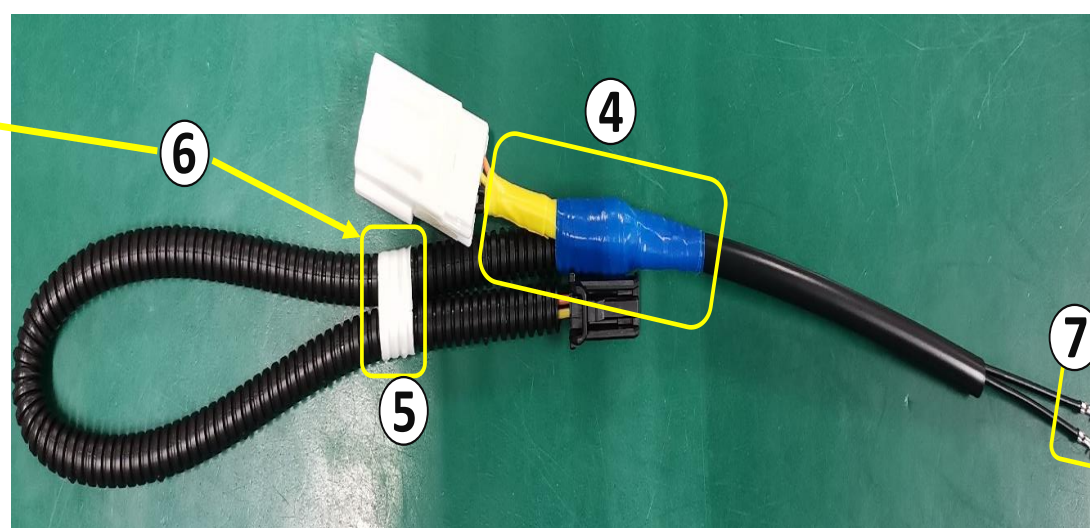
GOOD



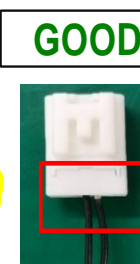
GOOD: 1.5 windings



NG: 1 winding



GOOD



NO GOOD

NO GOOD

NO GOOD

② No Wrong Insert

④ No Missing Tape (for Y-Taping)

⑥ Spot Taping must be 1.5 windings

① No Unlock/Halflock Connector (2 connector)

③ No Terminal Backing Out

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

⑦ No Deformed Terminal

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