



WORK INSTRUCTION

TAPING ASSEMBLY PROCESS

Effectivity Date:

February 28, 2024

Process Name/Title:

Validity Date:

n/a

Model code/Part number:

310D / 7N0193-7020A

Customer: TRJ

Car Model: TOYOTA RAV4

Document No.:

WI-ENG-PDE-802B

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=119±3mm

3. Blue Tape

JIG:

1. Assembly jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

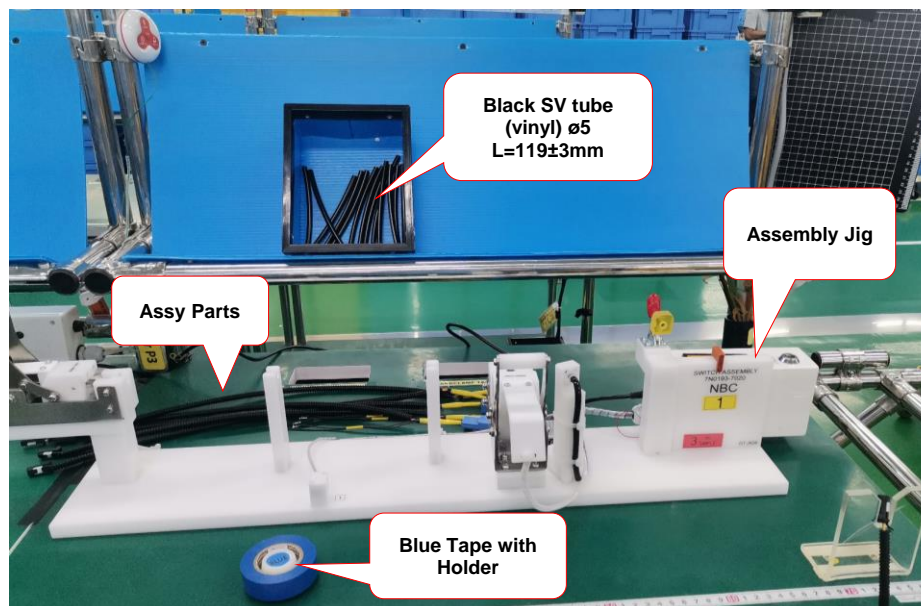
QUALITY POINTERS

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

02/13/24 0 Initial issue

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

Eff. Date Rev. No Details of Change

Revised Reviewed Approved Noted

Est. Date:

February 13, 2024

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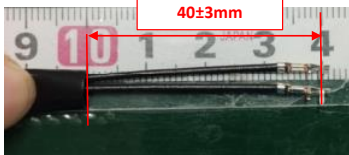
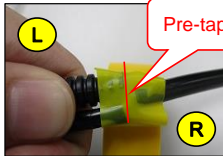

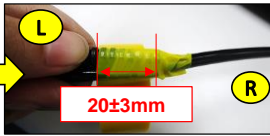


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PARTS:		1. Assy parts 2. Blue tape 3. Black SV tube (vinyl) $\varnothing 5$ L=119 \pm 3mm		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
2	Wire insertion to Black SV tube (vinyl) $\varnothing 5$ L=119 \pm 3mm	<div></div> <div>1. Get the SV tube (vinyl) $\varnothing 5$ L=119\pm3mm 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>L</div><div>R</div><div>No gap between tubes</div></div><div><div>40\pm3mm</div></div><div>2. Measurement from end of SV tube (Vinyl) up to terminal tip. Must be 40\pm3mm.</div><div><div></div><div><div>1/3 shifting</div><div>20\pm3mm</div></div><div>5. Make 1/3 shifting to the right side until tape width on SV tube (Vinyl)</div><div><div>L</div><div>R</div><div>20\pm3mm</div><div>4. Make 1 shifting to the left then wind the tape 2x.</div></div><div>3. Get the tape and fix the COT to CV tube (Vinyl). Make 1 wind pre-taping before shifting.</div></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</u> TAPE.</div>

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☐ PRE-LAUNCH


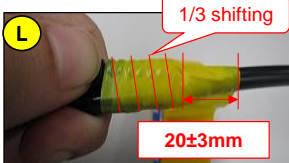

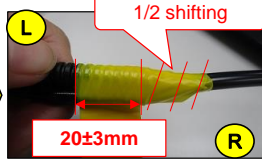

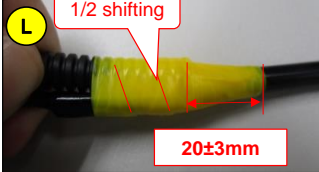
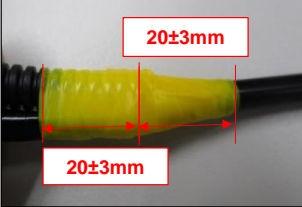
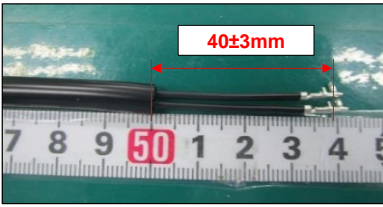

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PARTS:		1. Assy parts 2. Blue tape		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
4	P2 Y-Taping (Continuation)	<div><p>182 ± 3mm</p></div> <div><p>1/3 shifting</p><p>20±3mm</p></div> <div><p>1/2</p><p>20±3mm</p></div> <div><p>1/2 shifting</p><p>20±3mm</p></div> <div><p>1/2 shifting</p><p>20±3mm</p></div> <div><p>1/2 shifting</p><p>20±3mm</p></div> <div><p>20±3mm</p><p>20±3mm</p></div> <div><p>40±3mm</p></div>			<p>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</p> <p>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>.</p>

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☐ PROTOTYPE

☐ PRE-LAUNCH

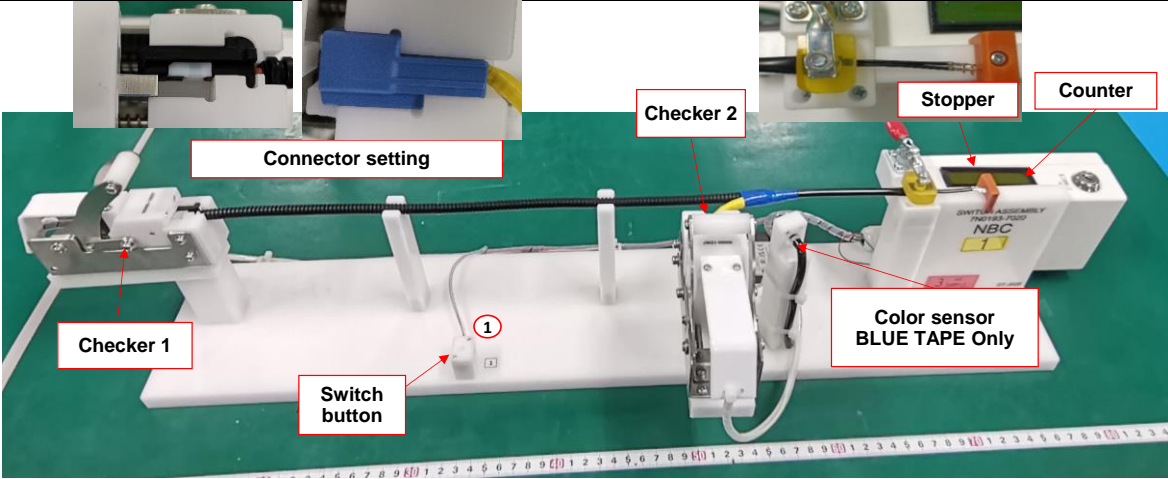



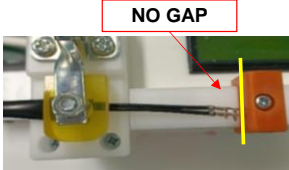
☒ MASSPRO

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PARTS:	1. Assy parts		JIG:	1. Assembly jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
5	P2 Assembly jig	<div><p>1. Get the assy parts then set into jig (<i>See above illustration</i>). First, set the connector 6098-6663(B) to Checker 1 then pull the checker picture for continuity checking. Second, set the connector 6098-3871 (L) to Checker 2 then pull the checker picture for continuity checking. Last, put the terminal into stopper jig then pull the toggle clamp using both hands.</p><p>2. Check in the counter if Wire 1 and Wire 2 was ON. If encountered abnormality, STOP and immediately CALL the attention of the leader. WAIT for further instruction then continue the process.</p><p>3. If the Color sensor is ON. Press the SW button. GO buzzer will be heard.</p><p>4. Conduct POINT CHECKING before removal from jig.</p></div> <div></div>		<div><p>Important reminders/Note/s: 1. Make sure no gap between stopper and terminals</p></div> <p>1. No wrong use of tape 2. No excess/lacking tape windings</p>

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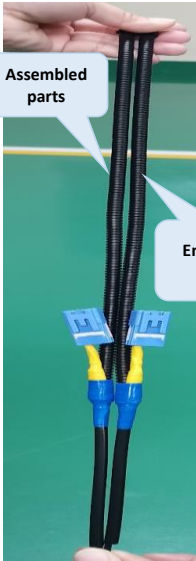
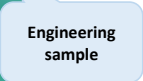

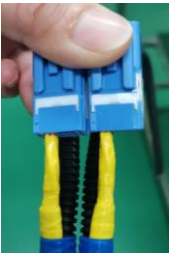



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PARTS:	1. Assembled parts 2. Engineering sample		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
6	P2 Visual/By two's inspection	 <p>ACTUAL PRODUCT</p>  <p>Assembled parts</p>  <p>Engineering sample</p>  <p>2. Check the terminal, connector lock, insertion and taping condition.</p>  <p>3. Check the Y-taping condition.</p>  <p>4. Check the connector lock and insertion</p>  <p>4. Check the terminal appearance. Must be no deformed terminal.</p> <p>1. Conduct alignment of harness(Engineering sample vs. Assembled parts) using both hands</p>		 <p>ENGINEERING SAMPLE</p> <p>1. No skip checking during inspection</p>

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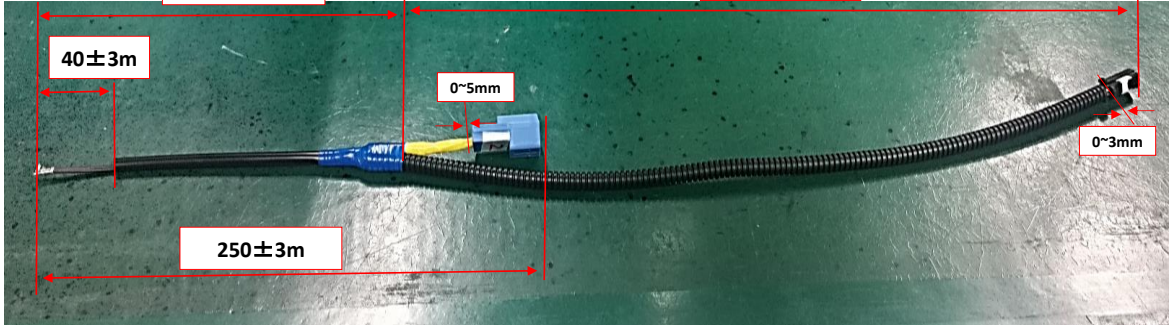
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PARTS:	1. Assy Parts		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
7	P2	Measurement	<div><div>MEASURING TAPE</div><div></div></div> <div><div>Note:</div><div>Please use calibrated/verified measuring tape when getting the measurement.</div></div> <div></div>	<div><div>Important reminders/Note/s:</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>

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PARTS:

n/a

JIG:

n/a

QUALITY CHECKPOINTS

n/a

7N0193-7020A



GOOD



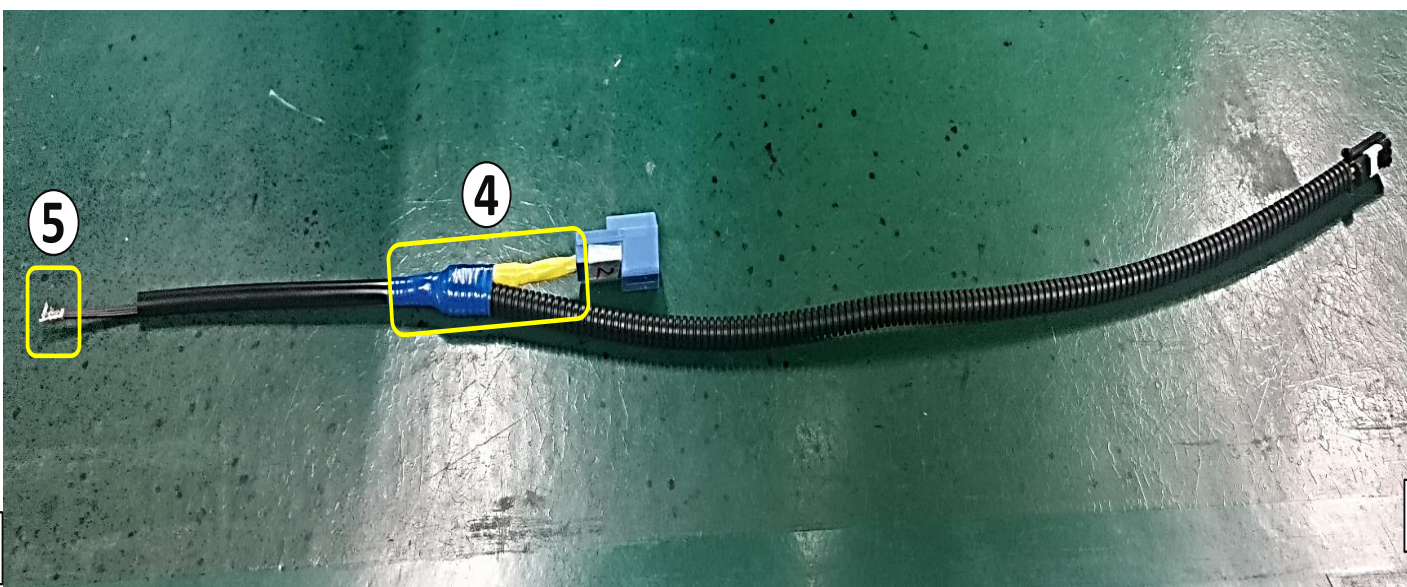
GOOD



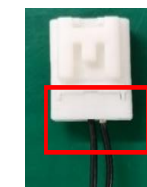
NO GOOD



NO GOOD



GOOD



NO GOOD

① No Unlock/Halflock
Connector (2 connector)

② No Wrong Insert

③ No Terminal Backing Out

④ No Missing Tape
(for Y-Taping)

⑤ No Deformed Terminal

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