



WORK INSTRUCTION

TAPING ASSEMBLY PROCESS

Process Name/Title:

Model code/Part number:

310D / 7N0197-7020A

Customer: TRJ

Car Model: TOYOTA-RAV4

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Effectivity Date:

June 11, 2024

Validity Date:

n/a

Document No.:

WI-ENG-PDE-907B

Revision No.:

1

Page No.:

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PARTS: 1. Assy parts; Black VM tube (Sunprene) Ø9 L=120±3mm; Black tape

JIG:

n/a

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

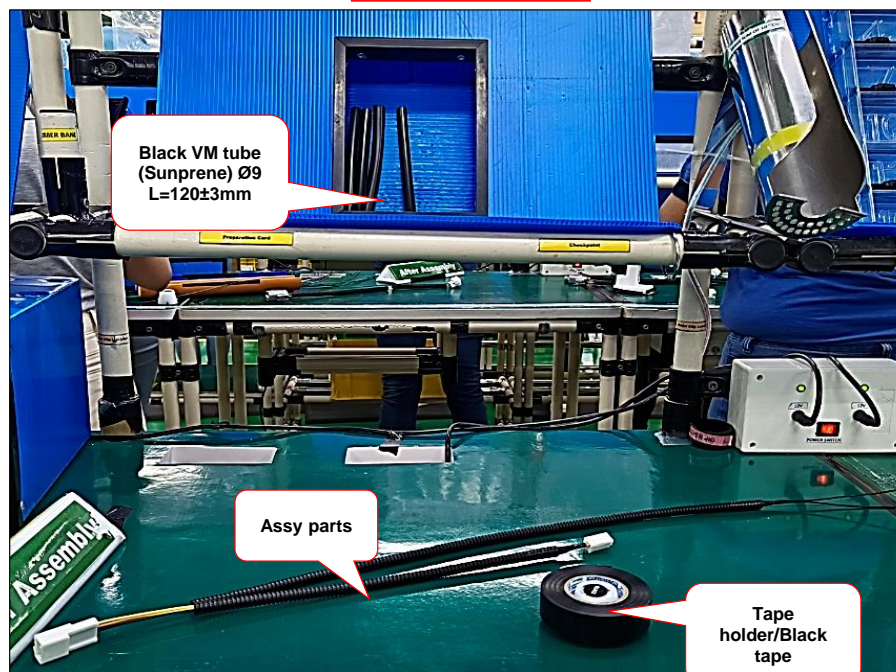
QUALITY POINTERS

1

P2

Table lay-out

TABLE LAY-OUT

**Safety Instruction**

Be sure to wear prescribed 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

Document reference/s:

1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance

Revision History

Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Prepared by	Reviewed by	Approved by	Noted by
06/11/24	1	Change from Pre-Launch to Masspro. Improvement of Measurement and Visual Inspection/Quality Checkpoint	A. Hernandez	C. Villanueva	A. Arañes	n/a	A. Hernandez	C. Villanueva	A. Arañes	n/a
06/06/24	0	Initial Issue	A. Hernandez	C. Villanueva	A. Arañes	n/a	A. Hernandez	C. Villanueva	A. Arañes	n/a

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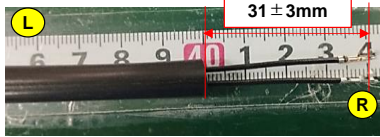
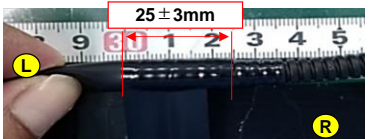





☒ MASSPRO

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PARTS:		1. Assy parts 2. Black tape 3. Black VM tube (Sunprene) Ø9 L=120±3mm		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
2		Wire insertion to Black VM tube (Sunprene) Ø9 L=120±3mm	 <p>1. Get the Black VM tube (Sunprene) Ø9 L=120±3mm using right hand then insert the assy parts using left hand.</p>	n/a	1. No wrong use of parts 2. no deformed terminal
3	P2	Taping 3 COT to VM tube (Sunprene)	 <p>1. Measure from end of tube up to terminal pointed tip 31±3mm using both hands.</p>  <p>3. Confirm measurement of 25±3mm from end of tape up to end of tube then continue the taping process using both hands.</p>  <p>5. After taping, check the measurement, terminal appearance and taping condition.</p> <p>Start of taping</p>  <p>2. Hold the Assy parts using left hand, get the Black tape using right hand then start pre-taping using both hands.</p>  <p>4. Confirm measurement of 25±3mm from end of tube up to end of tape then continue the taping process using both hands.</p>	<p>MEASURING TAPE</p> 	<p>1. Check the tape from COT to SV tube (Vinyl) (Conduct bending for verification) 2. No flip out tape. 3. No tape peeling. 4. No loose tape</p> <p>Important reminders/Note/s: 1. Please use calibrated/verified measuring tape when getting the measurement.</p> 

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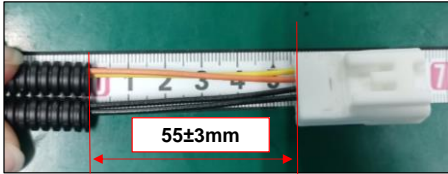
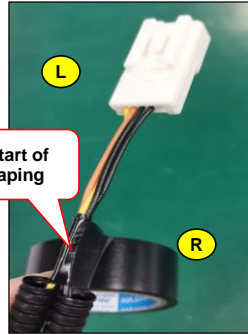
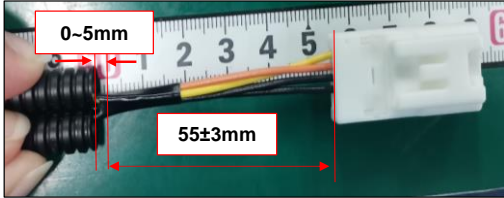

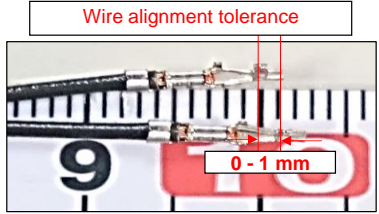
☒ MASSPRO

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PARTS:		1. Assy parts 2. Black tape		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
4	P2	Spot taping	<div><p>1. Combine the 2 COT and wires. Measure from end of Combined COT up to edge of connector 55±3mm using both hands.</p></div> <div><p>2. Get the Black tape using right hand then conduct 2 windings of tape using both hands.</p></div> <div><p>3. After taping, check the measurement and taping condition.</p></div>	<div><p>MEASURING TAPE</p></div> <div><p>Wire alignment tolerance 0 - 1 mm</p></div>	<div>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</div> <div>Important reminders/Note/s: 1. Please use calibrated/verified measuring tape when getting the measurement.</div>

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PARTS:

1. Assy parts
2. Black tape

JIG:

n/a

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

5

P2

Y-taping

1. Fix the 2 corrugated tube. Follow the correct connector orientation.
Note: 2 COT must be aligned.

2. Start taping at the middle of combined COT & wires, then wind the tape going to 2 corrugated tubes (2 windings) , width must be same with tape (**25mm**)

3. Wind the tape 1/3 shifting until it reach the wires (must be tape width)

4. Wind the tape backward 1/2 shifting

5. Wind the tape 1/2 shifting going to spot tape. Cover the spot tape & wire 1/3 shifting. Measure end of COT up to connector **55±3mm** then make **3 windings** of tape before cutting of tape.

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

Note: Do not exert excessive force during pulling & winding of tape

taping direction

tape shifting 1/3 below

25±3mm

tape shifting 1/2 below

55±3mm

25±3mm

0 ~ 5mm

Tape shifting 9mm below

25±3mm

25±3mm

MEASURING TAPE



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

Important reminders/Note/s:

1. Please use calibrated/verified measuring tape when getting the measurement.
2. Used yellow tape to easily visualize the tape shifting but actual should be **BLACK TAPE**

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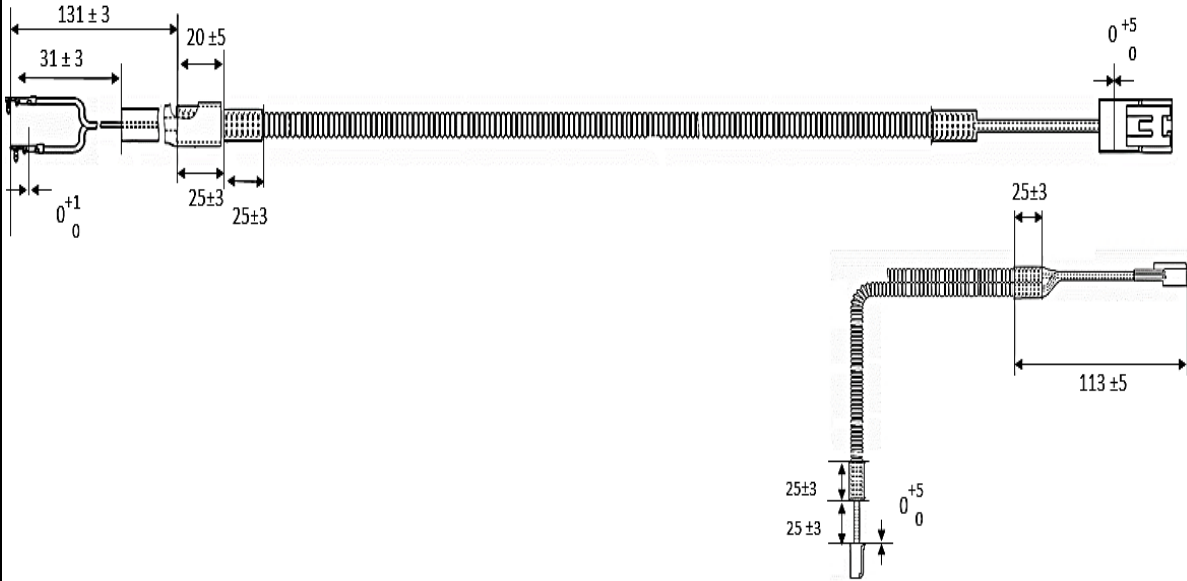

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

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PARTS:	1. Assy parts		JIG:	1. Measuring tape
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
6	P2 Measurement			1. No wrong dimension <div>MEASURING TAPE</div> <div>Important reminders and note/s: 1. Please use calibrated/verified measuring tape when getting the measurement. 2. For Hatsumono, Nakamono and Owarimono. Document reference/s: 1. Refer to WI-PRO-ASY-056 for Sub-assembly Hatsumono Nakamono Owarimono Inspection</div>

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PARTS:

n/a

JIG:

n/a

VISUAL INSPECTION/QUALITY CHECKPOINTS**P2****7N0197-7020A**

1 No Missing Tape
(y-taping)

2 No Wrong Used of tape

3 No Deformed terminal

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