



WORK INSTRUCTION

TAPING ASSEMBLY PROCESS

Effectivity Date:

February 28, 2025

Process Name/Title:

Validity Date:

n/a

Model code/Part number:

339D / 7N0161-7020B

Customer:

TRJ

Car Model:

TOYOTA-BZ4X

Document No.:

WI-ENG-PDE-1172

Purpose:



PROTOTYPE



PRE-LAUNCH



MASSPRO

Revision No.:

1

Page No.:

1 of 7

PARTS:

1. Assy parts; Black VM tube (Sunprene) $\varnothing 9$ L=120 \pm 3mm ; Black tape

JIG:

n/a

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

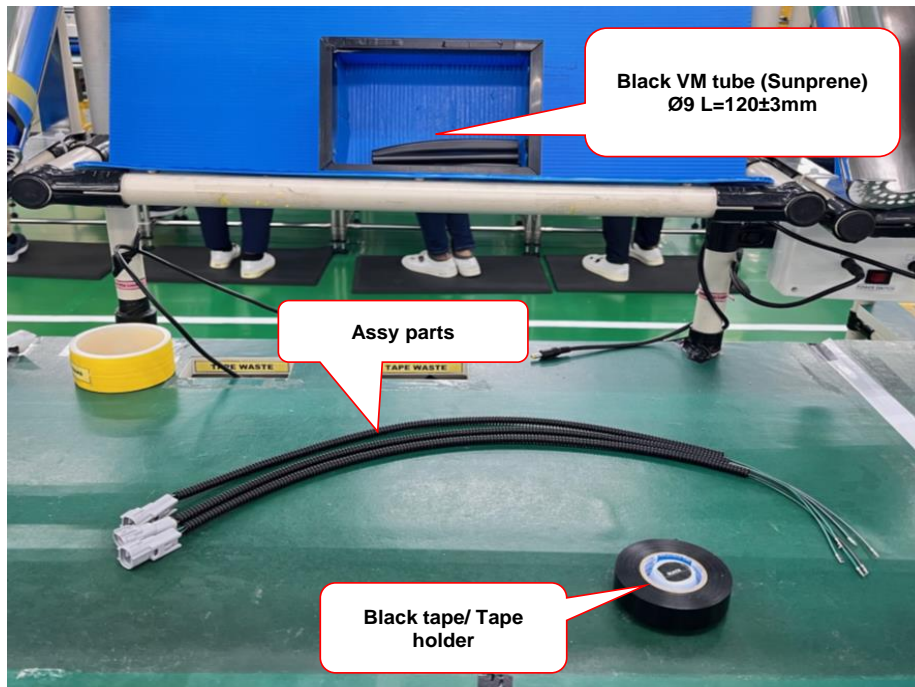
QUALITY POINTERS

1

P1

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.

Important reminders/Note/s:

1. Please hold the wire near terminal.
 2. Make sure wires are properly inserted.
- Conduct Pull-Push-Pull-Push after insertion.**
Do not exert extra force.

Document references:

1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.
2. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance

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

Revision History

								Prepared by	Checked by	Reviewed by	Approved by
02/28/25	1	Change from Pre-launch gto Masspro. Separate some process to Offline and Clamp assembly process. Improved Measurement and Visual inspection. Inclusion of Table lay-out.	D.Castillo	J. Loterte	C.Villanueva	A. Arañes					
12/03/24	0	Initial issue.	D.Castillo	C.Villanueva	A. Arañes	n/a					
Eff. Date	Rev. No	Details of Change	Revised	Checked	Reviewed	Approved	Est. Date:	December 03, 2024			

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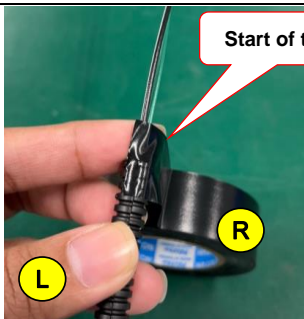
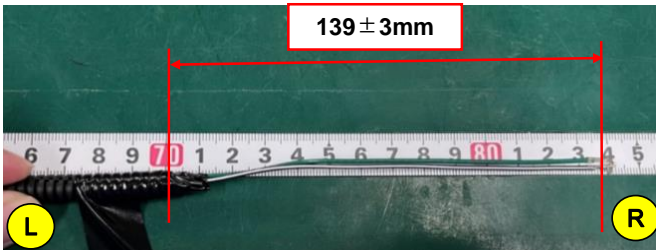
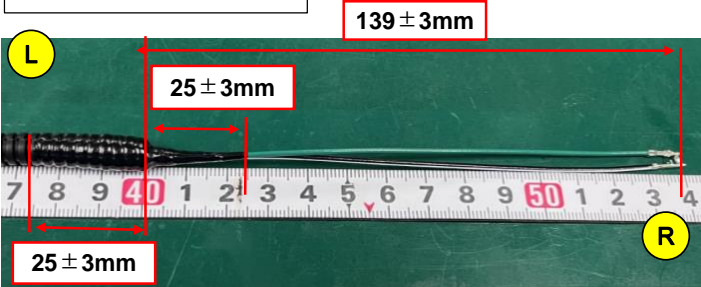
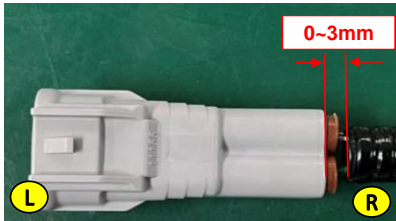

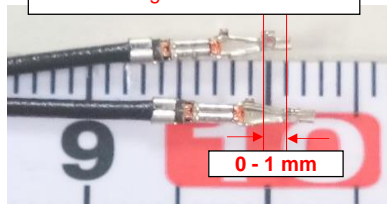
WI-ENG-PDE-1172

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PARTS:		1. Assy part 2. Black tape	JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
2	P1 Taping 1 Corrugated tube to wire near Connector	<div><p>Start of taping</p></div> <div><p>139 ± 3mm</p></div> <div><p>1. Hold the corrugated tube using left hand. Get the Black tape using right hand then start taping between COT to wire using both hands.</p><p>2. Measure from end of the corrugated tube up to terminal pointed tip 139±3mm then continue the taping process using both hands.</p></div> <div><p>25 ± 3mm</p><p>25 ± 3mm</p><p>139 ± 3mm</p><p>0~3mm</p><p>3. After taping, check the measurement, terminal alignment and taping condition.</p></div>	<div>MEASURING TAPE</div> 	<p>Important reminders/Note/s:</p> <p>1. Please use calibrated/verified measuring tape when getting the measurement.</p> <p>Document references:</p> <p>1. Refer to WI-PRO-ASY-001A for Taping process</p> <p>1. No flip-out tape 2.No peel-off tape 3. No loose tape 4. No wrong dimension 5. No wrong use of tape 6. No missing tape 7. No insufficient tape</p> <div>Wire alignment tolerance</div>  <p>0 - 1 mm</p>

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PARTS:

1. Assy parts
2. Black tape

JIG:

n/a

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

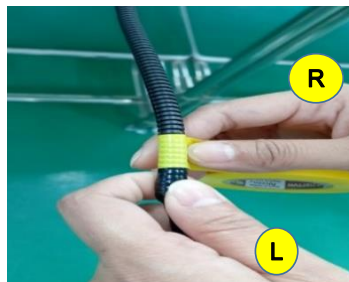
TOOLS/PPE

QUALITY POINTERS

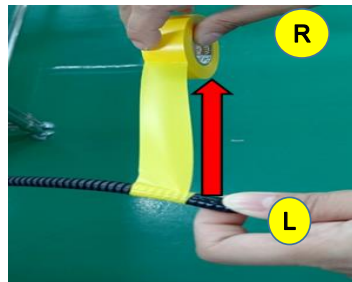
3

P1

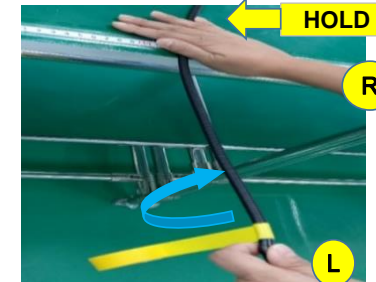
Half-wrap taping



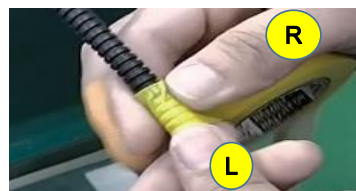
1. Attach the tape, then make **2 windings**.



2. Pull the tape around **150mm~200mm**.



3. Hold the other side of the harness on the table and apply force to rotate the tape to make halfwrap shifting until cover the COT with slit.s

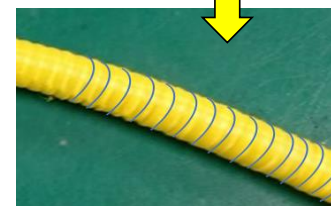


4. Make **2 windings** before cut the tape.



5. After taping, check the condition of tape. **THERE MUST BE NO EXPOSED COT BETWEEN HALF WRAP TAPING.**

6. Conduct **3x pressing** at the end of Taping to prevent peel off and loose tape using left thumb.



Appearance after Taping

Document reference/s:

1. Refer to **WI-PRO-ASY-001C** for taping procedure (special).

Important reminders/Note/s:

1. Use **Yellow tape** for easy visualization of tape shifting, but actual should be **BLACK TAPE**.

2. Internal tolerance for halfwrap taping shifting should be **0~14mm only**.

1. No loose/tight tape
2. No flip-out tape
3. No peel-off tape
4. No exposed COT between tape windings

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PARTS:

1. Black VM tube (Sunprene) $\varnothing 9$ L=120 \pm 3mm
2. Assy parts

JIG:

n/a

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

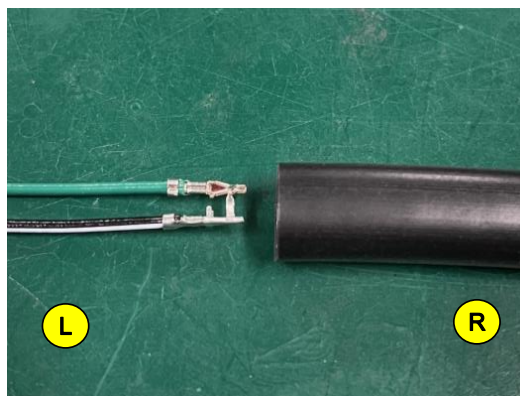
TOOLS/PPE

QUALITY POINTERS

4

P1

Wire insertion to
Black VM tube
 $\varnothing 9$ L=120 \pm 3mm



1. Hold the assy parts using left hand and get the Black VM tube $\varnothing 9$ L=120 \pm 3mm then insert using right hand.



2. Measure end of VM tube (Sunprene) up to end of COT inside VM tube (Sunprene) 20 \pm 5mm

n/a

1. No wrong use of parts
2. No deformed terminal

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1. Assy parts
2. Black tape

JIG:

n/a

NO.

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WORK PROCEDURE/ ILLUSTRATION

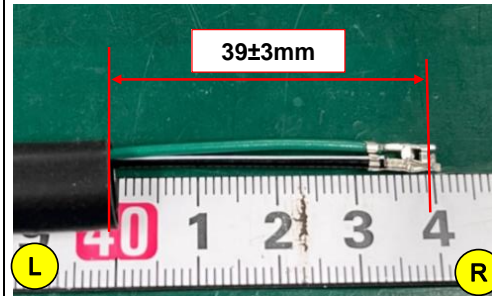
TOOLS/PPE

QUALITY POINTERS

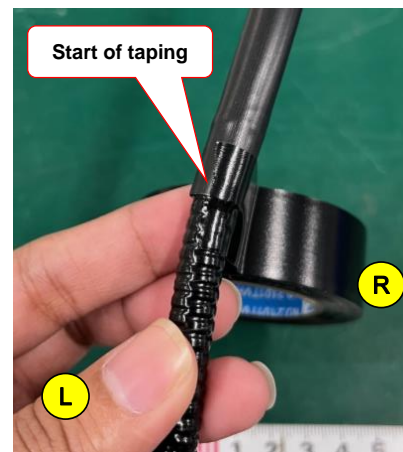
5

P1

Taping 2
COT to VM tube
(Sunprene)



1. Measure from end of the VM tube (Sunprene) up to terminal tip **39±3mm**.



2. Hold the assy parts using left hand and start taping using right hands.



3. After taping, check the dimension, terminal appearance and taping condition.

MEASURING TAPE

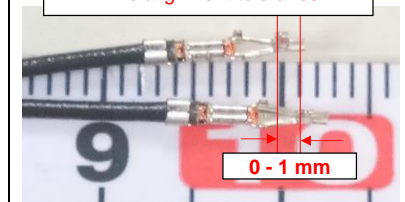


Important reminders/Note/s:
1. Please use calibrated/verified measuring tape when getting the measurement.

Document references:
1. Refer to WI-PRO-ASY-001B for Taping process

1. No flip-out tape
2. No peel-off tape
3. No loose tape
4. No wrong dimension
5. No wrong use of tape
6. No missing tape
7. No insufficient tape

Wire alignment tolerance



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6 of 7**PARTS:**

1. Assy parts

JIG:

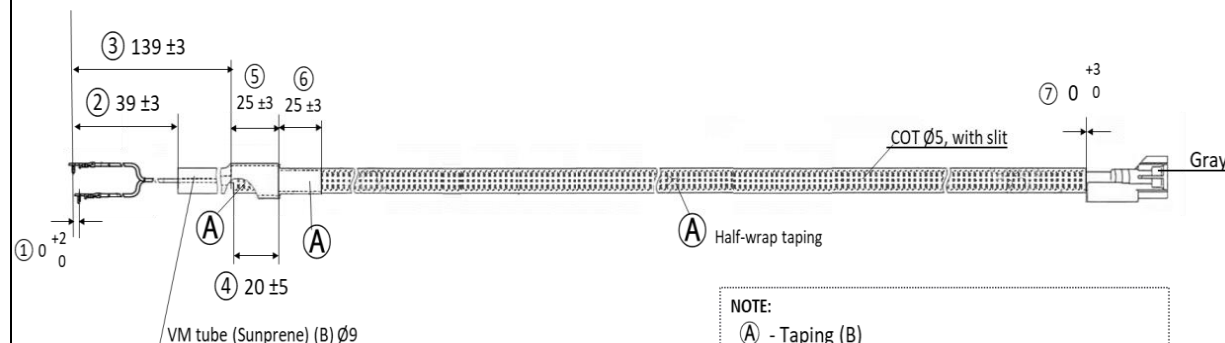
n/a

NO.**PROCESS NAME****1****WORK PROCEDURE/ ILLUSTRATION****TOOLS/PPE****QUALITY POINTERS**

6

P1

Measurement

**MEASURING
TAPE****Important reminders and note/s:****1. Please use calibrated/verified measuring tape when getting the measurement.****2. For Hatsumono and Owarimono.****Document reference/s:****1. Refer to *WI-PRO-ASY-056* for Sub-assembly Hatsumono Nakamono Owarimono Inspection**

1. No wrong dimension

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1. Assy parts

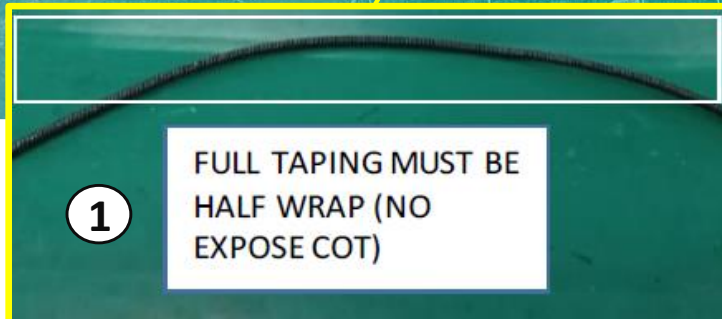
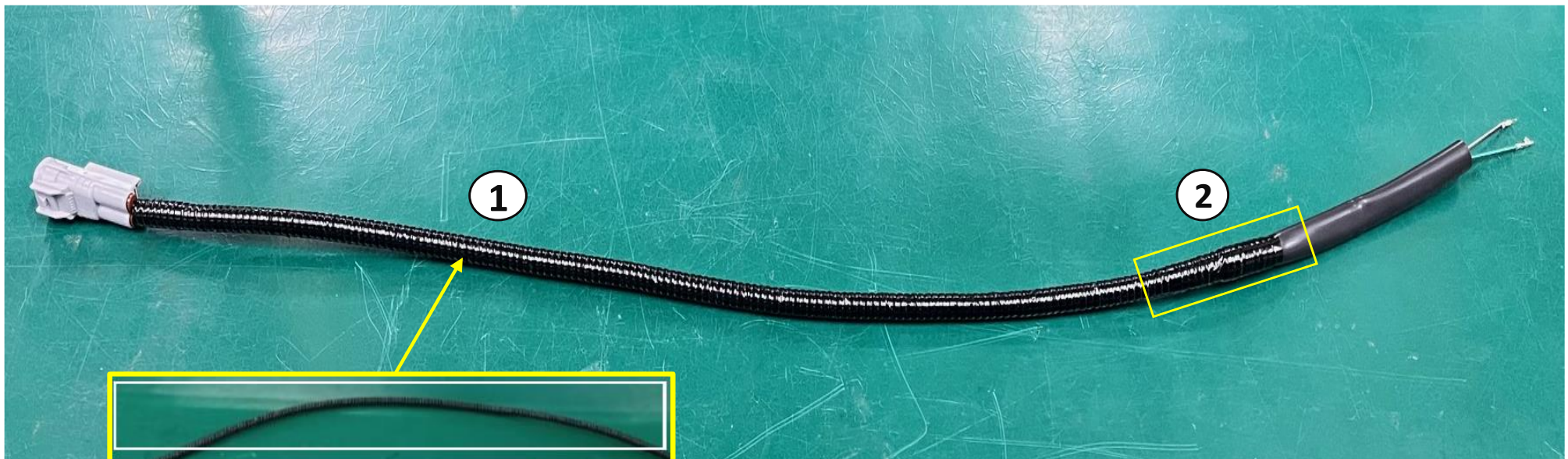
JIG:

n/a

**VISUAL INSPECTION/ QUALITY CHECKPOINTS**

TAPING - P1

7N0161-7020B

**1****FULL TAPING MUST BE
HALF WRAP (NO
EXPOSE COT)****2****No Missing tape**

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