



WORK INSTRUCTION

TAPING ASSEMBLY PROCESS

Effectivity Date:

October 04, 2024

Process Name/Title:

Model code/Part number:

310D / 7N0201-7020B

Customer: TRJ

Car Model: TOYOTA RAV4

Validity Date:

n/a

Document No.:

WI-ENG-PDE-1014C

Purpose:



PROTOTYPE



PRE-LAUNCH



MASSPRO

Revision No.:

0

Page No.:

1 of 9

PARTS: 1. Assy parts; Black Tape

JIG:

1. Insertion jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

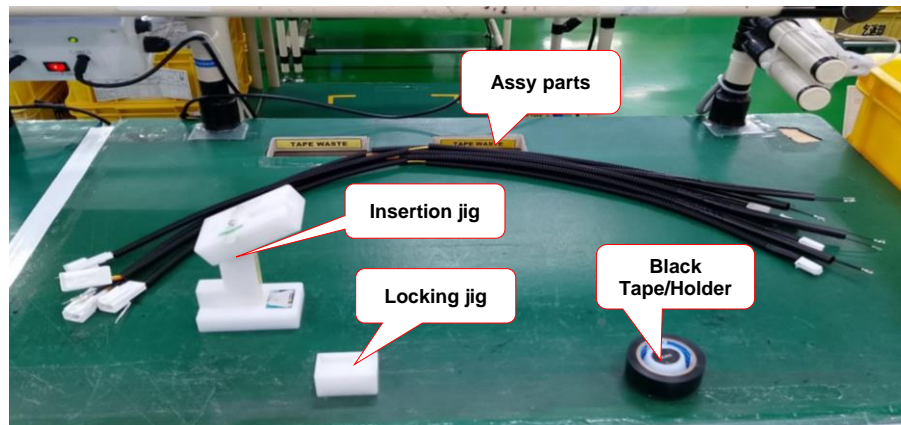
QUALITY POINTERS

1

P3

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. Refer to WI-ENG-PDE-675 for Offline assembly process
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

Reviewed by

Approved by

Noted by

10/04/24

0

Initial issue.

A.Hernandez

C.Villanueva

A. Arañes

n/a

A.Hernandez

C.Villanueva

A.Arañes

n/a

Eff. Date

Rev. No

Details of Change

Revised

Reviewed

Approved

Noted

Est. Date:

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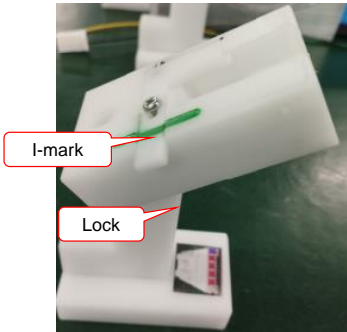


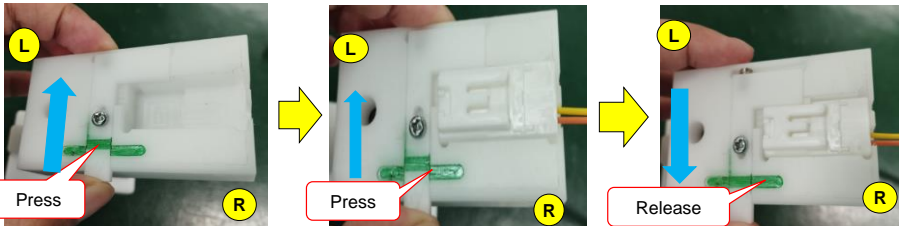
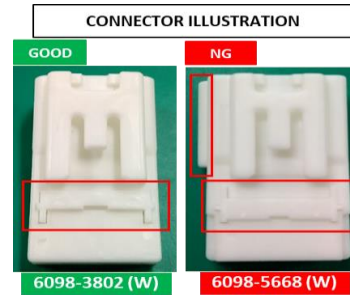
MASSPRO

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PARTS:		1. Assy parts		JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
2	P3	<div><p>INSERTION JIG ORIENTATION</p></div> <div><p>CONNECTOR ORIENTATION</p></div> <div><p>WIRE FACING</p></div> <div><p>1. Press the Lock of insertion jig using left hand.</p><p>2. Get the connector 6098-3802 (W) using right hand and insert to insertion jig. Release the lock after insertion.</p></div>		n/a	<div><p>CONNECTOR ILLUSTRATION</p><p>1. Use provided jig per model 2. No wrong orientation of connector</p></div>

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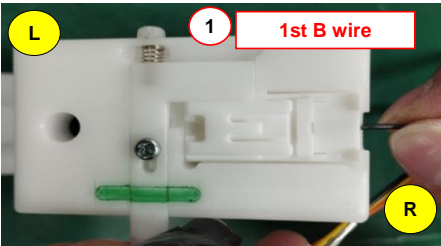
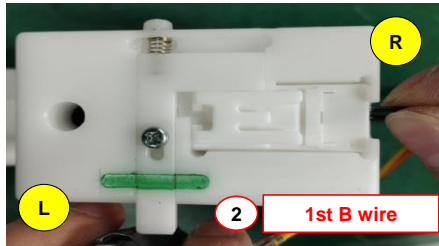
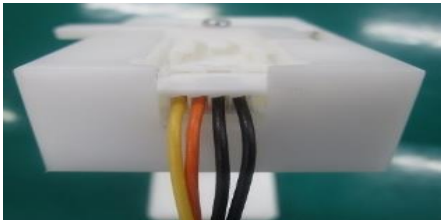
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PARTS:	1. Assy parts		JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
3	P3 Wire insertion to assy parts	<div><p>Connector Orientation</p></div> <div><p>Wire facing</p></div> <div><p>1. Hold the 1st Black wire and insert to terminal slot 3 using right hand. Conduct 2x Pull-Push-Pull-Push after insertion</p></div> <div><p>2. Hold the 2nd Black wire and insert to terminal slot 3 using right hand. Conduct 2x Pull-Push-Pull-Push after insertion</p></div> <div><p>3. After insertion, push the lock using left thumb and then hold the wires and gently pull out the connector from jig using right hand.</p></div>	9	<div>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deformed terminal 5. No wrong wire facing</div> <div>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.</div> <div>Document references: 1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</div>

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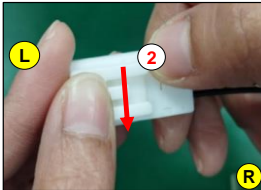
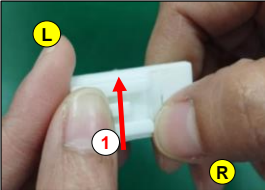

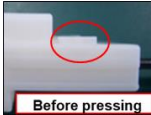


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PARTS:	1. Assy parts			JIG:	1. Locking jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
4	P3 Connector lock	<div><p>1. Load the connector into the jig holding both side of the connector, tip first.</p></div> <div><p>2. Press the lower part of connector to fully insert into the locking jig.</p></div> <div><p>Right thumb-Lower Left thumb-middle</p><p>3. Press the lower parts of connector using right hand while left hand holding the middle.</p></div> <div><p>Right thumb-upper Left thumb-middle</p><p>4. Press the upper part of connector using right hand while left hand holding the middle.</p></div> <div><p>Right thumb-middle Left thumb-middle</p><p>5. Lift then press the connector in the middle using left and right hand.</p></div> <div><p>6. Ensure that connector is in locked condition by slide touching the connector lock based on the sequence illustrated.</p></div>		n/a	<p>Important reminders/Note/s:</p> <p>1. Manual locking may cause damaged connector lock.</p> <p>1. Use the provided locking jig per model 2. No unlock/half-lock connector</p> <div></div> <div></div>

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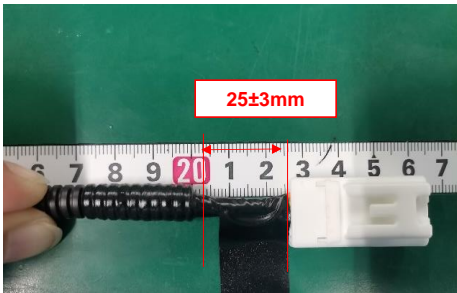
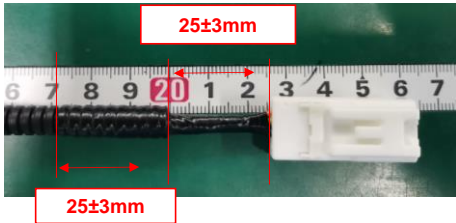

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PARTS:		1. Assy parts 2. Black Tape		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
5	P3 Taping 2 Black Corrugated tube to wire near connector	 <p>1. Hold the assy parts using left hand. Get Black tape using right hand and start pre-taping.</p>  <p>2. Measure from COT to Connector 25±3mm using both hands and continue the taping process.</p>  <p>3. Check the measurement and taping condition after taping.</p>			<p>Important reminders/Note/s:</p> <p>1. 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 use of tape 6. No wrong dimension</p>

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PARTS:

JIG:

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

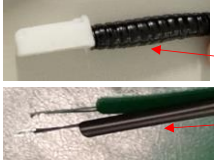
TOOLS/PPE

QUALITY POINTERS


6

P3

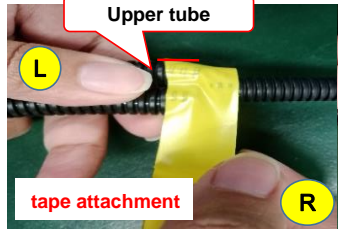
Y-taping




CORRECT FACING



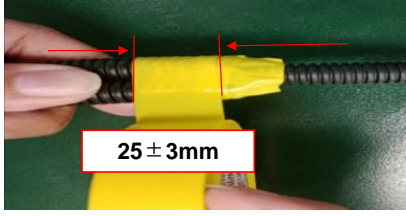
1. Fix the 3 corrugated tube.
Note: Follow the correct facing. (If need to standard)



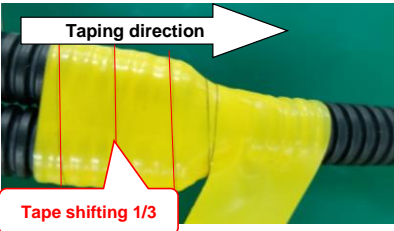
Upper tube
pre-tape
tape attachment
L
R



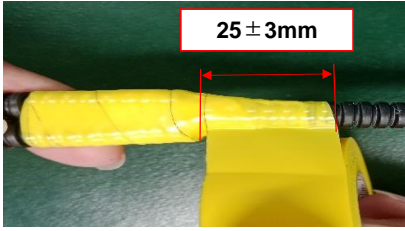
taping direction
Tape shifting 1/2



25 ± 3mm



Taping direction
Tape shifting 1/3



25 ± 3mm

2. Start taping at the middle of combined tubes, attach the tape on the upper tube. Then make pre-tape **2 windings**.
Note: Do not exert excessive force during pulling & winding of tape.

3. Winding the tape **1/2 shifting** going to the left side.

4. Make **2 windings**, width must be **25±3mm**.

5. Winding the tape **1/3 shifting** going to the right side until reach the other side of tube.

6. Make **2 windings**, width must be **25±3mm**.

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. Please use calibrated/verified measuring tape when getting the measurement.

1. No loose tape
2. No flip-out tape
3. No peel-off tape
4. No wrong use of tape
5. No wrong dimension-out tape
6. No exposed wire
7. No gap between tubes

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PARTS:

JIG:

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

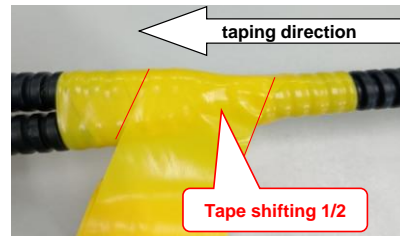
TOOLS/PPE

QUALITY POINTERS

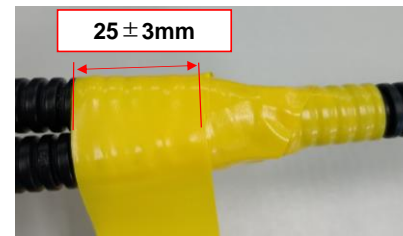
6

P3

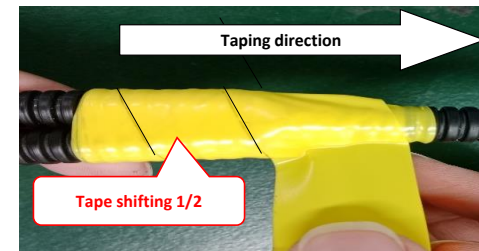
Y-taping
(Continuation)



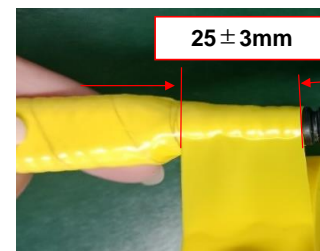
7. Winding the tape **1/2 shifting** going to the left side.



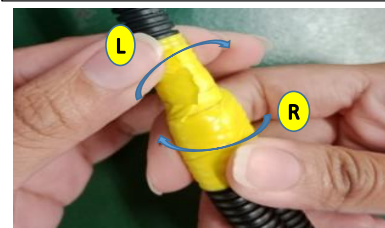
8. Make **2 windings**, width must be **25±2mm**.



9. Winding the tape **1/2 shifting** going to the right side until it reach the other side of tube



10. Make **3 winds**, width must be **25±3mm**. Then cut the tape.



11. conduct proper pressing of end tape using left hand (**top part**).
Note: Reference only.



12. conduct proper pressing of end tape using left hand (**Middle part**).
Note: Reference only.



13. conduct proper pressing of end tape using left hand (**bottom part**).
Note: Reference only.

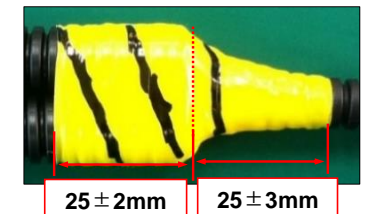
Document reference/s:

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. Please use calibrated/verified measuring tape when getting the measurement.

1. No loose tape
2. No flip-out tape
3. No peel-off tape
4. No wrong use of tape
5. No wrong dimension-out tape
6. No exposed wire
7. No gap between tubes



14. Check the Measurement and condition of tape.

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PARTS:

1. Assy parts

JIG:

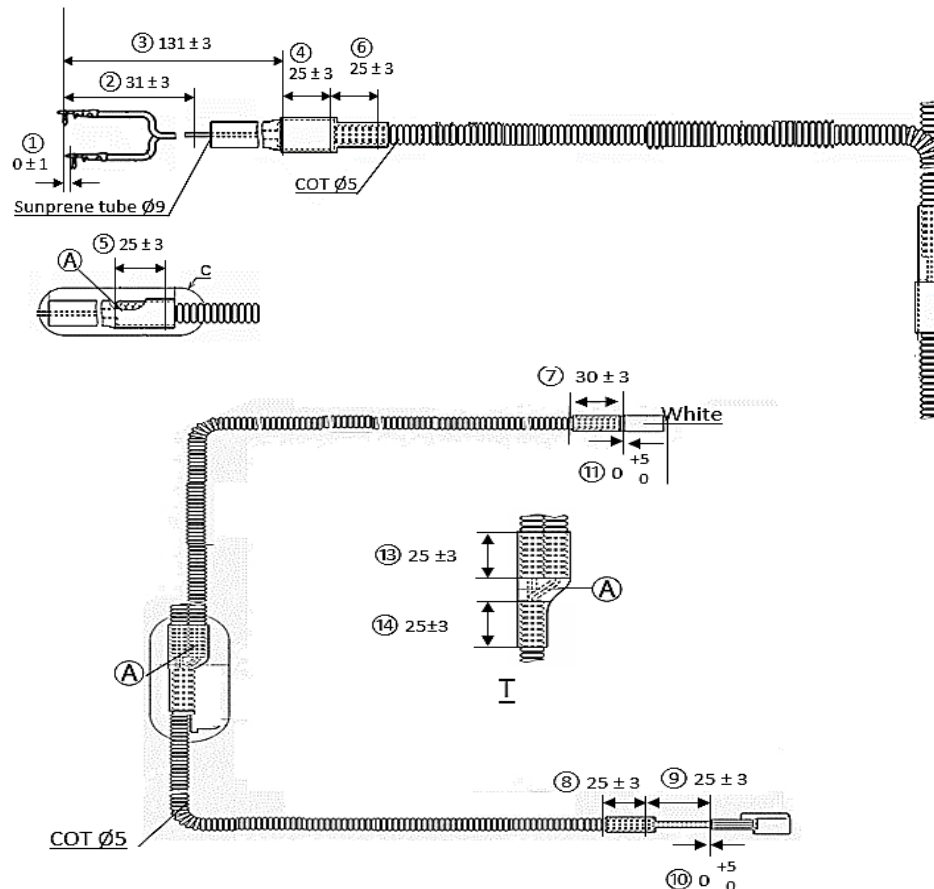
n/a

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

7

P3

Measurement

**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

1. No wrong dimension

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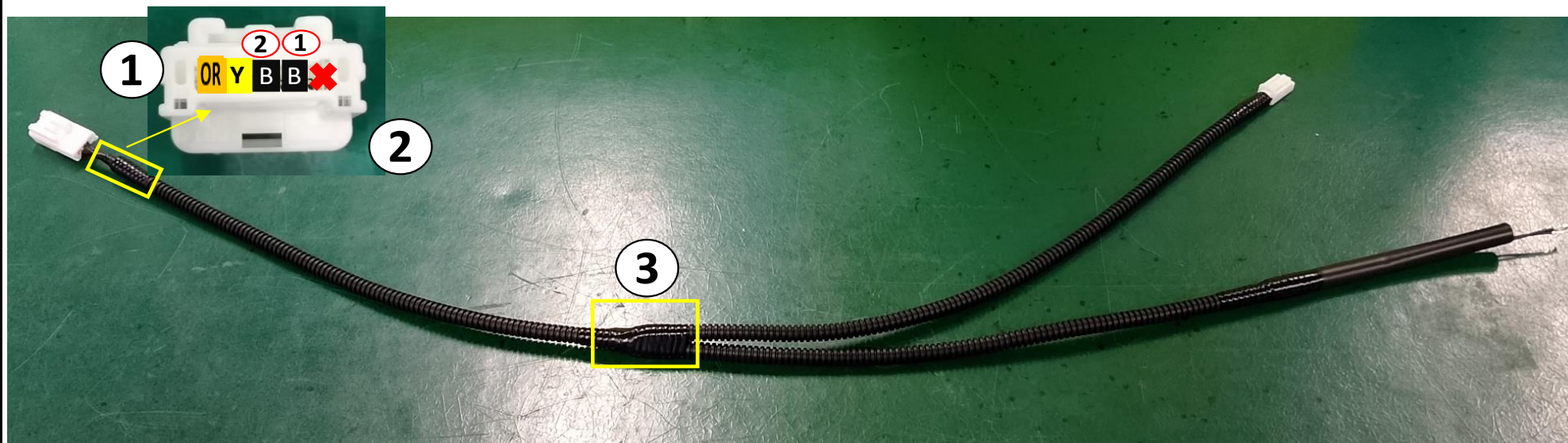
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PARTS:

n/a

JIG:

n/a

VISUAL INSPECTION/ QUALITY CHECKPOINTS**TAPING - P3****7N0201-7020B****1 No Wrong insert****2 No Half locked/
Unlocked Connector****3 No Wrong Facing of
Y-Taping****5 No Deformed Terminal****6 No Terminal Backing
Out**

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