



## WORK INSTRUCTION

## TAPING ASSEMBLY PROCESS

Effectivity Date:

December 12, 2023

Process Name/Title:

Model code/Part number:

310D / 7N0201-7020

Customer: TRJ

Car Model: TOYOTA RAV 4

Validity Date:

n/a

Document No.:

WI-ENG-PDE-761

Purpose:

☐ PROTOTYPE☒ PRE-LAUNCH☐ MASSPRO

Revision No.:

0

Page No.:

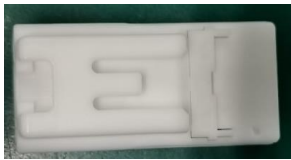


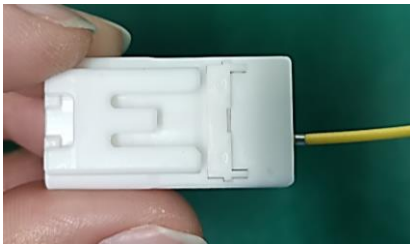
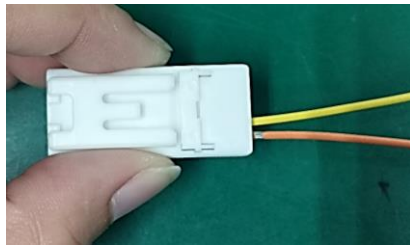
1 of 20

## PARTS:

1. Connector 6098-3802 (W)
2. AVSSf 0.3 wires Y-OR L=733±3mm

JIG:

n/a

NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
1	n/a Wire Insertion to Connector 6098-3802 (W)	<div> Connector orientation</div> <div> VISUAL REFERENCE</div> <div> Wire facing</div> <div> 1. Hold the connector <b>6098-3802 (W)</b> then get the <b>Yellow wire</b> and insert to terminal <b>slot 2</b> using right hand. Conduct <b>2x</b> push-pull after wire insertion.</div> <div> 2. Get the <b>Orange wire</b> and insert to terminal <b>slot 1</b> using right hand. Conduct <b>2x</b> push-pull after wire insertion.</div>	<div><b>Safety Instruction</b> Be sure to wear required personal protective equipment during operation (gloves, finger cots, etc.)</div> <div><b>Housekeeping</b> 1. Maintain and always practice 5's. 2. Personal things on the workplace is prohibited. Keep it in your locker.</div> <div><b>Alert level</b> For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.</div>	<div>1. No wrong orientation of connector 2. No wrong use of connector 3. No damaged connector 4. No wrong insertion of wires 5. No loose insertion 6. No wrong insertion 7. One by one insertion 8. No deformed terminal 9. No wrong wire facing</div> <div><b>Important reminders/Note/s:</b> <b>1. Please hold the wire near terminal.</b> <b>2. Make sure wires are properly inserted.</b> <b>Conduct Pull-Push-Pull-Push after insertion.</b> <b>Do not exert extra force.</b></div> <div><b>Document references:</b> <b>1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</b> <b>2. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</b></div>

## Revision History

Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Est. Date:	Prepared by	Reviewed by	Approved by	Noted by
12/12/23	0	Initial issue.	A.Hernandez	C.Villanueva	A. Arañes	n/a		A.Hernandez	C.Villanueva	A. Arañes	n/a
December 12, 2023											

**CONFIDENTIAL:** Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

NBC (Philippines)  
**MASTER COPY**

DCC Stamp

**WORK INSTRUCTION**

Effectivity Date:

December 12, 2023

Process Name/Title:

**TAPING ASSEMBLY PROCESS**

Validity Date:

n/a

Model code/Part number:

**310D / 7N0201-7020**

Customer:

**TRJ**

Car Model:

**TOYOTA RAV 4**

Document No.:

**WI-ENG-PDE-761**

Purpose:



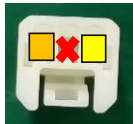


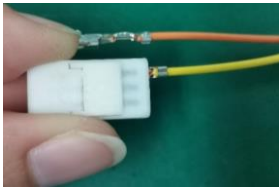

☐ PROTOTYPE☒ PRE-LAUNCH☐ MASSPRO

Revision No.:

0

Page No.:

2 of 20

<b>PARTS:</b>		1. Assy parts 2. Black Corrugated tube ø5 L=413±4mm (no slit) 3. Black Corrugated tube ø5 L=251±3mm (no slit)		4. Connector 6098-2220 (W)	JIG:	n/a
<b>NO.</b>	<b>PROCESS NAME</b>		<b>WORK PROCEDURE/ ILLUSTRATION</b>		<b>TOOLS/PPE</b>	<b>QUALITY POINTERS</b>
2	Wire Insertion to Black Corrugated tube ø5 L=413±4mm (no slit)		 <div>1. Get the <b>Black corrugated tube ø5 L=413±4mm (no slit)</b> using left hand and get <b>Y-OR wires</b> using right hand then insert.</div>		n/a	1. No wrong usage of parts. 2. No deformed terminal
3	Wire Insertion to Black Corrugated tube ø5 L=251±3mm (no slit)		 <div>1. Get the <b>Black corrugated tube ø5 L=251±3mm (no slit)</b> using left hand and get <b>Y-OR wires</b> using right hand then insert.</div>		n/a	1. No wrong usage of parts. 2. No deformed terminal
4	Wire Insertion to Connector 6098-2220 (W)		   <div>Wire facing</div>   <div>1. Hold the connector <b>6098-2220 (W)</b> then get the <b>Yellow wire</b> and insert to terminal <b>slot 3</b> using right hand. Conduct <b>2x</b> push-pull after wire insertion.</div> <div>2. Get the <b>Orange wire</b> and insert to terminal <b>slot 1</b> using right hand. Conduct <b>2x</b> push-pull after wire insertion.</div>		n/a	1. No wrong orientation of connector 2. No wrong use of connector 3. No damaged connector 4. No wrong insertion of wires 5. No loose insertion 6. No wrong insertion 7. One by one insertion 8. No deformed terminal 9. No wrong wire facing

**CONFIDENTIAL:** Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

NBC (Philippines)  
**MASTER COPY**

DCC Stamp



# WORK INSTRUCTION

## TAPING ASSEMBLY PROCESS

Effectivity Date:

December 12, 2023

Process Name/Title:

Model code/Part number:

310D / 7N0201-7020

Customer: TRJ

Car Model: TOYOTA RAV 4

Validity Date:

n/a

Document No.:

WI-ENG-PDE-761

Purpose:

☐ PROTOTYPE

☒ PRE-LAUNCH

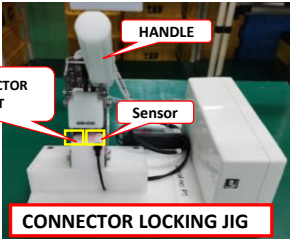

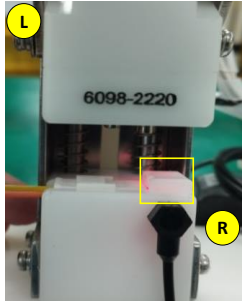
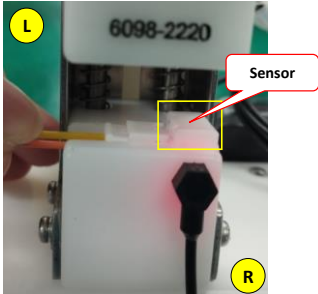
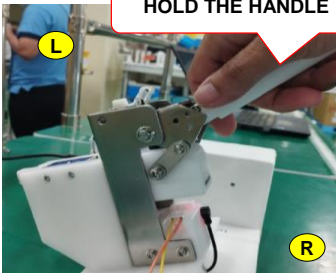

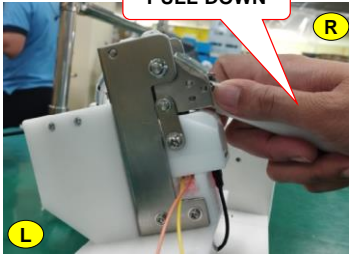
☐ MASSPRO

Revision No.:

0

Page No.:

3 of 20

PARTS:		1. Assy parts		JIG:	1. Locking jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
5	n/a	Connector lock			
		<div><div></div><div></div><div></div><div></div></div> <div><p>1. Hold the assy parts using left hand and insert into connector locking jig based on the direction of arrow. Make sure the connector touch the sensor. Sound will be heard if properly lock. <b>NOTE: CONNECTOR LOCKING JIG WILL NOT FUNCTION IF CONNECTOR NOT REACH THE SENSOR.</b></p></div> <div><div></div><div></div><div></div></div> <div><p>2. Hold the handle of the connector locking jig using right hand then gently pull down and bring back to original position after locking. <b>Note: Pull down one time only.</b></p></div>			<div>1. Maintain 10mm proper holding of wire to terminal. 2. Connector must be fully insert in connector slot. 3. Follow proper orientation of connector 4. Removal of locked connector must be sideways</div>

**CONFIDENTIAL:** Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

NBC (Philippines)  
MASTER COPY

DCC Stamp

**WORK INSTRUCTION****TAPING ASSEMBLY PROCESS**

Effectivity Date:

December 12, 2023

Process Name/Title:

Model code/Part number:

310D / 7N0201-7020

Customer: TRJ

Car Model: TOYOTA RAV 4

Validity Date:

n/a

Purpose:

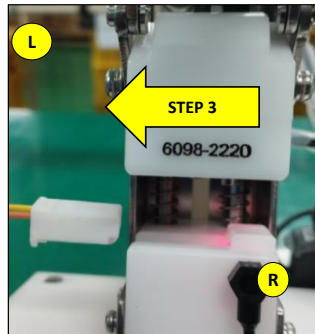
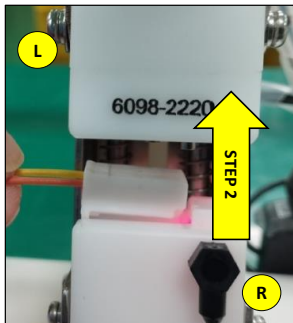

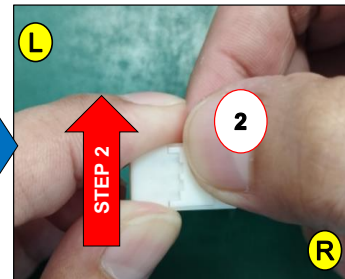
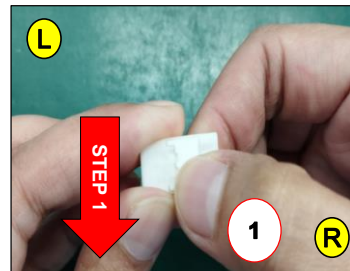
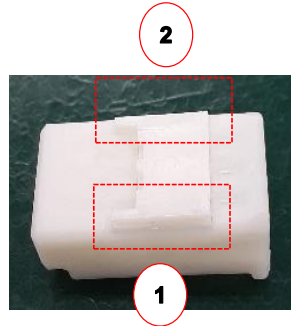
☐ PROTOTYPE☒ PRE-LAUNCH☐ MASSPRO

Revision No.:

0

Page No.:

4 of 20

PARTS:	1. Assy parts		JIG:	1. Locking jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
6	n/a  Connector lock (Continuation)	<div><div>3. Remove the locked connector using left hand based on the illustration, follow the direction of arrow.</div><div><div>4. Ensure that connector is in locked condition by slide touching the connector lock based on the sequence illustrated</div></div></div>		1. Maintain 10mm proper holding of wire to terminal. 2. Connector must be fully insert in connect slot. 3. Follow proper orientation of connector 4. Removal of locked connector must be sideways

**CONFIDENTIAL:** Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

NBC (Philippines)  
**MASTER COPY**

DCC Stamp



# WORK INSTRUCTION

## TAPING ASSEMBLY PROCESS

Effectivity Date:

December 12, 2023

Process Name/Title:

Model code/Part number:

310D / 7N0201-7020

Customer: TRJ

Car Model: TOYOTA RAV 4

Validity Date:

n/a

Document No.:

WI-ENG-PDE-761

Purpose:

☐ PROTOTYPE

☒ PRE-LAUNCH

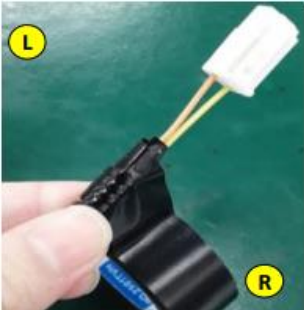
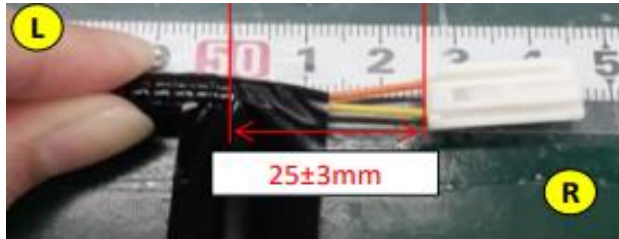
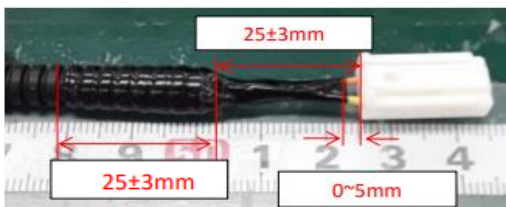


☐ MASSPRO

Revision No.:

0

Page No.:

5 of 20

PARTS:		1. Assy parts 2. Black tape		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
7	n/a Taping 1 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-tape.</p>  <p>2. Measure from COT to Connector <b>25±3mm</b> usinf both hands and continue the taping process.</p>  <p>3. Check the measurement and taping condition after taping.</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> <p><b>Important reminders/Note/s:</b> <b>1. Please use calibrated/verified measuring tape when getting the measurement.</b></p>

**CONFIDENTIAL:** Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

NBC (Philippines)  
**MASTER COPY**

DCC Stamp



**WORK INSTRUCTION**

Effectivity Date:

December 12, 2023

Process Name/Title:

**TAPING ASSEMBLY PROCESS**

Validity Date:

n/a

Model code/Part number:

**310D / 7N0201-7020**Customer: **TRJ**Car Model: **TOYOTA RAV 4**

Document No.:

**WI-ENG-PDE-761**

Purpose:

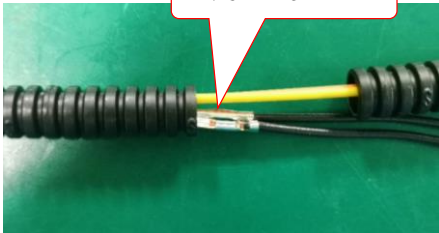
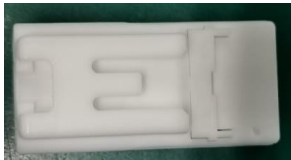
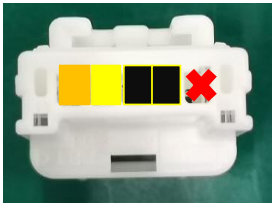
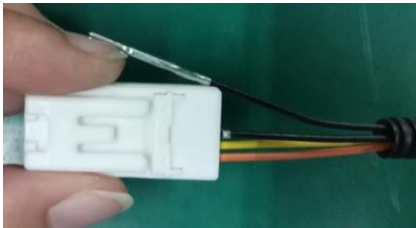

☐ PROTOTYPE☒ PRE-LAUNCH☐ MASSPRO

Revision No.:

0

Page No.:

6 of 20

<b>PARTS:</b>	1. Assy parts 2. AVSSf 0.3 wires B-B L=842±3mm			JIG:	n/a
<b>NO.</b>	<b>PROCESS NAME</b>	<b>WORK PROCEDURE/ ILLUSTRATION</b>		<b>TOOLS/PPE</b>	<b>QUALITY POINTERS</b>
8	Wire insertion to Assy parts	 <div>1. Hold the corrugated tube (no slit) <b>Ø5 L=413±4mm</b> using left hand then insert the <b>B-B</b> wire using right hand.</div>		n/a	1. No wrong use of parts 2. No deformed terminal 3. No wrong use of insertion
9	Wire insertion to Connector 6098-3802 (W)	 <div>Connector orientation</div>  <div>Wire facing</div>  <div>1. Hold the connector <b>6098-3802 (W)</b> then get the <b>Black wire</b> and insert to terminal <b>slot 3</b> using right hand. Conduct <b>2x</b> push-pull after wire insertion.</div>  <div>2. Hold the connector <b>6098-3802 (W)</b> then get the <b>Black wire</b> and insert to terminal <b>slot 4</b> using right hand. Conduct <b>2x</b> push-pull after wire insertion.</div>		n/a	1. No wrong orientation of connector 2. No wrong use of connector 3. No damaged connector 4. No wrong insertion of wires 5. No loose insertion 6. No wrong insertion 7. One by one insertion 8. No deformed terminal 9. No wrong wire facing  <b>Important reminders/Note/s:</b> <b>1. Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.</b> <b>2. Please hold the wire near terminal</b> <b>Document references:</b> <b>1. Refer to WI-PRO-CNC-017 for Wire and Strip length tolerance.</b> <b>2. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</b>

**CONFIDENTIAL:** Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

**NBC (Philippines)**  
**MASTER COPY**

DCC Stamp

**WORK INSTRUCTION****TAPING ASSEMBLY PROCESS**

Process Name/Title:

Model code/Part number:

**310D / 7N0201-7020**Customer: **TRJ**Car Model: **TOYOTA RAV 4**

Purpose:

☐ PROTOTYPE☒ PRE-LAUNCH☐ MASSPRO

Effectivity Date:

**December 12, 2023**

Validity Date:

**n/a**

Document No.:




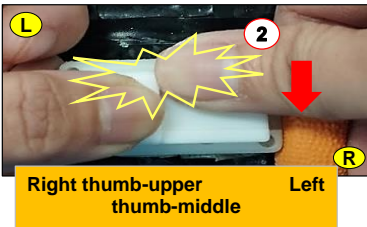




**WI-ENG-PDE-761**

Revision No.:

**0**

Page No.:

**7 of 20**

<b>PARTS:</b>	1. Assy parts			JIG:	1. Locking jig
<b>NO.</b>	<b>PROCESS NAME</b>	<b>WORK PROCEDURE/ ILLUSTRATION</b>		<b>TOOLS/PPE</b>	<b>QUALITY POINTERS</b>
10	n/a  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 thumb-middle      Left</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>		<div><b>LOCKING JIG</b></div> 	<p><b>Important reminders/Note/s:</b></p> <p><b>1. MANUAL LOCKING MAY CAUSE DAMAGED CONNECTOR</b></p> <p>1. Use the provided jig per connector 2. No unlock/half-locked connector</p>

**CONFIDENTIAL:** Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

**NBC (Philippines)**  
**MASTER COPY**

DCC Stamp



## WORK INSTRUCTION

## TAPING ASSEMBLY PROCESS

Effectivity Date:

December 12, 2023

Process Name/Title:

Model code/Part number:

310D / 7N0201-7020

Customer: TRJ

Car Model: TOYOTA RAV 4

Validity Date:

n/a

Document No.:

WI-ENG-PDE-761

Purpose:


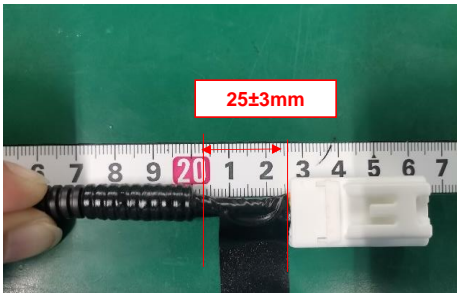
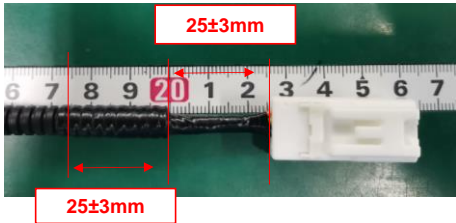

☐ PROTOTYPE☒ PRE-LAUNCH☐ MASSPRO

Revision No.:

0

Page No.:

8 of 20

PARTS:		1. Assy parts 2. Black Tape		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
11	n/a 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 <b>25±3mm</b> using both hands and continue the taping process.</p>  <p>3. Check the measurement and taping condition after taping.</p>		 <p>MEASURING TAPE</p>	<p><b>Important reminders/Note/s:</b></p> <p><b>1. Please use calibrated/verified measuring tape when getting the measurement.</b></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>

**CONFIDENTIAL:** Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

NBC (Philippines)  
**MASTER COPY**

DCC Stamp



**WORK INSTRUCTION**

Effectivity Date:

December 12, 2023

Process Name/Title:

**TAPING ASSEMBLY PROCESS**

Validity Date:

n/a

Model code/Part number:

**310D / 7N0201-7020**Customer: **TRJ**

Car Model:

**TOYOTA RAV 4**

Document No.:

**WI-ENG-PDE-761**

Purpose:





☐ PROTOTYPE☒ PRE-LAUNCH☐ MASSPRO

Revision No.:

0

Page No.:

9 of 20

<b>PARTS:</b>		1. Assy parts 2. Black Corrugated tube (no slit) $\phi 5$ L=262 $\pm$ 3mm		JIG:	n/a
<b>NO.</b>	<b>PROCESS NAME</b>	<b>WORK PROCEDURE/ ILLUSTRATION</b>		<b>TOOLS/PPE</b>	<b>QUALITY POINTERS</b>
12	n/a	<div><div></div><div><div></div><div><div></div></div></div><div>1. Get the terminal cover jig using right hand and insert the Black wires using left hand.</div><div>2. Get the <b>Black Corrugated tube (no slit) <math>\phi 5</math> L=262<math>\pm</math>3mm</b> using right hand and insert the wires using left hand.</div><div>3. After insertion, remove the terminal cover jig using right hand.</div></div>		<div>TERMINAL COVER JIG</div> <div></div>	1. No wrong use of parts 2. No deformed terminal

**CONFIDENTIAL:** Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

**NBC (Philippines)**  
**MASTER COPY**

DCC Stamp

**WORK INSTRUCTION****TAPING ASSEMBLY PROCESS**

Process Name/Title:

Effectivity Date:

December 12, 2023

Model code/Part number:

**310D / 7N0201-7020**

Customer:

**TRJ**

Car Model:

**TOYOTA RAV 4**

Validity Date:

n/a

Purpose:

☐ PROTOTYPE☒ PRE-LAUNCH☐ MASSPRO

Document No.:



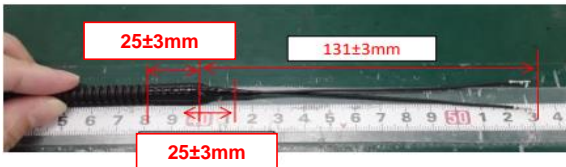

**WI-ENG-PDE-761**

Revision No.:

0

Page No.:

10 of 20

<b>PARTS:</b>		1. Assy parts 2. Black Tape	JIG:	n/a
<b>NO.</b>	<b>PROCESS NAME</b>	<b>WORK PROCEDURE/ ILLUSTRATION</b>	<b>TOOLS/PPE</b>	<b>QUALITY POINTERS</b>
13	n/a  Taping 3 Black Corrugated tube to wire near terminal	   <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 wire near terminal <b>131±3mm</b> using both hands and continue the taping process.</p> <p>3. Check the measurement and taping condition after taping.</p>	<b>MEASURING TAPE</b> 	<b>Important reminders/Note/s:</b>  <b>1. Please use calibrated/verified measuring tape when getting the measurement.</b>  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

**CONFIDENTIAL:** Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

**NBC (Philippines)**  
**MASTER COPY**

DCC Stamp



# WORK INSTRUCTION

## TAPING ASSEMBLY PROCESS

Process Name/Title:

Model code/Part number:

310D / 7N0201-7020

Customer:

TRJ

Car Model:

TOYOTA RAV 4

Purpose:

☐ PROTOTYPE

☒ PRE-LAUNCH

☐ MASSPRO

Effectivity Date:

December 12, 2023

Validity Date:

n/a

Document No.:

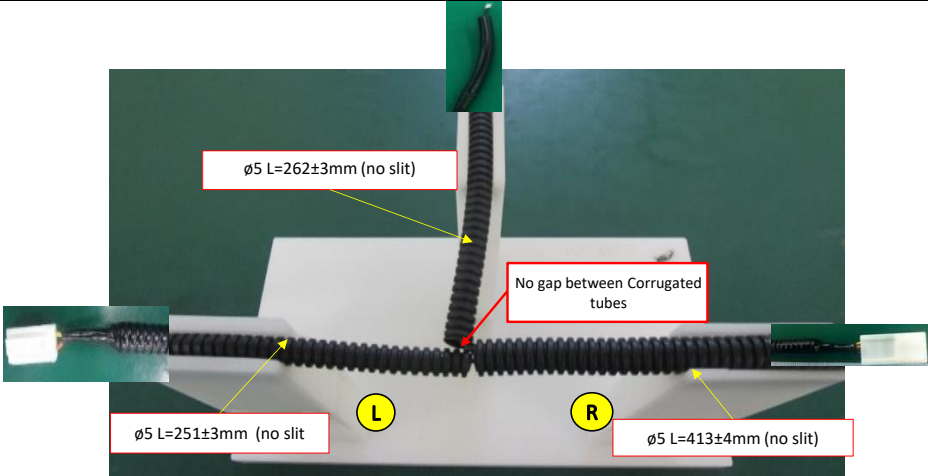
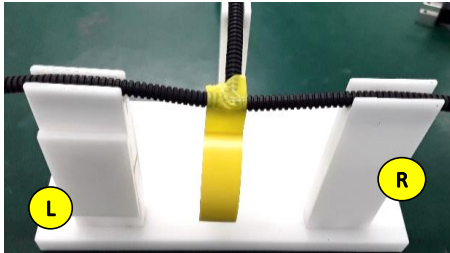

WI-ENG-PDE-761

Revision No.:

0

Page No.:

11 of 20

PARTS:		1. Assy parts 2. Black Tape		JIG:	1. T-Taping jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
14	n/a  T-Taping	<div></div> <div>1. Arrange the 3 corrugated tube to form inverted T using left and right hand.</div> <div></div> <div>2. Start taping at the middle to fix the 3 corrugated tubes using both hands.</div> <div></div> <div>3. Wind the tape from front to back at the right side.</div>		n/a	<p><b>Important reminders/Note/s:</b></p> <p>1. Use <u>YELLOW TAPE</u> for easy visualization of shifting lines, but actual should be <u>BLACK TAPE</u>.</p> <p>2. Please use calibrated/verified measuring tape when getting the measurement.</p> <p>1. No peel-off tape 2. No flip out tape 3. No loose tape 4. No gap between the COT 5. No exposed wire</p>

**CONFIDENTIAL:** Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

NBC (Philippines)  
**MASTER COPY**

DCC Stamp

**WORK INSTRUCTION****TAPING ASSEMBLY PROCESS**

Process Name/Title:

Model code/Part number:

**310D / 7N0201-7020**Customer: **TRJ**Car Model: **TOYOTA RAV 4**

Purpose:

☐ PROTOTYPE☒ PRE-LAUNCH☐ MASSPRO

Effectivity Date:

**December 12, 2023**

Validity Date:

**n/a**

Document No.:

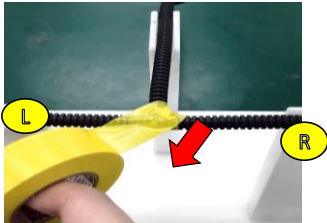
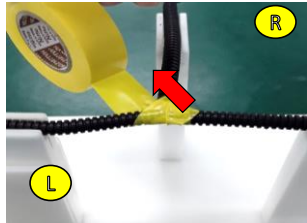
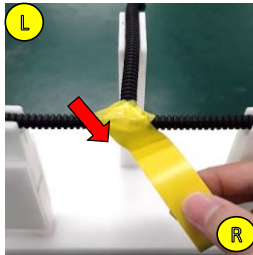
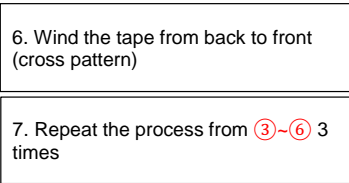
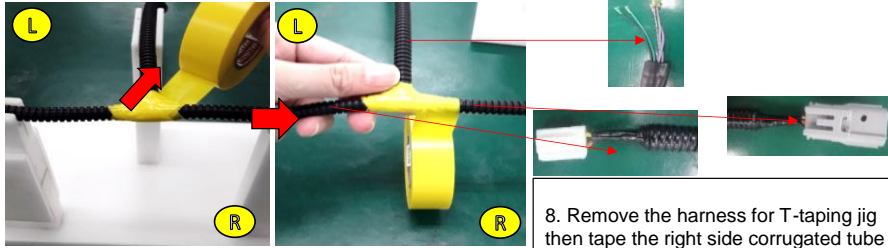
**WI-ENG-PDE-761**

Revision No.:

**0**

Page No.:

**12 of 20**

PARTS:		1. Assy parts 2. Black Tape		JIG:	1. T-Taping jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
14	n/a  T-Taping (Continuation)	<div><div></div><div>4. Wind the tape from back to front (cross pattern)</div><div></div><div>5. Wind the tape from front to back at the left side</div><div></div><div>6. Wind the tape from back to front (cross pattern)</div><div></div><div>7. Repeat the process from ③~⑥ 3 times</div><div></div><div>8. Remove the harness for T-taping jig then tape the right side corrugated tube (3 winds), width must be (25mm)</div></div>		n/a	<p><b>Important reminders/Note/s:</b></p> <p>1. Use <b>YELLOW TAPE</b> for easy visualization of shifting lines, but actual should be <b>BLACK TAPE</b>.</p> <p>2. Please use calibrated/verified measuring tape when getting the measurement.</p> <p>1. No peel-off tape 2. No flip out tape 3. No loose tape 4. No gap between the COT 5. No exposed wire</p>

**CONFIDENTIAL:** Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

**NBC (Philippines)**  
**MASTER COPY**

DCC Stamp

**WORK INSTRUCTION****TAPING ASSEMBLY PROCESS**

Process Name/Title:

Effectivity Date:

December 12, 2023

Model code/Part number:

310D / 7N0201-7020

Customer: TRJ

Car Model: TOYOTA RAV 4

Validity Date:

n/a

Purpose:

☐ PROTOTYPE☒ PRE-LAUNCH☐ MASSPRO

Document No.:

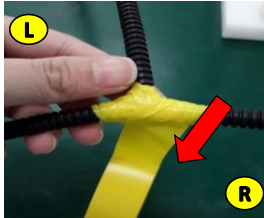
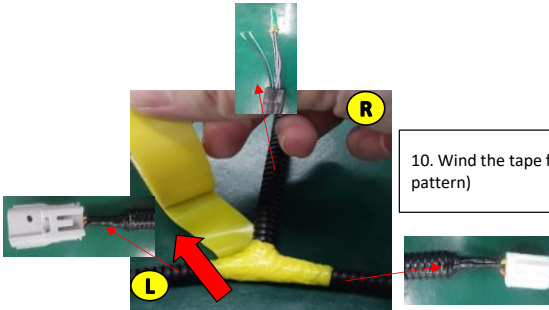
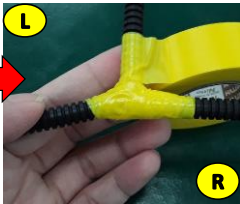

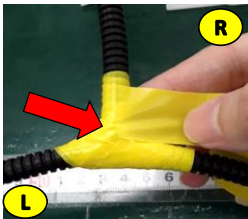
WI-ENG-PDE-761

Revision No.:

0

Page No.:

13 of 20

PARTS:		1. Assy parts 2. Black Tape		JIG:	1. T-Taping jig	
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
14	n/a	T-Taping (Continuation)	<div><div><p>9. From the right side, wind the tape 2/3 shifting going to center</p></div><div><p>10. Wind the tape from front to back side (cross pattern)</p></div><div><div></div><p>11. Tape the top side corrugated tube (3 winds), width must be (25mm)</p></div><div><p>12. From the top side, wind the tape 2/3 shifting going to center</p></div></div>		n/a	<p><b>Important reminders/Note/s:</b></p> <p>1. Use <u>YELLOW TAPE</u> for easy visualization of shifting lines, but actual should be <u>BLACK TAPE</u>.</p> <p>2. Please use calibrated/verified measuring tape when getting the measurement.</p> <p>1. No peel-off tape 2. No flip out tape 3. No loose tape 4. No gap between the COT 5. No exposed wire</p>

**CONFIDENTIAL:** Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

NBC (Philippines)  
**MASTER COPY**

DCC Stamp



**WORK INSTRUCTION****TAPING ASSEMBLY PROCESS**

Effectivity Date:

December 12, 2023

Process Name/Title:

Model code/Part number:

310D / 7N0201-7020

Customer: TRJ

Car Model: TOYOTA RAV 4

Validity Date:

n/a

Document No.:

WI-ENG-PDE-761

Purpose:

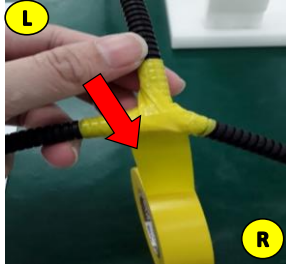
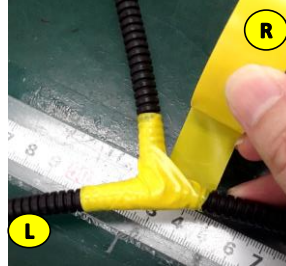
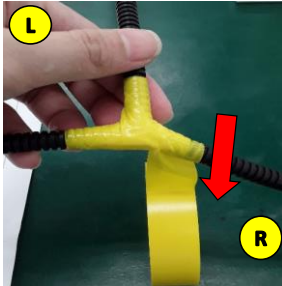
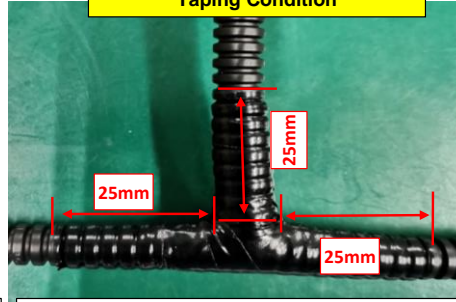
☐ PROTOTYPE☒ PRE-LAUNCH☐ MASSPRO

Revision No.:

0

Page No.:

14 of 20

PARTS:		1. Assy parts 2. Black Tape		JIG:	1. T-Taping jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
14	n/a  T-Taping (Continuation)	<div><p>13. Wind the tape going to front side (cross pattern)</p></div> <div><p>14. Wind the tape from front to back side (cross pattern)</p></div> <div><p>15. Tape the right side corrugated tube (3 winds), width must be (25mm)</p></div> <div><p>16. After taping, check the measurement and condition of tape.</p></div>		n/a	<p><b>Important reminders/Note/s:</b></p> <p>1. Use <b>YELLOW TAPE</b> for easy visualization of shifting lines, but actual should be <b>BLACK TAPE</b>.</p> <p>2. Please use calibrated/verified measuring tape when getting the measurement.</p> <p>1. No peel-off tape 2. No flip out tape 3. No loose tape 4. No gap between the COT 5. No exposed wire</p>

**CONFIDENTIAL:** Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

NBC (Philippines)  
**MASTER COPY**

DCC Stamp

**WORK INSTRUCTION****TAPING ASSEMBLY PROCESS**

Process Name/Title:

Effectivity Date:

December 12, 2023

Model code/Part number:

**310D / 7N0201-7020**Customer: **TRJ**Car Model: **TOYOTA RAV 4**

Validity Date:

n/a

Purpose:

☐ PROTOTYPE☒ PRE-LAUNCH☐ MASSPRO

Document No.:






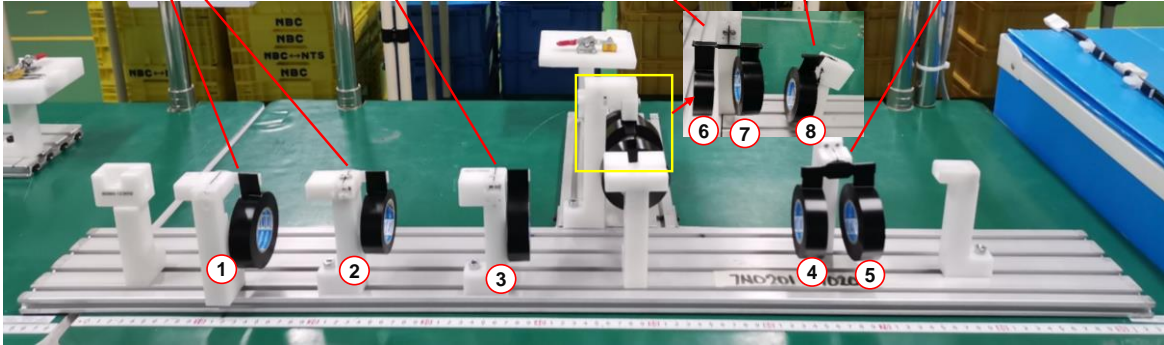
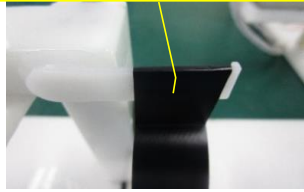


**WI-ENG-PDE-761**

Revision No.:

0

Page No.:

15 of 20

<b>PARTS:</b>	1. Assy parts 2. Clamp 82711-52090 (W) [2 pcs.] 3. Clamp 82711-3A540 (W)	4. Clamp 82711-48210 (B) [2 pcs.] 5. Clamp 82711-33650 (B) 6 Black tape [8 pcs.]	JIG:	1. Temporary jig
<b>NO.</b>	<b>PROCESS NAME</b>	<b>WORK PROCEDURE/ ILLUSTRATION</b>	<b>TOOLS/PPE</b>	<b>QUALITY POINTERS</b>
15	n/a Clamp Assembly Jig	<div><b>82711-52090 (W)</b></div> <div><b>82711-3A540 (W)</b></div> <div><b>82711-48210 (B)</b></div> <div><b>82711-33650 (B)</b></div> <div><b>82711-48210 (B)</b></div>  <div><p>1. Get 2pcs. of clamp <b>82711-52090 (W)</b> using right hand and set to clamp location <b>1</b> and <b>2</b> using both hands.</p><p>2. Get 1pc. of clamp <b>82711-3A540 (W)</b> using right hand and set to clamp location <b>3</b> using both hands.</p><p>3. Get 2pcs. of clamp <b>82711-48210 (B)</b> using right hand and set to clamp location <b>4,5,6 and 7</b> using both hands.</p><p>4. Get 1pcs. of clamp <b>82711-33650 (B)</b> using right hand and set to clamp location <b>8</b> using both hands.</p><p>5. Initially attach <b>Black tape</b> to clamp location <b>1, 2, 3, 4, 5, 6, 7 and 8</b> using both hands.</p></div>		<p>1. No wrong use of parts 2. No wrong use of tape 3. No damaged clamp 4. No wrong clamp position</p> <p><b>Important reminders/Note/s:</b></p> <p><b>1. Please check the Clamp first before start of assembly to avoid wrong use of clamp.</b></p> <div><p>One side tape under clamp</p></div> <div><p>CLAMP ILLUSTRATION</p><div><b>GOOD</b> 82711-52090 (W)</div><div><b>NG</b> 82711-12A80 (W)</div></div>

**CONFIDENTIAL:** Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

**NBC (Philippines)**  
**MASTER COPY**

DCC Stamp

**WORK INSTRUCTION**

Process Name/Title:

**TAPING ASSEMBLY PROCESS**

Effectivity Date:

December 12, 2023

Model code/Part number:

**310D / 7N0201-7020**Customer: **TRJ**Car Model: **TOYOTA RAV 4**

Validity Date:

n/a

Purpose:

☐ PROTOTYPE☒ PRE-LAUNCH☐ MASSPRO

Document No.:

**WI-ENG-PDE-761**

Revision No.:

0

Page No.:

16 of 20

PARTS:	1. Assy parts	JIG:	1. Temporary jig	
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
n/a	Clamp Assembly Jig	<div><div><div></div><div></div><div></div><div></div><div></div></div><div></div><div><div><div><p>1. Put the assy into jig. <i>(See above picture for the correct setting).</i> First, set the connector <b>6098-3802 (W)</b> to <b>Receiver base 1</b>. Second, set the next connector <b>6098-2220 (W)</b> to <b>Receiver base 2</b>. Continue to set the harness in jig. Last, set the <b>B-B wires</b> together within stopper then press by toggle clamp.</p><p>2. Hold the tape on clamp location <b>1</b>, make <b>3 windings</b> of tape then cut the tape using both hands. Continue to clamp location <b>2</b>.</p><p>3. Hold the tape on clamp location <b>2</b>, make <b>3 windings</b> of tape then cut the tape using both hands. Continue to clamp location <b>3</b>.</p><p>4. Hold the tape on clamp location <b>3</b>, make <b>3 windings</b> of tape then cut the tape using both hands. Continue to clamp location <b>4</b>.</p></div><div><p>5. Hold the tape on clamp location <b>4 and 5</b>, make <b>3 windings</b> of tape then cut the tape using both hands. Continue to clamp location <b>6</b>.</p><p>6. Hold the tape on clamp location <b>6 and 7</b> make <b>3 windings</b> of tape then cut the tape using both hands. Continue to clamp location <b>8</b>.</p><p>7. Hold the tape on clamp location <b>8</b>, make <b>3 windings</b> of tape then cut the tape using both hands.</p><p>8. Conduct <b>POINT CHECKING</b> before removing the harness from jig.</p></div></div></div><div><div><p>1. No flip-out tape</p><p>2. No peel-off tape</p><p>3. No loose tape</p><p>4. No missing tape</p><p>5. No wrong dimension</p><p>6. No wrong use of tape</p></div><div><p><b>Important reminders/Note/s:</b></p><p>1. Please check the Clamp first before start of assembly to avoid wrong use of clamp.</p><p>2. Make sure no gap between terminal and stopper jig</p></div><div><div><p>One side tape under clamp</p></div><div><div><div>CLAMP ILLUSTRATION</div><div><div>GOOD</div><div></div><div>NG</div><div></div></div><div><div>82711-52090 (W)</div><div>82711-12A80 (W)</div></div></div></div></div></div></div>		

**CONFIDENTIAL:** Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

**NBC (Philippines)**  
**MASTER COPY**

DCC Stamp



# WORK INSTRUCTION

## TAPING ASSEMBLY PROCESS

Effectivity Date:

December 12, 2023

Process Name/Title:

Model code/Part number:

310D / 7N0201-7020

Customer: TRJ

Car Model: TOYOTA RAV 4

Validity Date:

n/a

Document No.:

WI-ENG-PDE-761

Purpose:

☐ PROTOTYPE

☒ PRE-LAUNCH



☐ MASSPRO

Revision No.:

0

Page No.:

17 of 20

PARTS:		1. Assembled parts 2. Engineering sample		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
	n/a	Visual/By two's inspection			<div>ENGINEERING SAMPLE</div> 
			<div>Assembled parts</div> <div>Master sample</div> <div>Assembled parts</div> <div>Master sample</div> <div>1. Conduct <b>alignment of harness (Master sample vs. Assembled parts)</b> using both hands.</div> <div>2. Check the <b>terminal and lock condition.</b></div> <div>3. Check the <b>Insertion and taping condition.</b></div>		1. No skip checking during inspection

**CONFIDENTIAL:** Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

NBC (Philippines)  
**MASTER COPY**

DCC Stamp



**WORK INSTRUCTION****TAPING ASSEMBLY PROCESS**

Process Name/Title:

Effectivity Date:

December 12, 2023

Model code/Part number:

310D / 7N0201-7020

Customer: TRJ

Car Model: TOYOTA RAV 4

Validity Date:

n/a

Purpose:

☐ PROTOTYPE☒ PRE-LAUNCH☐ MASSPRO

Document No.:





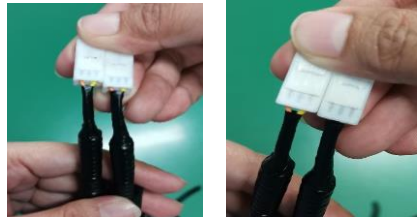


WI-ENG-PDE-761

Revision No.:

0

Page No.:

18 of 20

PARTS:		1. Assembled parts 2. Engineering sample		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
	n/a	Visual/By two's inspection (Continuation)	<div></div> <div>4. Check the <b>presence of clamp and taping condition.</b></div>	<div></div> <div>5. Check the <b>T-Taping condition.</b></div>	<div><div>ENGINEERING SAMPLE</div></div> <div>1. No skip checking during inspection</div>
			<div></div> <div>6. Conduct bending of clamp with <b>2 sides taping</b> and check the <b>taping condition.</b></div>	<div></div> <div>7. Check the <b>Insertion, connector lock and taping condition.</b></div>	
			<div></div> <div>9. Check the <b>Taping condition.</b> Conduct slightly bending <b>to avoid overlook of missing tape.</b></div>	<div></div> <div>10. Check the <b>terminal.</b> Must <b>no deformed terminal.</b></div>	

**CONFIDENTIAL:** Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

NBC (Philippines)  
**MASTER COPY**

DCC Stamp



**WORK INSTRUCTION****TAPING ASSEMBLY PROCESS**

Effectivity Date:

December 12, 2023

Process Name/Title:

Model code/Part number:

310D / 7N0201-7020

Customer: TRJ

Car Model: TOYOTA RAV 4

Validity Date:

n/a

Purpose:

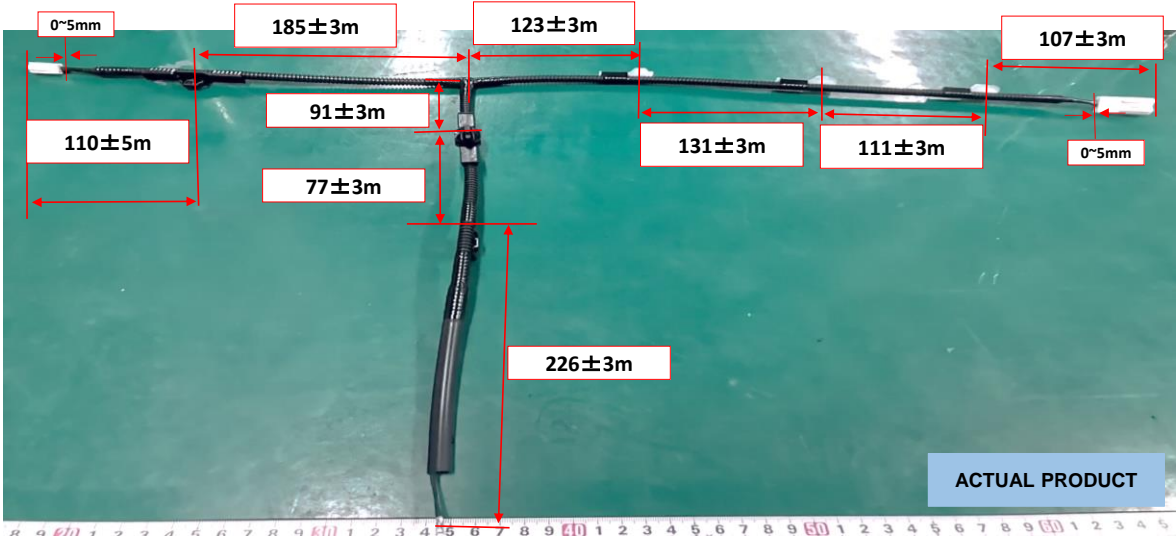
☐ PROTOTYPE☒ PRE-LAUNCH☐ MASSPRO

Revision No.:

0

Page No.:

19 of 20

PARTS:	1. Assy parts			JIG:	1. Locking jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
	n/a	Visual/By Two's Inspection		<div><p>MEASURING TAPE</p><p>Note: Please use calibrated/verified measuring tape when getting the measurement.</p></div>	<p><b>Important reminders/Note/s:</b></p> <p>1. Please use calibrated/verified measuring tape when getting the measurement.</p> <p>2. For Hatsumono, Nakamono and Owarimono.</p> <p><b>Document reference/s:</b></p> <p>1. Refer to WI-PRO-ASY-056 for Sub assembly Hatsomono, Nakamono, and Owarimono Inspection.</p> <p>1. No wrong dimension</p>

**CONFIDENTIAL:** Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

NBC (Philippines)  
**MASTER COPY**

DCC Stamp

**WORK INSTRUCTION**Process Name/Title: **TAPING ASSEMBLY PROCESS**

Effectivity Date:

December 12, 2023

Validity Date:

n/a

Model code/Part number: **310D / 7N0201-7020**Customer: **TRJ**Car Model: **TOYOTA RAV 4**

Document No.:

**WI-ENG-PDE-761**Purpose: ☐ PROTOTYPE☒ PRE-LAUNCH☐ MASSPRO

Revision No.:

0

Page No.:

20 of 20

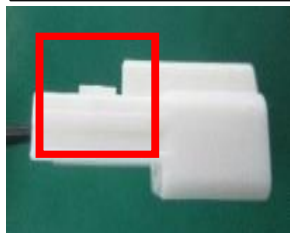
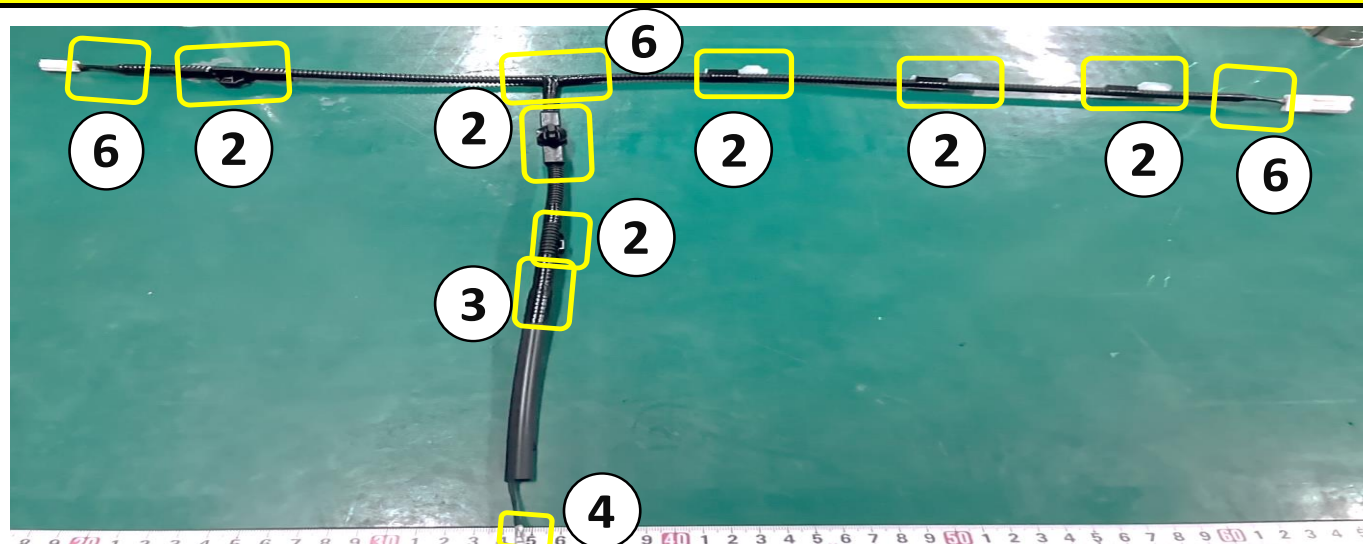
PARTS: n/a

JIG:

n/a

**QUALITY CHECKPOINTS**

n/a

**7N0201-7020****GOOD****GOOD****NO GOOD****NO GOOD**

① **No Unlock/Halflock Connector**  
(on 2 connector)

③ **Conduct Bending on Sunprene tube**

② **No Missing Clamp (6pcs.) and Conduct BENDING of 2 sides of wing clamp**

④ **No Deformed Terminal**  
⑤ **Checking of Clamp Alignment**  
⑥ **No Missing Tape (T-Taping)**

**CONFIDENTIAL:** Any misuse or misappropriation, including unauthorized copying, reproduction in any form, disclosure or publishing of this document or any information herein is strictly prohibited.

**NBC (Philippines)**  
**MASTER COPY**

DCC Stamp