



WORK INSTRUCTION

TAPING ASSEMBLY PROCESS

Effectivity Date:

July 18, 2024

Process Name/Title:

Validity Date:

n/a

Model code/Part number:

895B / 7N0092-7020

Customer:

TRJ

Car Model:

TOYOTA-Corolla Cross

Document No.:

WI-ENG-PDE-500A

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

7

Page No.:

1 of 11

PARTS:

1. Connector 6098-2220 (W); AVSSf 0.3 OR L=353±2mm; AVSSf 0.3 Y L=353±2mm; AVSSf 0.3 B L= 555±3mm; Black SV tube (Vinyl) Ø5 L=48±3mm; Black SV tube (Vinyl) Ø5 L=240±3mm; Black SV tube (Vinyl) Ø5 L=257±3mm; Connector 6098-3802(W); Black Corrugated tube (No slit) Ø5 L=196±3mm

JIG:

1. Insertion jig w/ Switch cover & w/o switch cover jig
2. Terminal cover jig
3. Locking jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

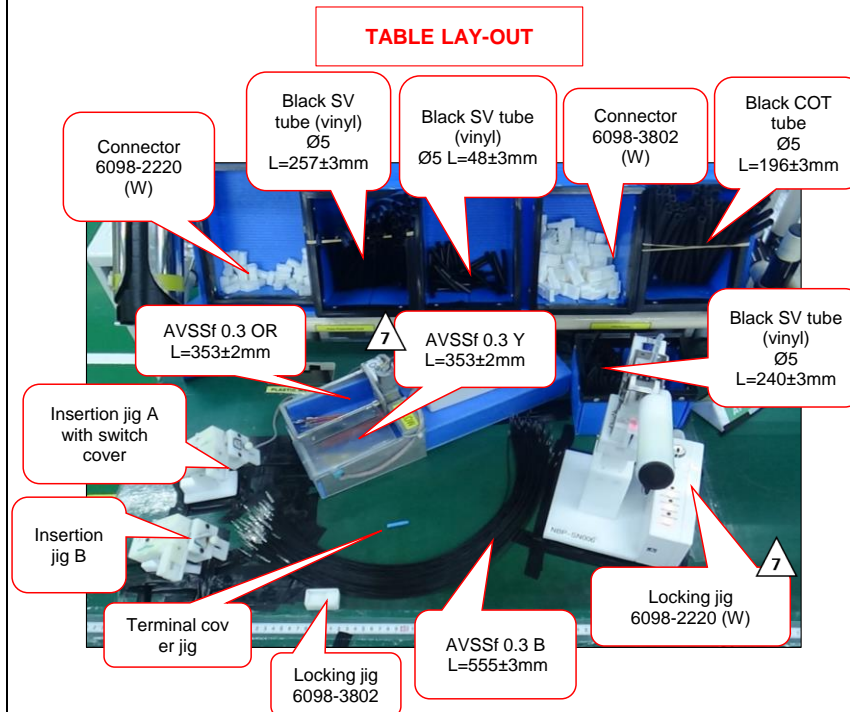
TOOLS/PPE

QUALITY POINTERS

1

P1

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.

Document reference/s:

1. 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

07/18/24

7

Additional Work procedure/Illustration and notes on page 4-5 as countermeasure for the customer claim (Broken lock of connector 6098-2220 (W)). Aligned switch cover to insertion jig. Inclusion of Car model "TOYOTA-COROLLA CROSS". Improved locking jig of 6098-2220 (W).

D. Castillo

C. Villanueva

A. Arañes

n/a

04/04/23

6

Inclusion of Quality Checkpoints on page no.13. as document process improvement.

M. Ariola

J. Loterte

C. Villanueva

A. Arañes

03/30/23

5

Merge from 3MP to 4MP; Change table lay-out; Change work procedure/Illustration of Connector lock 6098-2220(W) from manual locking to locking using Connector locking jig on process no. 5. Standardized tube description; SV tube (Vinyl); Transfer taping process of Black SV tube (Vinyl) to wire near connector to P3 due to new process distribution.

M. Catapang

J. Loterte

C. Villanueva

A. Arañes

Eff. Date

Rev. No

Details of Change

Revised

Reviewed

Approved

Noted




Est. Date:

May 23, 2022

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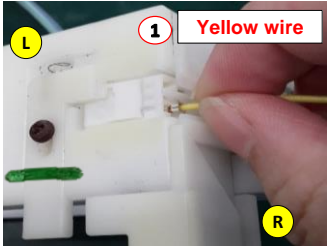
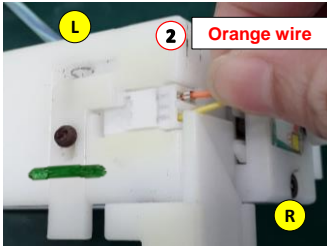
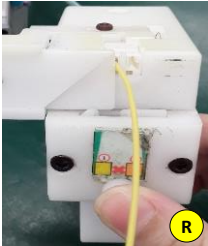
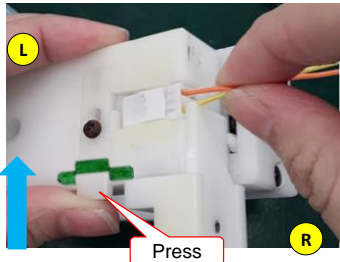
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		WORK INSTRUCTION				Effectivity Date:		July 18, 2024		
		TAPING ASSEMBLY PROCESS				Validity Date:		n/a		
		Model code/Part number: 895B / 7N0092-7020		Customer: TRJ	Car Model: TOYOTA- Corolla Cross		Document No.:		WI-ENG-PDE-500A	
		Purpose: <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO				Revision No.:		7	Page No.:	2 of 11
PARTS:		1. Connector 6098-2220 (W)				JIG:		1. Insertion jig w/ Switch cover		
NO.		PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE		QUALITY POINTERS		
2		P1		Connector setting to insertion jig 6098-2220 (W)		n/a		<div><div>CONNECTOR ORIENTATION ILLUSTRATION</div><div><div><div>I-mark is align</div><div>1 hole is open</div><div></div></div><div><div>I-mark is not align</div><div>1 hole is open</div><div></div></div></div><div><div>1. No loose insertion</div><div>2. No wrong insertion</div><div>3. One by one insertion</div><div>4. No deformed terminal</div><div>5. No wrong wire facing</div></div></div>		

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	Purpose: <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO			Revision No.:	7	Page No.:	3 of 11

PARTS:	1. AVSSf 0.3 Y L=353±2mm 2. AVSSf 0.3 OR L=353±2mm			JIG:	1. Insertion jig w/ Switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
3	P1 Wire Insertion to Connector 6098-2220 (W)	<div><div>Wire facing</div></div> <div><div>1. Hold the insertion jig using left hand. Get the Yellow wire and insert to connector using right hand.</div></div> <div><div>3. Get the Orange wire and insert to connector using right hand.</div></div> <div><div>2. Press the button using right thumb. slot for Orange wire will be open.</div></div> <div><div>4. After insertion, push the lock using left thumb and then hold the wires and gently pull out the connector from jig using right hand.</div></div>		n/a	<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. 2. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance</div>

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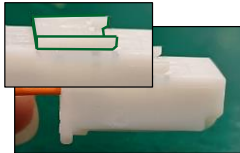
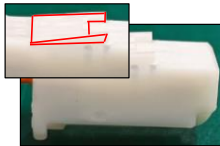
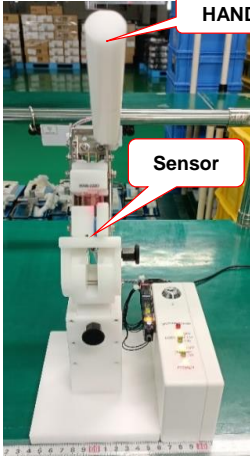
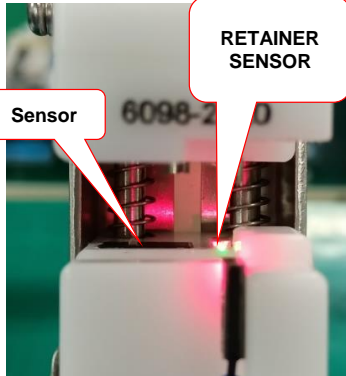
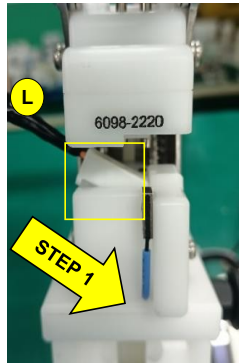
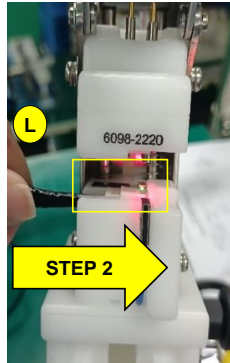
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PARTS:	1. Assy part		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
4	P1 <div>7</div> Connector Lock	<div>CONNECTOR RETAINER ILLUSTRATION SIDE VIEW</div> <div><div><div>GOOD</div></div><div><div>NG</div></div></div> <div><div><div>HANDLE</div><div>Sensor</div></div><div><div>RETAINER SENSOR</div><div>Sensor</div></div><div><div>STEP 1</div></div><div><div>STEP 2</div></div></div> <div>2. 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. NOTE: CONNECTOR LOCKING JIG WILL NOT FUNCTION IF CONNECTOR NOT REACH THE SENSOR.</div>	<div>1. Check the Retainer lock of connector before insertion to locking jig. <i>Note: Must be NO half-locked condition prior connector locking.</i></div>	<div>1. Please ensure that Connector lock/retainer will not touch or hit by any object prior insertion into locking jig to avoid half-lock connector.</div> <div>2. Maintain 10mm proper holding of wire to connector</div> <div>3. Connector must be fully inserted to connector slot.</div> <div>4. Make sure no offset setting before locking process.</div> <div>5. No wrong setting of connector.</div> <div>6. No damaged connector lock</div> <div>7. No unlocked/ half-locked connector.</div> <div>Important reminders/Note/s: <i>1. Incomplete locking process will alarm the jig.</i> <i>2. No retainer in connector cannot proceed.</i> <i>3. If encountered abnormality, STOP and immediately CALL the attention of the leader. WAIT for further instruction and continue the process.</i></div>

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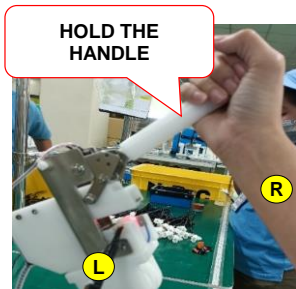
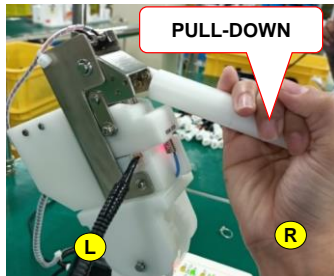
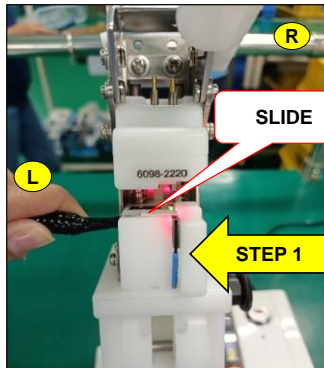
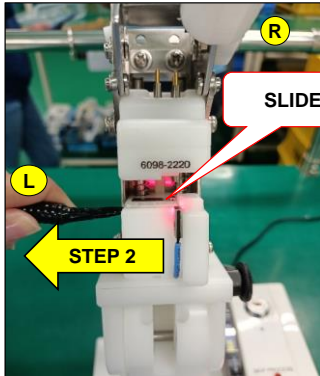
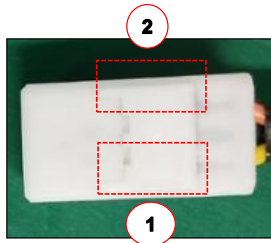
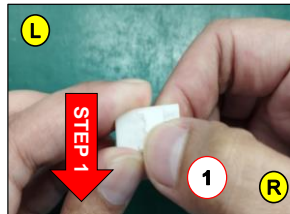
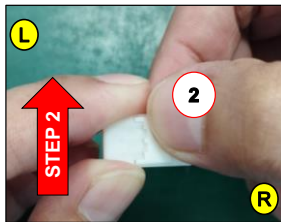
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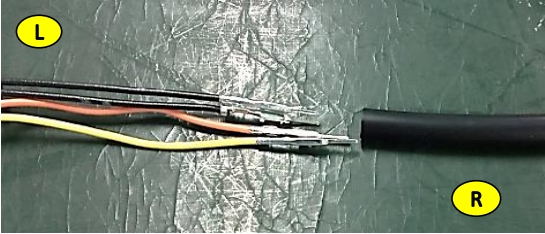
PARTS:		1. Assy part		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
4	P1 Connector Lock (Continuation)	<div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><p>3. Hold the handle of the connector locking jig using right hand then gently pull down and bring back to original position after locking. Note: Pull down one time only.</p><p>4. Remove the locked connector using left hand based on the illustration, follow the direction of arrow.</p><p>5. Ensure that connector is in locked condition by slide touching the connector lock based on the sequence illustrated.</p></div></div>		<p>1. Please ensure that Connector lock/retainer will not touch or hit by any object prior insertion into locking jig to avoid half-lock connector.</p> <p>2. Maintain 10mm proper holding of wire to connector</p> <p>3.Connector must be fully inserted to connector slot.</p> <p>4. Make sure no offset setting before locking process.</p> <p>5.No wrong setting of connector.</p> <p>6. No damaged connector lock</p> <p>7. No unlocked/ half-locked connector.</p> <p>Important reminders/Note/s:</p> <p>1. <i>Incomplete locking process will alarm the jig.</i></p> <p>2. <i>No retainer in connector cannot proceed.</i></p> <p>3. <i>If encountered abnormality, STOP and immediately CALL the attention of the leader. WAIT for further instruction and continue the process.</i></p>	

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PARTS:		1. Assy part 2. Black SV tube (vinyl) Ø5 L=257±3mm		3. Black SV tube (vinyl) Ø5 L=48±3mm 4. AVSSf 0.3 B L= 555±3mm [2pcs]		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION				TOOLS/PPE	QUALITY POINTERS
5	P1	<div></div> <div>1. Get the Black SV tube (vinyl) Ø5 L=257±3mm using right hand then insert the Y-OR wires.</div>				n/a	1. No wrong use of parts.
6		<div></div> <div>1. Combine the assy parts Y-OR wires with Black SV tube (vinyl) Ø5 L= 257±3mm and 2 Black wires then get the Black Vinyl tube Ø5 L= 48±3mm using left hand and insert the wires using right hand.</div>				n/a	1. No wrong use of parts Document reference/s: 1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance

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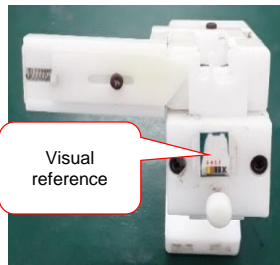
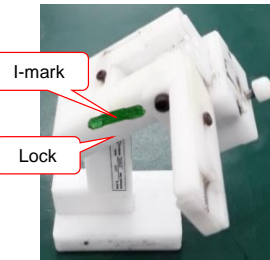
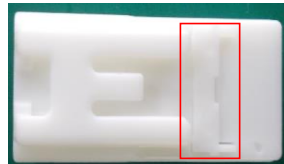

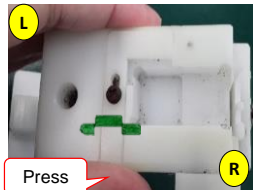
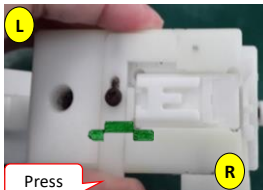
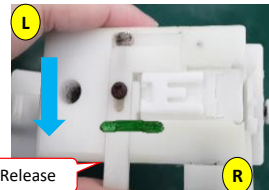
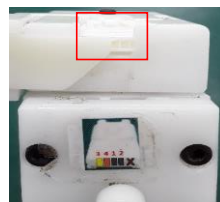
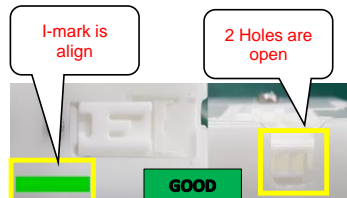


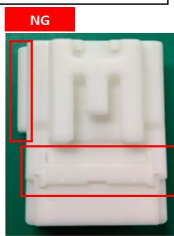
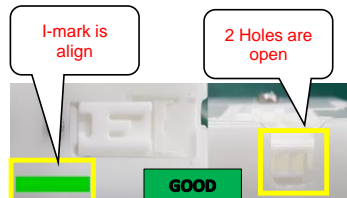


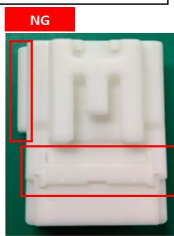
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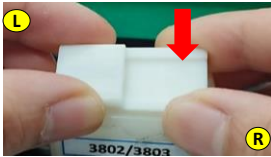
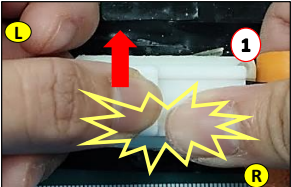

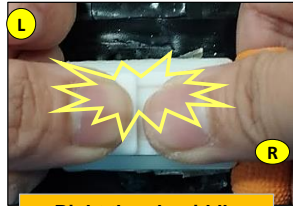
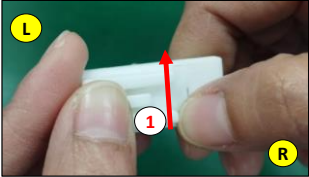
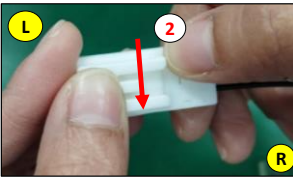




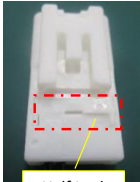
PARTS:	1. Connector 6098-3802 (W)		JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
7	P1 Connector setting to insertion jig 6098-3802 (W)	<div><div><div>Insertion Jig</div><div><div>Visual reference</div></div><div><div>I-mark</div><div>Lock</div></div><div><div>Connector Orientation</div></div><div><div>Insertion Jig Orientation</div></div><div><div><div>L</div><div>R</div><div>Press</div></div><div><div>L</div><div>R</div><div>Press</div></div><div><div>L</div><div>R</div><div>Release</div></div></div><div><div>1. Press the Lock of insertion jig using left hand.</div><div>2. Get the connector 6098-3802 (W) using right hand and insert to insertion jig. Release the lock after insertion.</div><div></div><div>3. Do not push the lower wire guide upward. Slot for 2 Black wires must be open.</div></div></div><div>n/a</div><td><div><div>Connector Orientation Illustration</div><div><div>I-mark is align</div><div>2 Holes are open</div><div>GOOD</div></div><div><div>I-mark is not align</div><div>All holes are open</div><div>NG</div></div><div><div>CONNECTOR ILLUSTRATION</div><div><div>GOOD</div><div>6098-3802 (W)</div></div><div><div>NG</div><div>6098-5668 (W)</div></div></div><div>1. Use the provided jig per model 2. No wrong orientation of connector 3. No wrong use of connector 4. No damaged connector</div></div></td></div>	<div><div>Connector Orientation Illustration</div><div><div>I-mark is align</div><div>2 Holes are open</div><div>GOOD</div></div><div><div>I-mark is not align</div><div>All holes are open</div><div>NG</div></div><div><div>CONNECTOR ILLUSTRATION</div><div><div>GOOD</div><div>6098-3802 (W)</div></div><div><div>NG</div><div>6098-5668 (W)</div></div></div><div>1. Use the provided jig per model 2. No wrong orientation of connector 3. No wrong use of connector 4. No damaged connector</div></div>	

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PARTS:	1. Assy parts			JIG:	1. Locking jig			
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS		
9	P1	<div><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>1</p><p>2</p><p>6. Ensure that connector is in locked condition by slide touching the connector lock based on the sequence illustrated.</p></div></div>			<div><p>LOCKING JIG</p></div>	<div><p>Before pressing</p><p>After pressing</p></div> <div><div><p>GOOD</p><p>Full Lock</p></div><div><p>NG</p><p>Half Lock</p></div></div> <p>Important reminders/Note/s: 1. MANUAL LOCKING MAY CAUSE DAMAGED CONNECTOR</p> <p>1. Use the provided jig tool to lock the connector. 2. No unlock/half-locked connector</p>		

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	WORK INSTRUCTION				Effectivity Date:	July 18, 2024		
	Process Name/Title: TAPING ASSEMBLY PROCESS				Validity Date:	n/a		
	Model code/Part number: 895B / 7N0092-7020		Customer: TRJ	Car Model: TOYOTA-Corolla Cross	Document No.:	WI-ENG-PDE-500A		
	Purpose: <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO				Revision No.:	7	Page No.:	10 of 11

PARTS:	1. Assy parts 2. Black SV tube (Vinyl) Ø5 L=240±3mm 3. Black Corrugated tube Ø5 L=196±3mm (No Slit)				JIG:	n/a	
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS	
10	P1	Wire Insertion to Black SV tube (Vinyl) Ø5 L=240±3mm	 <div>1. Get the Black SV tube (Vinyl) Ø5 L=240±3mm using right hand then insert the B-B wires using left hand.</div>			n/a	1. No wrong use of parts 2. No deformed terminal
11		Wire Insertion to Black Corrugated tube Ø5 L=196±3mm (No Slit)	<div><div>1. Get the terminal cover jig using right hand then insert the B-B wires using left hand.</div><div>2. Get the Black COT Ø5 L=196±3mm (No Slit) using right hand and insert B-B wires using left hand.</div><div>3. After insertion, remove the terminal cover jig using right hand.</div></div> <div>TERMINAL COVER JIG</div> 			1. No wrong use of parts 2. No deformed terminal	

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**WORK INSTRUCTION**

Process Name/Title:

TAPING ASSEMBLY PROCESS

Effectivity Date:

July 18, 2024

Validity Date:

n/a

Model code/Part number:

895B / 7N0092-7020

Customer:

TRJ

Car Model:

TOYOTA- Corolla Cross

Document No.:

WI-ENG-PDE-500A

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

7

Page No.:

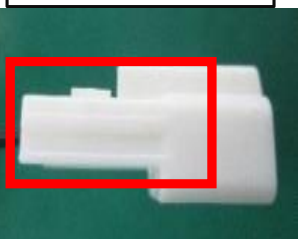
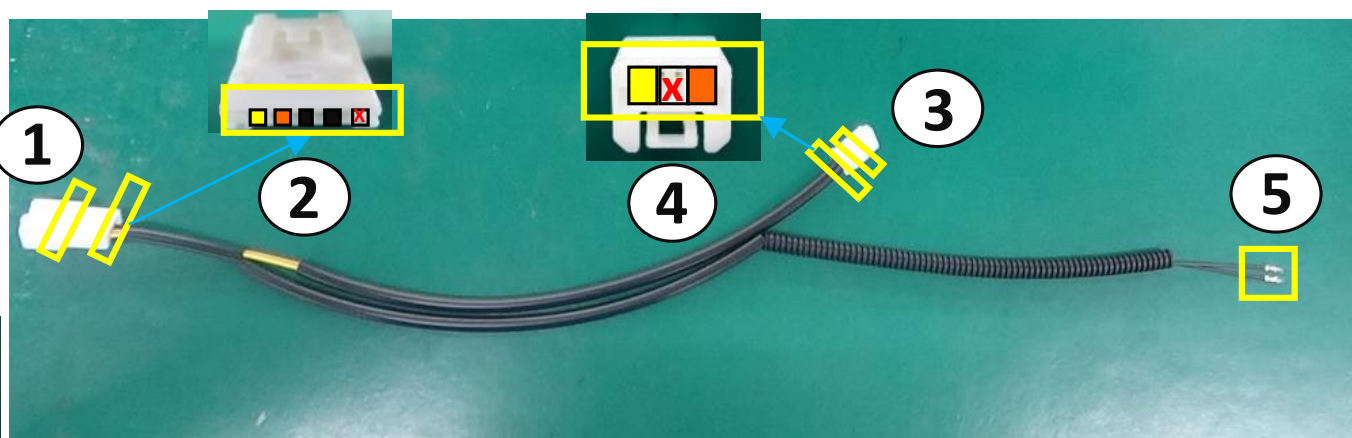
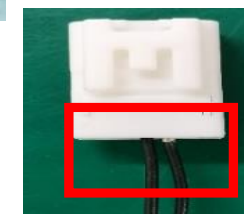
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PARTS:

1. Assy parts

JIG:

n/a

VISUAL INSPECTION/ QUALITY CHECKPOINTS**P1****7N0092-7020****GOOD****NO GOOD****① ③ No Unlock/Halflocked Connector****⑤ No Deform Terminal****② ④ No Wrong Insert****⑥ No Terminal Backing Out****GOOD****NO GOOD**

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