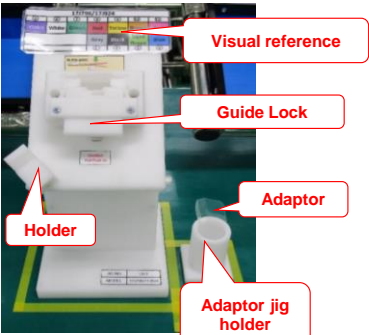
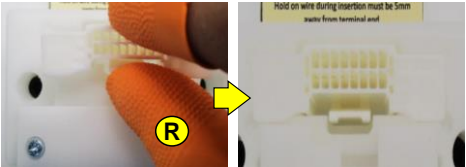



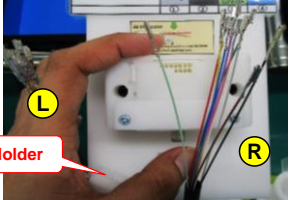
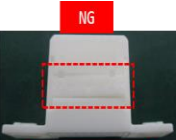




	WORK INSTRUCTION					Effectivity Date:		December 4, 2024	
	TAPING ASSEMBLY PROCESS					Validity Date:		n/a	
	Process Name/Title:		Model code/Part number:		Customer:	Car Model:	Document No.:		
	350B/320B/014B/ 360B/150B/		17J796-7051	TRP	TOYOTA-COROLLA/ RAV-4/ HIGHLANDER	WI-ENG-PDE-091C			
Purpose:		<input type="checkbox"/> PROTOTYPE		<input type="checkbox"/> PRE-LAUNCH		<input checked="" type="checkbox"/> MASSPRO		Revision No.: 18 Page No.: 1 of 5	

PARTS:		1. Connector 4F1640-000□ (W) 2. Assy parts		JIG:		1. Insertion jig	
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE		QUALITY POINTERS	
1	P3 <div>18</div> <div>HIGH</div> <div>Connector setting to insertion jig 4F1640-000□ (W)</div>	<div><div>INSERTION JIG</div><div></div><div><div>CONNECTOR ORIENTATION</div><div></div><div>1. Get the connector 4F1640-000□ (W) using right hand then set to insertion jig.</div></div><div><div></div><div><div>BEFORE PRESSING</div><div>AFTER PRESSING</div></div><div>2. Press the guide lock using right thumb.</div></div><div><div></div><div><div>Holder</div></div><div>3. Hold the Group 2 wires [11pcs.] using right hand then put the Group 1 wires [12pcs.] in holder using left hand.</div></div></div>		<div><div>Safety Instruction</div><div>Be sure to wear required personal protective equipment during operation (gloves, finger cots, etc.)</div></div> <div><div>Housekeeping</div><div>1. Maintain and always practice 5's. 2. Personal things on the workplace is prohibited. Keep it in your locker.</div></div> <div><div>Alert level</div><div>For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.</div></div>		<div>Important reminders/Note/s: 1. Use the provided jig per model 2. No wrong usage of parts 3. No wrong orientation of connector 4. No damaged connector 5. No half-locked connector 1. Automatically dispose and replace the unit if once encountered Bend terminal, Difficulty of insertion, Half-locked connector. 2. If encountered abnormality, STOP and immediately CALL the attention of the leader. WAIT for further instruction and continue the process. Do not attempt to repair. 3. Follow the connector orientation.</div> <div><div>Connector must be no damaged/half-locked/locked</div><div><div></div><div><div>GOOD</div><div>NG</div></div><div><div>UNLOCK</div><div>HALF-LOCKED</div></div></div></div>	

Revision History						Prepared by		Reviewed by		Approved by		Noted by	
12/04/24	18	Inclusion of Quality improvement measures (based on Mizen Boshi activity). Inclusion of Car model "TOYOTA-COROLLA/ RAV-4/ HIGHLANDER". Change VM color term from Light Gray to N6GR.				D.Castillo	C. Villanueva	A. Arañes	n/a				n/a
07/25/23	17	Transfer process of Connector lock to P5 due to TPS improvements.				M. Ariola	J. Loterte	C.Villanueva	A. Arañes				
03/02/23	16	Change WIP flow quantity from [1pc] flow to [3pcs] flow due to process improvement. Standardized tube description: VM tube (Sunprene).				M. Ariola	J. Loterte	C.Villanueva	A. Arañes				
08/18/22	15	Improve quality pointers; Reminders, notes and references in process no.1, 2, 3 and 4. Work procedure and illustration in process no.4 (Connector lock process) as document and process improvement.				M. Catapang	J. Loterte	C.Villanueva	A. Arañes				
Eff. Date	Rev. No	Details of Change				Revised	Reviewed	Approved	Noted	Est. Date:	June 02, 2017		

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WORK INSTRUCTION
TAPING ASSEMBLY PROCESS

Process Name/Title:

Model code/Part number: 350B/320B/014B/
360B/150B/

17J796-7051

Customer: TRP

Car Model: TOYOTA-COROLLA/
RAV-4/ HIGHLANDER

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Effectivity Date:

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PARTS:

1. Assy parts

JIG:

1. Insertion jig

NO.

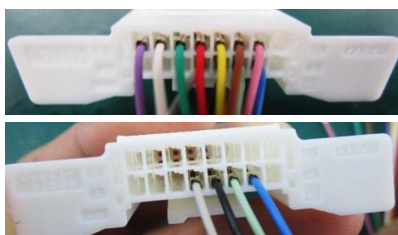
PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

WIRE INSERTION ILLUSTRATION



	5	6	7	8	9	10	11
SECOND ROW TO INSERT	V	W	G	R	Y	BR	P
	185	183	181	178	178	176	175
FIRST ROW TO INSERT				GR	B	LG	L
				179	179	176	175
				1	2	3	4

Standard hold in wire



5mm

TERMINAL FACING



Finger COTS



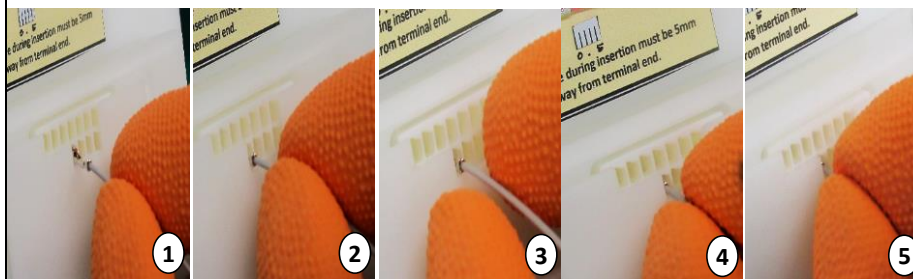
18

MEDIUM

2

P3

Wire insertion to connector
(Group 2 wires)
4F1640-000 (W)



1. Get the wire and hold it 5mm away from terminal.
2. Half insert the wire.
3. Release wire to check the color.
4. Conduct point checking in visual
5. Hold again 5mm away from terminal
6. Fully inserted wires (avoid bending during insertion)

1. No wrong wire insertion
2. No terminal backing out
3. No deformed terminal
4. Make sure wires are properly inserted.
5. Must have slight MOVEMENT after insertion
6. No bend terminal/wires

Important reminders/Note/s:

1. Automatically dispose and replace the unit if once encountered Bend terminal, Difficulty of insertion, Half-locked connector.
2. If encountered abnormality, STOP and immediately CALL the attention of the leader. WAIT for further instruction and continue the process. Do not attempt to repair.
3. Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.
4. Follow the insertion sequence based on the visual reference
5. Hold on wire during insertion must be 5mm away from terminal end.

Document references:

1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.

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WORK INSTRUCTION
TAPING ASSEMBLY PROCESS

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Process Name/Title:

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Model code/Part number:

350B/320B/014B/
360B/150B/

17J796-7051

Customer: TRP

Car Model:

TOYOTA-COROLLA/
RAV-4/ HIGHLANDER

Document No.:

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☐ PROTOTYPE

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PARTS:

18

1. Assy parts
2. N6GR VM tube (Sunprene) $\phi 7$ L=55 \pm 5mm

JIG:

1. Insertion jig
2. Adaptor jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

3

P3

Wire insertion to
N6GR VM tube (Sunprene)
 $\phi 7$ L=55 \pm 5mm

MEDIUM

18

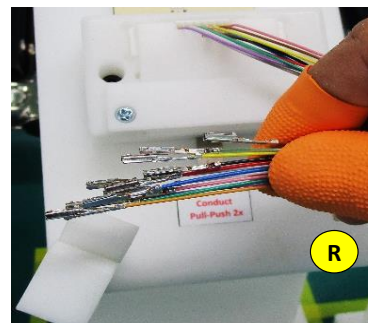
1. Get the **N6GR VM tube (Sunprene)** $\phi 7$ L=55 \pm 5mm using left hand then insert the adaptor jig using right hand.

18

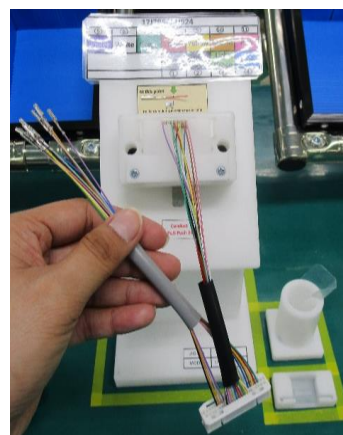
Use the adaptor jig
to easily insert wires.

18

3. Insert the wires to **N6GR VM tube (Sunprene)** using right hand.



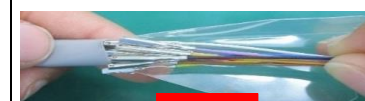
2. Release the **Group 1 wires [12pcs.]** using right hand.



Adaptor jig



Finger COTS



Wires must not be inserted at
the same time

1. No wrong use of parts.
2. No remaining wires outside N6GR sunprene tube
3. No cut tube
4. Wires must not be inserted at the same time

STANDARD TUBE APPEARANCE



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Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

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PARTS:

1. Assy parts

JIG:

1. Insertion jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

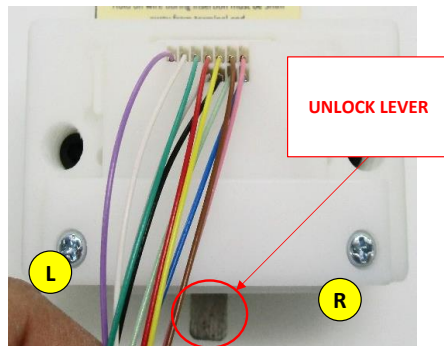
3

P3

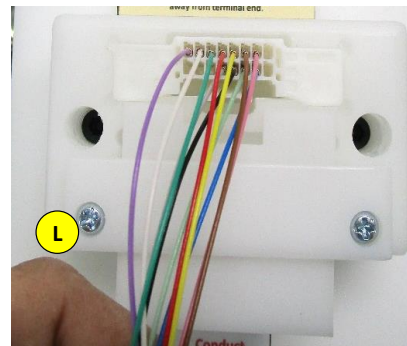
18

MEDIUM

Wire insertion to
N6GR VM tube (Sunprene)
ø7 L=55±5mm
(Continuation)

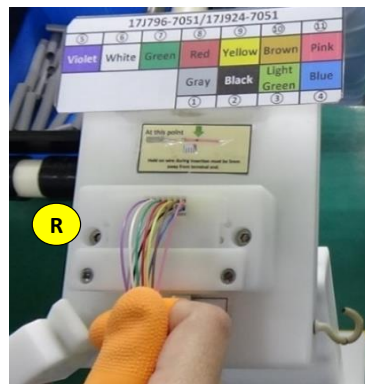


BEFORE PRESSING



AFTER PRESSING

4. Press the unlock lever using right thumb.



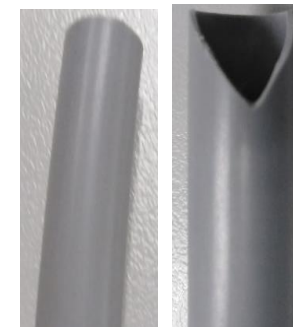
5. Hold the wires using right hand then gently pull the connector from jig. Check the insertion condition.

Finger COTS



1. No wrong use of parts
2. No remaining wires outside black sunprene tube
3. No cut tube

STANDARD TUBE
APPEARANCE



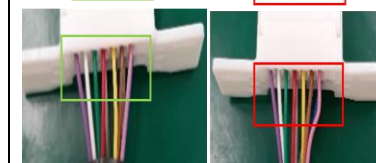
GOOD

NG

MUST BE NO CUT/DAMAGED TUBE

GOOD

NG






NO BEND TERMINAL/WIRES

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	Purpose:		<input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO			Revision No.: 18		Page No.: 5 of 5

PARTS:	1. Assy parts			JIG:	1. WIP Holder
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
4	P3	Pass WIP to P4	<div>3 PIECES FLOW</div>  <div>1. Pass WIP to WIP Holder. Note: Three pieces flow.</div>	<div>WIP HOLDER</div> 	1. No WIP overflow

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