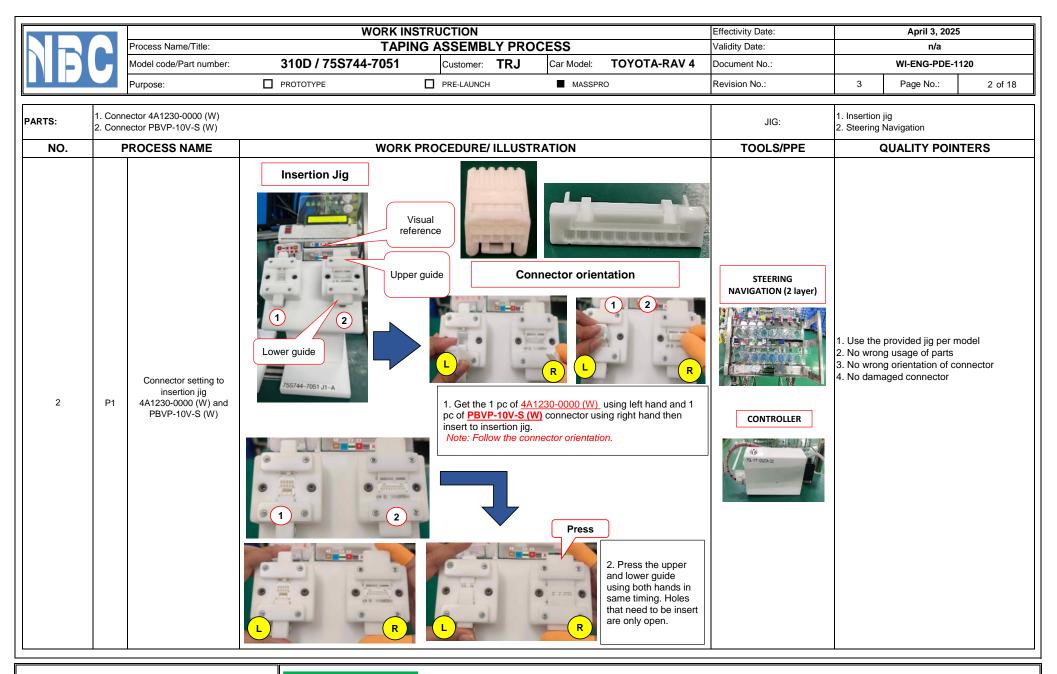
					NSTRUCTION				Effe	ctivity Date:		April 3, 2025	
			Process Name/Title:		ING ASSEMBLY PRO	CESS				dity Date:		n/a	
	- 1		Model code/Part number:	310D / 75S744-7051	Customer: TRJ	Car Model:	TOYO	TA-RAV	<b>4</b> Doc	ument No.:		WI-ENG-PDE-11	120
			Purpose:	☐ PROTOTYPE	PRE-LAUNCH	■ MASSE	PRO		Rev	ision No.:	3	Page No.:	1 of 18
PARTS:		Ø5.5 L= L=289±2	122±3mm; Connector PBVP-	V tube, Sky blue tape); Connector PBVP-0 10V-S (W); Connector 4A1230-0000 (W); 5±2mm; V L=285±2mm; Y L=285±2mm		L=168±2mm; BF				JIG:	1. Insertion 2. Steering		TERS
				PBVP-06V-S (W)/ (\	/inyl) (GR/B wir	ssy parts e with White S ky blue tape)	SV	2 Layer Navigation	t -	Be sure to wear required persona protective equipme during operation (gloves, finger cot- etc.)	1. Refer and Strip	tent reference/s to WI-PRO-CNC-0 Length Tolerance to WI-ENG-PDE-1 y process (Pre-ass	17 for Wire  151 for Taping
1		P1	Table lay-out	Master sample				ck SV tube (Vinyl) = 131±3mm		Housekeeping Maintain and alwing practice 5's. Personal things the workplace is prohibited. Keep it your locker.	ays on in 1. No defor	med terminal g usage of parts	
					g A	Connector 1230-0000 (W Box	PBVP	onnector -10V-S (W)/ Box	th	Alert level for any trouble, info ee Assembly Assist Supervisor or Line eader for immedia corrective action.	ant e ate		
												1	
0.4/05/55		Charac	rom folding to of-sight hand the	Revision History	/	D.Castillo	J.Loterte	C.Villanuev	A. Arañes	Prepared by	Checked by	Reviewed by	Approved by
04/03/25	3		rom folding to straight based on	·				C Villanuev		4			
12/19/24	1	Change	leasurement due to wrong facin rom Pre-launch to Masspro. Inc jig. Separation of GR/B wire to t	lusion of Table lay-out and improved measure	ement work procedure. Provision of	D.Castillo  D.Castillo	n/a n/a	a C Villanuev	A. Arañes A. Arañes	╡			
10/18/24	0	Initial iss				D.Castillo	n/a	C.Villanuev a	A. Arañes	D. Castillo	J.Loterte	C. Villanueva	A. Aranes
Eff. Date	Rev. No			Details of Change		Revised	Checked	Reviewed	Approved		October 18, 2024		





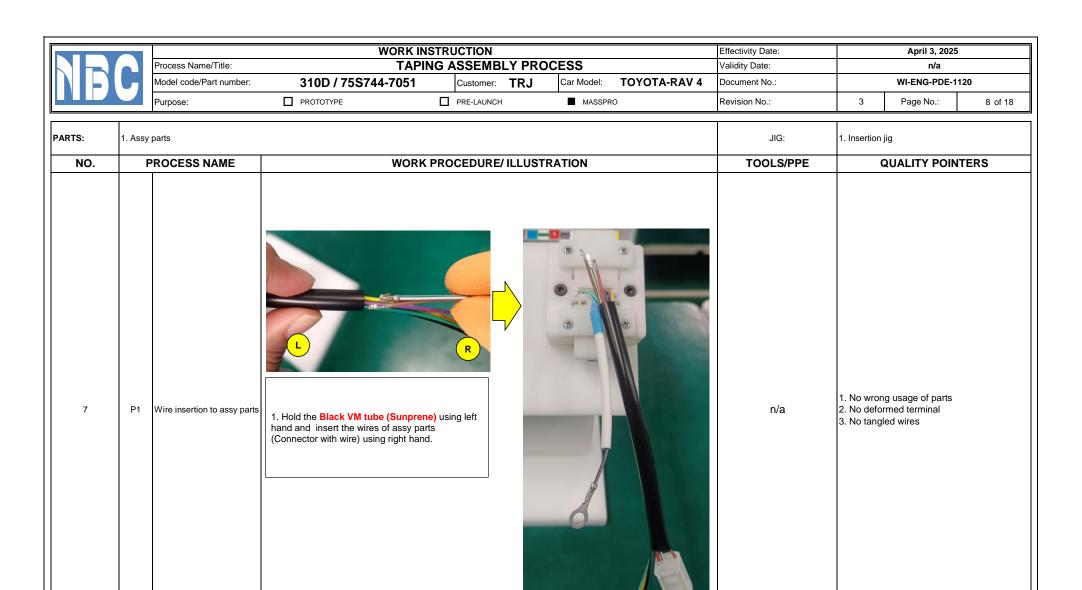
			WORK INSTI	RUCTION			Effectivity Date:		April 3, 2025	
		Process Name/Title:	TAPING	<b>ASSEMBLY PROC</b>	ESS		Validity Date:		n/a	
		Model code/Part number:	310D / 75S744-7051	Customer: TRJ	Car Model:	TOYOTA-RAV 4	Document No.:		WI-ENG-PDE-1	120
		Purpose:	☐ PROTOTYPE [	PRE-LAUNCH	MASSPR	0	Revision No.:	3	Page No.:	3 of 18
PARTS:	1. AVS	6 0.3 R L=166±2mm; W/G L=	168±2mm; BR L=172±2mm				JIG:	Insertion     Steering	, 0	
NO.	F	PROCESS NAME	WORK PR	OCEDURE/ ILLUSTRA	ATION		TOOLS/PPE	(	QUALITY POIN	TERS
3	P1	Wire insertion to Connector 4A1230-0000 (W)	INSERTION SEQUENCE FROM LEFT RIGHT   THE RIGHT  INSERTION SEQUENCE FROM LEFT RIGHT  RIGHT  RIGHT  1. Get the R wire using left hand and traprocess for W/G and BR wires. Check the Note: Follow the insertion sequence based on the sequence of the sequence based on the sequence of the sequ	WIRE  1 R V 166 X   Ansfer to right hand then inshe wire after insertion.	INSERTION I  2 W/G 168  X X	TERMINAL FACING  LLUSTRATION  3  X  BR  172  X  X  And the second of the		1. Use proven a control of the contr	vided jig per mode g usage of parts one insertion g insertion remed terminal to of terminal tip of terminal tip of terminal tip on the reminders/Not sure wires are p. Conduct Pull-Per insertion. xert extra force, a hold the wires reduring insertion antically dispose the unit if once the unit if	e/s: roperly ush-Pull- and al, half- t be from 217 for erance. 44 for roller

			WORK IN	STRUCTION		Effectivity Date:	April 3, 2025	
		Process Name/Title:	TAPII	NG ASSEMBLY PRO	CESS	Validity Date:	n/a	
		Model code/Part number:	310D / 75S744-7051	Customer: TRJ	Car Model: TOYOTA-RAV 4	Document No.:	WI-ENG-PDE-112	0
		Purpose:	☐ PROTOTYPE	PRE-LAUNCH	MASSPRO	Revision No.:	3 Page No.:	4 of 18
PARTS:		230-0000 (W) nector PBVP-10V-S (W)/				JIG:	Insertion jig     Steering Navigation	
NO.	I	PROCESS NAME	WORK	PROCEDURE/ ILLUSTR	RATION	TOOLS/PPE	QUALITY POINT	ERS
4	P1	Wire insertion to Connector 4A1230-0000 (W) (Continuation)	2. Press the Upper and lower button using right hand.		are 1st connector with inserted wires  3. After removal to insertion jig, put the assy parts to empty box.  Note: Follow the illustration.	STEERING NAVIGATION (2 layer)  CONTROLLER	1. Use provided jig per model 2. No wrong usage of parts 3. One by one insertion 4. No wrong insertion 5. No deformed terminal 6. No stuck of terminal tip  Important reminders/Note/s 1. Make sure wires are profinserted. Conduct Pull-Pus. Push after insertion. Do not exert extra force. 2. Please hold the wires neaterminal during insertion. 3. Automatically dispose ar replace the unit if once encountered bend terminal difficulty of insertion and holocked connector. 4. Insertion of wires must be left to right.  Document reference/s: 1. Refer to WI-PRO-CNC-01: Wire and Strip Length Toler 2. Refer to WI-ENG-PDE-044 Steering Navigation Control procedure. 3. Refer to GL-PRO-ASY-02: Pull-Push procedure.	perly h-Pull- ar nd l, alf- pe from 7 for ance. 4 for ller

			WOR	K INSTRUCTION				Effectivity Date:	<del></del>	April 3, 202	
		Process Name/Title:		APING ASSEMBL	Y PROC	FSS		Validity Date:		n/a	<u></u>
		Model code/Part number:	310D / 75S744-705				TOYOTA-RAV 4	Document No.:		WI-ENG-PDE-1	120
	<u>U</u>	Purpose:	☐ PROTOTYPE	PRE-LAUNCH		■ MASSPRO		Revision No.:	3	Page No.:	5 of 18
PARTS:		S 0.3 LG L=289±2mm; G L=2 parts (GR/B with tube taping	85±2mm; B L=285±2mm; V L=285±2r )	nm; Y L=285±2mm				JIG:	Insertion     Steering		
NO.	F	PROCESS NAME	WO	ORK PROCEDURE/	ILLUSTR	ATION		TOOLS/PPE	(	QUALITY POIN	ITERS
<b>NO.</b>	P1	Wire insertion to Connector PBVP-10V-S (W)	INSERTION SEQUENCE FROM X LG X X G X G X G X G X G X G X G X G	M LEFT TO RIGHT	WIRE	<b>=</b>	TERMINAL FACING  LUSTRATION  5 6 V Y 285 285	STEERING NAVIGATION (2 layer)  CONTROLLER	1. Use prov 2. No wron 3. One by 0 4. No wron 5. No defor 6. No stuck Importan 1. Make inserted. Push afte Do not ev 2. Please during in 3. Autom the unit it terminal, half-lock 4. Insertit to right.  Documer 1. Refer t and Strip 2. Refer t Steering procedum 3. Refer t Push pro 4. Refer t	vided jig per moding usage of parts one insertion insertion in grinsertion in grinsertion in the reminders/Not sure wires are product Pull-Product in the second that is a second to the	else/s: roperly ush-Pull- near terminal and replace red bend ertion and t be from left 017 for Wire ce. 044 for troller 029 for Pull-
			Get the LG wire using right happing) using right hand. Position to connector. Repeat the proce Note: Follow the insertion sequence.	on the finger in the midd ss for G,B,V and Y wire	le of wire ar s. Check the	d tube, slightly	pinch while inserting			minal tip must b	e visible

			WORK IN	Effectivity Date:		April 3, 2025				
		Process Name/Title:	TAPI	ING ASSEMBLY PRO	CESS		Validity Date:		n/a	
		Model code/Part number:	310D / 75S744-7051	Customer: TRJ	Car Model:	TOYOTA-RAV 4	Document No.:		WI-ENG-PDE-11	20
		Purpose:	☐ PROTOTYPE	☐ PRE-LAUNCH	■ MASSPR	0	Revision No.:	3	Page No.:	6 of 18
PARTS:		S 0.3 LG L=289±2mm; G L=28 parts (GR/B with tube taping)	85±2mm; B L=285±2mm; V L=285±2mm; V	Y L=285±2mm			JIG:	Insertion     Steering		
NO.	F	PROCESS NAME	WORK	( PROCEDURE/ ILLUSTI	RATION		TOOLS/PPE		QUALITY POIN	TERS
5	P1	Wire insertion to Connector PBVP-10V-S (W) (Continuation)	BACK VIEW OF TERMINAL  GOOD Terminal condition  Note: *Make sure the terminal was *Avoid hitting the terminal in the process and call the atter unit.	FRONT OF TERMINAL  GOOD  Terminal condition  Sin proper alignment be not the connector during	Damaged terminal NC Termin	GOOD al condition	NO GOOD Terminal codition	2. No wror 3. One by 4. No wror 5. No defo 6. No stuc  Importa 1. Make inserted Push aft Do not e 2. Pleasi terminal 3. Auton replace encount difficulty locked of 4. Insert left to rig Docume 1. Refer Wire and 2. Refer Steering procedu 3. Refer Pull-Pus 4. Refer Inspection	med terminal k of terminal tip	o/s: operly sh-Pull- ear and al, half- be from 17 for erance. 14 for oller

	_		WORK IN	STRUCTION			Effectivity Date:		April 3, 2025	
		Process Name/Title:		NG ASSEMBLY PRO	CESS		Validity Date:		n/a	
		Model code/Part number:	310D / 75S744-7051	Customer: TRJ	Car Model:	TOYOTA-RAV 4	Document No.:		WI-ENG-PDE-1	20
		Purpose:	PROTOTYPE	☐ PRE-LAUNCH	MASSPRO	)	Revision No.:	3	Page No.:	7 of 18
PARTS:	1. Black	SV tube (Vinyl) Ø7 L=131±3	mm				JIG:	1. Insertion	jig	
NO.	F	PROCESS NAME	WORK	PROCEDURE/ ILLUST	RATION		TOOLS/PPE	(	QUALITY POIN	ΓERS
6	P1	Wire insertion to Black SV tube (Vinyl) Ø7 L=131±3mm	1. Get the Black SV tube (Vinyl) Ø L=131±3mm using right hand. Hold using left hand then insert the wires  Note: Make sure that the assy part ( with tube taping) is under the Black after insertion.	the wire	l g	2. Press the lower guide using right hand. Holes that need to be inserted are only open.	n/a	1. No wron 2. No defor 3. No tangl	ig usage of parts rmed terminal led wires	

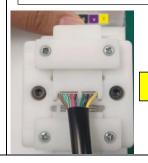


	_		WORK IN	STRUCTION			Effectivity Date:	T	April 3, 2025	
		Process Name/Title:		NG ASSEMBL	Y PROCESS		Validity Date:		n/a	
		Model code/Part number:	310D / 75S744-7051	Customer:		TOYOTA-RAV 4	Document No.:		WI-ENG-PDE-11	20
		Purpose:	PROTOTYPE	☐ PRE-LAUNCH	MASS	;PRO	Revision No.:	3	Page No.:	9 of 18
PARTS:	1. Assy	parts					JIG:	1. Insertion 2. Steering		
NO.	F	PROCESS NAME	WORK	PROCEDURE/ I	LLUSTRATION		TOOLS/PPE	(	QUALITY POINT	ERS
8	P1	Wire insertion to Connector PBVP-10V-S (W)	BR LG W/G	R GR/B  166 120  and support the with peat the process on	R L  Te by left index finger the W/G and R wires.	TERMINAL FACING  N ILLUSTRATION  B V Y 85 285 285  R  hen insert to		2. No wron 3. One by 4. No wron 5. No defo 6. No stuck  Importar 1. Make inserted. Push afte Do not ee 2. Please during in 3. Autom the unit i terminal, half-lock 4. Inserti to right.  Docume 1. Refer i and Strip 2. Refer i Steering procedui 3. Refer i 4. Refer i	rmed terminal k of terminal tip  Int reminders/Note, sure wires are processor of conduct Pull-Puster insertion.  Interest in the wires near textra force, a hold the wires near textra force of the wires must be not reference/s:  Int reference/s:  Int reference/s:  Int reference/s:  Int wires must be not wires.  Int of CL-PRO-ASY-02 to GL-PRO-ASY-02 to GL-PRO-	/s:  operly sh-Pull-  ear terminal and replace ed bend tion and be from left  17 for Wire e. 14 for oller 29 for Pull-

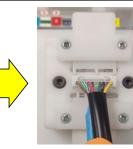
				NSTRUCTION		Effectivity Date:		April 3, 2025	
		Process Name/Title:	TAP	ING ASSEMBLY PRO	CESS	Validity Date:		n/a	
		Model code/Part number:	310D / 75S744-7051	Customer: TRJ	Car Model: TOYOTA-RAV 4	Document No.:		WI-ENG-PDE-1	120
		Purpose:	☐ PROTOTYPE	☐ PRE-LAUNCH	■ MASSPRO	Revision No.:	3	Page No.:	10 of 18
PARTS:	1. Assy	parts				JIG:	Insertion     Steering	i jig Navigation	
NO.	ı	PROCESS NAME	WORI	K PROCEDURE/ ILLUST	RATION	TOOLS/PPE		QUALITY POIN	TERS
			Proper alignment of ter	rminal to connector	Improper alignment of te	rminal to connector	2. No wroi 3. One by 4. No wroi 5. No defo 6. No stuc	ovided jig per mode ng usage of parts one insertion ng insertion ormed terminal ick of terminal tip nt reminders/Note sure wires are pi	e/s:
8	P1	Wire insertion to Connector PBVP-10V-S (W) (Continuation)	BACK VIEW OF TERMINAL  GOOD Terminal condition	FRONT OF TERMINAL  GOOD Terminal condition	BACK VIEW OF TERMINAL  Damaged terminal  NO GOOD  Terminal condition	FRONT VIEW OF TERMINAL  NO GOOD Terminal codition	inserted Push af Do not e 2. Pleas during i 3. Auton the unit terminal half-lock 4. Insert to right.	I. Conduct <u>Pull-Pu</u> ter insertion.  Exert extra force.  In the wires resertion.  In the wires resertion of the wires resertion.	ear terminal and replace red bend rtion and

\*Make sure the terminal was in proper alignment before insert.

\*Avoid hitting the terminal into the connector during wire insertion, if encountered abnormality stop the process and call the attention of Immediate superior and Automatically disposed and replace the unit.







2. Press the upper lock by left hand and hold the assy part by right hand. Check the wire after insertion

- Steering Navigation Controller procedure..
- 3. Refer to GL-PRO-ASY-029 for Pull-Push procedure.
- 4. Refer to GL-PRO-ASY-025 for Inspection Standard for connector insertion.



Terminal tip must be visible

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			WORK IN:	STRUCTION			Effectivity Date:		April 3, 2025	
		Process Name/Title:		NG ASSEMBLY PRO	CESS		Validity Date:		n/a	
		Model code/Part number:	310D / 75S744-7051	Customer: TRJ	Car Model:	TOYOTA-RAV 4	Document No.:		WI-ENG-PDE-11	20
		Purpose:	☐ PROTOTYPE	PRE-LAUNCH	MASSPR	)	Revision No.:	3	Page No.:	11 of 18
PARTS:	1. Black	SV tube (Vinyl) Ø5.5 L=122±	3mm				JIG:	n/a		
NO.	F	PROCESS NAME	WORK	PROCEDURE/ ILLUSTF	RATION		TOOLS/PPE		QUALITY POIN	ΓERS
9	P1	Wire insertion to Black SV tube (Vinyl) Ø5.5 L=122±3mm		R	(Vinyl) Ø5	Black SV tube 5 L=122±3mm using Hold the wire of using left hand then vires.	n/a	1. No wror 2. No defo 3. No tang	ng usage of parts rmed terminal led wires	

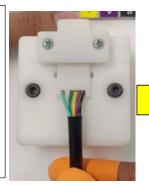
			WORK I	NSTRUCTION			Effectivity Date:		April 3, 2025	
		Process Name/Title:	TAP	PING ASSEMBLY PRO	OCESS		Validity Date:		n/a	
		Model code/Part number:	310D / 75S744-7051	Customer: TRJ	Car Model:	TOYOTA-RAV 4	Document No.:		WI-ENG-PDE-1	120
		Purpose:	☐ PROTOTYPE	☐ PRE-LAUNCH	MASSPRO		Revision No.:	3	Page No.:	12 of 18
PARTS:	1. Conn	ector PBVP-6V-S (W)					JIG:	1. Insertion	jig	
NO.	F	PROCESS NAME	WOR	K PROCEDURE/ ILLUS	TRATION		TOOLS/PPE		QUALITY POIN	TERS
10	P1	Connector setting to insertion jig PBVP-6V-S (W)	Up	visual reference per guide  1. Get the 1 pc of PBVP-insert to insertion jig. Note: Follow the connect  2. Press the upper and lowe timing. Holes that need to be	R  -6V-S connector using the control of the control	hand in same	n/a	<ol> <li>No wror</li> <li>No wror</li> </ol>	provided jig per m ng usage of parts ng orientation of co aged connector	

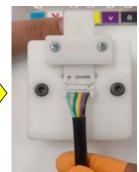
			WORK IN	STRUCTION			Effectivity Date:	$\overline{\Box}$	April 3, 2025	
	$\triangle$	Process Name/Title:	TAPI	NG ASSEMBLY	/ PROCESS		Validity Date:		n/a	
		Model code/Part number:	310D / 75S744-7051	Customer: 1	TRJ Car Model:	TOYOTA-RAV 4	Document No.:		WI-ENG-PDE-11	20
		Purpose:	☐ PROTOTYPE	☐ PRE-LAUNCH	MASSPR	RO	Revision No.:	3	Page No.:	13 of 18
PARTS:	1. Assy	parts	_				JIG:	1. Insertion	jig	
NO.	ı	PROCESS NAME	WORK	PROCEDURE/ IL	LUSTRATION		TOOLS/PPE	(	QUALITY POINT	TERS
NO.	P1	Wire insertion to Connector PBVP-6V-S (W)	INSERTION SEQUENCE FROM LE  1 2 3 4  LG X G Y  1. Hold the LG wire using right hand connector slot 1 using right hand. Re Note: Follow the insertion sequence of the sequence	EFT TO RIGHT  LG 289  L  and support the wire ppeat the process on	WIRE INSERTION  2 3  X G Y  285 28  Page by left index finger ther G, Y, V and B wires.	4 5 V B 285 285	n/a	1. Use pro 2. No wron 3. One by 4. No wron 5. No defo 6. No stuck Importar 1. Make inserted. Push afte Do not ex 2. Please during in 3. Autom the unit i terminal, half-lock 4. Inserti to right.  Docume 1. Refer t and Strip 2. Refer t Push pro 3. Refer t	vided jig per model g usage of parts one insertion in g insertion remed terminal to of terminal tip on terminders/Note, sure wires are processore insertion.  Vert extra force, a hold the wires ne insertion.  Vert extra force of one encountered ifficulty of inserted connector, on of wires must be one of the part of th	/s: pperly sh-Pull- ear terminal and replace ed bend tion and be from left 17 for Wire e. 29 for Pull-

NP	<u> </u>	Process Name/Title:		NSTRUCTION PING ASSEMBLY PRO	OCESS	Effectivity Date: Validity Date:		April 3, 2025 n/a	
		Model code/Part number:	310D / 75S744-7051	Customer: TRJ	Car Model: TOYOTA-RAV	Document No.:		WI-ENG-PDE-1	120
		Purpose:	☐ PROTOTYPE	☐ PRE-LAUNCH	MASSPRO	Revision No.:	3	Page No.:	14 of 18
PARTS:	1. Assy	parts				JIG:	1. Insertion	jig	
NO.	I	PROCESS NAME	WORI	K PROCEDURE/ ILLUST	RATION	TOOLS/PPE		QUALITY POIN	TERS
			Proper alignment of tel	rminal to connector	Improper alignment of t	erminal to connector	2. No wron 3. One by 4. No wron 5. No defo 6. No stuc	ovided jig per mode ng usage of parts one insertion ng insertion ormed terminal k of terminal tip	
				The same of the sa	BACK VIEW OF TERMINAL	FRONT VIEW OF TERMINAL	1. Make inserted <u>Push</u> aft Do not e	nt reminders/Note sure wires are properties. Conduct <u>Pull-Puer insertion.</u> xert extra force. the hold the wires made in the wires in the	operly <u>ish-Pull-</u>
11	P1	Wire insertion to Connector PBVP-6V-S (W) (Continuation)	BACK VIEW OF TERMINAL	FRONT OF TERMINAL	Damaged terminal NO GOOD	NO GOOD	3. Auton the unit terminal half-lock 4. Insert to right.	natically dispose if once encounter, difficulty of inse ed connector. ion of wires must ont reference/s:	red bend rtion and be from left
			GOOD Terminal condition	GOOD Terminal condition	NO GOOD  Terminal condition	Terminal codition		Length Tolerand to GL-PRO-ASY-0	

## Note:

\*Make sure the terminal was in proper alignment before insert.
\*Avoid hitting the terminal into the connector during wire insertion, if encountered abnormality stop the process and call the attention of Immediate superior and Automatically disposed and replace the unit.





2. Press the upper lock by left hand and hold the assy part by right hand. Check the wire after insertion

- Push procedure.
- 3. Refer to GL-PRO-ASY-025 for Inspection Standard for connector insertion.



Terminal tip must be visible

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