					WORK INS	TRUCTION				Effect	ivity Date:		February 05, 2	024
			Process Name/Title:		TAPIN	G ASSEMBLY PROC	ESS			Validit	ty Date:		n/a	
			Model code/Part number:	311D /	7L0153-7021	Customer: TRQSS	Car Model:	TOYO	TA-RAV4	Docur	ment No.:		WI-ENG-PDE-7	785
			Purpose:	PROTOT	/PE	PRE-LAUNCH	MASSF	PRO		Revis	ion No.:	0	Page No.:	1 of 15
PARTS:			Sf 0.3 Black wires L=768± Sf 0.3 Violet wires L=768±			3. Black Corrugated tube	ø5 L=169±3n	nm (no slit)			JIG:	n/a		
NO	0.	Р	ROCESS NAME		WORK F	PROCEDURE/ ILLUSTR/	NOITA				TOOLS/PPE		QUALITY POIN	TERS
1	I	n/a	Wire Insertion to Black Corrugated tube ø5 L=169±3mm (no slit)		L	ø5 L=169±3mm (no slit) usir	R	I then inser	rt the Violet	1. I control of the c	Bafety Instructio Be sure to wear required persona otective equipme during operation gloves, finger cotect.) Housekeeping Maintain and alway practice 5's. Personal things the workplace is rohibited. Keep it your locker. Alert level ar any trouble, infort Assembly Assist Supervisor or Line adder for immedia corrective action.	n 1. No wroi 2. No defo	ng usage of parts. In the second sec	
					Revision History						Prepared by	Reviewed by	Approved by	Noted by
02/05/24	-	Initial issu	ue				D.Castillo	C.Villanueva	A. Arañes	n/a	Jo. Castillo	South for C. Villanueva	A (Arañes	n/a
Eff. Date											Est. Date:	February 05, 2024		

				WORK INSTRUCTION	Ī			Effectivity Date:		February 05, 20)24
		Process Name/Title:		TAPING ASSEM	IBLY PROC	ESS		Validity Date:		n/a	
		Model code/Part number:	311D /	7L0153-7021 Custome	er: TRQSS	Car Model:	TOYOTA-RAV4	Document No.:		WI-ENG-PDE-7	85
		Purpose:	PROTOTYPE	PRE-LAU	NCH	☐ MASSPF	RO	Revision No.:	0	Page No.:	2 of 15
PARTS:		nector 6098-3802 (W)						JIG:	n/a		
NO.	ı	PROCESS NAME		WORK PROCEDUR	RE/ ILLUSTR/	ATION		TOOLS/PPE	(QUALITY POIN	TERS
2	n/a	Wire insertion to connector 6098-3802 (W)	CONNECTO SETTING 1. Hold the connection violet wire then right hand.	DR	1 2 EQUENCE	WI		n/a	1. No wron 2. No dam 3. No wron 4. No loose 5. One by 6. No defo 7. No wron Importa 1. Pleas 2. Make inserted after ins Do not e Docume 1. Refer Strip ler 2. Refer push-pu	ng use of connector aged connector ng insertion of wire e insertion or insertion rmed terminal ng wire facing ant reminder's/Note hold the wire necessare wires are presented. Conduct Pull-Pul	re: ear terminal. roperly ush-Pull-Push 017 for Wire 029 for pull-e

	_	<u> </u>	WORK II	NSTRUCTION		Effectivity Date:	<u> </u>	February 05, 2	2024
		Process Name/Title:		ING ASSEMBLY PR	ROCESS	Validity Date:		n/a	<u></u>
		Model code/Part number:	311D / 7L0153-70	021 Customer: TRJ	Car Model: TOYOTA-RAV4	Document No.:		WI-ENG-PDE-7	785
		Purpose:	PROTOTYPE	PRE-LAUNCH	☐ MASSPRO	Revision No.:	0	Page No.:	3 of 15
PARTS:	1. Ass	/ Parts				JIG:	1. Locking	jig	
NO.	I	PROCESS NAME	WORK	K PROCEDURE/ ILLUS	STRATION	TOOLS/PPE	(QUALITY POIN	ITERS
3	n/a	Connector lock	1. Load the connector into the jig he both side of the connector, tip first. Right thumb-Lower Left thumb-middle 3. Press the lower parts of connector right hand while left hand holding the left thumb-middle 5. Lift then press the connector in the middle using left and right hand.	or using e middle. 4. Press the hand while for the	ses the lower part of connector to fully into the locking jig. Right thumb-upper Left thumb-middle The upper part of connector using right e left hand holding the middle. It is in locked condition by slide touching on the sequence illustrated.	LOCKING JIG	2. No unlo Import 1. Manudamage Docur 1. Refer verificat Befor	00D N	Note/s: By caused k. Control of the

				WORK INST	FRUCTION			Effectivity Date:		February 05, 20)24
		Process Name/Title:		TAPINO	G ASSEMBLY PRO	CESS		Validity Date:		n/a	
		Model code/Part number:	311D /	7L0153-7021	1 Customer: TRJ	Car Model:	TOYOTA-RAV4	Document No.:		WI-ENG-PDE-7	85
		Purpose:	□ргототуре		PRE-LAUNCH	MASSPE	RO	Revision No.:	0	Page No.:	4 of 15
PARTS:		nector 6098-3810 (W) Sf 0.3 wires Green L=659±	±3mm					JIG:	n/a		
NO.	P	ROCESS NAME		WORK P	ROCEDURE/ ILLUST	RATION		TOOLS/PPE		QUALITY POIN	TERS
4	n/a	Wire insertion to Connector 6098-3810 (W)	CONNE		VISUAL REFERENCE 1. Get the connector 6 wire and insert to term hand. Conduct 2x push	ninal slot 1 of co	hen hold the Green connector using right	n/a	2. No dam3. No wro4. No loos5. One by6. No defo	ng use of connecto laged connector ng insertion of wire e insertion one insertion irmed terminal ng wire facing	
5		Connector lock	1. Put the connector jig using right hand 2x using both hand connector lock to coproperly locked.	r into locking then press s. Touch the	2. Ensure that connection touching the connection illustrated. Before Pressing			LOCKING JIG	2. No defo	ng usage of parts ormed terminal ant reminders/Normal locking may can and locking may can and connector lock	nuse

			W	ORK INSTRUCTION			Effectivity Date:		February 05, 20	24
		Process Name/Title:		TAPING ASSEMBL	Y PROCESS		Validity Date:		n/a	
		Model code/Part number:	311D / 7L01	0153-7021 Customer:	TRJ Car Model:	TOYOTA-RAV4	Document No.:		WI-ENG-PDE-7	85
		Purpose:	□РКОТОТУРЕ	PRE-LAUNCH	☐ MASSPE	RO	Revision No.:	0	Page No.:	5 of 15
PARTS:		tape [1pc]					JIG:	n/a		
NO.	F	ROCESS NAME		WORK PROCEDURE/	ILLUSTRATION		TOOLS/PPE	(QUALITY POIN	TERS
6	n/a	Half wrap taping	85±3mm 10 1 2 3 4 5 Start of taping	2. Get the Bla of tape then contained of tape.	1. Hold the wire using let from wire up to end of cousing both hands. ack tape. Start pre-taping onduct 1/2 shifting until younector. Make 2 winding to be 1/2 shifting)	onnector 85±3mm make 1 winding you reach the gs of tape before	MEASURING TAPE 6 7 8 9 ∰ 1 2 3 4 \$ 6 7 8 9 [1. No loos 2. No flip- 3. No peel 4. No wror	e tape out tape	



				WORK INSTRUCTION	N			Effectivity Date:	T	February 05, 20	24
		Process Name/Title:		TAPING ASSEM	MBLY PROC	ESS		Validity Date:		n/a	
		Model code/Part number:	311D /	7L0153-7021 Custom	ner: TRJ	Car Model:	TOYOTA-RAV4	Document No.:		WI-ENG-PDE-7	85
		Purpose:	PROTOTYPE	PRE-LAU	JNCH	☐ MASSPF	RO	Revision No.:	0	Page No.:	6 of 15
PARTS:	1. Assy 2. Black	parts Corrugated tube ø5 L=459±	3mm (no slit)	3. Black	k tape [1pc]			JIG:	1. Terminal	cover jig	
NO.	F	ROCESS NAME		WORK PROCEDUI	RE/ ILLUSTR	ATION		TOOLS/PPE	(QUALITY POIN	ΓERS
7		Wire Insertion to Black Corrugated tube ø5 L=459±3mm (no slit)		R G wires using both hands. er jig using right hand then s both hands.	L=459±3mn	ires using both	hand then insert th hands.	Terminal cover Jig		ng usage of parts. rmed terminal	
8	n/a	Taping 2 COT to wire near terminal	1. Hold the assy parts using left hand. Get Black tape using right hand and start pre-taping.	25±3mm 131	±3mm	R	2. Measure from COT to terminal tip 131±3mm using both hands and continue the taping process. 3. After taping, check the measurement and taping condition.	6 7 8 9 10 1 2 3 4 5 6 7 8 9 1	5. No wron Import 1. Pleas measur measur Docum 1. Refer process	out tape -off tape ng use of tape ng use of tape ng dimension tant reminders/ te use calibrated/ ting tape when get ement. nent references to WI-PRO-ASY-0 re alignment to	verified ting the : :001 for Taping

				WORK INSTE	RUCTION			Effectivity Date:		February 05, 20	24
		Process Name/Title:				BLY PROCESS		Validity Date:		n/a	
		Model code/Part number:	311D /	7L0153-7021	Customer:	TRJ Car Model:	TOYOTA-RAV4	Document No.:		WI-ENG-PDE-78	35
		Purpose:	PROTOTYPE		PRE-LAUNCH	H MASSPR	RO	Revision No.:	0	Page No.:	7 of 15
PARTS:	1. Assy 2. Blac	parts < tape [1pc]			3. Black V	/M tube (Sunprene) Ø9 L=1	12±3mm	JIG:	n/a		
NO.	F	ROCESS NAME		WORK PR	OCEDURE	/ ILLUSTRATION		TOOLS/PPE	(QUALITY POINT	TERS
9		Wire insertion to Black VM tube (Sunprene) Ø9 L=112±3mm	(L)	i l	L=	Get the Black VM tube (Su =112±3mm using right hand -G-V wires.	inprene) <mark>Ø9</mark> d then insert the			out tape	pe
10	n/a	Taping 3 Black Corrugated tube to Balck VM tube (Sunprene)	Measure from end up to terminal points hands. 3. Confirm measend of tape up to	40±3mm d of VM tube (Sunpred tip 40±3mm using to 40±3mm using	R	4. Confirm measurement from end of tube up to en continue the taping proceshands.	lold the COT using left d, get the Black tape gright hand then start taping using both ds. R Tof 25±3mm and of tape then less using both	MEASURING TAPE 6 7 8 9 10 1 2 3 4 5 6 7 8 9 1	1. No loose 2. No flip-o 3. No peel-4. No wron	e tape out tape	verified

				WORK INS	TRUCTION			Effectivity Date:		February 05, 20	24
		Process Name/Title:		TAPIN	G ASSEMBLY PRO	CESS		Validity Date:		n/a	
		Model code/Part number:	311D /	7L0153-702	1 Customer: TRJ	Car Model:	TOYOTA-RAV4	Document No.:		WI-ENG-PDE-7	85
		Purpose:	PROTOTYPE		PRE-LAUNCH	MASSP	RO	Revision No.:	0	Page No.:	8 of 15
PARTS:	1. Assy 2. Blac							JIG:	n/a		
NO.	F	PROCESS NAME		WORK P	PROCEDURE/ ILLUST	RATION		TOOLS/PPE		QUALITY POIN	TERS
11	n/a	Y-taping	1. Fix the tubes and taping direct tape shifting 3. Wind the tape 1/3 reach the other side wires (must be 25±3 tape s	wires. 25 ± 3mm 1/3 below shifting until it of the tubes and 8mm) shifting 9mm belo	4. Wind the ta	Idle of combined side (width mutation in the tape shifting direction in the tape 1/2 shifting in tape 1/2 sh	g 1/2 below	MEASURING TAPE 6 7 8 9 1 1 2 3 4 5 6 7 8 9 9 1 2 3 2 5 6 7 8 9 9 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1. Use visual actual 2. Plea measu measu 1. No loos 2. No flip-0 3. No peel 4. No wror	out tape	asy ifting, but <u>K TAPE.</u> /verified etting the



				WORK INSTR	UCTION			Effectivity Date:		February 05, 20	24
		Process Name/Title:		TAPING A	ASSEMBLY PRO	CESS		Validity Date:		n/a	
		Model code/Part number:	311D /	7L0153-7021	Customer: TRJ	Car Model:	TOYOTA-RAV4	Document No.:		WI-ENG-PDE-7	85
		Purpose:	☐ PROTOTYPE		PRE-LAUNCH	☐ MASSPR	0	Revision No.:	0	Page No.:	9 of 15
PARTS:	2. Clam	p 82711-52090 (W) p 82711-48210 (B) p 82711-34490 (B)			4. Clamp 82711-3A540 5. Clamp 82711-33650 6. Black tape [5 pcs.]			JIG:	1. Tempora	ıry Clamp assembly j	ig
NO.	F	PROCESS NAME		WORK PRO	OCEDURE/ ILLUSTF	RATION		TOOLS/PPE	(QUALITY POIN	TERS
12	n/a	Clamp Setting	2. Get 1pc. of clamp to clamp location 1	b 82711-52090 (W) using both hands.	ng right hand and set	4. Get 1pc. of to clamp local to clamp local	of clamp 82711-33650 (Eation 5 using both hands	3) using right hand and set	2. No wrong 3. No dama 4. No wrong Impor 1. Please before wrong GOOD 82711-5	clamp position retant reminders/Notes check the Clamstart of assembly use of clamp. CLAMP ILLUSTRATION NG BAND CLAMP ILLUSTRATION BAND CLAMP ILLUSTRATION NG	np first to avoid

				WORK INSTE	RUCTION			Effectivity Date:		February 05, 20	24
		Process Name/Title:			ASSEMBLY PR	ROCESS		Validity Date:		n/a	
		Model code/Part number:	311D /	7L0153-7021	Customer: TRJ	Car Model:	TOYOTA-RAV4	Document No.:		WI-ENG-PDE-78	35
		Purpose:	PROTOTYPE		PRE-LAUNCH	□masse	PRO	Revision No.:	0	Page No.:	10 of 15
PARTS:	1. Assy	parts						JIG:	1. Tempora	ıry Clamp assembly ji	ig
NO.	Р	ROCESS NAME		WORK PR	OCEDURE/ ILLUS	STRATION		TOOLS/PPE	(QUALITY POINT	TERS
13	n/a	Clamp assembly	1. Put the assy into j Second, set the B-B 2. On clamp location 2. 3. On clamp location 3 and 4. 4. On clamp location location 5.	1, hold the tape the 2, hold the tape the 3 and 4, hold the ta	are for the correct son stopper then presson make 3 windings of the	of tape then cut the	e tape using both hands. cut the tape using both h	Proceed to clamp location Proceed to clamp location	2. No wrong 3. No dama	g use of parts g use of tape ged clamp g clamp position	



				WORK INSTRUCTION			Effectivity Date:		February 05, 20)24
		Process Name/Title:		TAPING ASSEMBI	LY PROCESS		Validity Date:		n/a	
	H	Model code/Part number:	311D /	7L0153-7021 Customer:	TRJ Car Model:	TOYOTA-RAV4	Document No.:		WI-ENG-PDE-7	85
		Purpose:	PROTOTYPE	PRE-LAUNCH	H MASSPE	RO	Revision No.:	0	Page No.:	11 of 15
PARTS:	1. Assy	parts					JIG:	1. Tempora	ıry Clamp assembly j	ig
NO.	F	ROCESS NAME		WORK PROCEDURE/	ILLUSTRATION		TOOLS/PPE	(QUALITY POIN	ΓERS
13	n/a	Clamp assembly (Continuation)	hands. Get the band band clamp using b	e band clamp on location 6 using be do gun using right hand then cut the ooth hands. NDUCT POINT CHECKING before ss from jig. Fixed se band	poth de	BANDO GU		2. No wron 3. No dam. 4. No wron 1. Please start of a of clamp. 2. Using cut meas required exceed th (0~2mm). 3. Setting depends tube (Vin	steel rule, check is urement is within dimension and sine allowable range. g of band clamp c on the size of the yl) ø5- 1-2, ø7- 3-	of first before wrong use if the band of the hould not be butter a COT/SV

	_			WORK INSTRUCTION	ON			Effectivity Date:		February 05, 20	024
		Process Name/Title:		TAPING ASSE		CESS		Validity Date:		n/a	
		Model code/Part number:	311D /	7L0153-7021 Custo	mer: TRJ	Car Model:	TOYOTA-RAV4	Document No.:		WI-ENG-PDE-7	85
		Purpose:	PROTOTYPE	PRE-L/	AUNCH	☐ MASSP	RO	Revision No.:	0	Page No.:	12 of 15
	4 4										
PARTS:	1. Assy 2. Engi	neering sample						JIG:	n/a		
NO.	F	PROCESS NAME		WORK PROCEDI	JRE/ ILLUSTR	ATION		TOOLS/PPE	(QUALITY POIN	TERS
14	n/a	Visual/By Two's Inspection		g ed 3. Check the	presence of clanding of parts with		2. Check the connector condition, insertion and appearance	ACTUAL PRODUCT OCK I terminal	Impor 1. Using cut mea required exceed (0~2mm	CLAMP ILLUSTRATI	ote/s: k if the band in the should not true of the should not true o

		WORK INSTRUCTION Process Name/Title: TAPING ASSEMBLY PROCESS						Effectivity Date:		February 05, 2024		
		Process Name/Title:		Validity Date:	n/a							
		Model code/Part number:	311D / 7L0153-7021 Customer: TRJ Car Model: TOYOTA-RAV4				Document No.:		WI-ENG-PDE-785			
		Purpose:	PROTOTYPE		PRE-LAUNCH	☐ MASSP	PRO	Revision No.:	0	Page No.:	13 of 15	
								<u> </u>				
PARTS:	Assy parts Engineering sample							JIG:	n/a			
NO.	NO. PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION					TOOLS/PPE	(QUALITY POIN	TERS	
14	n/a	n/a Inspection (Continuation) 4. Check the half-wrap taping and Y-taping condition.				5. Conduct slightly pulling VM tube (Sunprene) to compresence of tape. 7. Check the terminal and deformed terminal term	appearance. Must be	1. No skip	checking during in	spection.		

				WORK INS	Effectivity Date:	February 05, 2024					
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	1							<u> </u>			
PARTS:	n/a							JIG:	n/a		
NO.	D. PROCESS NAME			TOOLS/PPE	QUALITY POINTERS						
15	n/a	102±5mm 87±3mm 125±3mm 177±3mm 0~5mm 0-5mm						226±3mm MEASURING TAPE 6 7 8 9 1 2 3 4 5 6 7 8 9	Importa	atsumono, Nakan	rerified ting the



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Proce	ess Name/Title:	Validity Date:	•									
Mode	el code/Part number:	311D /	7L0153-7021	Customer: TRJ	Car Model: TOYOTA-RAV4	Document No.:	WI-ENG-PDE-785		'85			
Purp	ose:	PROTOTYPE		PRE-LAUNCH	MASSPRO	Revision No.:	0	Page No.:	15 of 15			
PARTS: n/a						JIG:	n/a					
QUALITY CHECKPOINTS												
n/a 7L0153-7021												
GOOD	GOOD SEX XX I	Junium Min	3	3	3 3 5	N	Black Violet Black	OD GO	OOD			
NO GOOD NO GOOD 2 No Wrong Insert 4 No Missing tape 6 No deformed terminal Connector (On 2 connectors) No Unlock/Halflock (On 2 connectors) No missing clamps 5 No missing parts [VM tube (Sunprene)]												