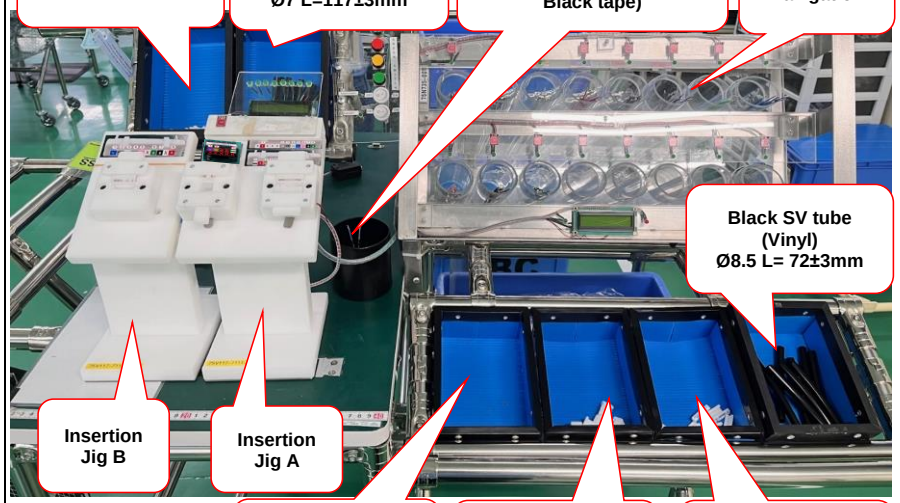
	WORK INSTRUCTION			Effectivity Date:	May 14, 2025	
	Process Name/Title:	TAPING ASSEMBLY PROCESS		Validity Date:	n/a	
	Model code/Part number: 412D / 75V117-7112	Customer: TRJ	Car Model: LEXUS-ES	Document No.:	WI-ENG-PDE-1259	
	Purpose: ☐ PROTOTYPE	■ PRE-LAUNCH	☐ MASSPRO	Revision No.:	0	Page No.: 1 of 21

PARTS:	1. Assy parts (L wire with Black SV tube, Black tape); Connector PBVP-12V-S (W); Black SV tube (Vinyl) Ø7 L= 117±3mm; Black SV tube (Vinyl) Ø8.5 L=72±3mm; Connector PBVP-10V-S (W); Connector 4A1232-0000 (B); AVSS 0.3 V L=141±2mm; BR L=143±2mm; W/G L=145±2mm; AVSS 0.3 R L=240±2mm; L L=89±2mm; GR L=228±2mm; GR/B L=224±2mm; LG L=226±2mm; P L=230±2mm; B L=234±2mm; G L=232±2mm;	JIG:	1. Insertion jig 2. Steering Navigation

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
1	P1	Table lay-out	**Table Lay-out**  **Connector PBVP-10V-S (W)** **Black SV tube (Vinyl) Ø7 L=117±3mm** **Assy parts (L wire with Black SV tube, Black tape)** **2 Layer Navigation** **Black SV tube (Vinyl) Ø8.5 L= 72±3mm** **Insertion Jig B** **Insertion Jig A** **Empty box for Pre-assy** **Connector 4A1232-0000 (B)** **Connector PBVP-12V-S (W)**	**Safety Instruction** Be sure to wear required 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* *2. Refer to **WI-ENG-PDE-1151** for Taping assembly process (Pre-assy)* 1. No deformed terminal 2. No wrong usage of parts

Revision History							Prepared by	Checked by	Reviewed by	Approved by
05/14/25	0	Initial issue.	D.Castillo	J.Loterte	C. Villanueva	A. Arañes	D. Castillo	J.Loterte	C. Villanueva	A. Arañes
Eff. Date	Rev. No	Details of Change	Revised	Checked	Reviewed	Approved	Est. Date:	May 14, 2025		

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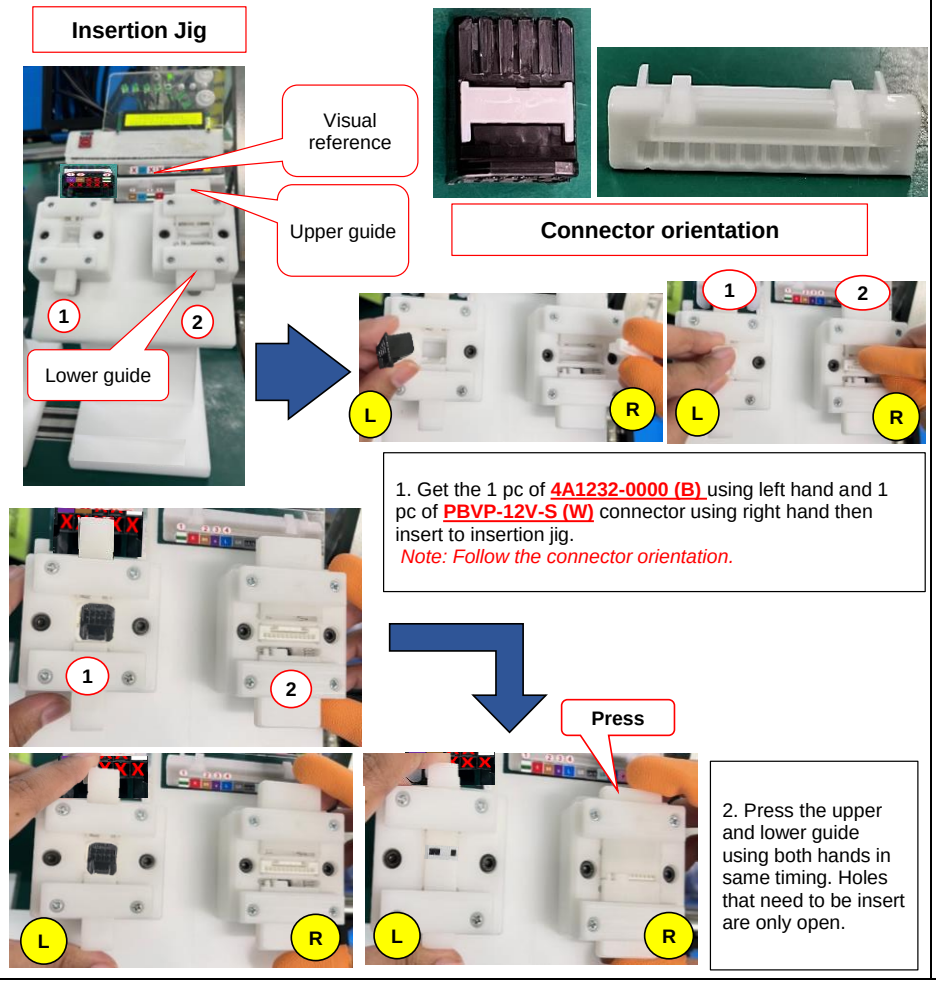
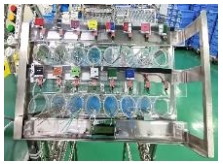
	WORK INSTRUCTION			Effectivity Date:	May 14, 2025	
	Process Name/Title:	TAPING ASSEMBLY PROCESS		Validity Date:	n/a	
	Model code/Part number: 412D / 75V117-7112	Customer: TRJ	Car Model: LEXUS-ES	Document No.:	WI-ENG-PDE-1259	
	Purpose: ☐ PROTOTYPE ■ PRE-LAUNCH ☐ MASSPRO			Revision No.:	0	Page No.: 2 of 21

PARTS:	1. Connector 4A1232-0000 (B) 2. Connector PBVP-12V-S (W)	JIG:	1. Insertion jig 2. Steering Navigation

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
2	P1	Connector setting to insertion jig 4A1232-0000 (B) and PBVP-12V-S (W)		STEERING NAVIGATION (2 layer)  CONTROLLER 	1. Use the provided jig per model 2. No wrong usage of parts 3. No wrong orientation of connector 4. No damaged connector

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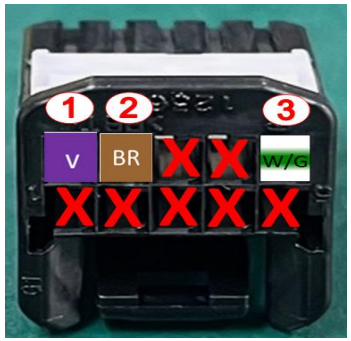
	Model code/Part number: 412D / 75V117-7112	Customer: TRJ	Car Model: LEXUS-ES	Document No.:	WI-ENG-PDE-1259		
	Purpose: ☐ PROTOTYPE ■ PRE-LAUNCH ☐ MASSPRO			Revision No.:	0	Page No.:	3 of 21

PARTS:	1. AVSS 0.3 V L=141±2mm; BR L=143±2mm; W/G L=145±2mm	JIG:	1. Insertion jig 2. Steering Navigation

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
3	P1	Wire insertion to Connector 4A1232-0000 (B)			

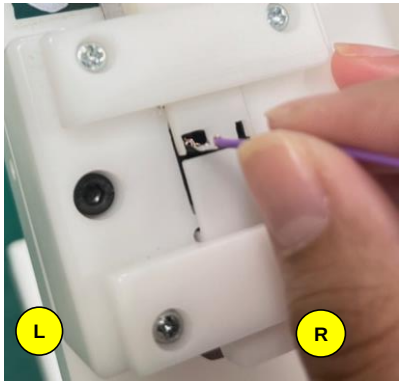
INSERTION SEQUENCE FROM LEFT TO RIGHT

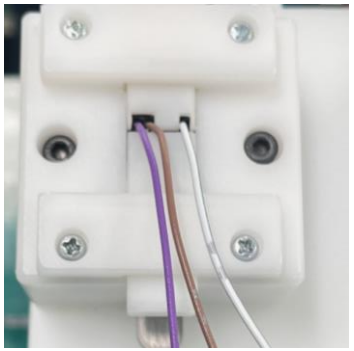


TERMINAL FACING

WIRE INSERTION ILLUSTRATION

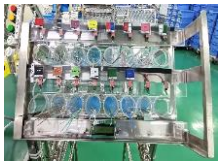
1	2			3
V	BR	X	X	W/G
141	143			145
X	X	X	X	X





1. Get the V wire using left hand and transfer to right hand then insert to connector. Repeat the process for BR and W/G wires. Check the wire after insertion.
Note: Follow the insertion sequence based on 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 properly inserted. Conduct Pull-Push-Pull-Push after insertion.
Do not exert extra force.
2. Please hold the wires near terminal during insertion.
3. Automatically dispose and replace the unit if once encountered bend terminal, difficulty of insertion and half-locked connector.
4. Insertion of wires must be from left to right.

Document reference/s:

1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance.
2. Refer to WI-ENG-PDE-044 for Steering Navigation Controller procedure..
3. Refer to GL-PRO-ASY-029 for Pull-Push procedure.

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	WORK INSTRUCTION			Effectivity Date:	May 14, 2025	
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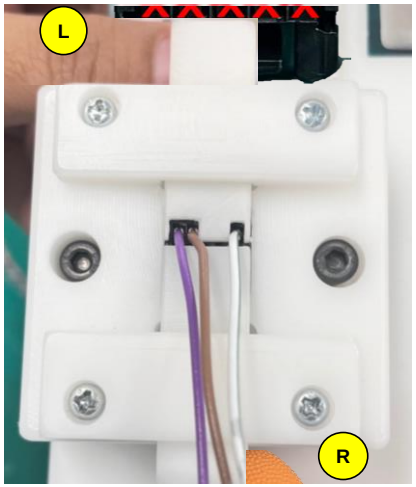
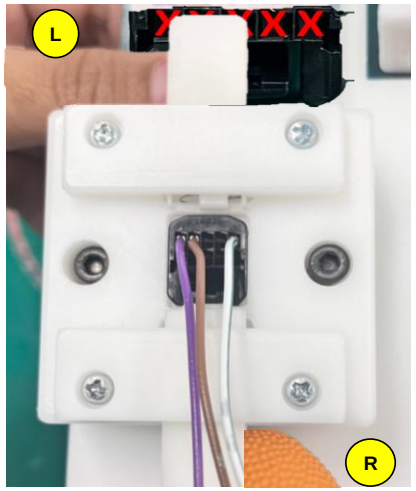
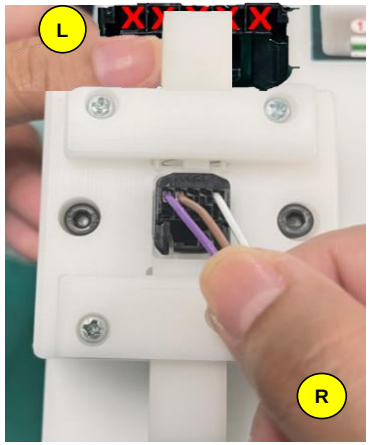
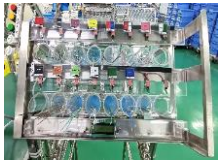
	Model code/Part number: 412D / 75V117-7112	Customer: TRJ	Car Model: LEXUS-ES	Document No.:	WI-ENG-PDE-1259	
	Purpose: ☐ PROTOTYPE ■ PRE-LAUNCH ☐ MASSPRO			Revision No.:	0	Page No.: 4 of 21

PARTS:	1. AVSS 0.3 V L=141±2mm; BR L=143±2mm; W/G L=145±2mm			JIG:	1. Insertion jig 2. Steering Navigation
NO.	**PROCESS NAME**		**WORK PROCEDURE/ ILLUSTRATION**	**TOOLS/PPE**	**QUALITY POINTERS**
4	P1	Wire insertion to Connector 4A1232-0000 (B) (Continuation)	   2. Press the Upper and lower button using both hands. Remove the 1st connector with inserted wires using right hand.	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 properly inserted. Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.*** ***2. Please hold the wires near terminal during insertion.*** ***3. Automatically dispose and replace the unit if once encountered bend terminal, difficulty of insertion and half-locked connector.*** ***4. Insertion of wires must be from left to right.*** ***Document reference/s:*** ***1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance.*** ***2. Refer to WI-ENG-PDE-044 for Steering Navigation Controller procedure..*** ***3. Refer to GL-PRO-ASY-029 for Pull-Push procedure.***

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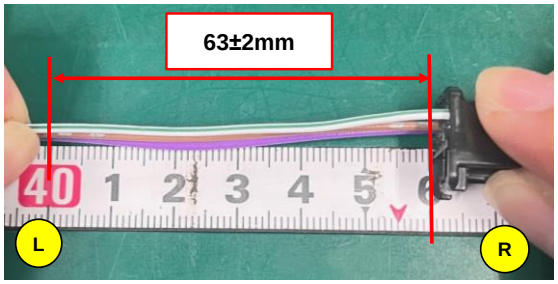
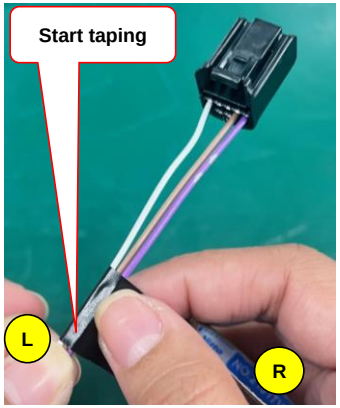
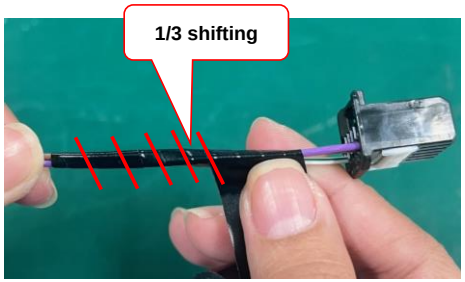
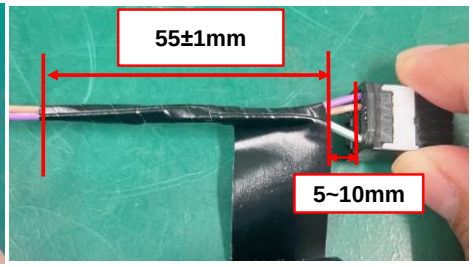
	Purpose: ☐ PROTOTYPE ■ PRE-LAUNCH ☐ MASSPRO			Revision No.:	0	Page No.:	5 of 21

PARTS:	1. Assy parts 2. Balck tape	JIG:	n/a

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
5	P1	Taping 1 Wire taping	 1. Measure from wire up to connector **63±2mm** then continue the taping2 process using both hands.  2. Hold the wire using left hand, get the **Black tape** using right hand then start taping.   3. Make 2 winding then 1/3 shifting until reach the **55±1mm.** Make **2 windings** before end tape.	**MEASURING TAPE** 	1. No flip-out tape 2.No peel-off tape 3. No loose tape 4. No wrong dimension 5. No wrong use of tape 6. No missing tape 7. No insufficient tape ***Important reminders and Note/s:*** ***1. Please use calibrated/verified measuring tape when getting the measurement.***

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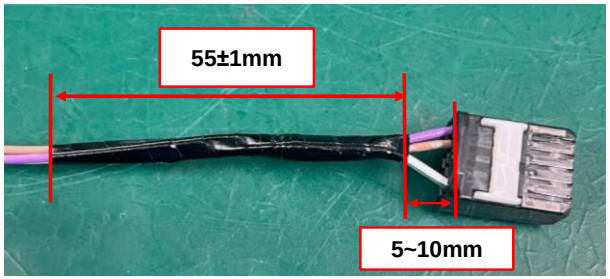
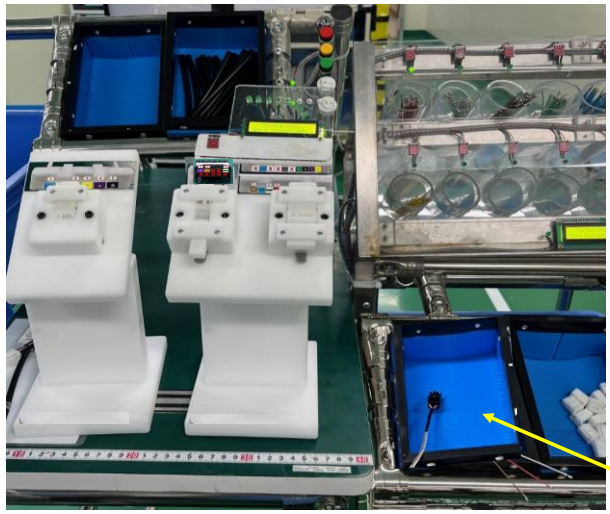
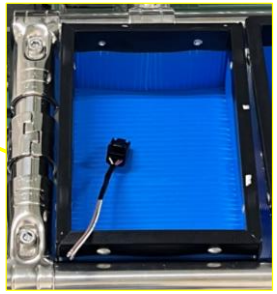
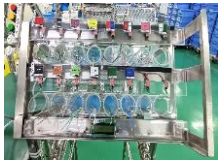
PARTS:	1. Assy parts 2. Balck tape	JIG:	1. Insertion jig 2. Steering Navigation

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
6	P1	Taping 1 Wire taping (Continuation)	 4. After taping, check the measurement and taping condition .  5. After taping, 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 properly inserted. Conduct Pull-Push-Pull-Push after insertion.*** ***Do not exert extra force.*** ***2. Please hold the wires near terminal during insertion.*** ***3. Automatically dispose and replace the unit if once encountered bend terminal, difficulty of insertion and half-locked connector.*** ***4. Insertion of wires must be from left to right.*** ***Document reference/s:*** ***1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance.*** ***2. Refer to WI-ENG-PDE-044 for Steering Navigation Controller procedure..*** ***3. Refer to GL-PRO-ASY-029 for Pull-Push procedure.***

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PARTS:	1. AVSS 0.3 R L=240±2mm; L L=89±2mm; GR L=228±2mm; GR/B L=224±2mm; LG L=226±2mm; P L=230±2mm; B L=234±2mm; G L=232±2mm	JIG:	1. Insertion jig 2. Steering Navigation

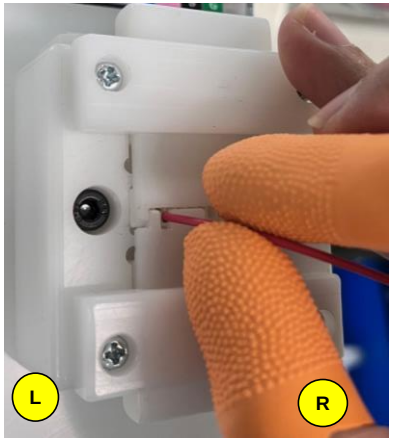
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
7	P1	Wire insertion to Connector PBVP-12V-S (W)			

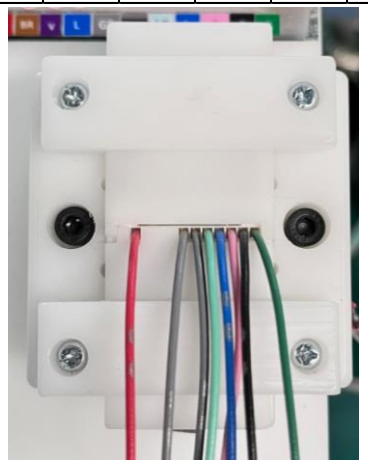
INSERTION SEQUENCE FROM LEFT TO RIGHT

TERMINAL FACING

WIRE INSERTION ILLUSTRATION

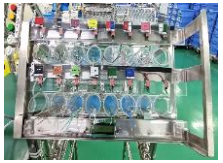
	1				3	4	5	6	7	8	9
X	R	X	X	X	GR	GR/B	LG	L	P	B	G
	240				228	224	226	224	230	234	232





1. Get the R wire using right hand then insert to connector. Repeat the process for GR, GR/B LG, L, P, B and G wires. Check the wire after insertion.
Note: Follow the insertion sequence based on the illustration.

STEERING NAVIGATION (2 layer)



CONTROLLER

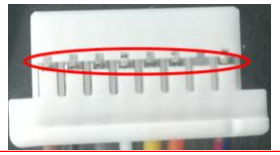
1. Use provided jig per model
2. No wrong usage of parts
3. One by one insertion
4. No wrong insertion
5. No deformed terminal
6. No stuck of terminal tip

Important reminders/Note/s:

1. Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion.
Do not exert extra force.
2. Please hold the wires near terminal during insertion.
3. Automatically dispose and replace the unit if once encountered bend terminal, difficulty of insertion and half-locked connector.
4. Insertion of wires must be from left to right.

Document reference/s:

1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance.
2. Refer to WI-ENG-PDE-044 for 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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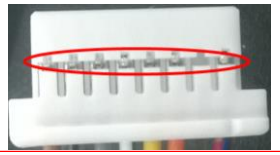
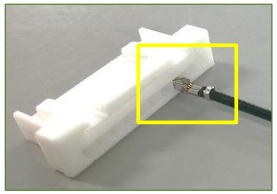
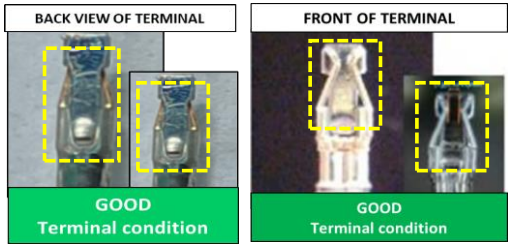
	Model code/Part number: 412D / 75V117-7112	Customer: TRJ	Car Model: LEXUS-ES	Document No.:	WI-ENG-PDE-1259		
	Purpose: ☐ PROTOTYPE ■ PRE-LAUNCH ☐ MASSPRO			Revision No.:	0	Page No.:	8 of 21

PARTS:	1. Assy parts	JIG:	1. Insertion jig 2. Steering Navigation

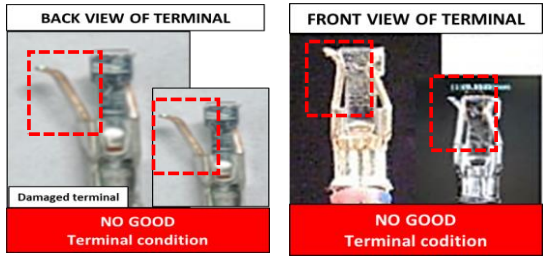
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
8	P1	Wire insertion to Connector PBVP-10V-S (W) (Continuation)			1. Use provided jig per model 2. No wrong usage of parts 3. One by one insertion 4. No wrong insertion 5. No deformed terminal 6. No stuck of terminal tip ***Important reminders/Note/s:*** ***1. Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.*** ***2. Please hold the wires near terminal during insertion.*** ***3. Automatically dispose and replace the unit if once encountered bend terminal, difficulty of insertion and half-locked connector.*** ***4. Insertion of wires must be from left to right.*** ***Document reference/s:*** ***1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance.*** ***2. Refer to WI-ENG-PDE-044 for 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**

Proper alignment of terminal to connector

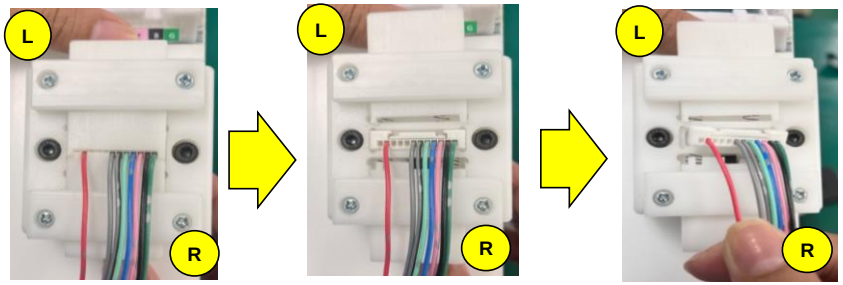




Improper alignment of terminal to connector



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.



3. Press the upper and lower lock by both hands and hold the assy part by right hand. Check the wire after insertion

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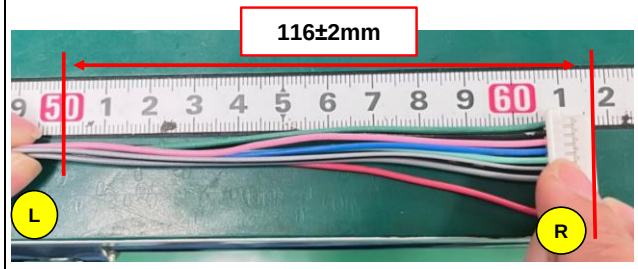
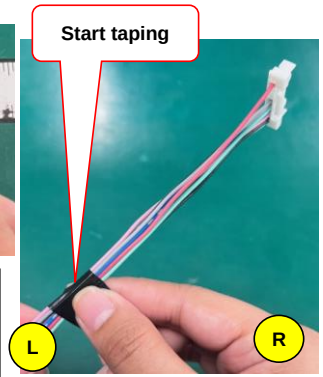
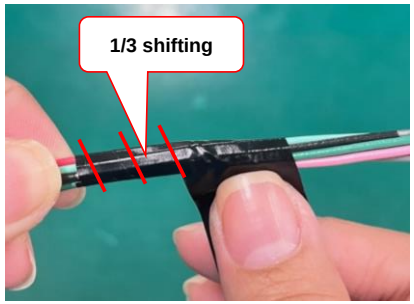
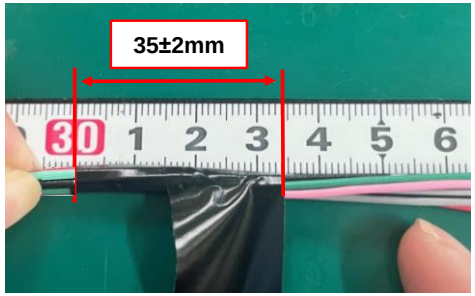
	WORK INSTRUCTION			Effectivity Date:	May 14, 2025	
	Process Name/Title:	TAPING ASSEMBLY PROCESS		Validity Date:	n/a	
	Model code/Part number: 412D / 75V117-7112	Customer: TRJ	Car Model: LEXUS-ES	Document No.:	WI-ENG-PDE-1259	
	Purpose: ☐ PROTOTYPE ■ PRE-LAUNCH ☐ MASSPRO			Revision No.:	0	Page No.: 9 of 21

PARTS:	1. Assy parts 2. Black tape	JIG:	n/a

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
9	P1	Taping 2 Wire taping	 1. Measure from wire up to end of connector **116±2mm** then continue the taping process using both hands.  2. Hold the wire using left hand, get the **Black tape** using right hand then start taping.   3. Make 2 winding then 1/3 shifting until reach the **35±2mm.** Make **2 windings** before end of tape.	**MEASURING TAPE** 	1. No flip-out tape 2.No peel-off tape 3. No loose tape 4. No wrong dimension 5. No wrong use of tape 6. No missing tape 7. No insufficient tape ***Important reminders and Note/s:*** ***1. Please use calibrated/verified measuring tape when getting the measurement.***

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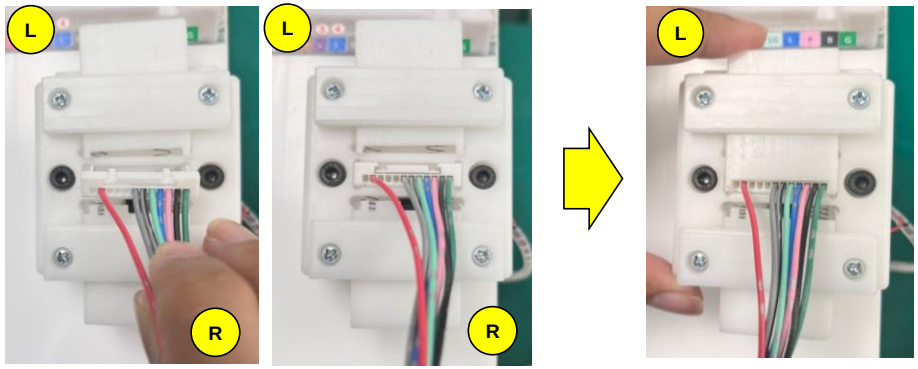
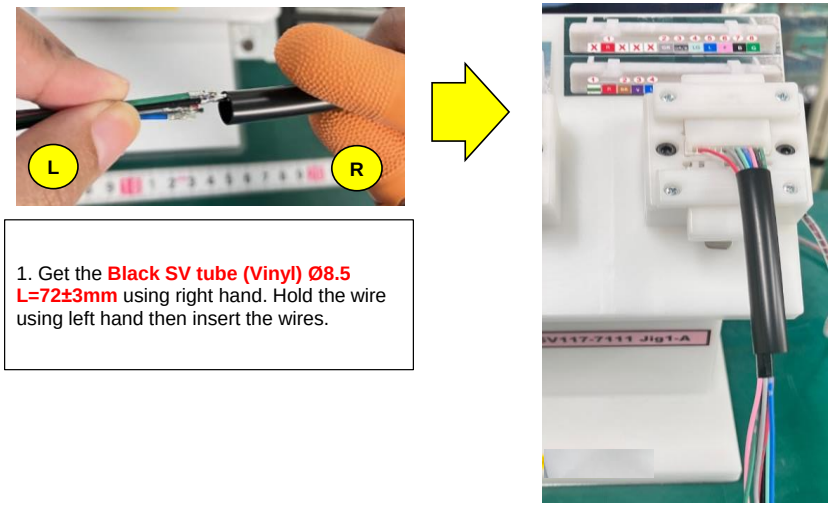
	WORK INSTRUCTION			Effectivity Date:	May 14, 2025		
	Process Name/Title:	TAPING ASSEMBLY PROCESS		Validity Date:	n/a		
	Model code/Part number: 412D / 75V117-7112	Customer: TRJ	Car Model: LEXUS-ES	Document No.:	WI-ENG-PDE-1259		
	Purpose: ☐ PROTOTYPE	■ PRE-LAUNCH	☐ MASSPRO	Revision No.:	0	Page No.:	10 of 21

PARTS:	1. Assy parts 2. Black SV tube (Vinyl) Ø8.5 L=72±3mm			JIG:	1. Insertion jig
NO.	**PROCESS NAME**		**WORK PROCEDURE/ ILLUSTRATION**	**TOOLS/PPE**	**QUALITY POINTERS**
10	P1	Wire insertion to Black SV tube (Vinyl) Ø8.5 L=72±3mm	 1.Hold the assy parts using right hand and set to insertion jig. Press the upper guide using left hand. Holes that need to be insert are only open.  1. Get the **Black SV tube (Vinyl) Ø8.5 L=72±3mm** using right hand. Hold the wire using left hand then insert the wires.	n/a	1. No wrong usage of parts 2. No deformed terminal 3. No tangled wires

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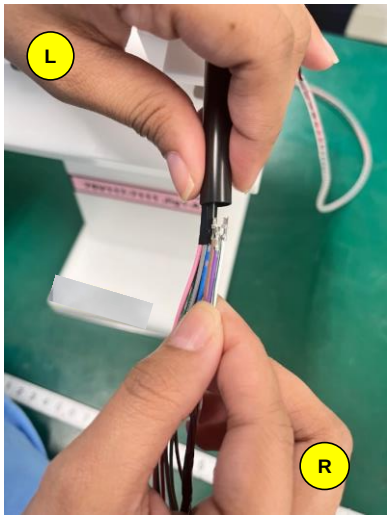
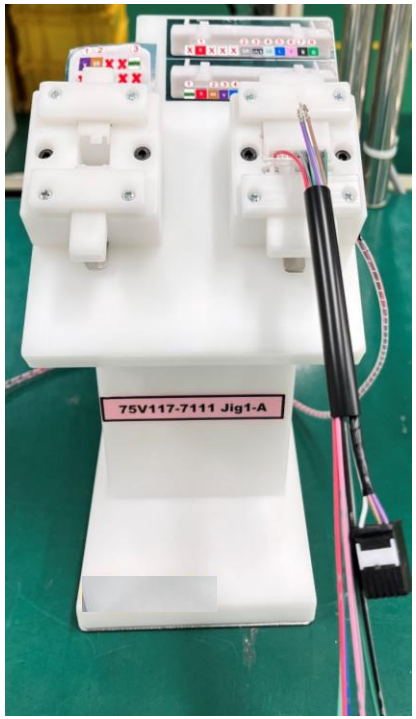
	WORK INSTRUCTION			Effectivity Date:	May 14, 2025		
	Process Name/Title:	TAPING ASSEMBLY PROCESS		Validity Date:	n/a		
	Model code/Part number: 412D / 75V117-7112	Customer: TRJ	Car Model: LEXUS-ES	Document No.:	WI-ENG-PDE-1259		
	Purpose: ☐ PROTOTYPE	■ PRE-LAUNCH	☐ MASSPRO	Revision No.:	0	Page No.:	11 of 21

PARTS:	1. Assy parts			JIG:	1. Insertion jig
NO.	**PROCESS NAME**		**WORK PROCEDURE/ ILLUSTRATION**	**TOOLS/PPE**	**QUALITY POINTERS**
11	P1	Wire insertion to assy parts	  1. Hold the **Black VM tube (Sunprene)** using left hand and insert the wires of assy parts (Connector with wire) using right hand.	n/a	1. No wrong usage of parts 2. No deformed terminal 3. No tangled wires

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	WORK INSTRUCTION			Effectivity Date:	May 14, 2025		
	Process Name/Title:	TAPING ASSEMBLY PROCESS		Validity Date:	n/a		
	Model code/Part number: 412D / 75V117-7112	Customer: TRJ	Car Model: LEXUS-ES	Document No.:	WI-ENG-PDE-1259		
	Purpose: ☐ PROTOTYPE ■ PRE-LAUNCH ☐ MASSPRO			Revision No.:	0	Page No.:	12 of 21

PARTS:	1. Assy parts	JIG:	1. Insertion jig 2. Steering Navigation

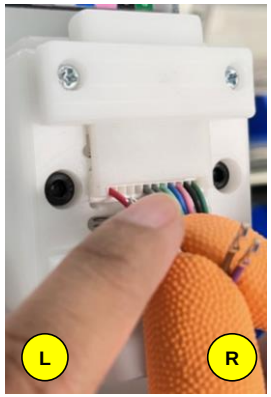
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
12	P1	Wire insertion to Connector PBVP-10V-S (W)			

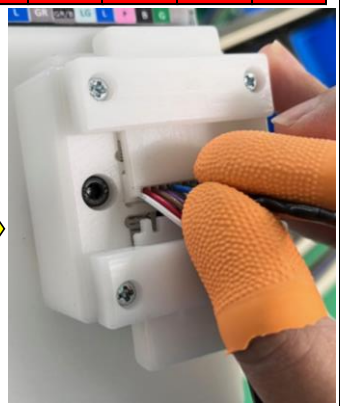
INSERTION SEQUENCE FROM LEFT TO RIGHT

TERMINAL FACING

WIRE INSERTION ILLUSTRATION

1		2	3	4							
W/G	R	BR	V	L	GR	GR/B	LG	L	P	B	G
145	240	143	141	89	228	224	226	224	230	234	232



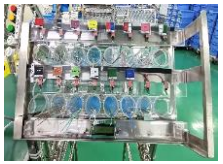


1. Hold the **W/G wire** using right hand and support the wire by left index finger then insert to connector slot 1 using right hand. Repeat the process on W/G and R wires.
Note: Follow the insertion sequence based on the above illustration.

2. Get the assy part (L wire with Black tube taping) using right hand.
Note: L wire with Black tube taping must be on top while insertion.

TOOLS/PPE

STEERING NAVIGATION (2 layer)



CONTROLLER

QUALITY POINTERS

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 properly inserted. Conduct Pull-Push-Pull-Push after insertion.
Do not exert extra force.
2. Please hold the wires near terminal during insertion.
3. Automatically dispose and replace the unit if once encountered bend terminal, difficulty of insertion and half-locked connector.
4. Insertion of wires must be from left to right.

Document reference/s:

1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance.
2. Refer to WI-ENG-PDE-044 for 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.

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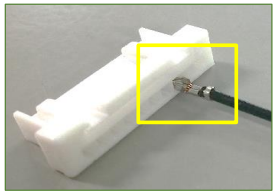
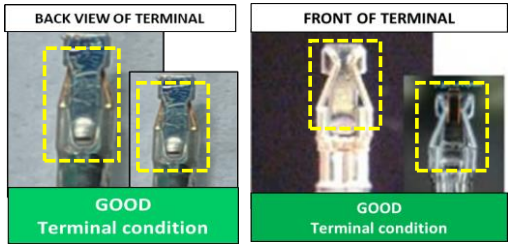
	Process Name/Title:	TAPING ASSEMBLY PROCESS		Validity Date:	n/a		
	Model code/Part number: 412D / 75V117-7112	Customer: TRJ	Car Model: LEXUS-ES	Document No.:	WI-ENG-PDE-1259		
	Purpose: ☐ PROTOTYPE ■ PRE-LAUNCH ☐ MASSPRO			Revision No.:	0	Page No.:	13 of 21

PARTS:	1. Assy parts		JIG:	1. Insertion jig 2. Steering Navigation
NO.	**PROCESS NAME**	**WORK PROCEDURE/ ILLUSTRATION**	**TOOLS/PPE**	**QUALITY POINTERS**

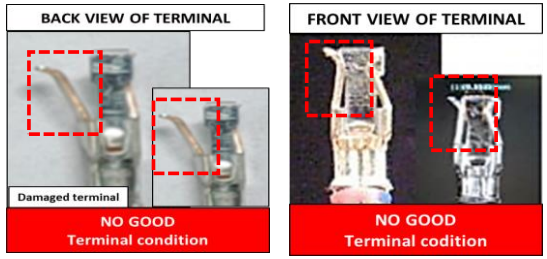
13 | **P1** | Wire insertion to Connector PBVP-10V-S (W) (Continuation)

Proper alignment of terminal to connector

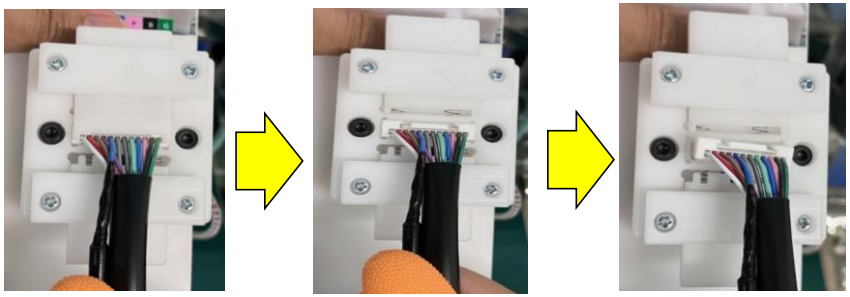




Improper alignment of terminal to connector



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.



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

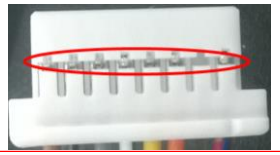
1. Use provided jig per model
2. No wrong usage of parts
3. One by one insertion
4. No wrong insertion
5. No deformed terminal
6. No stuck of terminal tip

Important reminders/Note/s:

1. Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion.
Do not exert extra force.
2. Please hold the wires near terminal during insertion.
3. Automatically dispose and replace the unit if once encountered bend terminal, difficulty of insertion and half-locked connector.
4. Insertion of wires must be from left to right.

Document reference/s:

1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance.
2. Refer to WI-ENG-PDE-044 for 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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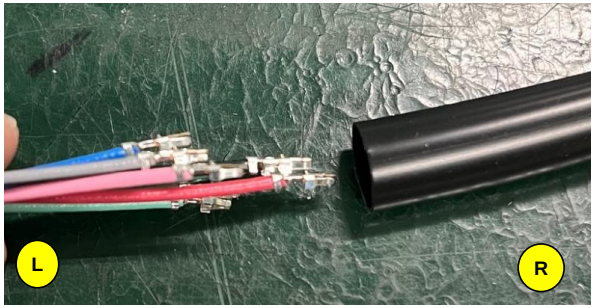
	WORK INSTRUCTION			Effectivity Date:	May 14, 2025		
	Process Name/Title:	TAPING ASSEMBLY PROCESS		Validity Date:	n/a		
	Model code/Part number: 412D / 75V117-7112	Customer: TRJ	Car Model: LEXUS-ES	Document No.:	WI-ENG-PDE-1259		
	Purpose: ☐ PROTOTYPE ■ PRE-LAUNCH ☐ MASSPRO			Revision No.:	0	Page No.:	14 of 21

PARTS:	1. Black SV tube (Vinyl) Ø7 L=117±3mm 2. Assy parts			JIG:	n/a
NO.	**PROCESS NAME**		**WORK PROCEDURE/ ILLUSTRATION**	**TOOLS/PPE**	**QUALITY POINTERS**
14	P1	Wire insertion to Black SV tube (Vinyl) Ø7 L=117±3mm	 1. Get the **Black SV tube (Vinyl) Ø7 L=117±3mm** using right hand. Hold the wire of assy parts using left hand then insert the wires. 	n/a	1. No wrong usage of parts 2. No deformed terminal 3. No tangled wires

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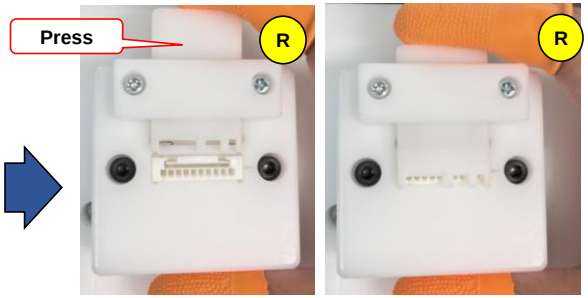
	WORK INSTRUCTION			Effectivity Date:	May 14, 2025	
	Process Name/Title:	TAPING ASSEMBLY PROCESS		Validity Date:	n/a	
	Model code/Part number: 412D / 75V117-7112	Customer: TRJ	Car Model: LEXUS-ES	Document No.:	WI-ENG-PDE-1259	
	Purpose: ☐ PROTOTYPE ■ PRE-LAUNCH ☐ MASSPRO			Revision No.:	0	Page No.: 15 of 21

PARTS:	1. Connector PBVP-10V-S (W)			JIG:	1. Insertion jig
NO.	**PROCESS NAME**		**WORK PROCEDURE/ ILLUSTRATION**	**TOOLS/PPE**	**QUALITY POINTERS**
15	P1	Connector setting to insertion jig PBVP-10V-S (W)	 Connector orientation 1. Get the 1 pc of **PBVP-10V-S** connector using right hand then insert to insertion jig. *Note: Follow the connector orientation.*  2. Press the upper guide using right hand in same timing. Holes that need to be insert are only open.	n/a	1. Use the provided jig per model 2. No wrong usage of parts 3. No wrong orientation of connector 4. No damaged connector

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PARTS:	1. Assy parts	JIG:	1. Insertion jig

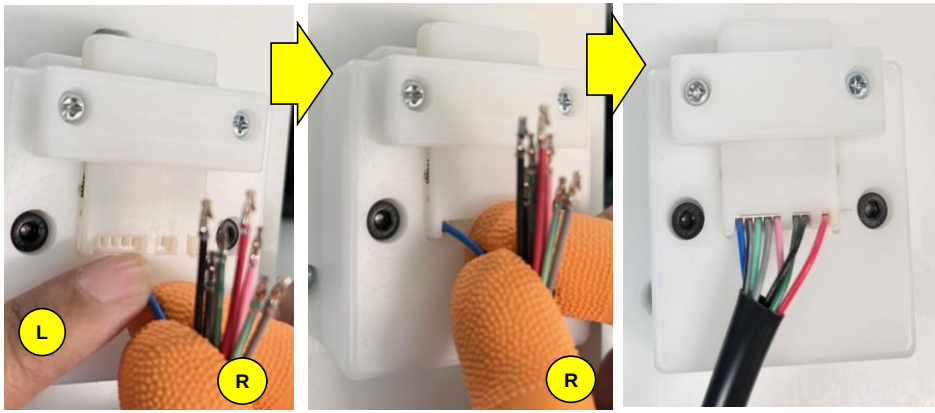
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
16	P1	Wire insertion to Connector PBVP-10V-S (W)		n/a	

INSERTION SEQUENCE FROM LEFT TO RIGHT

TERMINAL FACING

WIRE INSERTION ILLUSTRATION

1	2	3	4	5		6	7		8
L	GR/B	LG	GR	P	X	G	B	X	R
224	224	226	228	230		232	234		240



1. Hold the **L wire** using right hand and support the wire by left index finger then insert to connector slot 1 using right hand. Repeat the process on GR/B, LG, GR, P, G, B and R wires.
Note: Follow the insertion sequence based on the above illustration.

QUALITY POINTERS

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 properly inserted. Conduct Pull-Push-Pull-Push after insertion.
Do not exert extra force.
2. Please hold the wires near terminal during insertion.
3. Automatically dispose and replace the unit if once encountered bend terminal, difficulty of insertion and half-locked connector.
4. Insertion of wires must be from left to right.

Document reference/s:

1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance.
2. Refer to GL-PRO-ASY-029 for Pull-Push procedure.
3. Refer to GL-PRO-ASY-025 for Inspection Standard for connector insertion.

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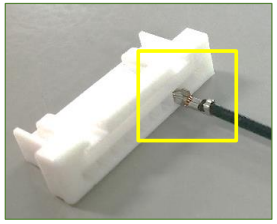
	Model code/Part number: 412D / 75V117-7112	Customer: TRJ	Car Model: LEXUS-ES	Document No.:	WI-ENG-PDE-1259		
	Purpose: ☐ PROTOTYPE	■ PRE-LAUNCH	☐ MASSPRO	Revision No.:	0	Page No.:	17 of 21

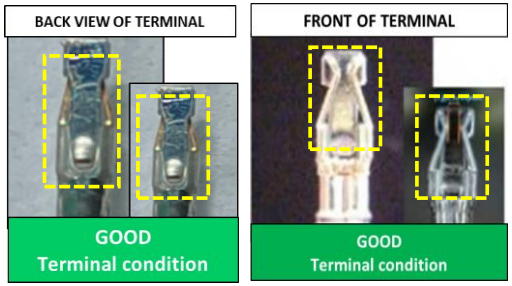
PARTS:	1. Assy parts		JIG:	1. Insertion jig
NO.	**PROCESS NAME**	**WORK PROCEDURE/ ILLUSTRATION**	**TOOLS/PPE**	**QUALITY POINTERS**

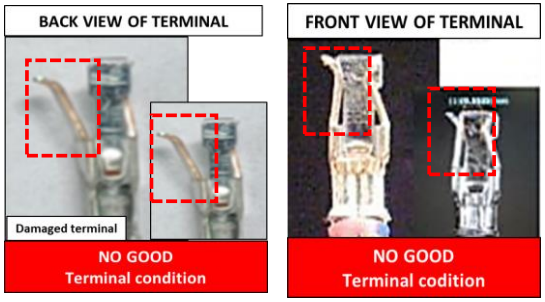
17 | **P1** | Wire insertion to Connector PBVP-10V-S (W) (Continuation)

Proper alignment of terminal to connector

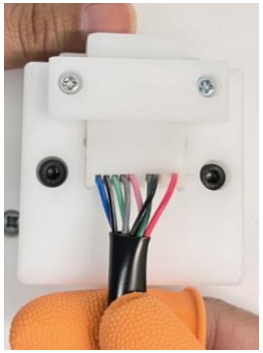


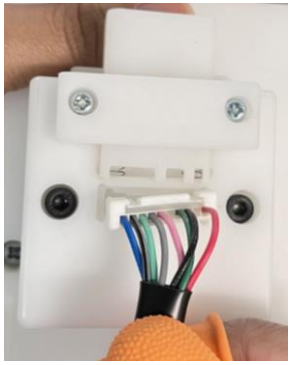
Improper alignment of terminal to connector





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

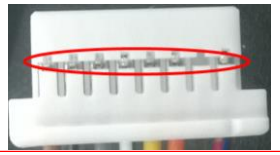
1. Use provided jig per model
2. No wrong usage of parts
3. One by one insertion
4. No wrong insertion
5. No deformed terminal
6. No stuck of terminal tip

Important reminders/Note/s:

1. Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.
2. Please hold the wires near terminal during insertion.
3. Automatically dispose and replace the unit if once encountered bend terminal, difficulty of insertion and half-locked connector.
4. Insertion of wires must be from left to right.

Document reference/s:

1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance.
2. Refer to GL-PRO-ASY-029 for Pull-Push procedure.
3. Refer to GL-PRO-ASY-025 for Inspection Standard for connector insertion.



Terminal tip must be visible

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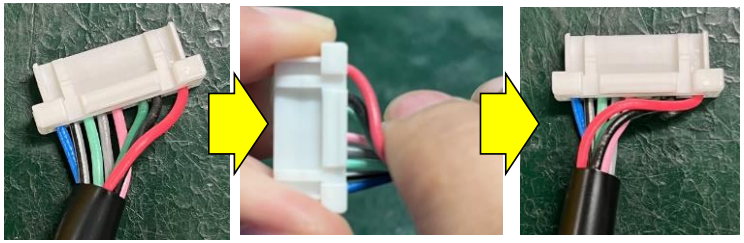
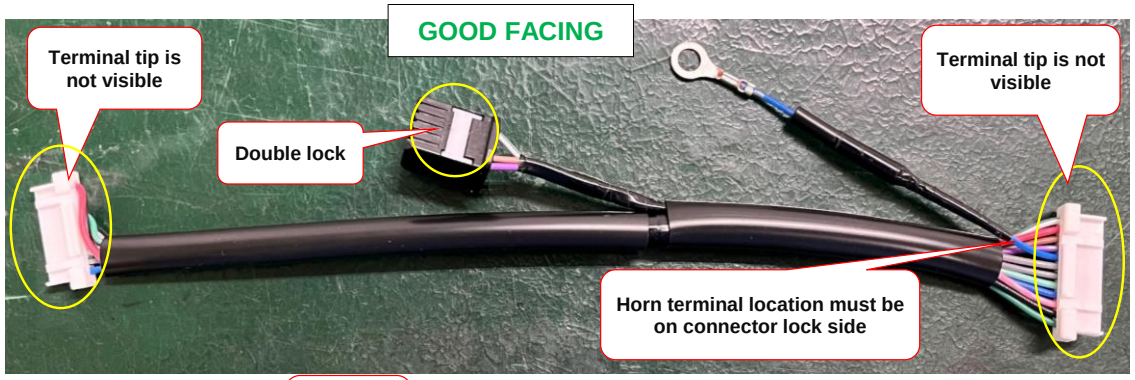
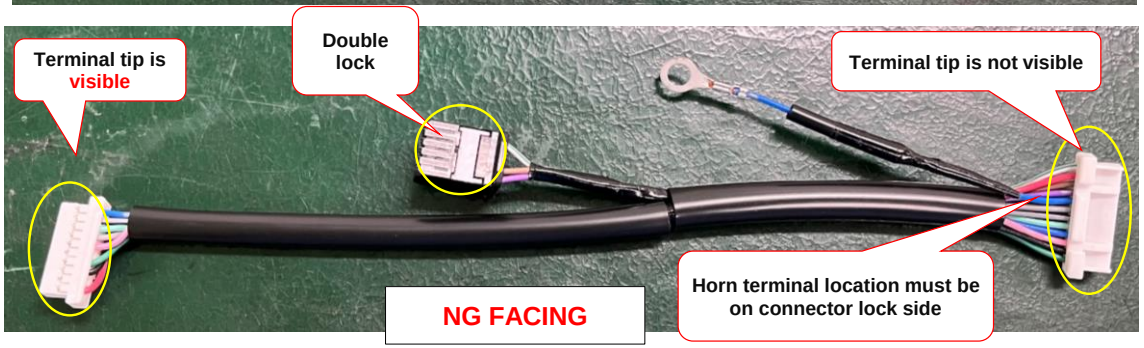
	WORK INSTRUCTION			Effectivity Date:	May 14, 2025		
	Process Name/Title:	TAPING ASSEMBLY PROCESS		Validity Date:	n/a		
	Model code/Part number: 412D / 75V117-7112	Customer: TRJ	Car Model: LEXUS-ES	Document No.:	WI-ENG-PDE-1259		
	Purpose: ☐ PROTOTYPE ■ PRE-LAUNCH ☐ MASSPRO			Revision No.:	0	Page No.:	18 of 21

PARTS:	1. Assy parts		JIG:	n/a
NO.	**PROCESS NAME**	**WORK PROCEDURE/ ILLUSTRATION**	**TOOLS/PPE**	**QUALITY POINTERS**
18	P1 Wire folding/ Wire arrangement	 1. Hold the assy parts using both hands. Conduct bending and folding to wire with connector (PBVP-10V-S) using both hands. *Note: Follow the illustration.*  		1. No wrong orientation of connector 2. No wrong use of connector 3. No wrong terminal facing 4. No wrong facing of wire with "Horn"

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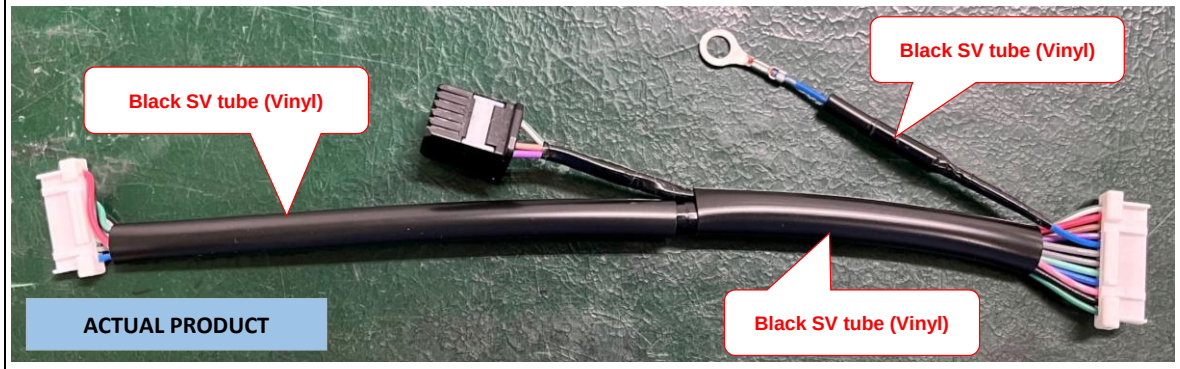
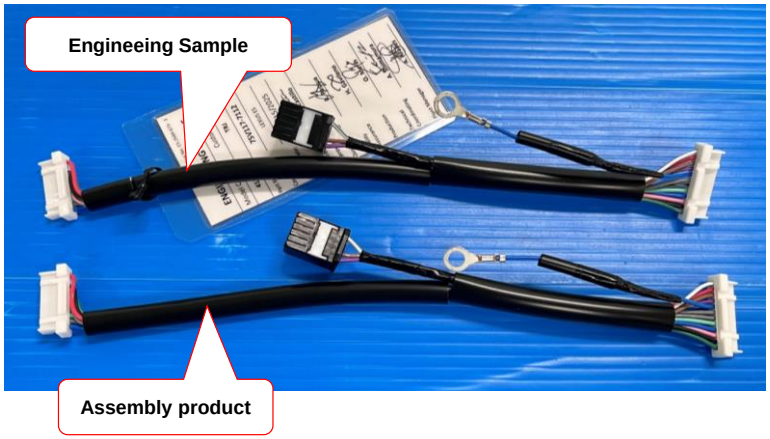
PARTS:	1. Assy parts 2. Engineering sample	JIG:	n/a

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
19	P1	Visual/By Two's Inspection	1. Check the connector lock. Locking of connector is included to Steering electrical test. 2. Check the wire alignment. Make sure no tangled wires 3. Check the terminal if with backing out (not fully inserted) or no deformed terminal.  4. Check the orientation of harness. 5. Compare to **Engineering sample** by tapping.  		***Document reference/s:*** *1. Refer to **WI-QAD-QAC-252** Steering Electrical Test* ENGINEERING SAMPLE

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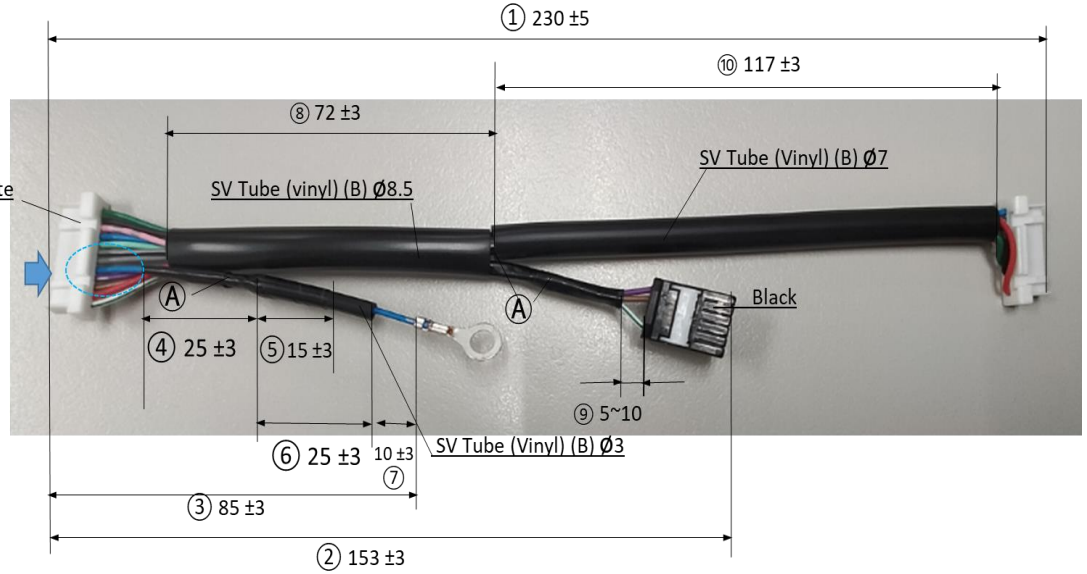
	Process Name/Title:	TAPING ASSEMBLY PROCESS		Validity Date:	n/a		
	Model code/Part number: 412D / 75V117-7112	Customer: TRJ	Car Model: LEXUS-ES	Document No.:	WI-ENG-PDE-1259		
	Purpose: ☐ PROTOTYPE	■ PRE-LAUNCH	☐ MASSPRO	Revision No.:	0	Page No.:	20 of 21

PARTS:	1. Assy parts	JIG:	n/a

NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
20	P1	Measurement	 **NOTE:** Ⓐ - Taping (B) Horn terminal location is in the lock side of connector (refer to illustration) *DIMENSION UNIT: millimeter (mm)* *MEASUREMENT TOOL: Measuring Tape*	**MEASURING TAPE** 	1. No wrong dimension. ***Important reminders and note/s:*** *1. Please use calibrated/verified measuring tape when getting the measurement.* *2. For Hatsumono, Nakamono and Owarimono.* ***Document reference/s:*** *1. Refer to **WI-PRO-ASY-056** for Sub-assembly Hatsumono Nakamono Owarimono Inspection*

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PARTS:	1. Assy parts	JIG:	n/a

VISUAL INSPECTION/ QUALITY CHECKPOINTS

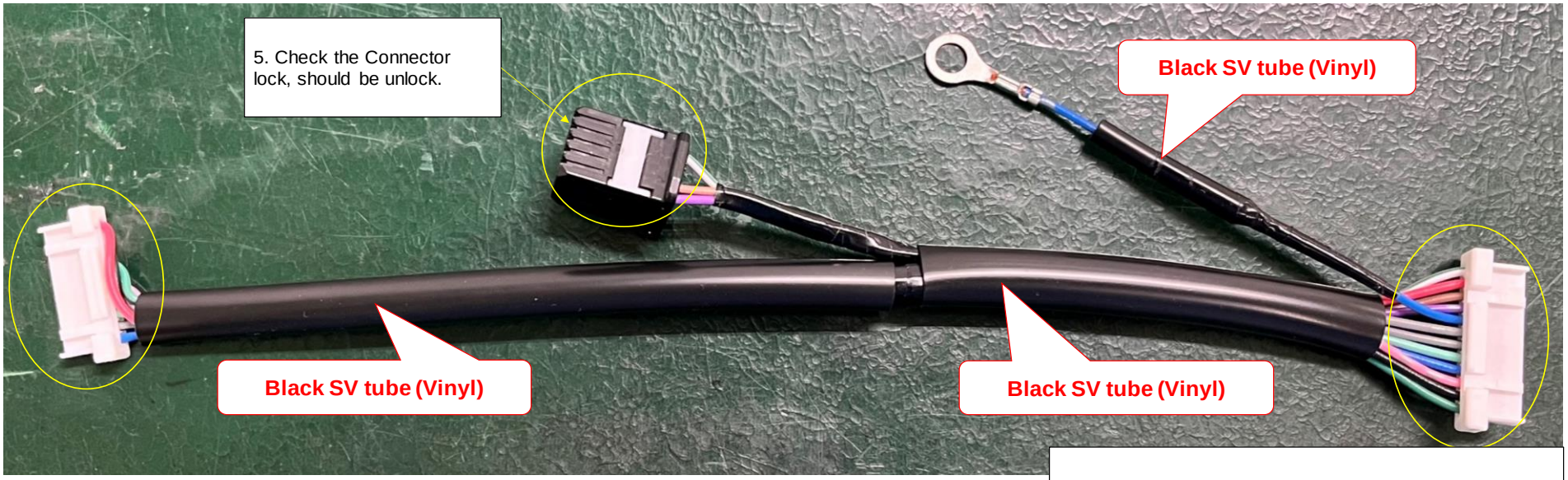
STEERING 75V117-7112

1. Check the wire alignment. Make sure no tangled wires.

2. Check the orientation of harness.

3. Check if no missing parts and missing tape.

4. Make sure horn wirel is located on the "Connector lock" side



6. Check the terminal if with backing out (not fully inserted) or deformed terminal.

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