

	<b>WORK INSTRUCTION</b>				Effectivity Date:	February 28, 2024			
	<b>TAPING ASSEMBLY PROCESS</b>				Validity Date:	n/a			
	Process Name/Title:		Model code/Part number: <b>310D/ 7N0194-7020</b>		Customer: <b>TRJ</b>	Car Model: <b>TOYOTA RAV4</b>	Document No.:	<b>WI-ENG-PDE-752A</b>	
	Purpose:		<input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO		Revision No.:	1	Page No.:	1 of 9	


<b>PARTS:</b>	1. Parts: Assy Parts (AVSSf 0.3 wires Y-OR L=491±2mm; Connector 7283-1020-60 (G); Black SV tube (Vinyl) ø5 L=47±3mm); Connector 6098-5668 (W); IRRAX A ROPE-LAY 0.3 B wires L=260±2mm; Yellow tape				JIG:	1. Insertion jig 2. Locking jig	
<b>NO.</b>	<b>PROCESS NAME</b>	<b>WORK PROCEDURE/ ILLUSTRATION</b>			<b>TOOLS/PPE</b>	<b>QUALITY POINTERS</b>	
1	P1	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px; text-align: center;">Table Lay-out</div>			<div style="border: 1px dashed red; padding: 5px; margin-bottom: 10px;"> <b>Safety Instruction</b>            Be sure to wear prescribed personal protective equipment during operation (gloves, finger cots, etc.)         </div> <div style="border: 1px dashed red; padding: 5px; margin-bottom: 10px;"> <b>Housekeeping</b>            1. Maintain and always practice 5's.            2. Personal things on the workplace is prohibited. Keep it in your locker.         </div> <div style="border: 1px dashed red; padding: 5px;"> <b>Alert level</b>            For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.         </div>	<b>Document reference/s:</b> 1. Refer to <b>WI-PRO-CNC-017</b> for Wire and Strip Length Tolerance.  2. Refer to <b>WI-ENG-PDE-857</b> for Offline Assembly Process  1. No missing parts/tools 2. No excess parts/tools	

Revision History					Prepared by	Reviewed by	Approved by	Noted by
02/28/24	1	Change from Pre-launch to Masspro. Provision of Insertion jig. Inclusion of Table lay-out and update Quality pointers. Transfer some process to Offline assembly process and Taping assembly process (WI-ENG-PDE-752B).	D.Castillo	C.Villanueva	A. Arañes	n/a		
11/11/23	0	Initial issue.	D.Castillo	J.Loterte	C.Villanueva	A. Arañes		n/a
Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Est. Date:	November 11, 2023

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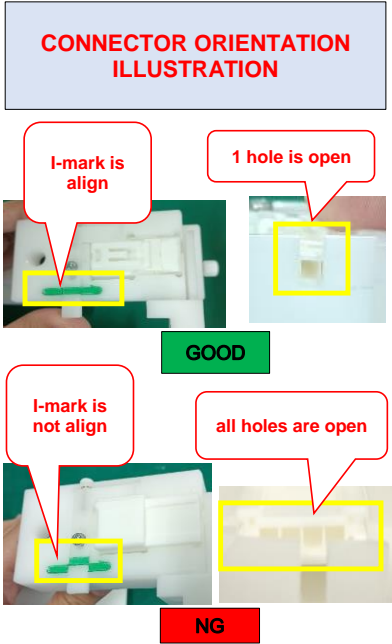
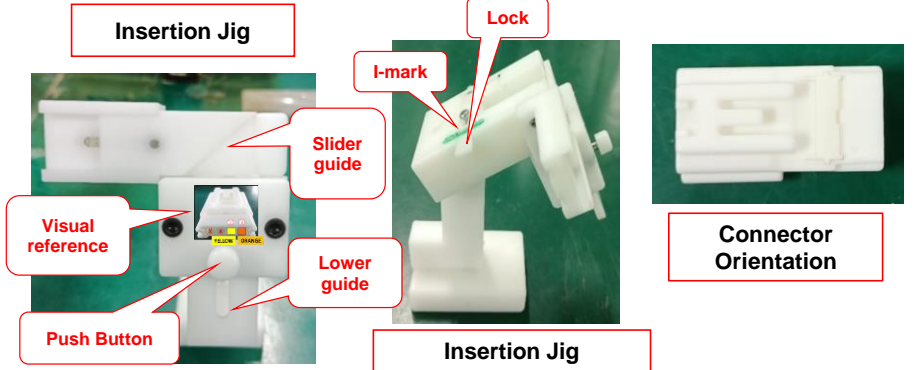
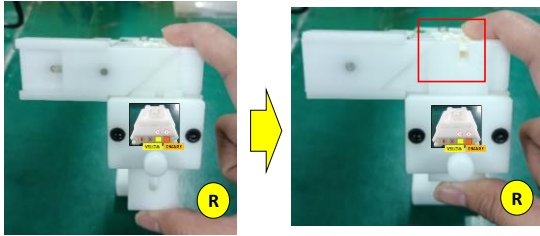
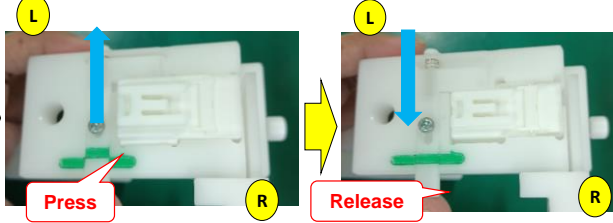
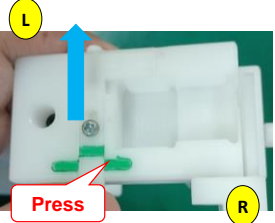
<b>PARTS:</b>		1. Assy parts 2. Black SV tube (Vinyl) ø5 L=47±3mm			JIG:	n/a
<b>NO.</b>	<b>PROCESS NAME</b>	<b>WORK PROCEDURE/ ILLUSTRATION</b>			<b>TOOLS/PPE</b>	<b>QUALITY POINTERS</b>
2	P1	<div><p>1. Get the Black SV tube (Vinyl) <b>ø5 L=47±3mm</b> using right hand theb insert the <b>Y-OR wires</b>.</p></div>			N/A	1. No wrong use of parts 2. No Deformed terminal

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<b>PARTS:</b>	1. Connector 6098-5668 (W)			JIG:	1. Insertion jig			
<b>NO.</b>	<b>PROCESS NAME</b>	<b>WORK PROCEDURE/ ILLUSTRATION</b>			<b>TOOLS/PPE</b>	<b>QUALITY POINTERS</b>		
3	P1 Connector setting to insertion jig 6098-5668 (W)	<div></div> <div></div> <div><p>1. Press the insertion jig lock using left hand.</p><p>2. Get the connector <b>6098-3871 (L)</b> using right hand and insert to insertion jig. Release the lock after insertion.</p><p>3. Push the lower wire guide upward using right hand. Slot for <b>yellow wire</b> will be open.</p></div>			N/A	<p>1. Use the provided jig per model</p> <p>2. No wrong orientation of the connector</p> <p><b>CONNECTOR ORIENTATION ILLUSTRATION</b></p> <p>I-mark is align      1 hole is open</p> <p><b>GOOD</b></p> <p>I-mark is not align      all holes are open</p> <p><b>NG</b></p>		

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Car Model:

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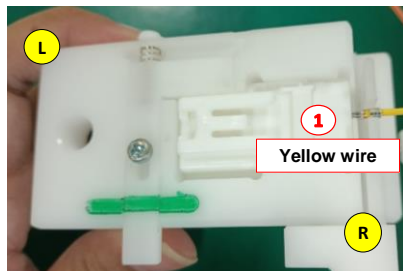
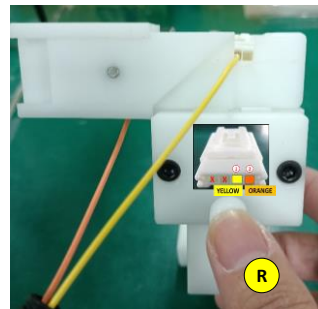
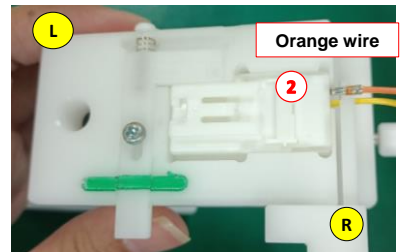
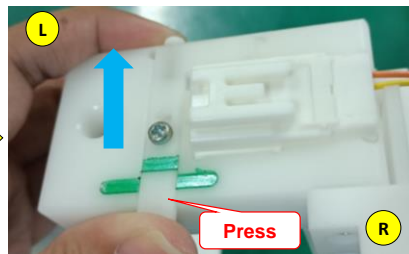
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PARTS:	1. Assy parts			JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
4	P1	<div><div><p>Wire Facing</p></div><div><p>1. Hold the insertion jig using left hand. Get the assy part and hold the <b>Yellow wire</b> then insert to connector using right hand.</p></div><div><p>2. Press the button using right thumb. slot for <b>Orange wire</b> will be open.</p></div><div><p>3. Hold the <b>Orange wire</b> and insert to connector using right hand.</p></div><div><p>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.</p></div></div> <div>N/A</div> <td><div>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deform terminal 5. No wrong wire facing.</div><div><b>Important reminders/Note/s:</b> 1. Please hold the wire near terminal during insertion.  2. Make sure wires are properly inserted. Conduct <b>Pull-Push-Pull-Push</b> after insertion. Do not exert extra force.</div><div><b>Document References:</b> 1. Refer to <b>WI-PRO-CNC-017</b> for Wire and Strip Length Tolerance.  2. Refer to <b>GL-PRO-ASY-028</b> for Pull-Push procedure.</div></td>		<div>1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deform terminal 5. No wrong wire facing.</div> <div><b>Important reminders/Note/s:</b> 1. Please hold the wire near terminal during insertion.  2. Make sure wires are properly inserted. Conduct <b>Pull-Push-Pull-Push</b> after insertion. Do not exert extra force.</div> <div><b>Document References:</b> 1. Refer to <b>WI-PRO-CNC-017</b> for Wire and Strip Length Tolerance.  2. Refer to <b>GL-PRO-ASY-028</b> for Pull-Push procedure.</div>	

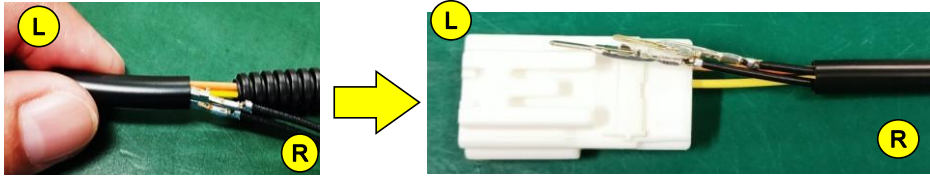

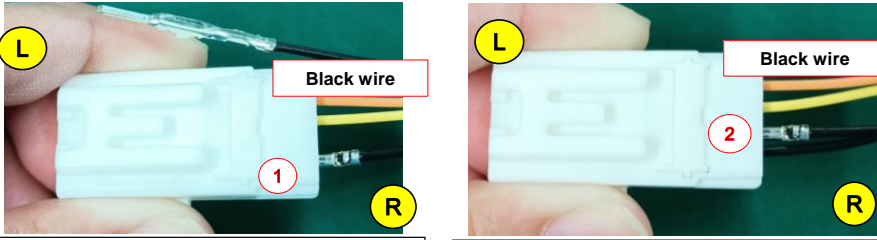
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<b>PARTS:</b>		1. Assy parts		JIG:	n/a
<b>NO.</b>	<b>PROCESS NAME</b>	<b>WORK PROCEDURE/ ILLUSTRATION</b>	<b>TOOLS/PPE</b>	<b>QUALITY POINTERS</b>	
5	Taping 1 SV tube (Vinyl) to wire near Connector	 <div>         1. Get the <b>B-B wires</b> and insert to Black SVI tube (Vinyl) <b>ø5 L=47±3mm (Assy parts)</b> using right hand.       </div>	n/a	1. No wrong use of parts 2. No deformed terminal	
6	P1 Wire insertion to connector 6098-5668 (W)	<div>  <div> <b>CONNECTOR ORIENTATION</b> </div> <div> <b>WIRE FACING</b> </div> <div> <b>VISUAL REFERENCE</b> </div> </div> <div>  <div>         1. Hold the connector <b>6098-5668 (W)</b> then get the <b>1st Black wire</b> and insert to terminal <b>slot 1</b> using right hand. Conduct <b>2x</b> push-pull after wire insertion. <b>Note: Insertion of wire must be from left to right.</b> </div> <div>         2. Get the <b>2nd Black wire</b> and insert to terminal <b>slot 2</b> using right hand. Conduct <b>2x</b> push-pull after wire insertion.       </div> </div>	n/a	<b>Important reminders/note/s:</b> 1. <i>Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.</i>  1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deform terminal 5. No wrong wire facing	

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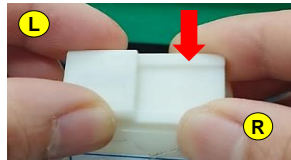



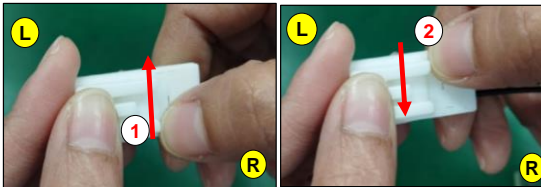

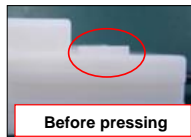
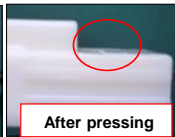

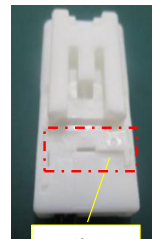
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PARTS:	1. Assy parts		JIG:	1, Locking jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
7	P1 Connector lock	<div><p>1. Load the connector into the jig holding both side of the connector, tip first.</p></div> <div><p>2. Press 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>6. Ensure that connector is in locked condition by slide touching the connector lock based on the sequence illustrated.</p></div>	<div>LOCKING JIG</div>  <div><p>Before pressing</p><p>After pressing</p></div> <div><div><p>Full Lock</p></div><div><p>Half Lock</p></div></div>	<p><b>Important reminders/note/s:</b></p> <p>1. <b>MANUAL LOCKING MAY CAUSED DAMAGED LOCK</b></p> <p>2. Use provided jig tool per model to avoid damaged lock.</p> <p><b>Document reference/s:</b></p> <p>1. Refer to GL-PRO-ASS-017 for the Verification of Coupler lock</p> <p>1. Use the provided jig per connector</p> <p>2. No unlock/half-locked of connector lock</p>

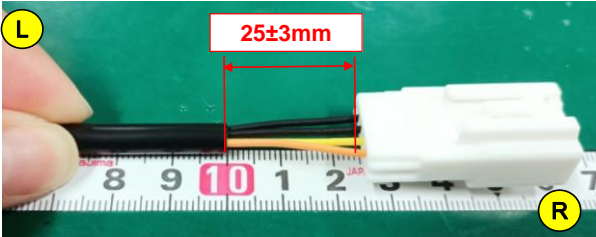
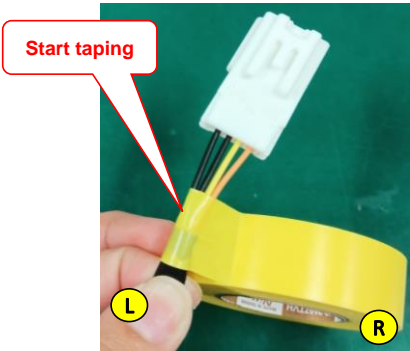
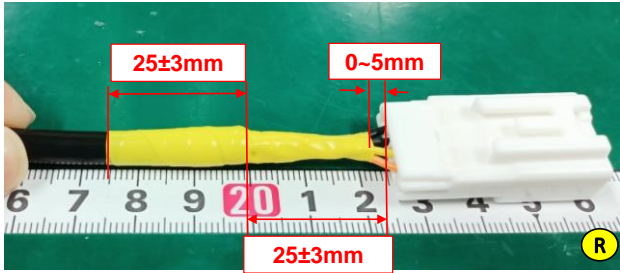

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
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<b>PARTS:</b>		1. Assy parts 2. Yellow tape		JIG:	n/a
<b>NO.</b>	<b>PROCESS NAME</b>	<b>WORK PROCEDURE/ ILLUSTRATION</b>	<b>TOOLS/PPE</b>	<b>QUALITY POINTERS</b>	
8	P1 Taping 1 Black SV tube (Vinyl) to Wire near connector	<div>  <p>1. Hold the Black SV tube (vinyl) using left hand and measure from end of SV tube (Vinyl) up to connector <b>25±3mm</b>.</p> </div> <div>  <p>2. Get the <b>Yellow tape</b> using right hand then start taping process using both hands.</p> </div> <div>  <p>3. After taping, check the measurement and taping condition.</p> </div>	<div>  </div>	<p><b>Important reminders/Note/s:</b></p> <p>1. Please use calibrated/verified measuring tape when getting the measurement.</p> <p><b>Document references:</b></p> <p>1. Refer to WI-PRO-ASY-001 for Taping process</p> <p>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</p>	

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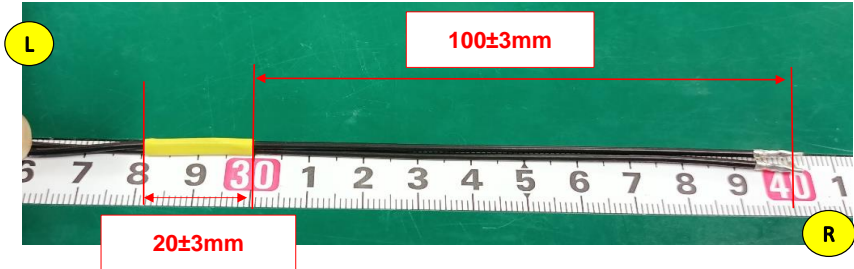
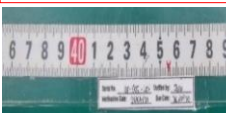
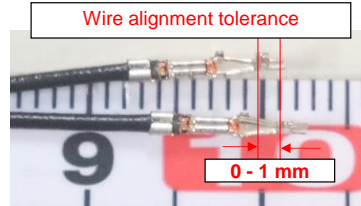
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PARTS:		1. Assy parts 2. Yellow tape		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
9	P1	Spot taping	<div><div><p>1. Hold the wires using both hands and measure from wire up to terminal pointed tip <b>120±3mm</b>.</p></div><div><p>2. Hold the wires using left hand, get <b>Yellow tape</b> then start taping using right hand. Make <b>2 windings</b> then cut the tape.</p></div><div><p>3. After taping, check the measurement, wire alignment and taping condition.</p></div></div>	<div>MEASURING TAPE</div> 	<div>Important reminders/Note/s:</div> <div>1. Please use calibrated/verified measuring tape when getting the measurement.</div> <div>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</div> <div><div>Wire alignment tolerance</div><div>0 - 1 mm</div></div>

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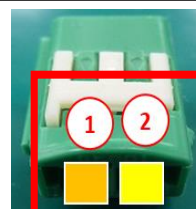
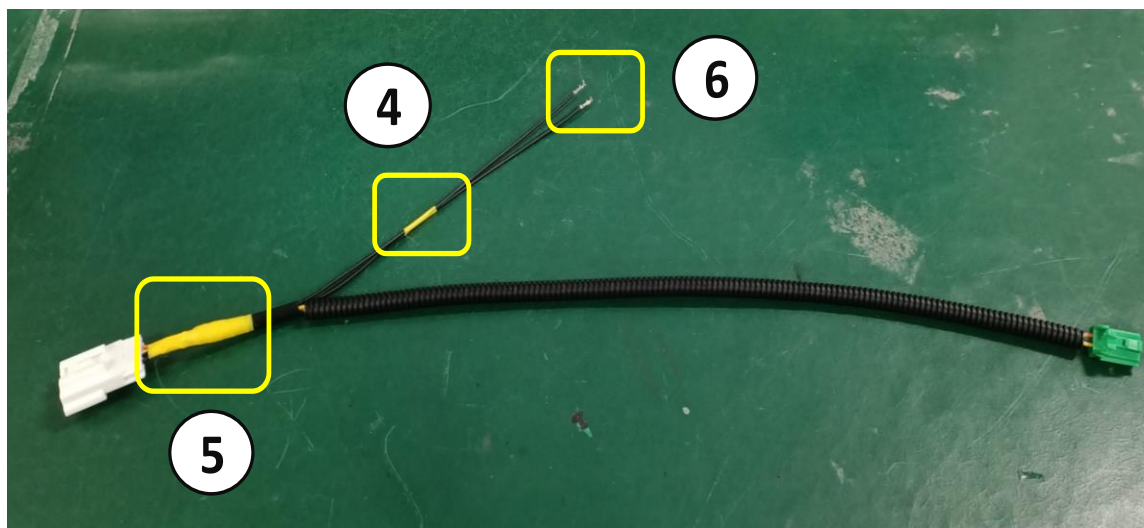
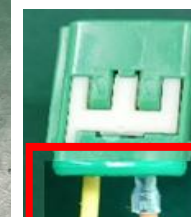
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PARTS:

n/a

JIG:

n/a

**QUALITY CHECKPOINTS****P1****7N0194-7020****GOOD****GOOD****NO GOOD****NO GOOD****GOOD****NO GOOD**

① No **Unlock/**  
**Halflock Connector**  
(2 connector)

② No **Wrong Insert**

③ No **Terminal Backing Out**

④ No **Missing Spot tape**

⑤ No **Missing tape**

⑥ No **Deformed Terminal**

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