



## WORK INSTRUCTION

## TAPING ASSEMBLY PROCESS

Effectivity Date:

October 14, 2024

Process Name/Title:

Validity Date:

n/a

Model code/Part number:

096D / 7L0120-7023A

Customer:

TRQSS

Car Model:

TOYOTA-HIGHLANDER

Document No.:

WI-ENG-PDE-1089

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

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## PARTS:

1. All parts: Connector 6188-0407 (W); TVSSf 0.3 G-B/W L=614mm±3mm; Black corrugated tube Ø5 L= 417±3mm (no slit); Yellow tape [1pc]; Black VM tube (Sunprene) Ø5 L=125±3mm

JIG:

1. Insertion jig with switch cover

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

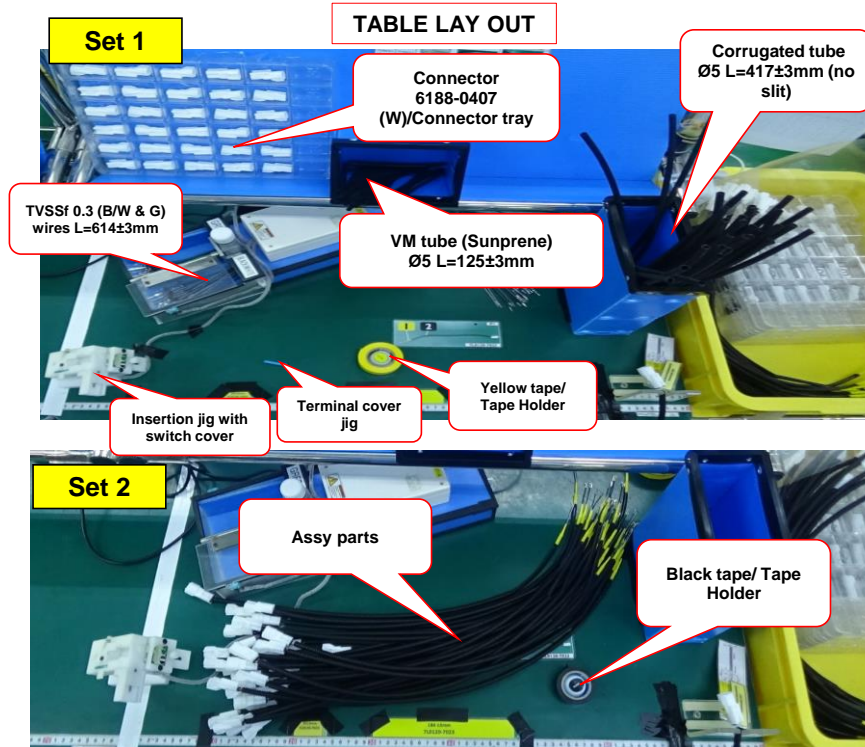
TOOLS/PPE

QUALITY POINTERS

1

P1

Table Lay-out

**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.

1. No missing parts/tools
2. No excess parts/tools

## Revision History

Prepared by

Reviewed by

Approved by

Noted by

10/14/24 1 Change purpose from Pre-launch to Masspro.

M. Ariola C. Villanueva A. Arañes N/A

10/09/24 0 Initial issue.

M. Ariola C. Villanueva A. Arañes N/A

Eff. Date Rev. No Details of Change

Revised Reviewed Approved Noted

Est. Date:

October 9, 2024

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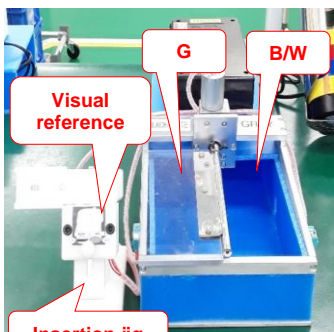
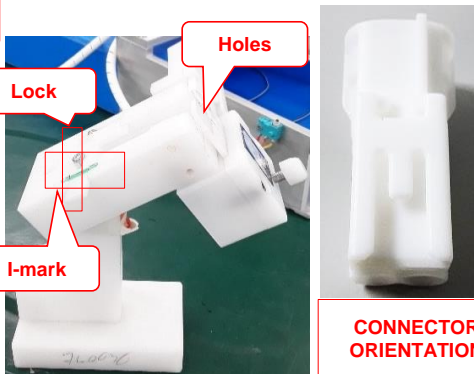
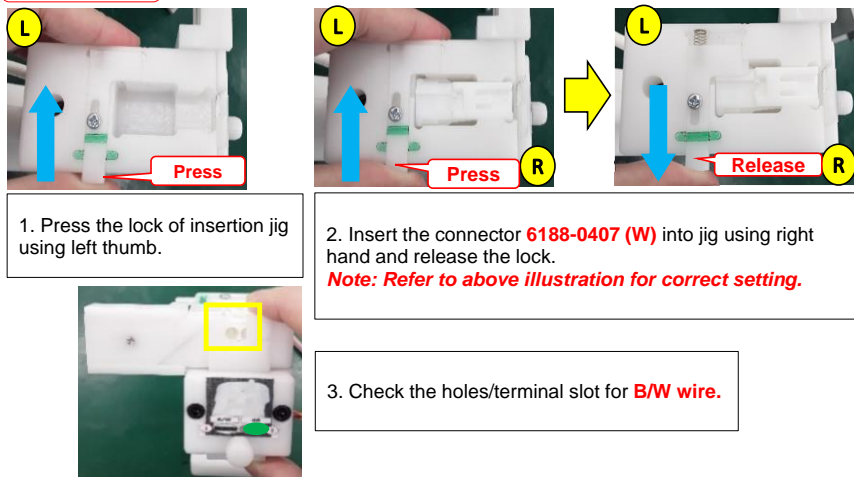
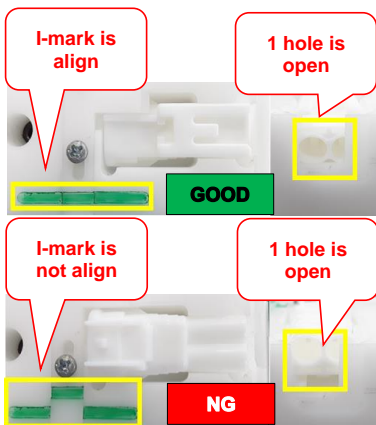
☒ MASSPRO

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PARTS:		1. Connector 6188-0407 (W)		JIG:	1. Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
2	P1	<div><div>INSERTION JIG WITH SWITCH COVER</div><div></div><div></div><div></div></div>		n/a	<div><div>Connector Orientation Illustration</div><div></div><div>1. Use the provided jig per model 2. No wrong orientation of connector 3. No wrong use of connector 4. No damaged connector</div></div>

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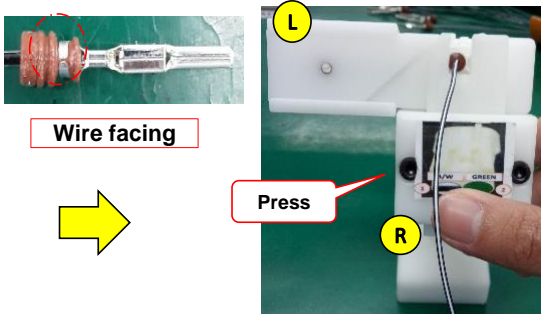
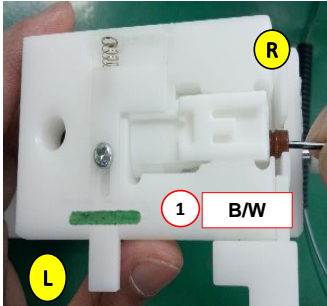
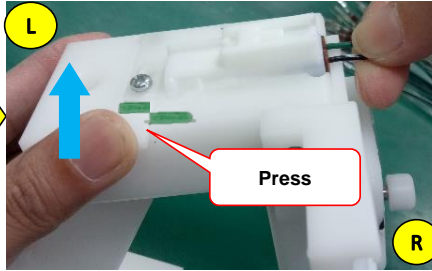
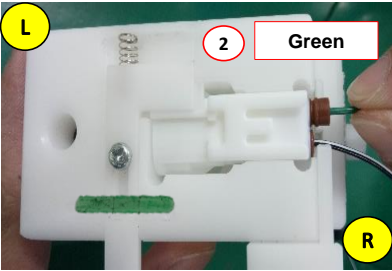
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PARTS:	1. TVSSf 0.3 wires B/W-G L=614±3mm			JIG:	1. Insertion jig with switch cover
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
3	P1 Wire Insertion to Connector 6188-0407 (W)	<div><p>1. Hold the Insertion jig using left hand. Get <b>Black /White wire</b> then insert to terminal <b>slot 1</b> using right hand.</p><p>2. Push the button using right hand. The slot for <b>Green wire</b> will be opened.</p></div> <div><p>3. Get <b>Green wire</b> then insert to terminal <b>slot 2</b> using right hand.</p><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>		n/a	<p><b>Document reference/s:</b></p> <p>1. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance.</p> <p>2. Please refer to GL-PRO-ASSY-029 for Pull-Push procedure.</p> <p><b>Important reminders/Note/s:</b></p> <p>1. Make sure wires are properly inserted.</p> <p>Conduct <b>Pull-Push-Pull-Push</b> after insertion.</p> <p>Do not exert extra force.</p> <p>1. No loose insertion</p> <p>2. No wrong insertion</p> <p>3. One by one insertion</p> <p>4. No deformed terminal</p> <p>5. No wrong wire facing</p>

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PARTS:		1. Assy parts 2. Black Corrugated tube Ø5 L=417±3mm (no slit)		JIG:	1. Terminal cover jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
4	P1	<div><div><div><div><div><div>L</div><div>R</div></div><div></div></div></div><div><div>1. Get the terminal cover jig using right hand then insert the <b>G</b> and <b>B/W</b> wires.</div></div></div><div><div><div>L</div><div>R</div></div><div></div></div><div><div>2. Get the Corrugated <b>Ø5 L=417±3mm (no slit)</b> using right hand and insert the <b>G</b> and <b>B/W</b> wires</div></div></div> <div><div><div>L</div><div>R</div></div><div></div></div> <div><div>3. After insertion, remove the terminal cover jig using right hand.</div></div> <div><div>TERMINAL COVER JIG</div><div></div></div> <div>1. No wrong use of parts 2. No deformed terminal</div>			
5		<div><div><div><div><div><div>L</div><div>R</div></div><div></div></div></div><div><div>1. Get the <b>Black VM tube (Sunprene) Ø5 L=125±3mm</b> using right hand and insert the G and B/W wires using left hand.</div></div></div></div> <div>n/a</div> <div>1. No wrong use of parts</div>			

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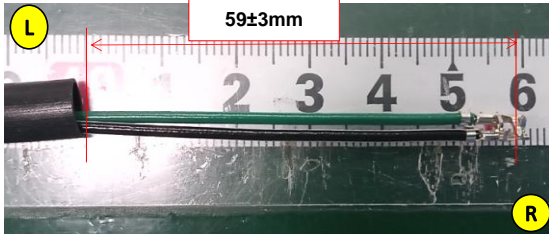
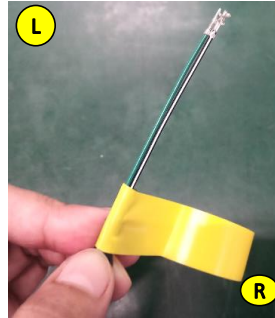
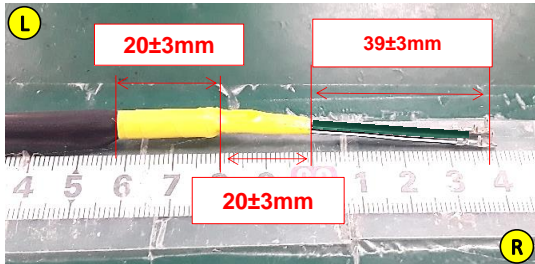

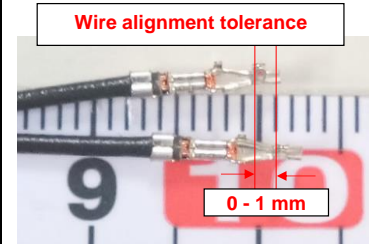
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PARTS:		1. Assy parts 2. Black VM tube (Sunprene) Ø5 L=125±3mm 3. Yellow tape	JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
6	P1 Taping COT to wire near terminal	<div><p>1. Measure from end of VM tube (Sunprene) to terminal tip 59mm using both hands.</p></div> <div><p>2. Hold the sunprene tube using left hand, get yellow tape using right hand and start taping process.</p></div> <div><p>3. After taping, check the dimension, taping condition and wire alignment.</p></div>	<div><p>MEASURING TAPE</p></div>	<div><p>Wire alignment tolerance 0 - 1 mm</p></div> <p><b>Important reminders/Note/s:</b></p> <ol style="list-style-type: none"><li>Please use calibrated/verified measuring tape when getting the measurement.</li></ol> <p><b>Document reference/s:</b></p> <ol style="list-style-type: none"><li>Refer to WI-PRO-ASY-001 for taping procedure.</li></ol> <ol style="list-style-type: none"><li>No flip-out tape</li><li>No peel-off tape</li><li>No loose tape</li><li>No missing tape</li><li>No wrong use of tape</li><li>No wrong dimension</li></ol>

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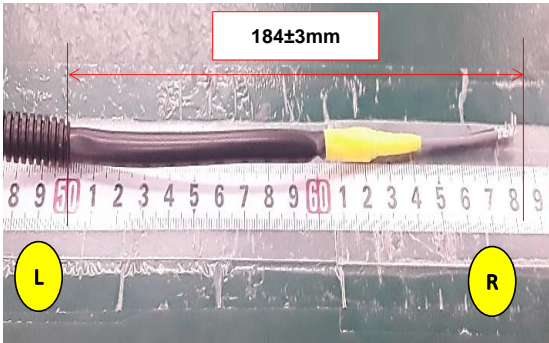

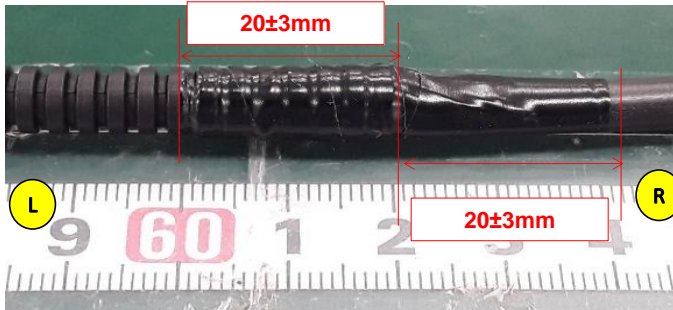

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PARTS:		1. Assy parts 2. Black tape		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
7	P1 Taping 2 Black COT to Black VM tube (Sunprene)	<div><p>184±3mm</p><p>NO GAP BETWEEN COT AND VM TUBE</p></div> <div><p>1. Measure from COT to terminal pointed tip <b>184±3mm</b> using both hands.</p></div> <div><p>L R</p></div> <div><p>2. Hold the COT using left hand. Get Black tape using right hand and start taping process using both hands.</p></div> <div><p>20±3mm</p><p>20±3mm</p></div> <div><p>3. After taping, check the dimension and taping condition.</p></div>		<div><p><b>MEASURING TAPE</b></p></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 reference/s:</b></p> <p>1. Refer to WI-PRO-ASY-001 for taping procedure.</p> <p>1. No flip-out tape 2. No peel-off tape 3. No loose tape 4. No missing tape 5. No wrong use of tape 6. No wrong dimension</p>

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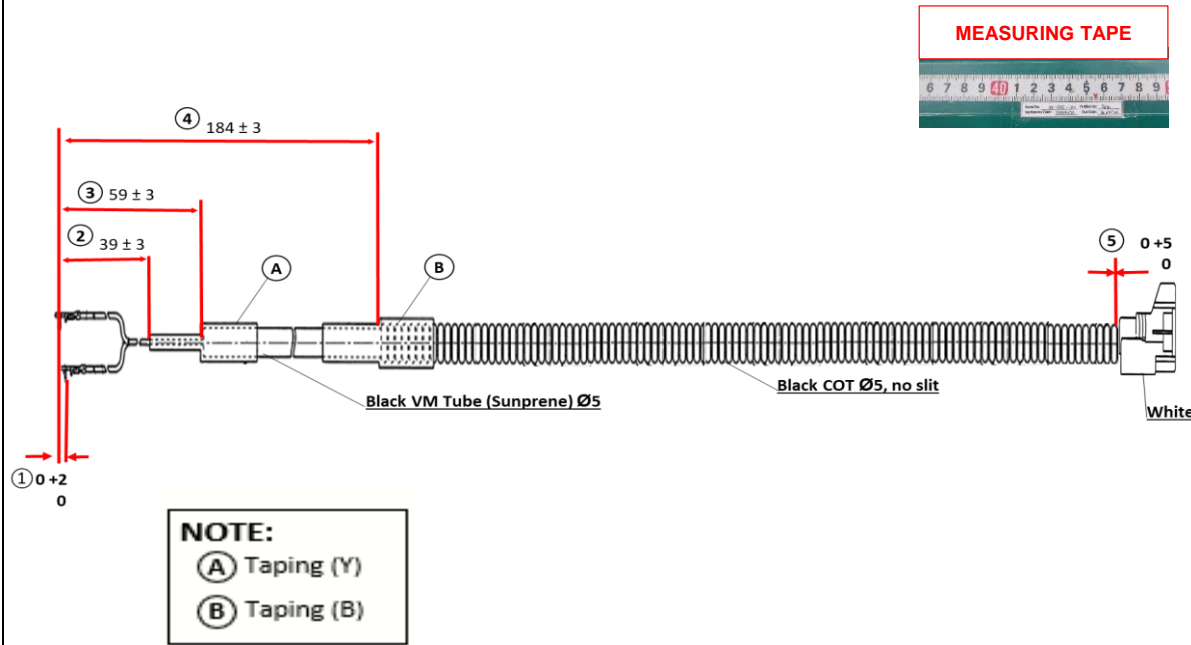
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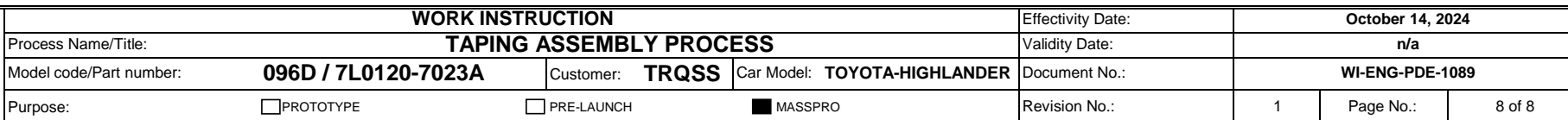
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PARTS:		1.Assy parts		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
8	P1	Measurement	 <p><b>NOTE:</b></p> <ul style="list-style-type: none"><li>(A) Taping (Y)</li><li>(B) Taping (B)</li></ul>		<p><b>Important reminders and note/s:</b></p> <p>1.Please use calibrated /verified measuring tape when getting the measurement.</p> <p>2. For Hatsumono,Nakamono and Owarimono.</p> <p><b>Document reference/s:</b></p> <p>1. Refer to WI-PRO-ASY-056 for Sub-assembly Hatsumono Nakamono Owarimono Inspection.</p> <p>1. No wrong deminsion</p>

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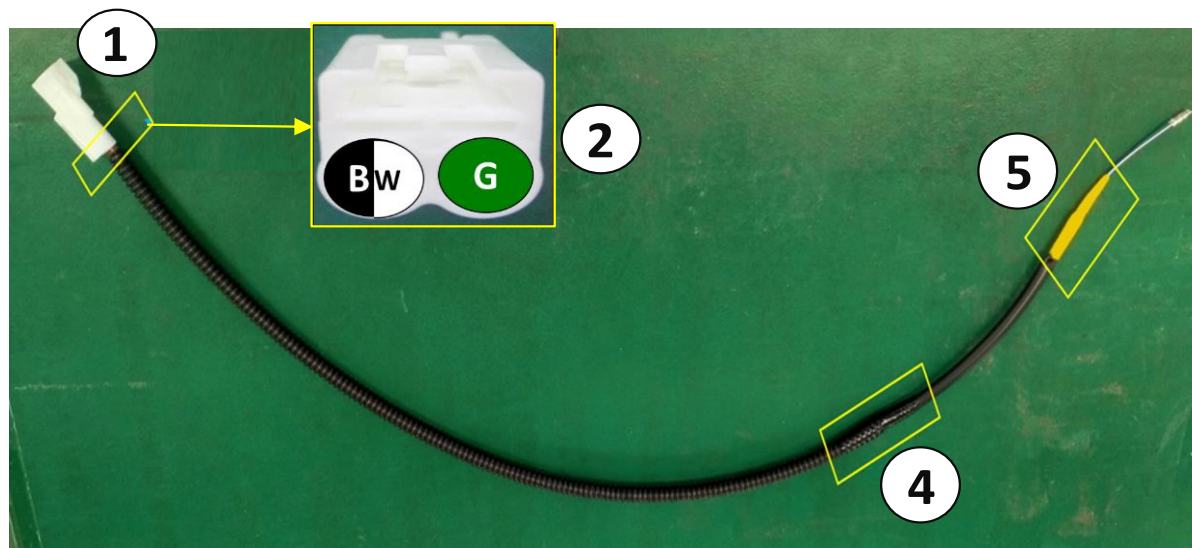
<b>PARTS:</b>	1. Assy parts
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JIG:

n/a

## VISUAL INSPECTION/ QUALITY CHECKPOINTS

# 7L0120-7023A



- 1 No Unlocked/Half-locked connector
- 2 No Wrong Insert
- 3 No Terminal Backing Out
- 4 No Missing tape (BLACK)
- 5 No Wrong color of tape (Yellow)
- 6 No Deformed terminal

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