



WORK INSTRUCTION

TAPING ASSEMBLY PROCESS

Effectivity Date:

February 28, 2024

Process Name/Title:

Validity Date:

n/a

Model code/Part number:

310D / 7N0193-7020A

Customer: TRJ

Car Model: TOYOTA RAV4

Document No.:

WI-ENG-PDE-802A

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

1

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PARTS:

1. Assy Parts

2. Connector 6098-3871 (L)

3. Black SV tube (vinyl) ø5 L=27±3mm

4. AVSSf 0.3 wires B-B L=223±2mm

5. Yellow Tape

JIG:

1. Insertion jig

2. Locking Jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

1

n/a

Table Lay-Out

Table Lay-out

Connector 6098-3871
(L)Black SV tube (vinyl) ø5
L=27±3mm

Insertion Jig B

Assy Parts

AVSSf 0.3 wires B-
B L=223±2mm

Insertion Jig C

Locking Jig

Yellow Tape with
holder

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.

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 Pre-launch to Mass pro. Inclusion of Table Lay-out.

A.Hernandez

C.Villanueva

A. Arañes

n/a

02/13/24 0 Initial issue

A.Hernandez

C.Villanueva

A. Arañes

n/a

Eff. Date

Rev. No

Details of Change

Revised

Reviewed

Approved

Noted

Est. Date:

February 13, 2024

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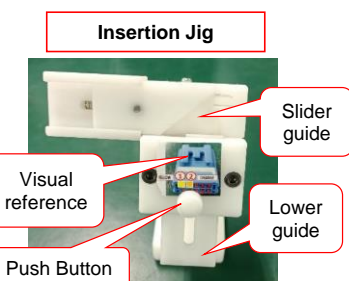
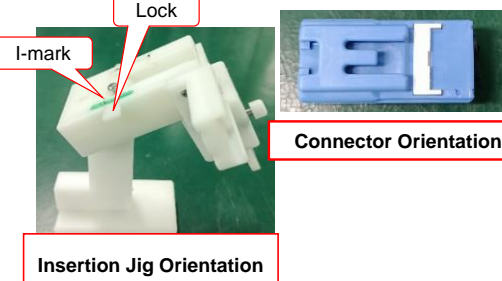
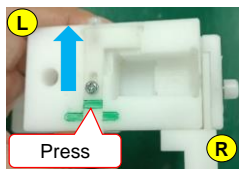
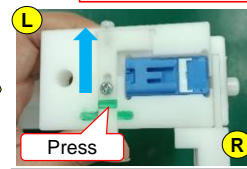
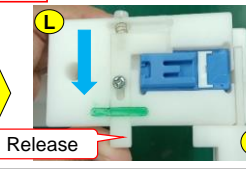
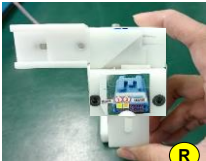
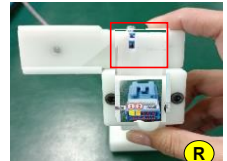
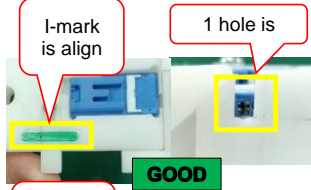
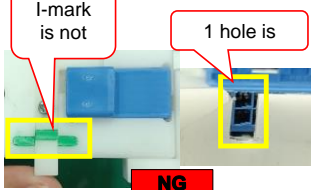
☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

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PARTS:		1. Assy parts 2. Black SV tube (vinyl) ø5 L=27±3mm		3. Connector 6098-3871 (L)		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION				TOOLS/PPE	QUALITY POINTERS
2	Wire Insertion to Black SV tube (vinyl) ø5 L=27±3mm	<div><div></div><div>1. Get the Black Vinyl tube ø5 L=27±3mm using right hand then insert the Y-OR wires.</div></div>				n/a	1. No wrong use of parts
3	Wire insertion to connector 6098-3871 (L)	<div><div><div><div></div><div></div></div><div><div></div><div></div><div></div></div><div>1. Press the insertion jig lock using left hand.</div><div>2. Get the connector 6098-3871 (L) using right hand and insert to insertion jig. Release the lock after insertion.</div><div><div></div><div></div><div>3. Push the lower wire guide upward using right hand. Slot for yellow wire will be open.</div></div></div></div>				n/a	<div><div>CONNECTOR ORIENTATION ILLUSTRATION</div><div><div></div><div></div></div><div>1. Use the provided jig per model 2. No wrong orientation of connector</div></div>

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Car Model:

TOYOTA RAV4

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☐ PROTOTYPE

☐ PRE-LAUNCH


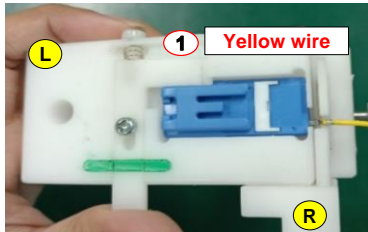
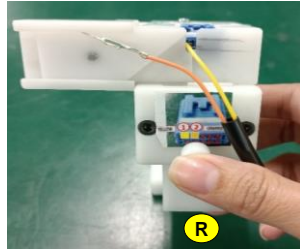
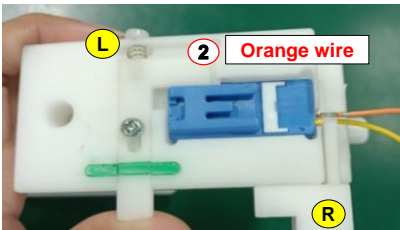
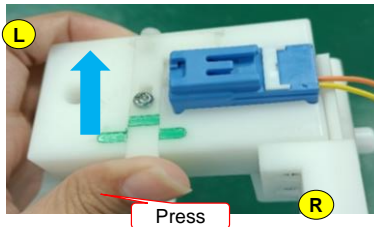

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PARTS:	1. Assy parts		JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
4	n/a Wie insertion to connector 6098-3871 (L)	<div><div>Wire Facing</div></div> <div><div>1. Hold the insertion jig using left hand. Get the assy part and hold the Yellow wire then insert to connector using right hand.</div></div> <div><div>2. Press the button using right thumb. slot for Orange wire will be open.</div></div> <div><div>3. Hold the Orange wire and insert to connector using right hand.</div></div> <div><div>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.</div></div>	n/a	<p>Important reminders/Note/s:</p> <p>1. Please hold the wire near terminal.</p> <p>2. Make sure wires are properly inserted.</p> <p><u>Conduct Pull-Push-Pull-Push after insertion.</u></p> <p>Do not exert extra force.</p> <p>Document references:</p> <p>1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.</p> <p>1. No loose insertion</p> <p>2. No wrong insertion</p> <p>3. One by one insertion</p> <p>4. No deform terminal</p> <p>5. No wrong wire facing.</p> <div><p>Hold in the SV tube (Vinyl) to check the presence of SV tube (Vinyl)</p></div>

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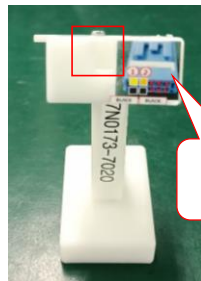



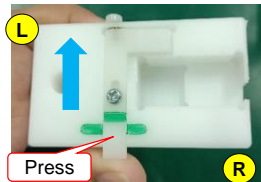
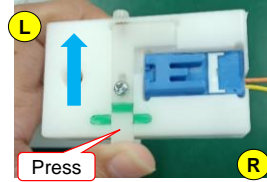
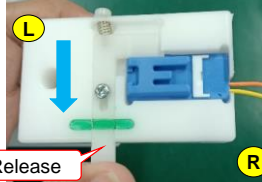
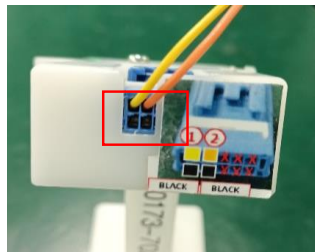
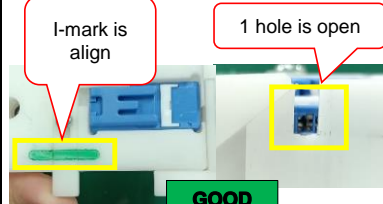
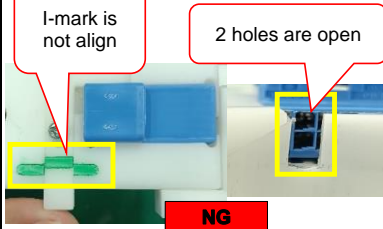
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PARTS:		1. Assy parts		JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
5	n/a	<div><div><div>Insertion Jig</div><div><div>Visual reference</div></div><div><div>I-mark</div></div><div><div>Connector Orientation</div></div><div><div>Insertion Jig Orientation</div></div></div><div><div><div>Press</div><div>1. Press the insertion jig lock using left hand.</div></div><div><div>Press</div><div>2. Get the connector 6098-3871 (L) using right hand and insert to insertion jig. Release the lock after insertion.</div></div><div><div>Release</div></div></div><div><div><div>3. Slot for Black-Black wire are open.</div></div></div></div>		8	<div><div>CONNECTOR ORIENTATION ILLUSTRATION</div><div><div>I-mark is align</div><div>1 hole is open</div><div>GOOD</div></div><div><div>I-mark is not align</div><div>2 holes are open</div><div>NG</div></div></div> <div><div>1. Use the provided jig per model</div><div>2. No wrong orientation of connector</div></div>

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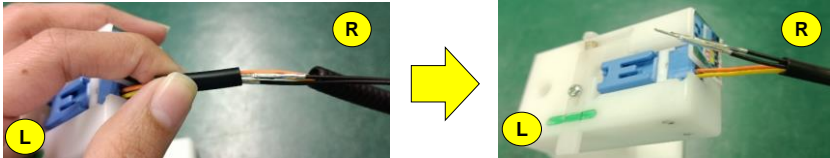
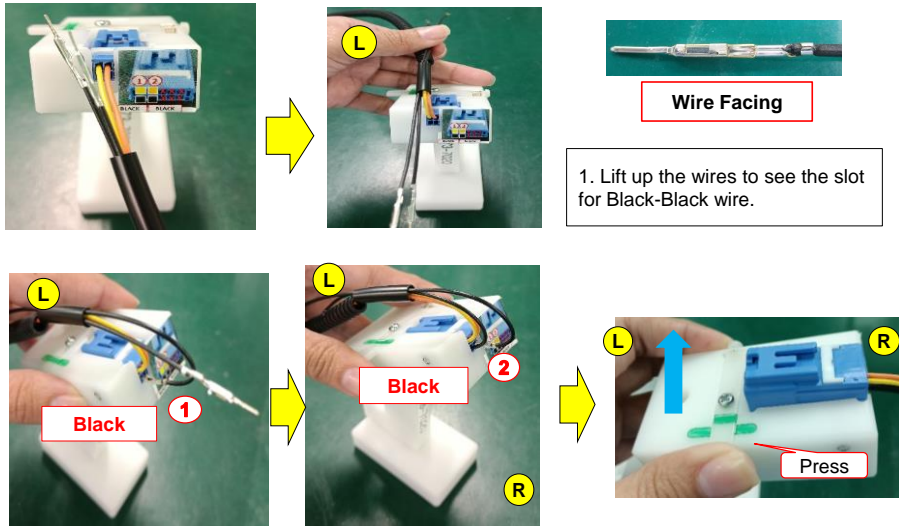
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PARTS:		1. Assy parts 2. AVSSf 0.3 wires B-B L=223±2mm		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
6	Wire insertion to Black SV tube (Vinyl) ø5 L=27±2mm (Assy parts)	 1. Get the Black wire [2pcs] and insert to SV tube (Vinyl) using right hand.		n/a	1. No wrong use of parts
7	Wie insertion to connector 6098-3871 (L)	 1. Lift up the wires to see the slot for Black-Black wire. Wire Facing 2. hold the 1st Black wire then insert to terminal slot 1 of connector using right hand. 3. Hold the 2nd Black wire then insert to terminal slot 2 of connector using right hand. 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. Black Black Press		n/a	1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deform terminal 5. No wrong wire facing. Important reminders/Note/s: 1. Please hold the wire near terminal. 2. Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force. Document references: 1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.

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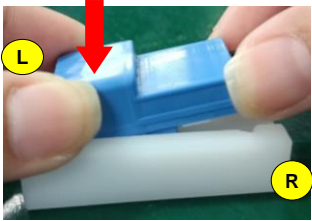

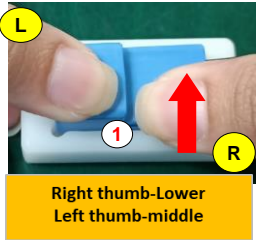
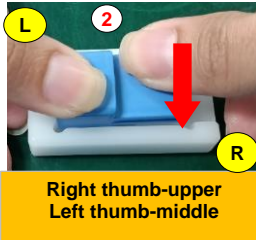

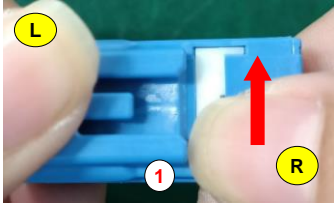

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PARTS:		1. Assy parts		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
8	n/a	Connector Lock	<div><p>1. Load the connector into the jig holding both side of the connector, tip first.</p></div> <div><p>2. Press the 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 touching the connector lock based on the sequence illustrated.</p></div>	<div>LOCKING JIG</div> 	Important reminders/Note/s: 1. Manual locking may cause damaged connector 1. No Unlock and half-locked 2. Use provided jig tools per model to avoid damaged lock.

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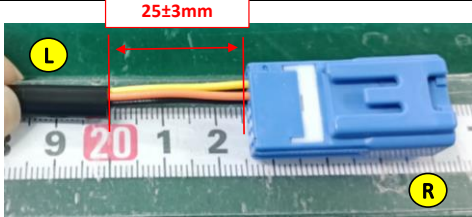
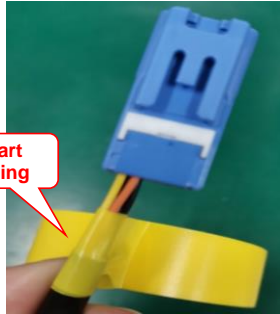
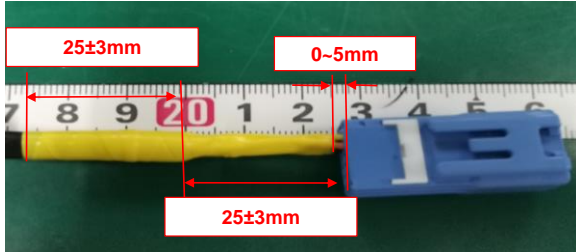

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PARTS:		1. Assy parts 2. Yellow tape	JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
9	n/a Taping Black SV tube (vinyl) to Wire near connector	<div></div> <div><p>1. Hold the Black vinyl tube using left hand and measure from end of vinyl tube up to connector 25±3mm. (Note: Without folding in Vinyl tube)</p></div> <div></div> <div><p>2. Get the Yellow tape using right hand then start taping process using both hands.</p></div> <div></div> <div><p>3. After taping, check the measurement and taping condition.</p></div>	<div><p>MEASURING TAPE</p></div>	<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> <p>Important reminders/Note/s: 1. Use <u>YELLOW TAPE</u> only 2. Please use calibrated/verified measuring tape when getting the measurement.</p>

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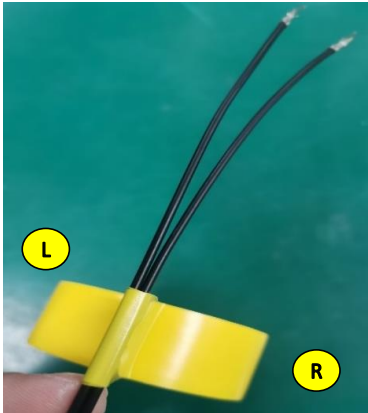
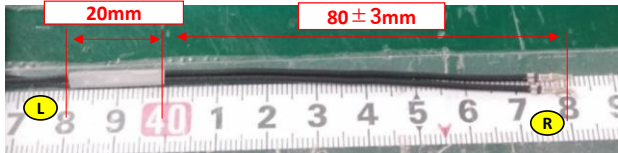

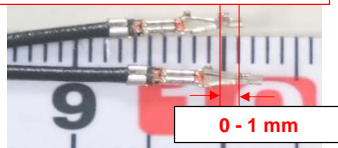
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PARTS:		1. Assy parts 2. Yellow tape		JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
10	n/a	Spot taping	<div><p>1. Hold the wires using left hand and measure from wire up to terminal pointed tip 100±3mm.</p></div> <div><p>2. Get the Yellow tape and start taping on the Black wires. Conduct 2x windings of tape before cutting using both hands.</p></div> <div><p>3. After taping, check the measurement and taping condition.</p></div>	<div>MEASURING TAPE</div> 	<div>Wire alignment tolerance</div>  <p>Important reminders/Note/s: 1. Use <u>Yellow TAPE</u> only 2. Please use calibrated/verified measuring tape when getting the measurement.</p> <ul style="list-style-type: none">1. No flip-out tape2. No peel-off tape3. No loose tape4. No missing tape5. No wrong dimension6. No wrong use of tape

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PARTS:

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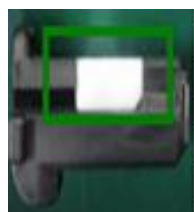
JIG:

n/a

QUALITY CHECKPOINTS

P1

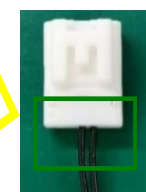
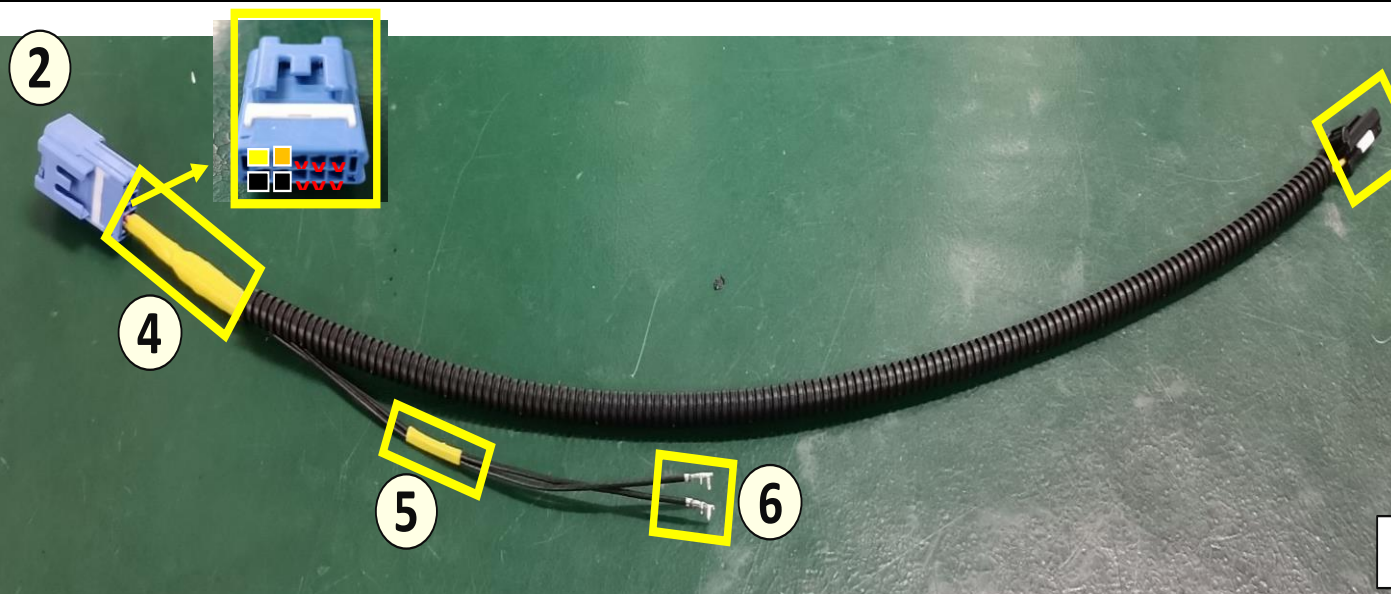
7N0193-7020A



GOOD



GOOD



GOOD



NO GOOD



NO GOOD



NO GOOD

1 No Unlock/Halflock
Connector (2 connector)

2 No Wrong Insert

3 No Terminal Backing Out

4 No Wrong Used
of Tape (Yellow
Tape)

5 No Missing Tape
(Spot tape)

6 No Deformed Terminal

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