



WORK INSTRUCTION

Process Name/Title:

TAPING ASSEMBLY PROCESS

Effectivity Date:

July 12, 2024

Model code/Part number:

D01L / 7M0654-7020A

Customer:

TRJ

Car Model:

DAIHATSU-TANTO

Document No.:

WI-ENG-PDE-156A

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

5

Page No.:

1 of 11

PARTS:

1. Assy parts; AVSSf 0.3 wire Y L=373±2mm; AVSSf 0.3 wire B L=777±3mm; AVSSf 0.3 wire B L=831±3mm; Black SV tube (Vinyl) ø5 L=203±3mm; Connector 6098-2220 (W); Black SV tube (Vinyl) ø5 L=487±3mm; Black tape

JIG:

1. Insertion jig
2. Locking jig Connector 6098-2220

NO.

PROCESS NAME

5

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

1

P1

Table lay-out

TABLE LAY-OUT



Safety Instruction

Be sure to wear prescribed 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. Please refer to WI-PRO-CNC-017 for Wire and Strip Length tolerance
2. Please refer to WI-ENG-PDE-155 for Offline Assembly Process

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

Revision History

Prepared by

Reviewed by

Approved by

Noted by

07/12/24	5	Transfer Taping 1 to P2 (WI-ENG-PDE-156B) due to process improvement. Additional Work procedure/Illustration and notes on page 8-9 as countermeasure for the customer claim (Broken lock of connector 6098-2220 (W)). Inclusion of car model "DAIHATSU-TANTO". Update Table lay-out and Visual inspection/Quality checkpoints.	D.Castillo	C. Villanueva	A. Arañes	A. Arañes
06/05/23	4	Changed Table lay-out. Improve Quality pointers on pages no.1,3,4,7,8,9 and 10 as documents improvements. Improved Work Procedure/Illustration on process no.5 (Connector lock); process no.10 Inclusion of Locking process Connector 6098-2220 (W); Inclusion of Quality Checkpoints on last process; Standardized tube description: SV tube (Vinyl).	J. Loterte	R. Peñaloza	A. Shimamura	A. Arañes
04/27/21	3	Change connector and clamp colors in accordance with color standardization for plastic parts refer to GL-COM-003. Put assy parts on pg. 4, 6, 9 and 10 parts section	J. Loterte	C. Villanueva	A. Shimamura	A. Arañes

D. Castillo

C. Villanueva

A. Arañes

n/a

Eff. Date

Rev. No

Details of Change

Revised

Reviewed

Approved

Noted


Est. Date:

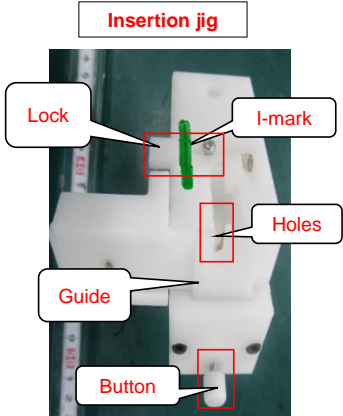
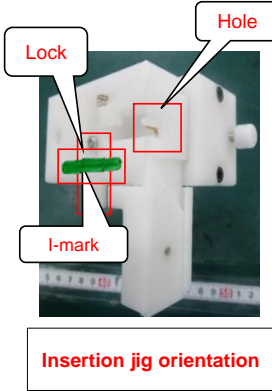
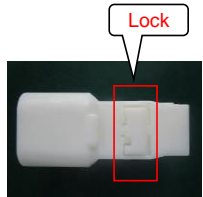
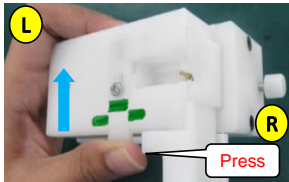
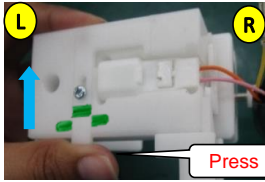
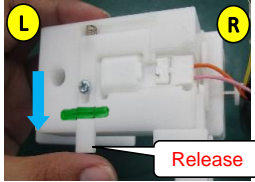
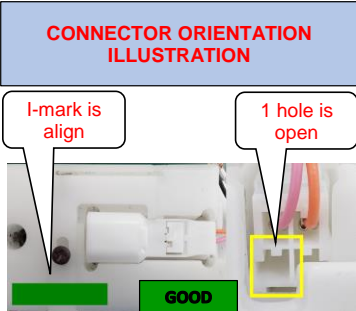
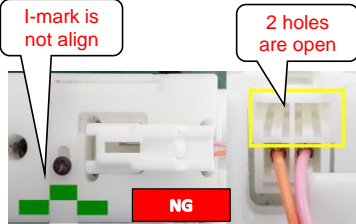
September 14, 2019

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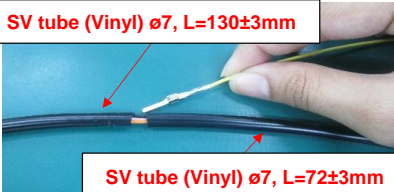


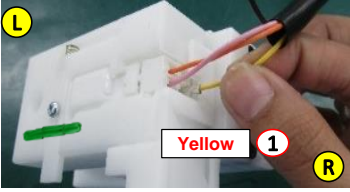
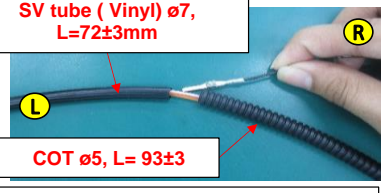


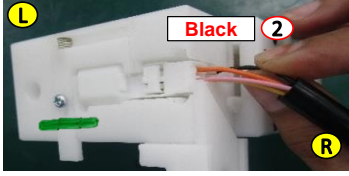
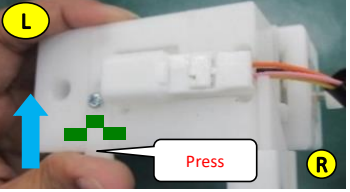
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		Process Name/Title:				Document No.:	WI-ENG-PDE-156A	
		Model code/Part number:	D01L / 7M0654-7020A	Customer:	TRJ	Car Model:	DAIHATSU-TANTO	
Purpose:		<input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO			Revision No.:	5	Page No.:	2 of 11


PARTS:		1. Assy parts			JIG:	1. Insertion jig		
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS		
2	P1 Connector setting to insertion jig 4G5400-000 (W)	<div>       </div> <div> <p>1. Press the lock of insertion jig using left thumb.</p> <p>2. Insert the connector 4G5400-000 (W) into jig using right hand and release the lock. Press the lower wire guide, slot for yellow wire will open.</p> </div>			n/a	<div>   </div> <ol style="list-style-type: none"> Use provided jig for model No wrong use of parts No wrong orientation of connector No damaged connector 		

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PARTS:		1. AVSSf 0.3 wire Y L=373±2mm; B L=777±3mm 2. Assy parts		JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
3	Wire Insertion to assy parts and wire insertion to connector 4G5400-0000 (W) [1] (Yellow wire)	<div>   </div> <div>   </div> <div> <p>1. Get the Yellow wire L=373±2mm using right hand then insert to SV tube (Vinyl) ø7, L=130±3mm.</p> <p>2. Hold the insertion jig using left hand. Insert the yellow wire using right hand. Press the button after insertion, slot for black wire will open.</p> </div>		n/a	Important reminders/Note/s: 1. Please hold the wire near terminal during insertion 3. Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion Do not exert extra force. 1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deform terminal 5. No wrong wire facing 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
4	P1 Wire Insertion to assy parts and wire insertion to 4G5400-0000 (W) [2] (Black wire)	<div>   </div> <div>   </div> <div> <p>1. Get the Black wire L=777±3mm using right hand then insert to SV tube (Vinyl) ø7, L=72±3mm up to ø7, L=130±3mm.</p> <p>2. Hold the insertion jig using left hand. Insert the Black wire using right hand.</p> <p>3. After insertion, Press 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	Important reminders/Note/s: 1. Please hold the wire near terminal during insertion 3. Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion Do not exert extra force. 1. No loose insertion 2. No wrong insertion 3. One by one insertion 4. No deform terminal 5. No wrong wire facing 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

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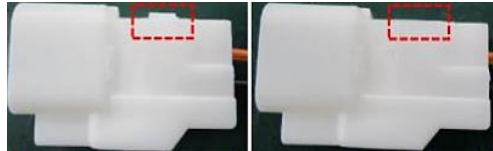

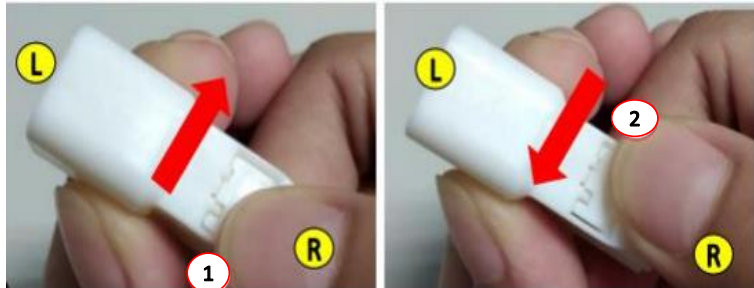
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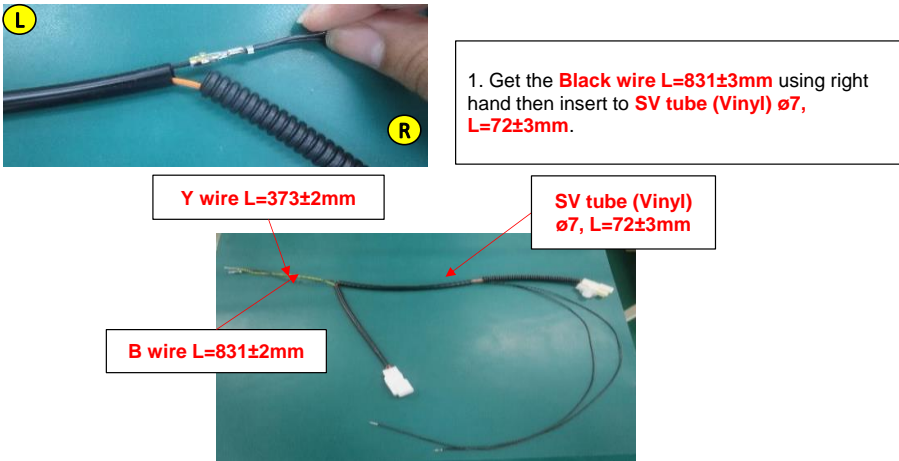
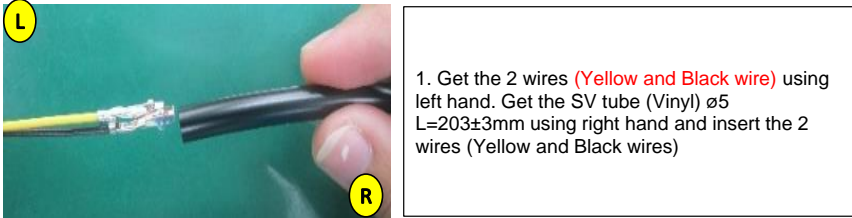
PARTS:	1. Assy Parts		JIG:	
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
5	P1	Connector Lock		
		<div></div> <div><p>1. Put the connector into locking jig using both hands then press 2x using both hands.</p></div> <div></div> <div><p>BEFORE PRESSING</p><p>AFTER PRESSING</p></div> <div></div> <div><p>LOCKING JIG</p></div> <div></div> <div><p>1</p><p>2</p></div> <div><p>2. Ensure that the connector is in locked condition by slide touching the connector lock based on the sequence illustrated.</p></div> <div><p>Important reminders/Notes:</p><p>1. Manual locking may cause damaged connector lock</p><p>1. Use provided jig per models 2. No Unlock/Half-locked</p></div>		

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	Purpose:		<input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO		Revision No.:	5	Page No.:	5 of 11		

PARTS:	1. AVSSf 0.3 wire B L=831±3mm 2. Black SV tube (Vinyl) ø5 L=203±3mm 3. Assy parts			JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
6	Wire Insertion to Assy Black SV tube (Vinyl) ø7, L=72±3mm			n/a	1. No wrong insertion to assy parts 2. No wrong use of parts 3. No deformed terminal
7	Wire Insertion to Black SV tube (Vinyl) ø5 L=203±3mm			n/a	1. No wrong use of parts 2. No deformed terminal

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		Purpose:		<input type="checkbox"/> PROTOTYPE		<input type="checkbox"/> PRE-LAUNCH		<input checked="" type="checkbox"/> MASSPRO		Revision No.:		5	Page No.:	6 of 11

PARTS:		1. Connector 6098-2220 (W)				JIG:		1. Insertion jig	
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION				TOOLS/PPE		QUALITY POINTERS	
8	P1	<div><div><div><div><div>Insertion jig</div><div><div>Lock</div><div>Holes</div><div>Guide</div><div>Button</div></div></div><div><div>Insertion jig orientation</div><div><div>Lock</div><div>Hole</div><div>I-mark</div></div></div><div><div>Coupler Orientation</div><div></div></div></div><div><div><div><div>L</div><div><div>Press</div></div><div>R</div></div><div>1. Press the lock of insertion jig using left thumb.</div></div><div><div><div>L</div><div><div>Connector Lock</div></div><div>R</div></div><div>2. Insert the connector 6098-2220 (W) into jig using right hand and release the lock.</div></div><div><div><div>L</div><div><div>Hole</div></div><div>Guide</div></div><div>3. Push the guide using left hand. Slot for Yellow wire will be open.</div></div></div></div></div>				n/a		<div><div><div>CONNECTOR ORIENTATION ILLUSTRATION</div><div><div><div>I-mark is align</div><div>1 hole is open</div></div><div><div>GOOD</div></div></div><div><div><div>I-mark is not align</div><div>2 holes is open</div></div><div><div>NG</div></div></div></div><div><div>1. Use provided jig for model</div><div>2. No wrong use of parts</div><div>3. No wrong orientation of connector</div><div>4. No damaged connector</div></div></div>	

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PARTS:	1. Assy parts			JIG:	1. Insertion jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
9	P1	Wire insertion to connector 6098-2220 (W)		n/a	<p>Important reminders/Note/s:</p> <p>1. Please hold the wire near terminal during insertion</p> <p>3. Make sure wires are properly inserted. Conduct <u>Pull-Push-Pull-Push</u> 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 deform terminal</p> <p>5. No wrong wire facing</p> <p>Document reference/s:</p> <p>1. Refer to GL-PRO-ASY-029 for Pull-Push procedure</p>

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PARTS:

1. Assy parts

JIG:

1. Locking jig

NO.

PROCESS NAME

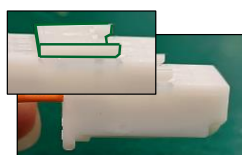
WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

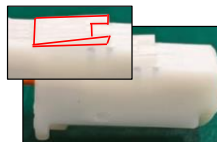
QUALITY POINTERS

5

CONNECTOR RETAINER ILLUSTRATION SIDE VIEW



GOOD



NG

1. Check the Retainer lock of connector before insertion to locking jig.

*Note: Must be **NO** half-locked condition prior connector locking.*

1. Please ensure that Connector lock/retainer will not touch or hit by any object prior insertion into locking jig to avoid half-lock connector.
2. Maintain 10mm proper holding of wire to connector
3. Connector must be fully inserted to connector slot.
4. Make sure no offset setting before locking process.
5. No wrong setting of connector.
6. No damaged connector lock
7. No unlocked/ half-locked connector.

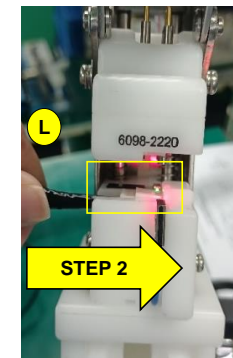
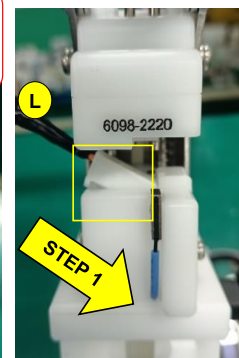
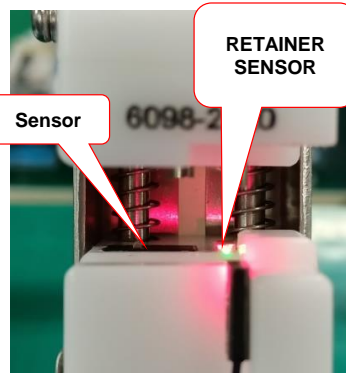
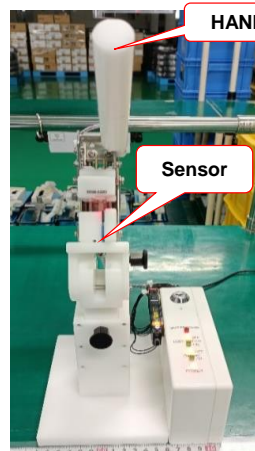
Important reminders/Note/s:

1. *Incomplete locking process will alarm the jig.*
2. *No retainer in connector cannot proceed.*
3. *If encountered abnormality, **STOP** and immediately **CALL** the attention of the leader. **WAIT** for further instruction and continue the process.*

10

P1

Connector lock



2. Hold the assy parts using left hand and insert into connector locking jig based on the direction of arrow. Make sure the connector touch the sensor. Sound will be heard if properly lock.

NOTE: CONNECTOR LOCKING JIG WILL NOT FUNCTION IF CONNECTOR NOT REACH THE SENSOR.

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PARTS:		1. Assy parts		JIG:	1. Locking jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
10	P1 Connector lock (Continuation)	<div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div></div> <div><p>3. Hold the handle of the connector locking jig using right hand then gently pull down and bring back to original position after locking. Note: Pull down one time only.</p><p>4. Remove the locked connector using left hand based on the illustration, follow the direction of arrow.</p><p>5. Ensure that connector is in locked condition by slide touching the connector lock based on the sequence illustrated.</p></div>			<p>1. Please ensure that Connector lock/retainer will not touch or hit by any object prior insertion into locking jig to avoid half-lock connector.</p> <p>2. Maintain 10mm proper holding of wire to connector</p> <p>3.Connector must be fully inserted to connector slot.</p> <p>4. Make sure no offset setting before locking process.</p> <p>5.No wrong setting of connector.</p> <p>6. No damaged connector lock</p> <p>7. No unlocked/ half-locked connector</p> <p>Important reminders/Note/s:</p> <p>1. <i>Incomplete locking process will alarm the jig.</i></p> <p>2. <i>No retainer in connector cannot proceed.</i></p> <p>3. <i>If encountered abnormality, STOP and immediately CALL the attention of the leader. WAIT for further instruction and continue the process.</i></p>

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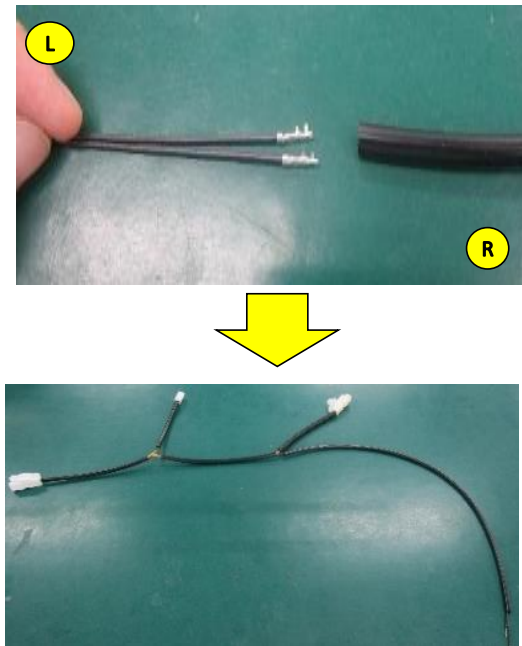
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PARTS:		1. Black SV tube (Vinyl) $\phi 5$ L=487 \pm 4mm 2. Assy parts	JIG:	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
11	P1	Wire Insertion to Black SV tube (Vinyl) $\phi 5$ L=487 \pm 4mm  <div>1. Hold the 2 Black wires using left hand and get the SV tube (Vinyl) $\phi 5$ L=487\pm4mm then insert the wire using right hand.</div>	n/a	1. No wrong use of parts 2. No deformed terminal

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Car Model: DAIHATSU-TANTO

Document No.:

WI-ENG-PDE-156A

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Revision No.:

5

Page No.:

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PARTS:

1. Assy parts

JIG:

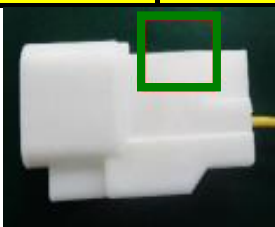
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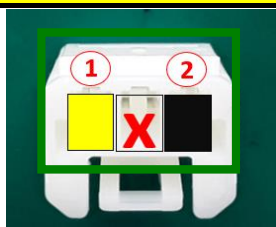
VISUAL INSPECTION/ QUALITY CHECKPOINTS

P1

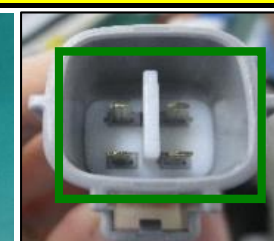
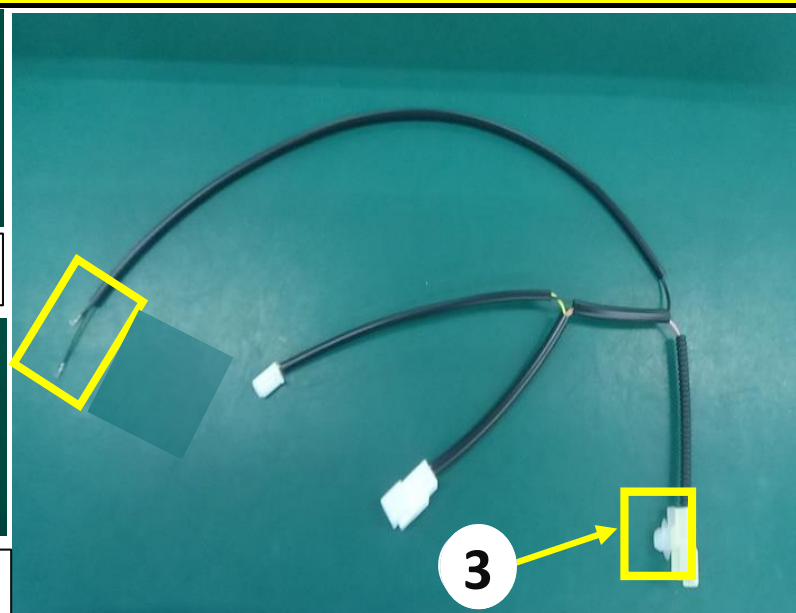
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GOOD



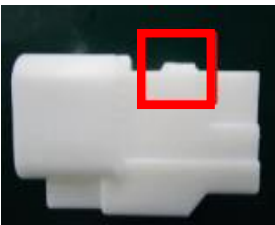
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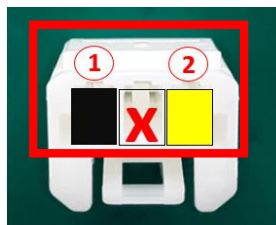
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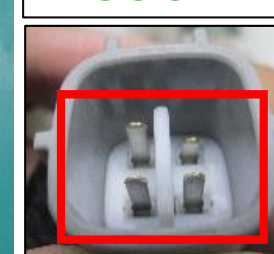
GOOD



NO GOOD



NO GOOD



NO GOOD



NO GOOD

1

No Unlock/
Halflocked Connector (on 3 connector)
(3 connector)

2

No Wrong Insert

3 No Missing Clip
Clamp

4

No Terminal
Backing Out

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