

**WORK INSTRUCTION**Process Name/Title: **TAPING ASSEMBLY PROCESS**

Effectivity Date:

February 28, 2023Model Code/Part Number: **310B / 7M0530-7020C**

Customer:

TRJ

Validity Date:

n/a

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Document No.:

WI-ENG-PDE-035B

Revision No.:

8

Page No.:

1 of 10**PARTS:** 1. Assy parts: Black vinyl tube $\phi 5$ L=110 \pm 3mm; Black tape

JIG:

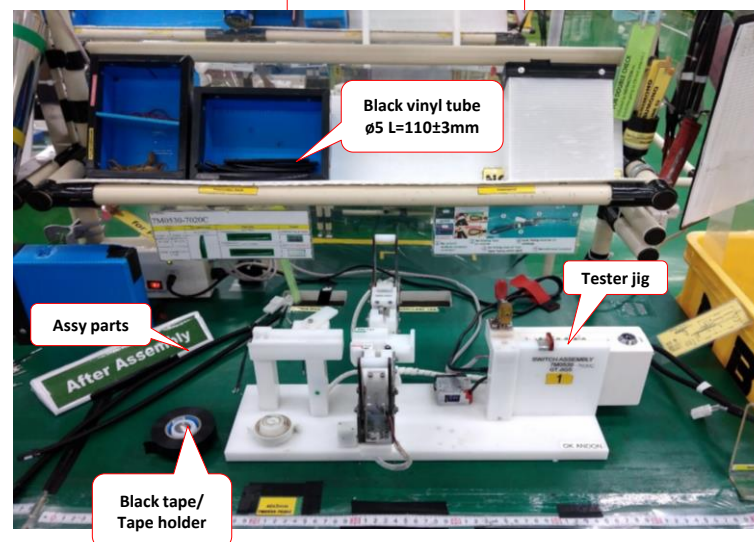
1. Tester jig

NO.**PROCESS NAME****WORK PROCEDURE/ ILLUSTRATION****TOOLS/PPE****QUALITY POINTERS**

1

P2

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.

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

Revision History

Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Prepared by	Reviewed by	Reviewed by	Approved by
02/28/13	8	Inclusion of Quality Checkpoints on page no. 10	M. Ariola	J. Loterte	C. Villanueva	A. Arañes				
08/18/22	7	Additional table lay-out. Improve: Work procedure and illustration in process no.4 and no.5. Quality pointers and notes in process no.3, 4 and 6. Change sequence process of continuity testing to align in actual process and as improvement.	M. Catapang	J. Loterte	C. Villanueva	A. Arañes				
09/02/21	6	Revise due to encountered peeled-off tape using White NITTO TAPE 2107TVH then change tape winding from 1 winding to 1.5 windings as countermeasure. Improve jig illustration and process description.	M. Catapang	C. Villanueva	A. Shimamura	A. Arañes				
							M. Ariola	J. Loterte	C. Villanueva	A. Arañes

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PARTS:

1. Assy parts
2. Black vinyl tube $\phi 5$ L=110 \pm 3mm

3. Black tape

JIG

n/a

NO.**PROCESS NAME****WORK PROCEDURE/ ILLUSTRATION****TOOLS/PPE****QUALITY POINTERS**

2

Wire insertion to
Black vinyl tube
 $\phi 5$ L=110 \pm 3mm



1. Get the vinyl tube $\phi 5$ L=110 \pm 3mm using right hand and insert the wires using left hand.

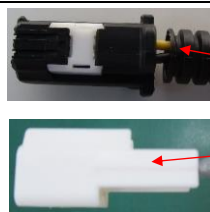
n/a

1. No wrong use of parts
2. No deformed terminal

3

P2

Y-Taping



No gap

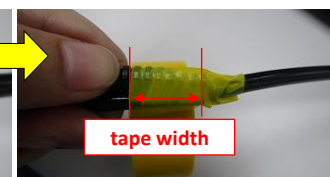
1. Fix the COT and vinyl tube. Make sure no gap in between.



2. Get the tape and fix the COT to vinyl tube. Make **1 winding pre-taping** before shifting.



3. Make **1/2 shifting** to the left until tape width then wind the tape **2x**.

**MEASURING TAPE**

1. No loose tape
2. No flip-out tape
3. No peel-off tape
4. No wrong use of tape
5. No wrong dimension
6. No wide interval between the COT
7. No exposed wire

Important reminders/Note/s:

1. Use **YELLOW TAPE** for easy visualization of shifting lines, but actual should be **BLACK TAPE**.
2. Please use calibrated/verified measuring tape when getting the measurement.

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PARTS:

1. Assy parts
2. Black tape

JIG

n/a

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

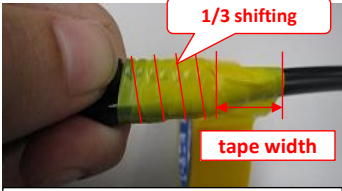
TOOLS/PPE

QUALITY POINTERS


3

P2


Y-taping
(Continuation)



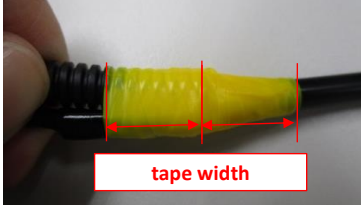
4. Make **1/3 shifting** to the right side until tape width on vinyl tube



5. Make **1/2 shifting** to the left until tape width then wind the tape **2x**.

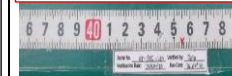


6. Make **1/2 shifting** to the right until tape width on vinyl tube, wind the tape **2x** then cut the tape.



7. After taping, check the measurement from vinyl tube up to terminal pointed **40±3mm** and taping condition.

MEASURING TAPE



1. No loose tape
2. No flip-out tape
3. No peel-off tape
4. No wrong use of tape
5. No wrong dimension
6. No wide interval between the COT
7. No exposed wire

Important reminders/Note/s:

1. Use **YELLOW TAPE** for easy visualization of shifting lines, but actual should be **BLACK TAPE**.
2. Please use calibrated/verified measuring tape when getting the measurement.

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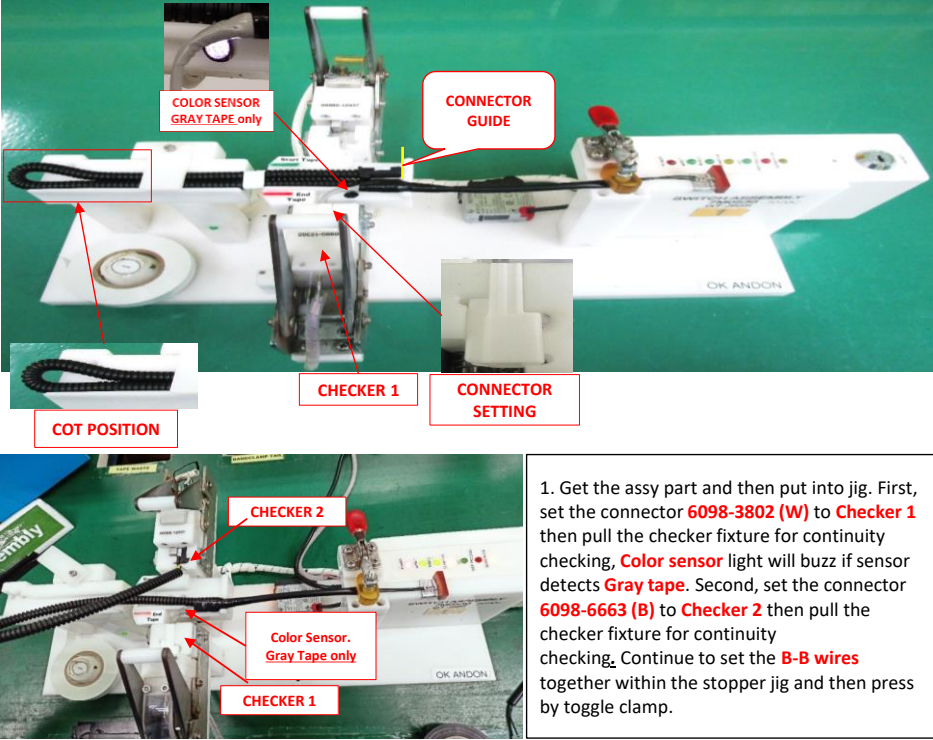

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PARTS:	1. Assy parts			JIG	1. Tester jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
4	P2 Continuity testing	 <p>1. Get the assy part and then put into jig. First, set the connector 6098-3802 (W) to Checker 1 then pull the checker fixture for continuity checking, Color sensor light will buzz if sensor detects Gray tape. Second, set the connector 6098-6663 (B) to Checker 2 then pull the checker fixture for continuity checking. Continue to set the B-B wires together within the stopper jig and then press by toggle clamp.</p> <p>2. Check if all LED light for POWER ON, WIRE 1, WIRE 2, COLOR SENSOR was ON. If encountered abnormality, STOP and immediately CALL the attention of the leader. WAIT for further instruction and continue the process.</p>		n/a	 <p>Important reminders/Note/s:</p> <ol style="list-style-type: none">1. Make sure no gap between stopper and terminals2. Terminals should touch the aluminum for continuity checking of B-B wires. <p>1. No wrong insertion of connector 2. Make sure no gap between terminal and stopper jig</p>

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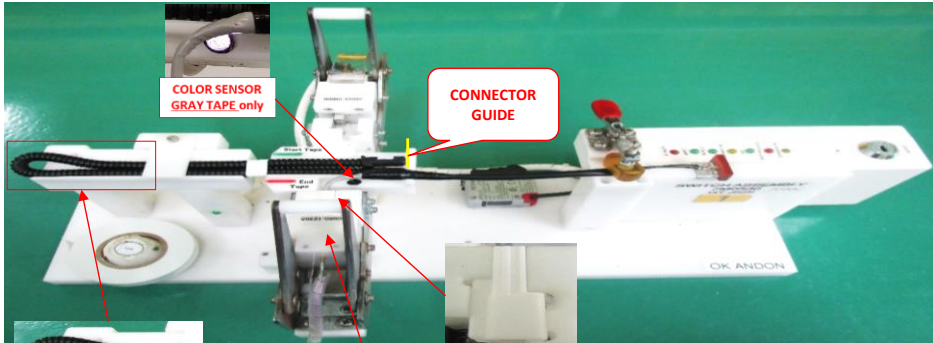
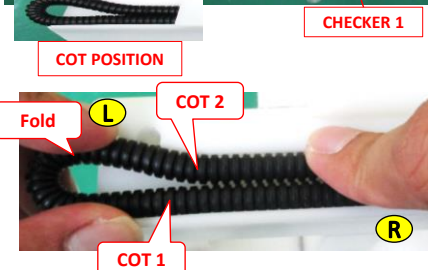
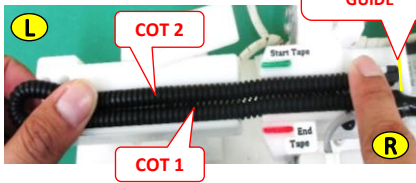
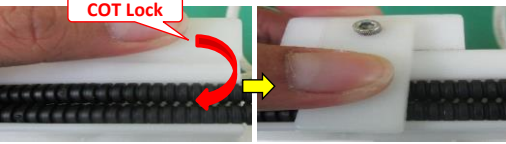

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PARTS:	1. Assy parts			JIG	1. Tester jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS
4	P2 Continuity testing (Continuation)	    <p>3. Remove the connector 6098-6663 (B) to Checker 2 then fold the COT1 using both hands to create COT 2. Connector 6098-6663 (B) must reach the connector guide.</p> <p>3. Lock the COT1 and COT2 using COT lock.</p>		n/a	 <p>Important reminders/Note/s:</p> <ol style="list-style-type: none">1. Make sure no gap between stopper and terminals2. Terminals should touch the aluminum for continuity checking of B-B wires. <ol style="list-style-type: none">1. No flip-out tape2. No peel-off tape3. No loose tape4. No wrong insertion of connector5. Make sure no gap between terminal and stopper jig

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PARTS:

1. Assy parts
2. White NITTO TAPE 2107TVH [1pc.]

JIG

1. Tester jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

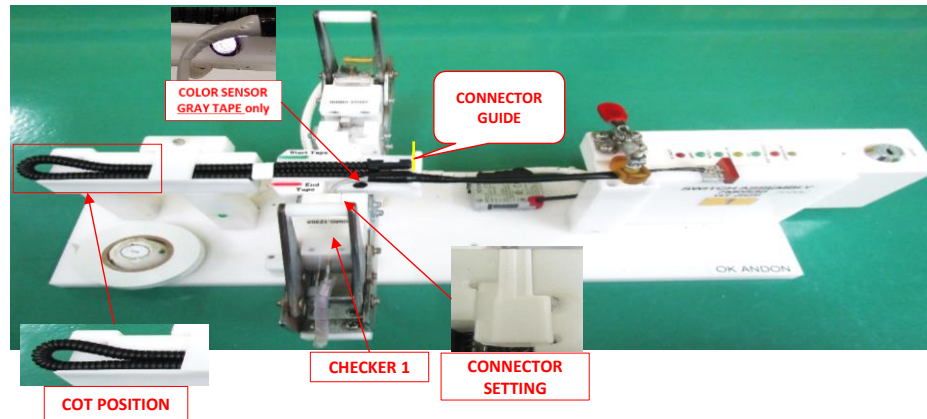
TOOLS/PPE

QUALITY POINTERS

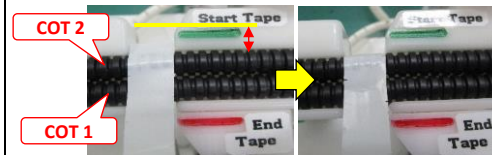
4

P2

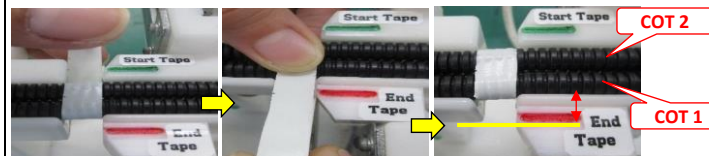
Continuity testing
(Continuation)



4. Get the **WHITE NITTO TAPE 2107TVH** (with slit) and begin taping using both hands. Make **1.5 windings of tape** then cut using both hands. (*Follow below instructions for taping procedure*)



5. **Start of tape** must be within the **GREEN MARK**.



6. Wind the tape **1.5 windings** using both hands then cut.

n/a



Important reminders/Note/s:

1. **Make sure no gap between stopper and terminals**
2. **Terminals should touch the aluminum for continuity checking of B-B wires.**
3. **End of tape must be within the RED MARK.**

1. No flip-out tape
2. No peel-off tape
3. No loose tape
4. No wrong insertion of connector
5. Make sure no gap between terminal and stopper jig

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PARTS:

1. Assy parts

JIG

1. Tester jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

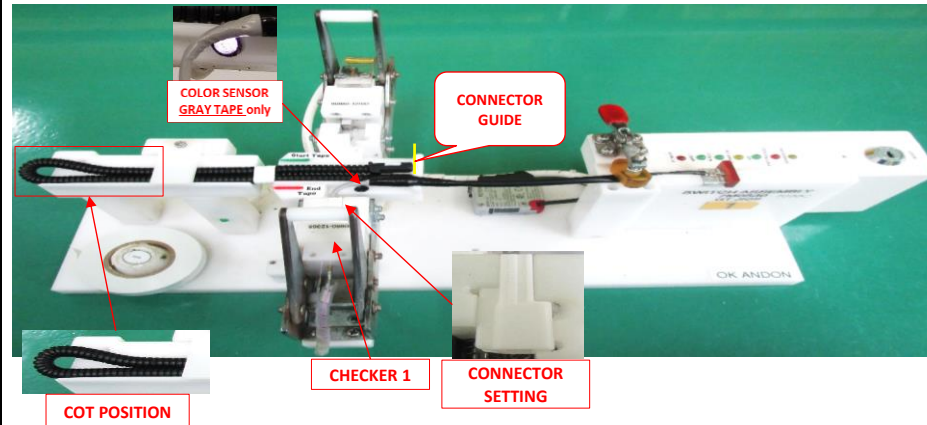
TOOLS/PPE

QUALITY POINTERS

4

P2

Continuity testing
(Continuation)



7. Press the **SW button**, **Go** sound will be heard if the result is **GOOD**.

8. Conduct **POINT CHECKING** before removing the harness from jig.

n/a



Important reminders/Note/s:

1. Make sure no gap between stopper and terminals
2. Terminals should touch the aluminum for continuity checking of B-B wires.

1. No wrong insertion of connector
2. Make sure no gap between terminal and stopper jig


REFERENCE AFTER TAPING USING NITTO TAPE 2107TVH





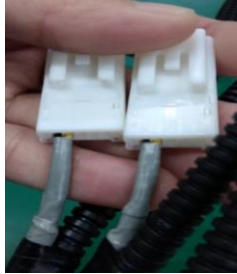
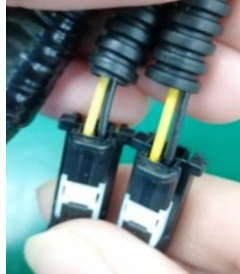



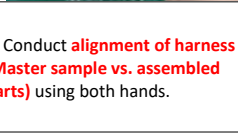

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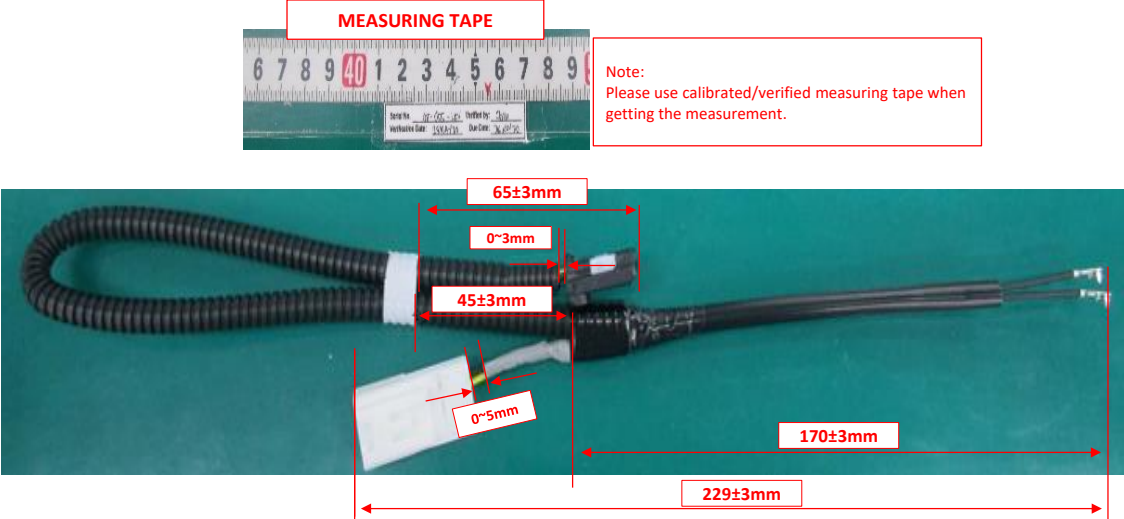
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PARTS:		n/a		JIG	n/a
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NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
5	P2 Visual/By Two's Inspection	 <p>ACTUAL PRODUCT</p> <div>  <p>Master sample</p> </div> <div>  <p>Assembled parts</p> </div> <div>  <p>2. Check the connector lock, taping condition and insertion.</p> </div> <div>  <p>3. Check the connector lock and insertion.</p> </div> <div>  <p>4. Check the Y-Taping condition.</p> </div> <div>  <p>5. Check the terminal appearance. Must be no deformed terminal.</p> </div> <div>  <p>1. Conduct alignment of harness (Master sample vs. assembled parts) using both hands.</p> </div>		<div>  <p>MASTER SAMPLE</p> </div> <p>1. No skip checking during inspection</p>

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PARTS:		n/a			JIG	n/a
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS		
6	Visual/By Two's Inspection P2	<div style="text-align: center;">  </div>		Important reminders/Note/s: 1. FOR HATSUMONO AND OWARIMONO 1. No wrong dimension		

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PARTS:

n/a

JIG

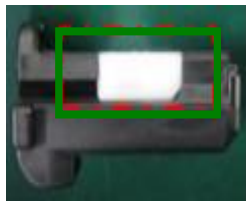
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QUALITY CHECKPOINTS

P2

7M0530-7020C



REFERENCE AFTER TAPING USING
NITTO TAPE 2107TVH

GOOD

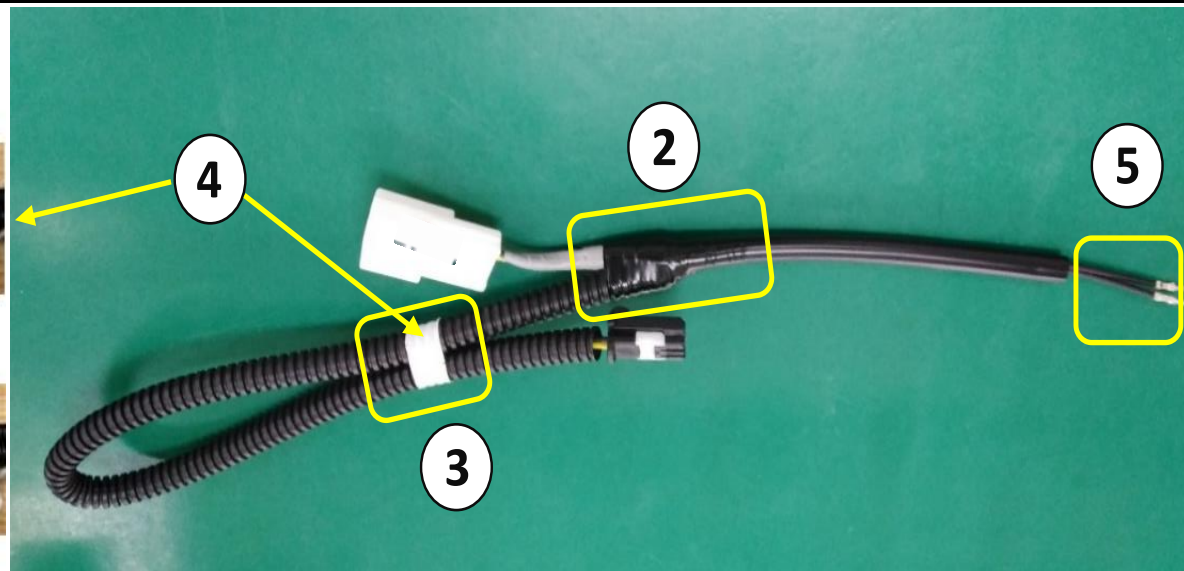


NO GOOD



GOOD: 1.5 windings

NG: 1 winding



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

② No **Missing Tape**
(for y-taping)

③ No **Wrong Used of Tape**
(Spot Taping white tape)

④ Spot Taping must be 1.5
windings

⑤ No **Deformed Terminal**

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