



WORK INSTRUCTION

TAPING ASSEMBLY PROCESS

Process Name/Title:

Model Code/Part Number: 922B / 7L0123-7022

Customer: TRQSS

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Effectivity Date:

February 03, 2023

Validity Date:

n/a

Document No.:

WI-ENG-PDE-429A

Revision No.:

1

Page No.:

1 of 12

PARTS:

1. All parts: Connector 6189-0451 (W); AVSSf 0.3 Y-OR wires L=328±2mm; Black vinyl tube Ø7 L=57±3mm; Black vinyl tube Ø7 L=189±3mm; Connector 6188-0066 (GR); Black COT tube (no slit) Ø7 L=397±3mm; MRSW CP B/W-G wires L=807±3mm; Black tape [1pc.]

JIG:

1. Insertion jig with switch cover
2. Insertion jig
3. Locking jig
4. Terminal cover jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

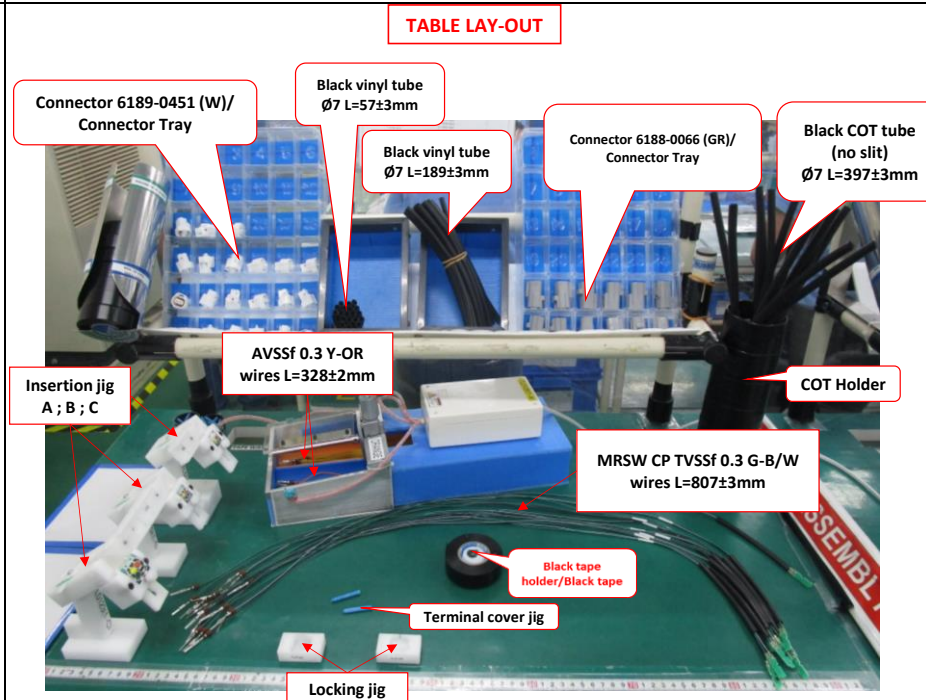
TOOLS/PPE

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
2. Refer to WI-PRO-KIT-006 Rev.7 Wire Taping

1. No missing parts/tools
2. No excess parts/tools
3. No wrong position of parts/tools

Revision History

Eff. Date	Rev. No	Details of Change	Revised	Reviewed	Approved	Noted	Prepared by	Reviewed by	Approved by	Noted by
02/03/23	1	Inclusion of quality checkpoints. Improvements on quality pointers.	M. Catapang	J. Loterte	C. Villanueva	A. Arañes	M. Catapang	J. Loterte	C. Villanueva	A. Arañes
02/19/22	0	Initial issue	M. Catapang	J. Loterte	C. Villanueva	A. Arañes	M. Catapang	J. Loterte	C. Villanueva	A. Arañes

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WI-ENG-PDE-429A

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Revision No.:

1

Page No.:

2 of 12

PARTS:

1. Connector 6189-0451 (W)

JIG

1. Insertion jig with switch cover

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

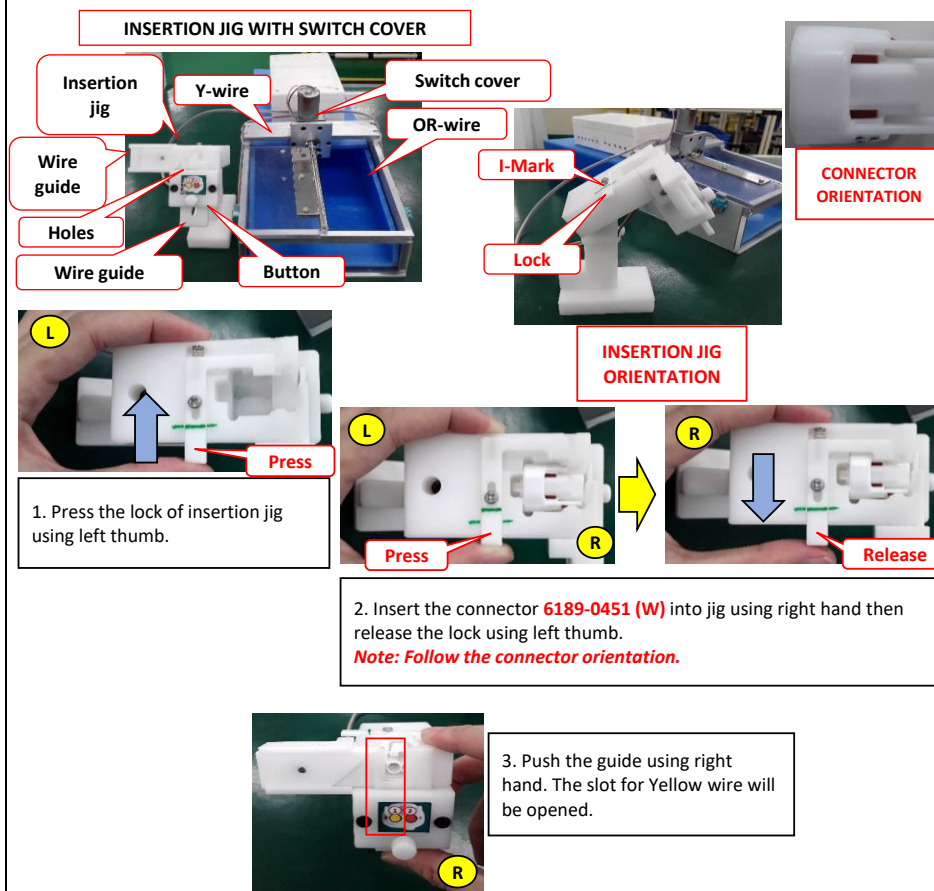
TOOLS/PPE

QUALITY POINTERS

2

P1

Connector setting to
insertion jig
6189-0451 (W)



n/a

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TRQSS

Document No.:

WI-ENG-PDE-429A

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

1

Page No.:

3 of 12

PARTS:

1. AVSSf wires Y and OR L=328±2mm

JIG

1. Insertion jig with switch cover

NO.

PROCESS NAME


WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

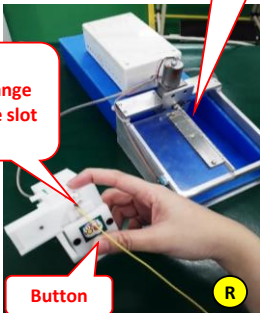
1 QUALITY POINTERS

3

P1

Wire insertion to connector
6189-0451 (W)

WIRE FACING

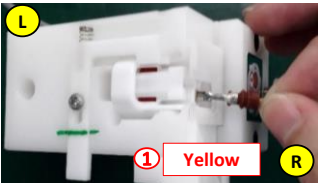


Orange wire slot

Orange wire

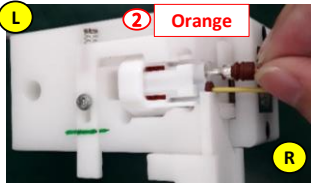
Button

2. Press the button using right thumb, slot for Orange wire will be opened.



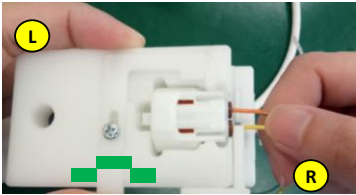
Yellow

1. Hold the insertion jig using left hand, get Yellow wire and insert to connector slot 1 using right hand.



Orange

3. Hold the insertion jig using left hand, get Orange wire and insert to connector slot 2 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.

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.
3. Insertion of wires must be from left to right

Document references:

1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.
2. Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance

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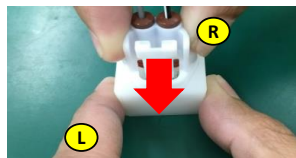








☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

1

Page No.:

4 of 12

PARTS:		1. Assy parts 2. Black vinyl tube Ø7 L=57±3mm 3. Black vinyl tube Ø7 L=189±3mm			JIG	1. Locking jig 2. Terminal cover jig	
NO.	PROCESS NAME		WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE		QUALITY POINTERS
4	P1	Connector lock	<div></div> <div>1. Put the connector into locking jig using right hand then press 2x. Touch the connector lock if properly locked.</div> <div>Before pressing</div> <div>After pressing</div>		<div>LOCKING JIG</div> 		1. Use the provided locking jig per model 2. No unlock/half-lock connector
5		Wire insertion to Black vinyl tube Ø7 L=57±3mm Ø7 L=189±3mm	<div></div> <div>1. Get the cover jig then insert to Y-OR wires using right hand.</div> <div></div> <div>2. Get the vinyl tube Ø7 L=57±3mm using right hand then insert the Y-OR wires using left hand.</div> <div></div> <div>3. Get the vinyl tube Ø7 L=189±3mm using right hand then insert the Y-OR wires using left hand.</div> <div></div> <div>4. After insertion, remove the cover jig using right hand.</div>		<div>TERMINAL COVER JIG</div> 		1. No wrong usage of parts 2. No damaged rubber seal

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TRQSS

Document No.:

WI-ENG-PDE-429A

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Revision No.:

1

Page No.:

5 of 12

PARTS:

1. Connector 6188-0066 (GR)

JIG

1. Insertion jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

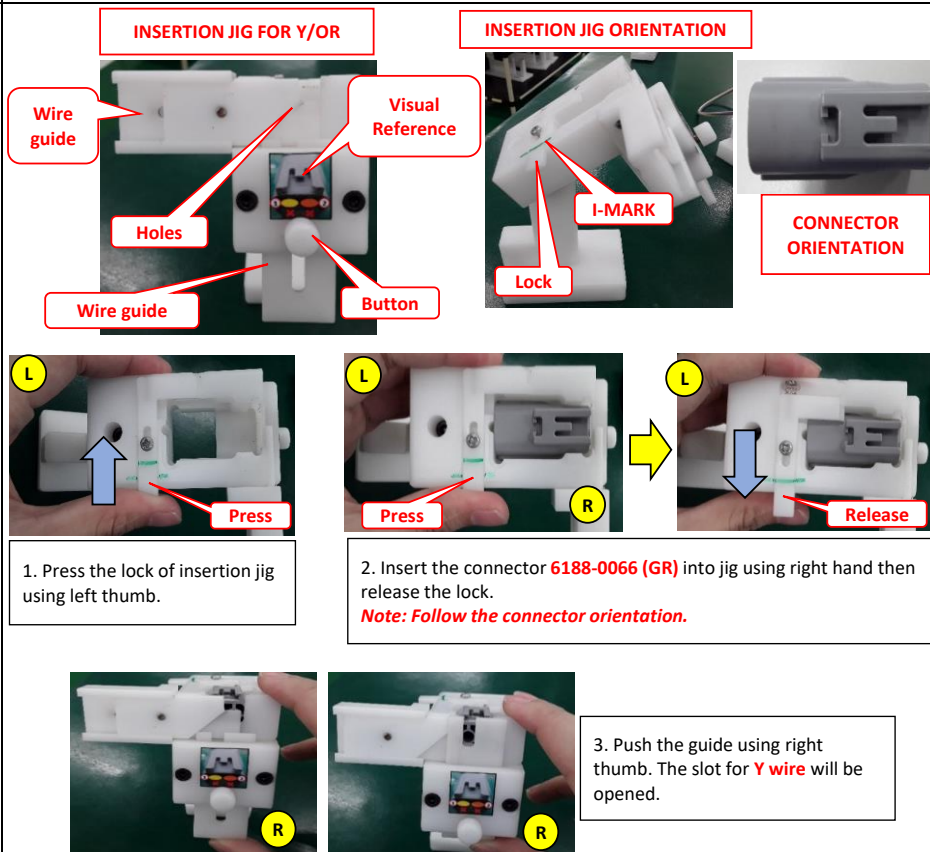
TOOLS/PPE

QUALITY POINTERS

6

P1

Connector setting to
insertion jig
6188-0066 (GR)



n/a

Connector Orientation Illustration

I-mark is align

1 hole is open

GOOD

I-mark is NOT align

2 holes are open

NG

1. Use the provided jig per model
2. No wrong orientation of connector
3. No wrong use of connector
4. No damaged connector

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Customer:

TRQSS

Document No.:

WI-ENG-PDE-429A

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

1

Page No.:

6 of 12

PARTS:

1. Assy parts

JIG

1. Insertion jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

1 QUALITY POINTERS

7

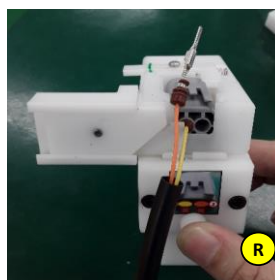
P1

Wire insertion to Connector
6188-0066 (GR)

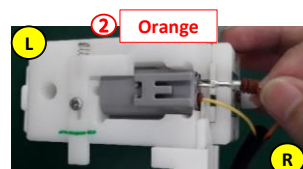
WIRE FACING



1. Hold the insertion jig using left hand. Get the assy parts, insert the **Yellow wire** to connector slot **1** using right hand.



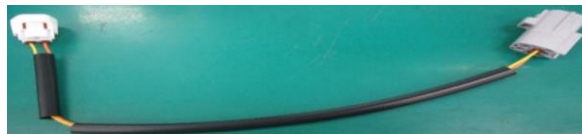
2. Press the button using right thumb, slot for **Orange wire** will be opened.



3. Get **Orange wire** then insert to connector slot **2** 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.



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.
3. Insertion of wires must be from left to right

Document references:

1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.

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Document No.:

WI-ENG-PDE-429A

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

1

Page No.:

7 of 12

PARTS:

1. Assy parts
2. Black tape

JIG

n/a

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

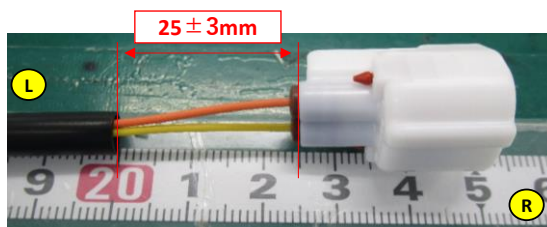
TOOLS/PPE

1 QUALITY POINTERS

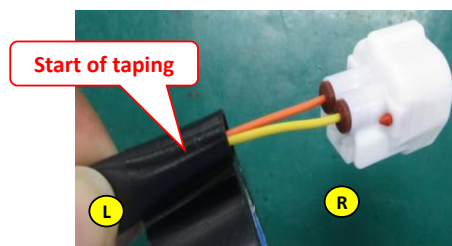
8

P1

Taping 1
Black vinyl tube to wire
near connector

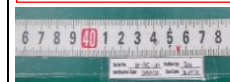


1. Measure from end of vinyl tube up to edge of connector **25±3mm** using both hands.

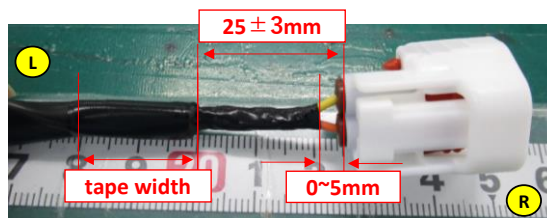


2. Get the **Black tape** using right hand then start taping process using both hands.
Note: Please refer to WI-PRO-ASY-001 for taping procedure.

MEASURING TAPE



- Important reminders/Note/s:**
1. Please use calibrated/verified measuring tape when getting the measurement.
 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



3. After taping, check the measurement, wire alignment and taping condition.

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Customer:

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Document No.:

WI-ENG-PDE-429A

Purpose:




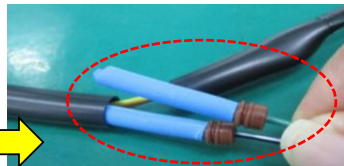
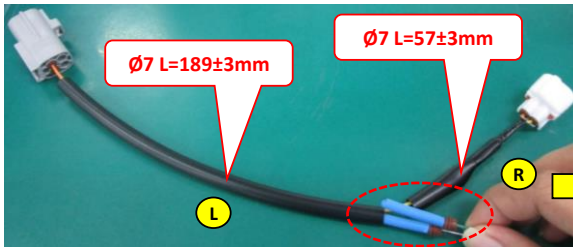

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

1

Page No.:

8 of 12

PARTS:		1. Assy parts 2. MRSW CP TVSSf wires B/W-G wires L=807±3mm; Black sunprene tube Ø5 L=106±3mm 3. Black corrugated tube (no slit) Ø7 L=397±3mm			JIG	1. Terminal cover jig
NO.	PROCESS NAME	WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS
9		<div>Wire insertion to Black corrugated tube (no slit) Ø7 L=397±3mm</div> <div><div>1. Get the cover jig then insert to B/W-G wires using right hand.</div><div>2. Get the corrugated tube Ø7 L=397±3mm (no slit) using right hand then insert the B/W-G wires using left hand.</div></div> <div><div>TERMINAL COVER JIG</div></div> <div>1. No wrong usage of parts 2. No damaged rubber seal 3. No wrong insertion</div>				
10	P1	<div>Wire insertion to assy parts</div> <div><div>1. Hold the vinyl tube Ø7 L=189±3mm using left hand then insert the assy parts using right hand.</div><div>2. After insertion, remove the terminal cover jig using right hand.</div></div> <div><div>TERMINAL COVER JIG</div></div> <div>1. No wrong usage of parts 2. No damaged rubber seal 3. No wrong insertion</div>				

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922B

/

7L0123-7022

Customer:

TRQSS

Document No.:

WI-ENG-PDE-429A

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Revision No.:

1

Page No.:

9 of 12

PARTS:

1. Assy parts

JIG

1. Insertion jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

11

P1

Connector setting to
insertion jig
6188-0066 (GR)
(Assy parts)

INSERTION JIG

INSERTION JIG ORIENTATION

Visual Reference

Button

Holes

Wire guide

I-MARK

Lock

CONNECTOR ORIENTATION

Holes

L

Press

L

1. Push the guide using left thumb. The slot for **Black/white wire will be opened.**

L

2. Press the lock of insertion jig using left thumb.

L

3. Insert the connector **6188-0066 (GR) into jig using right hand then release the lock. **Note: Follow the connector orientation.****

Press

Release

n/a

Connector Orientation Illustration

I-mark is align

1 hole is open

GOOD

I-mark is NOT align

2 holes are open

NG

1. Use the provided jig per model
2. No wrong orientation of connector
3. No wrong use of connector
4. No damaged connector

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Customer:

TRQSS

Document No.:

WI-ENG-PDE-429A

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

1

Page No.:

10 of 12

PARTS:

1. Assy parts

JIG

1. Insertion jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

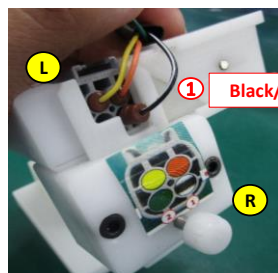
1 QUALITY POINTERS

12

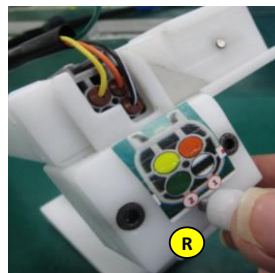
P1

Wire insertion to connector
6188-0066 (GR)
(Assy parts)

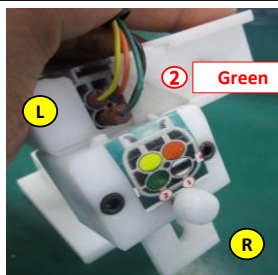
WIRE FACING



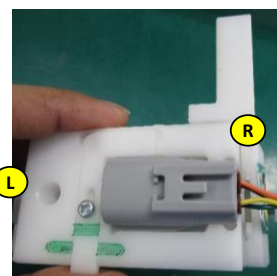
1. Hold the insertion jig using left hand, get **Black/white wire** then insert to connector slot **1** using right hand.



2. Press the button using right hand, slot for **Green wire** will be opened.



3. Hold the insertion jig using left hand, get **Green wire** then insert to connector slot **2** 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.

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.
3. Insertion of wires must be from left to right

Document references:

1. Refer to GL-PRO-ASY-029 for Pull-Push procedure.

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TRQSS

Document No.:

WI-ENG-PDE-429A

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

Revision No.:

1

Page No.:

11 of 12

PARTS:

1. Assy parts
2. Black tape

JIG

1. Locking jig

NO.

PROCESS NAME

WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

1 QUALITY POINTERS

13

Connector lock



1. Put the connector into locking jig using right hand then press **2x**. Touch the connector lock if properly locked.



Before pressing



After pressing

Connector Cross Sectional View

NG

NG

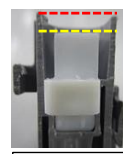
GOOD



Unlock Condition

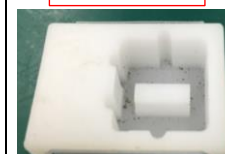


Half Lock Condition



Full Lock Condition

LOCKING JIG



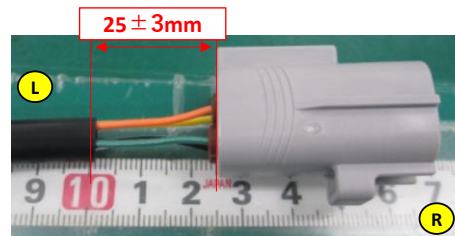
Important reminders/Note/s:

1. MANUAL LOCKING MAY CAUSE DAMAGED CONNECTOR

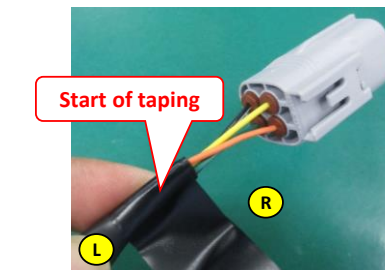
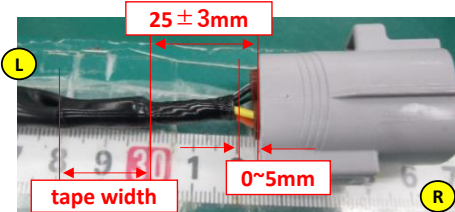
1. Use the provided locking jig per model
2. No unlock/half-lock connector

14

P1

Taping 2
Black vinyl tube to wire
near connector

1. Measure from end of vinyl tube up to edge of connector **25±3mm** using both hands.

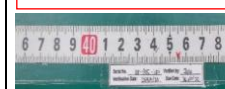


Start of taping

2. Get the **Black tape** using right hand then start taping process using both hands.
Note: Please refer to WI-PRO-ASY-001 for taping procedure.

3. After taping, check the measurement and taping condition.

MEASURING TAPE



Important reminders/Note/s:

1. Please use calibrated/verified measuring tape when getting the measurement.

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

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7L0123-7022

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TRQSS

Document No.:

WI-ENG-PDE-429A

Purpose:

☐ PROTOTYPE

☐ PRE-LAUNCH

☒ MASSPRO

Revision No.:

1

Page No.:

12 of 12

PARTS:

1. Assy parts

JIG

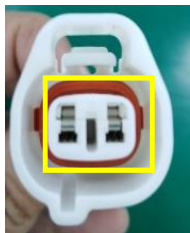
n/a



QUALITY CHECKPOINTS

P1

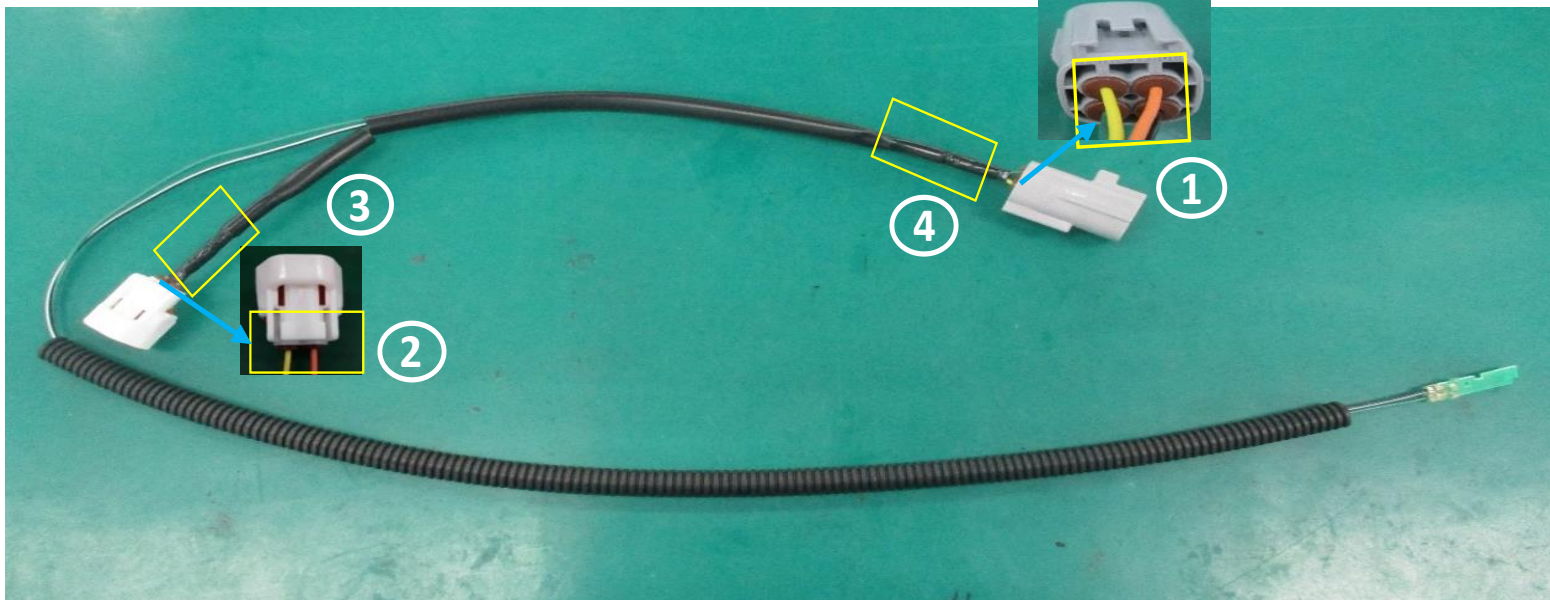
7L0123-7022



GOOD



NO GOOD



NO GOOD



GOOD

① ② No **WRONG INSERT**
No **TERMINAL BACKING OUT**
No **DEFORMED TERMINAL**

③ ④ No **MISSING TAPE**

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