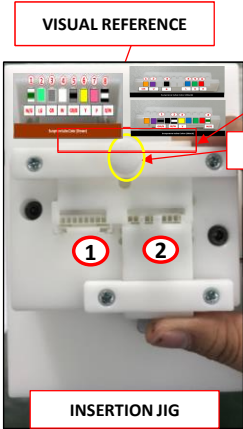

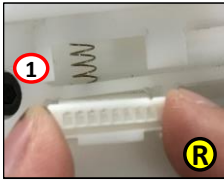
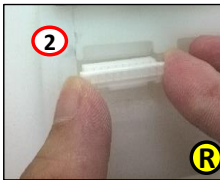
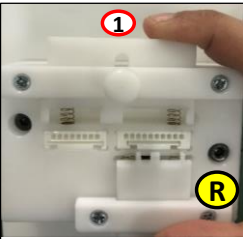




	WORK INSTRUCTION				Effectivity Date:	February 22, 2022		
	Process Name/Title: TAPING ASSEMBLY PROCESS				Validity Date:	n/a		
	Model Code/Part Number: VK00 / 75S059-0210		Customer: TRJ		Document No.:	WI-ENG-PDE-396		
	Purpose: <input type="checkbox"/> PROTOTYPE <input type="checkbox"/> PRE-LAUNCH <input checked="" type="checkbox"/> MASSPRO 1				Revision No.:	1	Page No.:	1 of 9

PARTS:	1. Connector PBVP-8V-S (W) 2. Connector PBVP-10V-S (W)			JIG:	1. Insertion jig			
NO.	PROCESS NAME	1 WORK PROCEDURE/ ILLUSTRATION			TOOLS/PPE	QUALITY POINTERS		
1	P1 Connector setting to insertion jig PBVP-8V-S (W)	<div><div></div><div> CONNECTOR ORIENTATION</div><div> 1. Get the connector PBVP-8V-S using leftt hand and set to insertion jig slot 1.</div><div> 2. Get the connector PBVP-10V-S using right hand and set to insertion jig slot 2. <i>Note: Follow the connector orientation.</i></div><div> 3. Press the upper and lower guide lock (same timing). You will notice the holes that needs to be inserted are only open.</div></div>			<div>Safety Instruction Be sure to wear prescribed personal protective equipment during operation (gloves, finger cots, etc.)</div> <div>Housekeeping 1. Maintain and always practice 5's. 2. Personal things on the workplace is prohibited. Keep it in your locker.</div> <div>Alert level For any trouble, inform the Assembly Assistant Supervisor or Line Leader for immediate corrective action.</div>	<div>1. Use the provided jig per model 2. No wrong usage of parts 3. No wrong orientation of connector 4. No damaged connector</div>		

Revision History					Prepared by	Reviewed by	Approved by	Noted by		
02/22/22	1	Change Pre-launch to Masspro. Improve process illustration. Merged P1 and P2 due to the process improvement.	K. Doria	J. Loterte	C.Villanueva	A. Arañes				
02/09/22	0	Initial Issue.	K. Doria	J. Loterte	C.Villanueva	A. Arañes	K. Doria	J. Loterte	C.Villanueva	A. Arañes
Eff. Date	Rev. No	Details of Change	Revised	Reviewed by:		Noted	Established Date:		February 9, 2022	

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WORK INSTRUCTION

TAPING ASSEMBLY PROCESS

Effectivity Date:

February 22, 2022

Process Name/Title:

Model Code/Part Number: VK00 / 75S059-0210

Customer:

TRJ

Validity Date:

n/a

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

1

Document No.:

WI-ENG-PDE-396

Revision No.:

1

Page No.:

2 of 9

PARTS:

1. AVSS 0.3 Wires W/G L=473±2mm; LG L=247±2mm; GR L=247±2mm; W L=247±2mm; GR/B L=473±2mm; Y L=473±2mm; P L=247±2mm; B/W L=473±2mm
2. Brown Sunprene tube Ø7 L=208±3mm

JIG

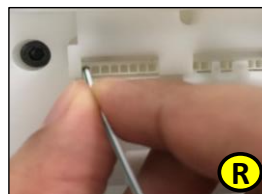
1. Insertion jig

NO.	PROCESS NAME	1 WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
-----	--------------	--------------------------------	-----------	------------------

2

P1

Wire insertion to
Connector
PBVP-8V-S (W)

INSERTION SEQUENCE FROM LEFT TO RIGHT**WIRE FACING**

Note: Please hold the wire near terminal during insertion.

1	2	3	4	5	6	7	8
W/G	LG	GR	W	GR/B	Y	P	B/W
473	247	247	247	473	473	247	473



1. Get the **W/G wire** using right hand and insert to connector. Repeat the process for **LG-GR-W-GR/B-Y-P-B/W**. Check the wire after insertion.

Note: Follow the insertion sequence based on the illustration.

STEERING NAVIGATION**CONTROLLER**

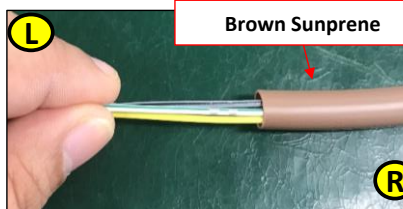
1. Use provided jig per model
2. No wrong usage of parts
3. One by one insertion
4. No wrong insertion
5. No deformed terminal
6. No stuck of terminal tip

Make sure wires are properly inserted. Conduct **Pull-Push-Pull-Push** after insertion. Do not exert extra force.

Note: Refer to WI-ENG-PDE-044 for Steering Navigation Controller procedure.

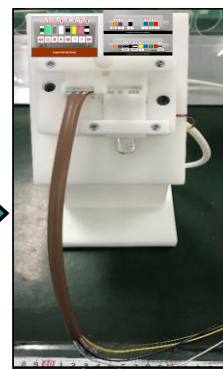
3

Wire insertion to Brown
Sunprene tube
Ø7 L=208±3mm



R

1. Get the **Brown Sunprene tube Ø7 L=208±3mm** using right hand then hold the wires using left hand. Insert the wires using right hand.



N/A

Note: Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance

1. No wrong usage of parts
2. No deformed terminal
3. No tangled wires

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WORK INSTRUCTION

TAPING ASSEMBLY PROCESS

Effectivity Date:

February 22, 2022

Process Name/Title:

Model Code/Part Number: VK00 / 75S059-0210

Customer:

TRJ

Validity Date:

n/a

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

1

Document No.:

WI-ENG-PDE-396

Revision No.:

1

Page No.:

3 of 9

PARTS:

1. AVSS 0.3 OR L=247±2mm; V L=247±2mm; B L=247±2mm; L L=247±2mm; G L=247±2mm; R L=247±2mm
2. Black Sunprene tube Ø8 L=208±3mm

JIG

1. Insertion jig

NO.**PROCESS NAME**

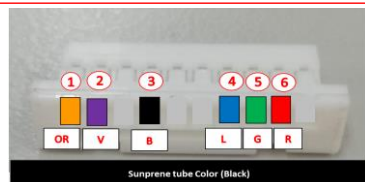
1

WORK PROCEDURE/ ILLUSTRATION**TOOLS/PPE****QUALITY POINTERS**

4

P1

Wire insertion to
Connector
PBVP-10V-S (W)

INSERTION SEQUENCE FROM LEFT TO RIGHT**WIRE FACING**

1	2	3	4	5	6
OR	V	B	L	G	R
247	247	247	247	247	247

Note: Please hold the wire near terminal during insertion.



1. Get the **ORANGE** wire using right hand and insert to connector. Repeat the process for **V-B-L-G-R**. Check the wire after insertion.

Note: Follow the insertion sequence based on the illustration.

**STEERING
NAVIGATION****CONTROLLER**

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

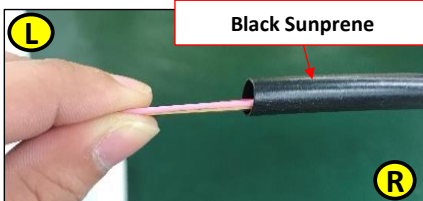
1. Use provided jig per model
2. No wrong usage of parts
3. One by one insertion
4. No wrong insertion
5. No deformed terminal
6. No stuck of terminal tip

Make sure wires are properly inserted. Conduct **Pull-Push-Pull-Push** after insertion. Do not exert extra force.

Note: Refer to WI-ENG-PDE-044 for Steering Navigation Controller procedure.

5

Wire insertion to Black
Sunprene tube
Ø8 L=208±3mm

**Black Sunprene**

1. Get the **Black Sunprene tube Ø8 L=208±3mm** using right hand then hold the wires using left hand. Insert the wires using right hand.



N/A

Note: Refer to WI-PRO-CNC-017 for Wire and Strip Length Tolerance

1. No wrong usage of parts
2. No deformed terminal
3. No tangled wires

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WORK INSTRUCTION

TAPING ASSEMBLY PROCESS

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Process Name/Title:

Model Code/Part Number: VK00 / 75S059-0210

Customer:

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Validity Date:

n/a

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

1

Document No.:

WI-ENG-PDE-396

Revision No.:

1

Page No.:

4 of 9

PARTS:

1. Assy parts

JIG

1. Insertion jig

NO.**PROCESS NAME**

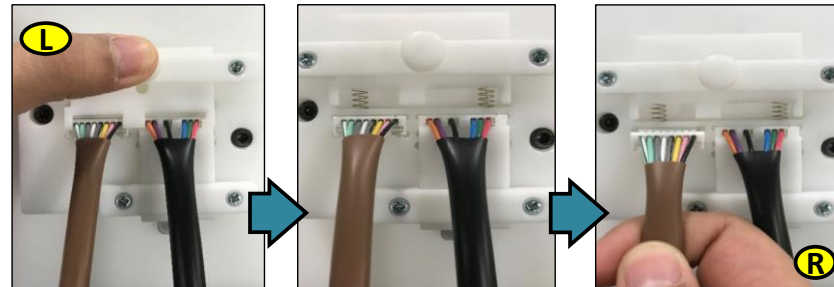
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WORK PROCEDURE/ ILLUSTRATION**TOOLS/PPE****QUALITY POINTERS**

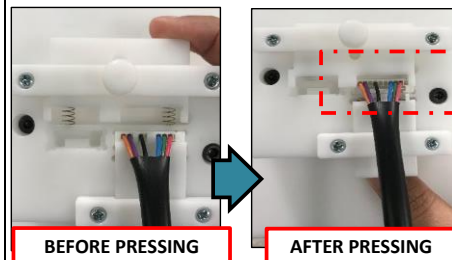
6

P1

Wire insertion to Assy parts



1. Press the button using left hand. Then, remove the first **Connector PBVP-8V-S (W)** with inserted wires (**Brown Sunprene tube**) using right hand.



2. Press first the upper guide lock. Then, press the lower guide lock. You will notice the holes that needs to be inserted are open.



3. Hold the **Black Sunprene tube** and insert the wires from **Brown Sunprene tube** using right hand.

N/A

Note: Refer to GL-PRO-ASY-025 for Inspection Standard for Coupler Insertion.



Terminal tip must be visible

1. No wrong usage of parts
2. No deformed terminal
3. No tangled wires

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WORK INSTRUCTION

TAPING ASSEMBLY PROCESS

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Validity Date:

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Model Code/Part Number: VK00 / 75S059-0210

Customer:

TRJ

Document No.:

WI-ENG-PDE-396

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

1

Revision No.:

1

Page No.:

5 of 9

PARTS:

1. AVSS 0.3 GR/B L=473±2mm; B/W L=473±2mm; Y L=473±2mm; W/G L=473±2mm

JIG

1. Insertion jig

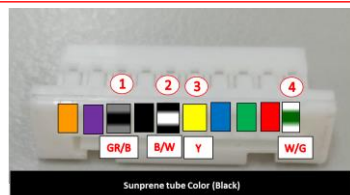
NO.**PROCESS NAME**

1

WORK PROCEDURE/ ILLUSTRATION**TOOLS/PPE****QUALITY POINTERS**

7

P1

Wire insertion to
Connector
PBVP-10V-S (W)**INSERTION SEQUENCE FROM LEFT TO RIGHT****WIRE FACING**

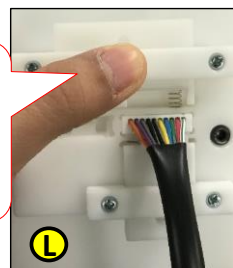
		1		2	3				4
OR	V	GR/B	B	B/W	Y	L	G	R	W/G
247	247	473	247	473	473	247	247	247	473

Black Sunprene tube

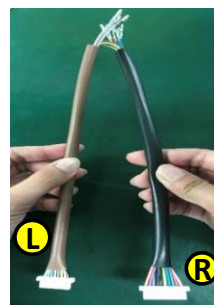
1. Get the **GR/B wire** using right hand and insert to connector. Repeat the process for **B/W-Y-W/G**. Check the wire after insertion.

Note: Follow the insertion sequence based on the above illustration.

Press the
unlock
button
using left
thumb.



2. Check the wire insertion
condition. Hold the Assy
parts using both hands and
gently fold it.



N/A

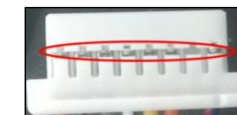
Note: Refer to WI-PRO-CNC-017 for Wire and Strip length tolerance.

Note: Please hold the wire near terminal during insertion.

1. Use provided jig per model
2. No wrong usage of parts
3. One by one insertion
4. No wrong insertion
5. No deformed terminal
6. No stuck of terminal tip

Make sure wires are properly inserted.
Conduct **Pull-Push-Pull-Push** after insertion.
Do not exert extra force.

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



Terminal tip must be visible

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WORK INSTRUCTION

TAPING ASSEMBLY PROCESS

Effectivity Date:

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Process Name/Title:

TAPING ASSEMBLY PROCESS

Validity Date:

n/a

Model Code/Part Number: VK00 / 75S059-0210

Customer:

TRJ

Document No.:

WI-ENG-PDE-396

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

1

Revision No.:

1

Page No.:

6 of 9

PARTS:

1. Connector 1376675-1 (B)

JIG

1. Insertion jig

NO.

PROCESS NAME

1

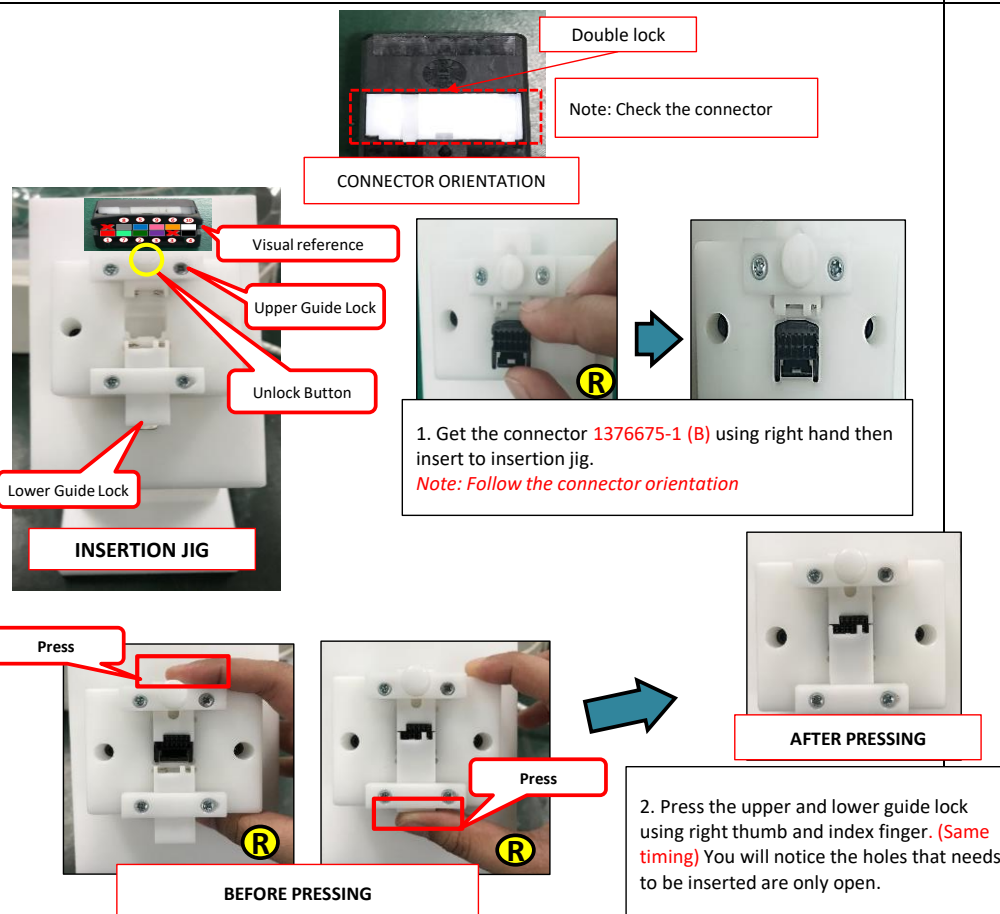
WORK PROCEDURE/ ILLUSTRATION

TOOLS/PPE

QUALITY POINTERS

8

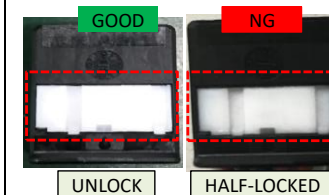
P1

Connector setting to
insertion jig
1376675-1 (B)

N/A

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

CONNECTOR LOCK APPEARANCE



Note: Automatically dispose and replace the unit if once encountered bend terminal, difficulty of insertion and half-locked connector.

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WORK INSTRUCTION

TAPING ASSEMBLY PROCESS

Effectivity Date:	February 22, 2022		
Validity Date:	n/a		
Document No.:	WI-ENG-PDE-396		
Revision No.:	1	Page No.:	7 of 9

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

Model Code/Part Number: **VK00 / 75S059-0210** Customer: **TRJ**

Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ☒ MASSPRO 1

PARTS: 1. Connector 1376675-1 (B)

JIG 1. Insertion jig

NO.	PROCESS NAME	1 WORK PROCEDURE/ ILLUSTRATION	TOOLS/PPE	QUALITY POINTERS
9	P1 Wire insertion to Connector 1376675-1 (B)	<div><p>INSERTION SEQUENCE</p><p>SECOND ROW (LEFT TO RIGHT)</p><p>2ND</p><p>1ST ROW</p><p>FIRST ROW (LEFT TO RIGHT)</p><p>INSERTION SEQUENCE BLACK SUNPRENE TUBE</p><p>1. Insert first the wires from Black Sunprene tube. Hold the R wire and insert to terminal slot 1 using right hand. Repeat the process for G-V-B wires (First row (Left to Right)). <i>Note: Follow the insertion sequence based on the illustration stated above.</i></p><p>2. Hold the L wire and insert to terminal slot 5. Repeat the process for OR wire. (Second row (Left to Right)). <i>Note: Follow the insertion sequence based on the illustration stated above.</i></p></div>	N/A	<p><i>Note: Refer to GL-PRO-ASY-029 for Pull-Push procedure.</i></p> <p>1. Use provided jig per model 2. No wrong usage of parts 3. One by one insertion 4. No wrong insertion 5. No deformed terminal 6. No stuck of terminal tip</p> <p>Make sure wires are properly inserted. Conduct Pull-Push-Pull-Push after insertion. Do not exert extra force.</p> <p><i>Note: Automatically dispose and replace the unit if once encountered bend terminal, difficulty of insertion and half-locked connector.</i></p>

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WORK INSTRUCTION

TAPING ASSEMBLY PROCESS

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Model Code/Part Number: VK00 / 75S059-0210

Customer:

TRJ

Validity Date:

n/a

Purpose:

☐ PROTOTYPE☐ PRE-LAUNCH☒ MASSPRO

1

Document No.:

WI-ENG-PDE-396

Revision No.:

1

Page No.:

8 of 9

PARTS:

1. Assy parts

JIG

1. Insertion jig

NO.**PROCESS NAME**

1

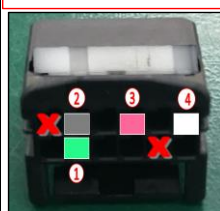
WORK PROCEDURE/ ILLUSTRATION**TOOLS/PPE****QUALITY POINTERS**

9

P1

Wire insertion to
Connector
1376675-1 (B)
Continuation

BROWN VM TUBE



3. Insert the wires from **Brown Sunprene tube**. Hold the **LG wire** and insert to terminal slot 1 using right hand. (First row(left to right)
Note: Follow the insertion sequence based on the illustration.



4. Hold the **GR wire** and insert to terminal slot 2, repeat the process for **P-W wires**. (Second row (left to right)
Note: Follow the insertion sequence based on the illustration.

n/a

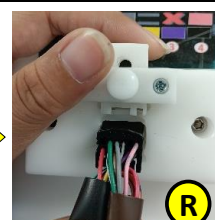
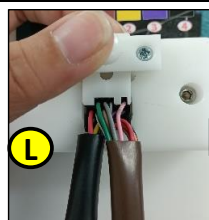
Note: Refer to GL-PRO-ASY-029 for Pull-Push procedure.

1. Use provided jig per model
2. No wrong usage of parts
3. One by one insertion
4. No wrong insertion
5. No deformed terminal
6. No stuck of terminal tip

Make sure wires are properly inserted. Conduct **Pull-Push-Pull-Push** after insertion.
Do not exert extra force.

10

Wire Arrangement



1. Press the unlock button using left thumb and slightly pull out the inserted wires from insertion jig using right hand.

GOOD ARRANGEMENT OF



2. Hold the harness using both hands. Arrange the wire properly to avoid tangled wires.
Refer to below illustration for Good wire arrangement and facing.

n/a

1. No wrong orientation of connector
2. No tangled wires
3. No wrong harness facing

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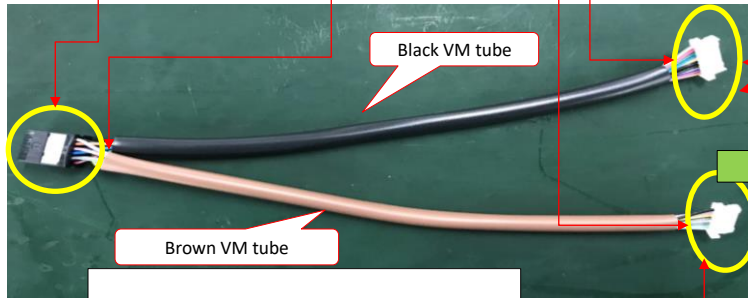

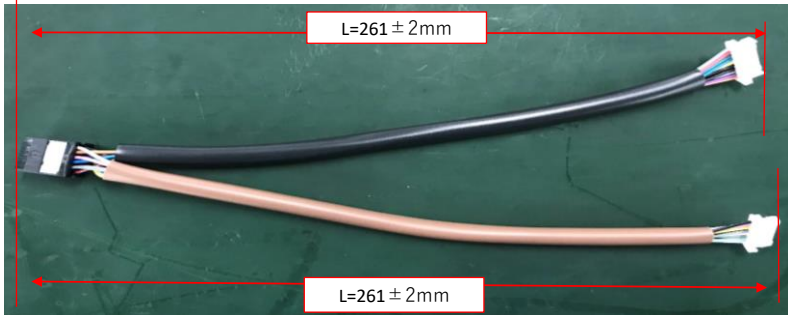

TAPING ASSEMBLY PROCESS

Effectivity Date:	February 22, 2022		
Validity Date:	n/a		
Document No.:	WI-ENG-PDE-396		
Revision No.:	1	Page No.:	9 of 9

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

Model Code/Part Number: **VK00 / 75S059-0210** Customer: **TRJ**

Purpose: ☐ PROTOTYPE ☐ PRE-LAUNCH ☒ MASSPRO 1

PARTS:		1. Assy parts			JIG	1. Insertion jig	
NO.	PROCESS NAME		1 WORK PROCEDURE/ ILLUSTRATION		TOOLS/PPE	QUALITY POINTERS	
11	P1	Visual/By Two's Inspection	<div><div>1. Check the connector lock.</div><div>2. Check the wire alignment. Make sure no tangled wires.</div><div>3. Check the orientation of harness.</div><div>4. Check if no missing parts.</div><div>5. Check the terminal if with backing out (not fully inserted) or deformed terminal.</div><div>6. Compare to Master Sample <i>Note: Please refer to GL-PRO-ASY-007 for By Two's Inspection of Sub-Assy</i></div></div> <div><div>CORRECT FACING</div></div>			<div>MASTER SAMPLE</div> <div></div>	
12	P1	Measurement	<div></div>			<div>MEASURING TAPE</div> <div></div>	<div>NOTE: FOR HATSUMONO AND OWARIMONO</div> <div>Note: Please use calibrated/verified measuring tape when getting the measurement.</div>

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