



Optional Device Manual

AIR TYPE CLAMP FRAME 2

AIR TYPE POCKET FRAME 2

Foreword




Thank you for purchasing the TAJIMA embroidery product.

Please read this manual thoroughly, understand the contents, and then use the machine.

This manual may contain discrepancies in detailed specifications when compared with the actual product. If you have any question, please ask the distributor for information.

Safety Precautions and Symbols




Items that require your special attention on handling the machine are specified below.

Description	Meaning
 DANGER	Indicates that there is a lot of danger of death or serious injuries ^{*1} .
 WARNING	Indicates that there is a likelihood of death or serious injuries ^{*1} .
 CAUTION	Indicates a potentially hazardous situation which may result in minor or moderate injury ^{*2} or physical damage.



*1: A condition caused by electric shock, injury, fracture of a bone etc. that leads to aftereffects, or an injury that necessitates hospitalization or visits to a hospital over a long period.

*2: An injury that does not necessitate hospitalization or visit to a hospital over a long period.

The meaning of the symbols used throughout this document have the following meanings.

Symbol	Meaning
	Item to be prohibited
	Items that could cause electric shock
	Items to keep safety

Other Precautions

Description	Meaning
	Items that may affect stitching
	Recommended and useful tips.

Disclaimer, etc.

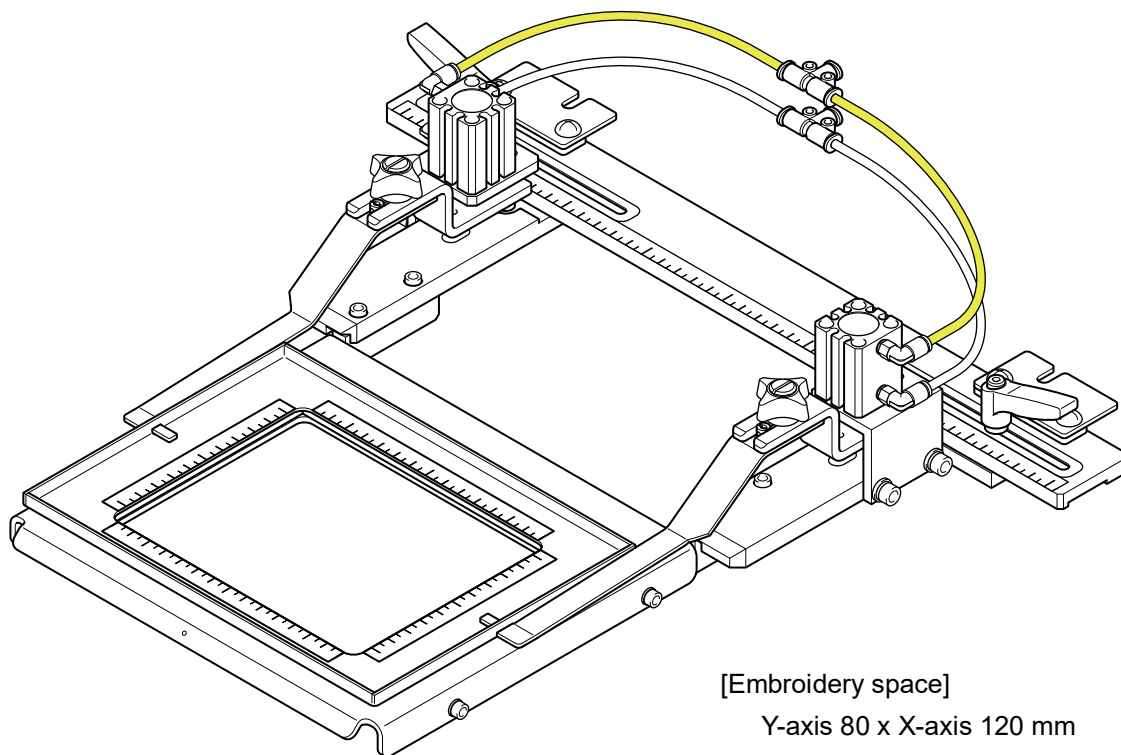
- The external views and specifications of the machine and the contents of this manual are subject to change without notice due to improvement.
- TAJIMA bears no responsibility regarding any damage arising from not observing the instructions in the manual or any fault or damage resulting from repair, disassembly, or modification not indicated in the manual.
- You may not copy, reproduce, or transcribe a part or whole of this manual without consent of TAJIMA.

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1. Type of Frame

1-1. Clamp Frame



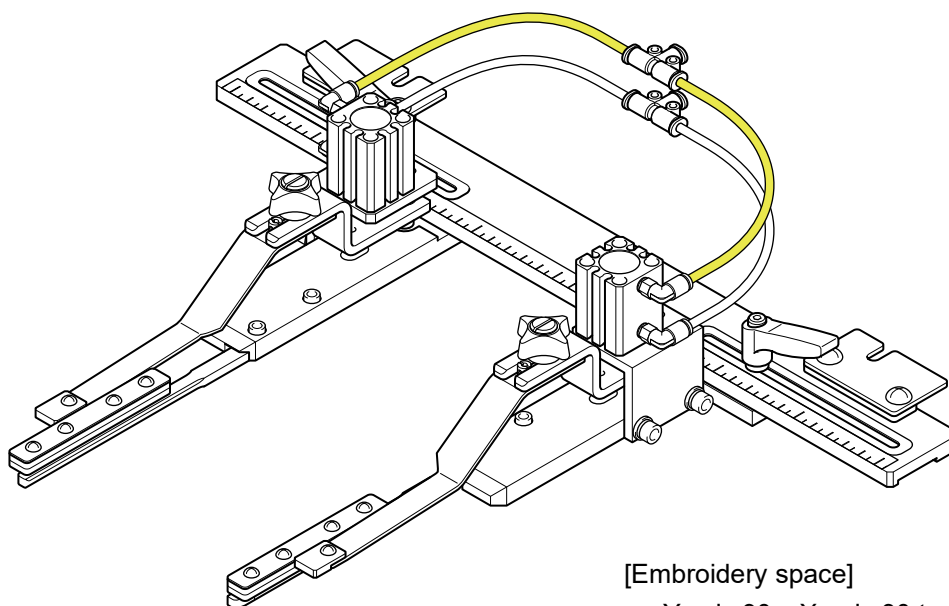
[Embroidery space]

Y-axis 80 x X-axis 120 mm

Y-axis 110 x X-axis 140 mm

Y-axis 140 x X-axis 200 mm

1-2. Pocket Frame



[Embroidery space]

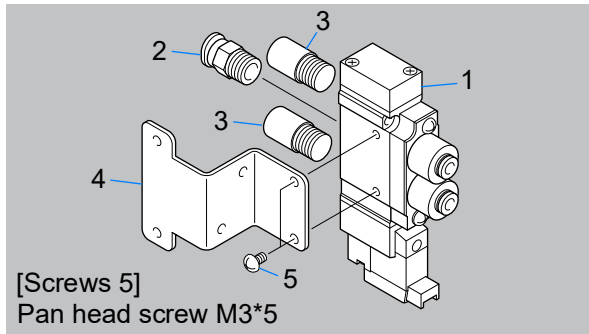
Y-axis 90 x X-axis 30 to 258 mm

2. Attaching Parts

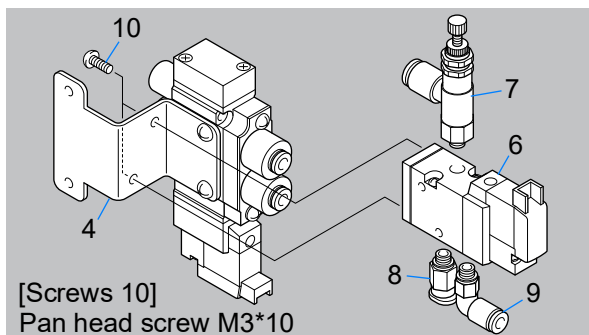


- If these parts are already attached, proceed to "3. Switching frame">P.13.

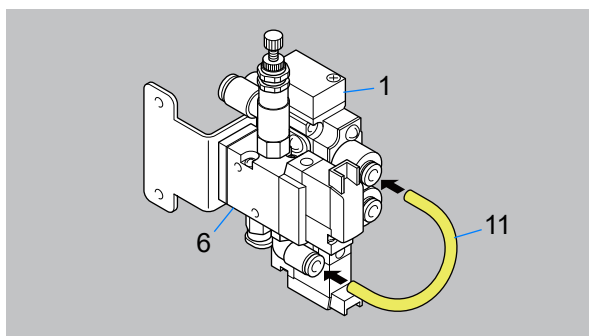
2-1. Assembling the solenoid valve



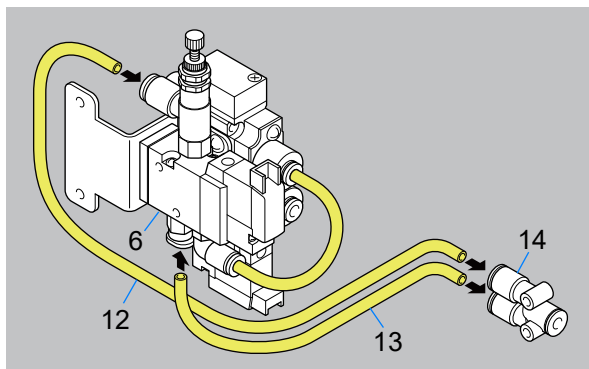
- 1 Attach the half union 2 and silencer 3 to the solenoid valve 1.
- 2 Attach the solenoid valve 1 to the bracket 4 with screws 5.



- 3 Attach the miniature pressure reducing valve 7, half union 8, and elbow union 9 to the solenoid valve 6.
- 4 Attach the solenoid valve 6 to the bracket 4 with screws 10.



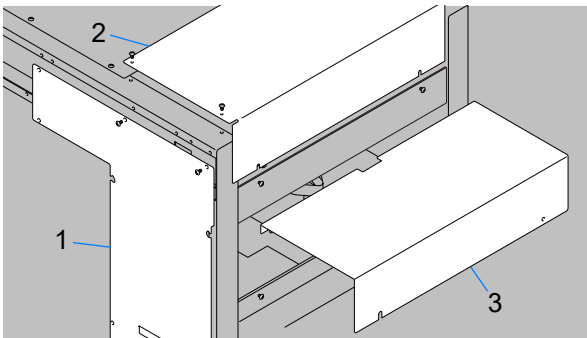
- 5 Connect the solenoid valve 1 and 6 by 4 mm dia. tube (yellow) 11.



- 6 Connect 4 mm dia. tubes (yellow) 12 and 13 to upper and lower parts of the solenoid valve 6 and connect Union Y 14 to these tubes.

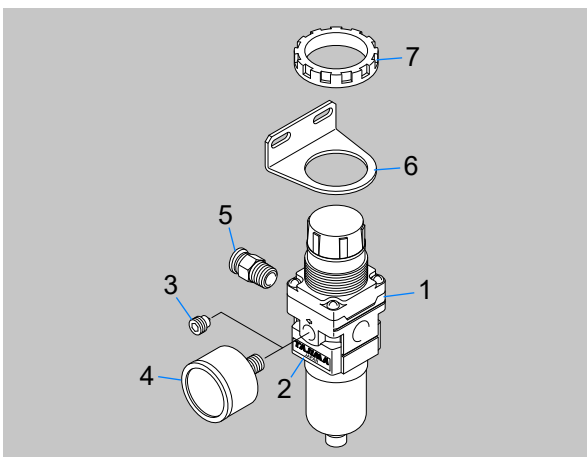
2-2. TMEZ-SC, TMBR2-SC, TMBP2-SC

Covers

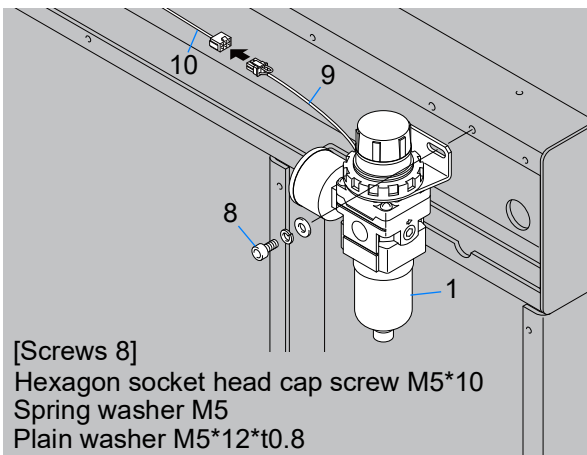


- 1 Detach the covers 1, 2, 3.

Regulator



- 1 Detach the cap 3 of the regulator 1 on the side with the seal 2 attached, and attach the pressure gauge 4.
- 2 Attach the half union 5 to the regulator 1.
- 3 Attach the bracket 6 to the regulator 1 with nut 7.

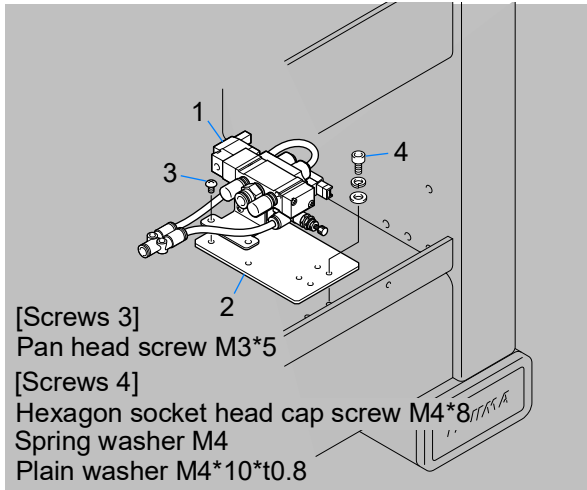


- 4 Attach the regulator 1 to the machine with screws 8.
- 5 Connect regulator harness 9 to the sensor harness 10.
- 6 Connect the sensor harness 5 to CN5 of the control card.

[Screws 8]
Hexagon socket head cap screw M5*10
Spring washer M5
Plain washer M5*12*t0.8

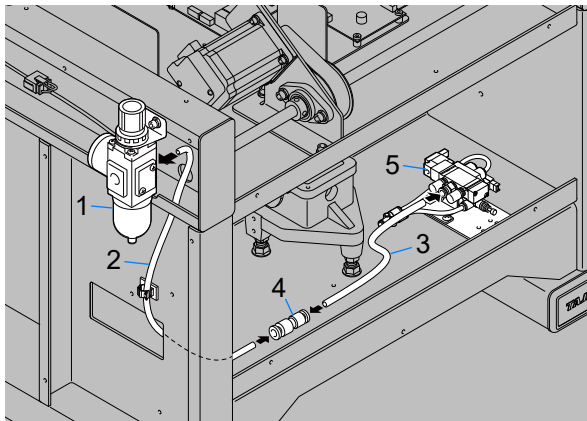
2. Attaching Parts

Solenoid valve



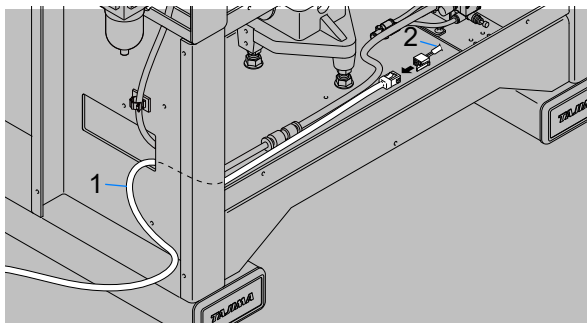
- 1 Attach the solenoid valve 1 to the bracket 2 with screws 3.
- 2 Attach the bracket 2 inside the stand with screws 4.

Regulator connection

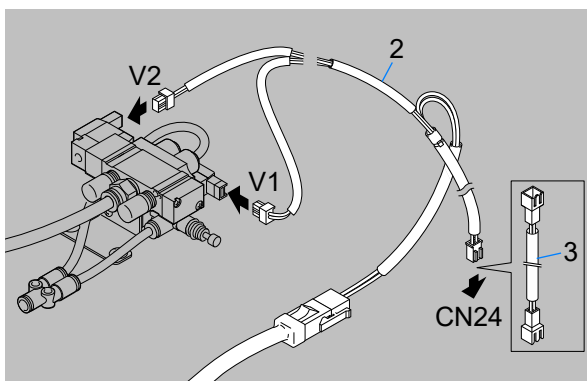


- 1 Connect 8 mm dia. tube 2 to the regulator 1, then connect 8 mm dia. tube 2 and 6 mm dia. tube 3 with the reducing straight union 4.
- 2 Connect 6 mm dia. tube 3 to the solenoid valve 5.

Foot switch

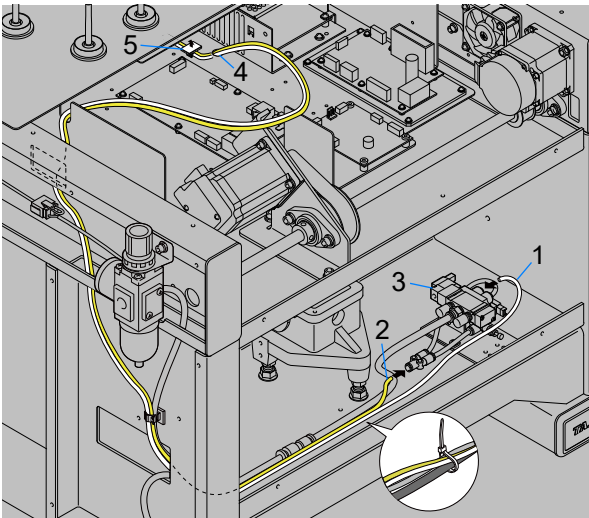


- 1 Insert the foot switch harness 1 from the side of the machine to connect to the relay harness 2.



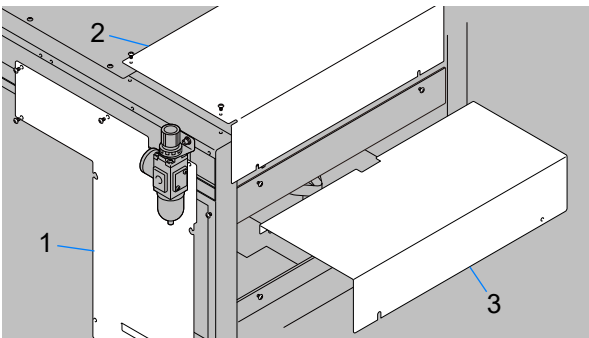
- 2 Connect the solenoid valve (V1, V2) and the connector CN24 of the control card with the relay harness 2. For TMEZ-SC, Connect joint harness 3 to relay harness 2, and connect joint harness 3 to connector CN24 of the control card.

Piping



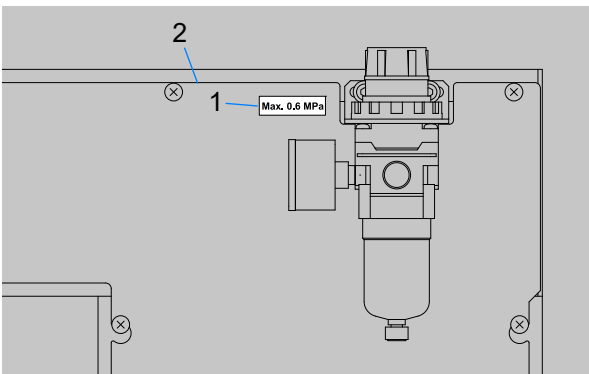
- 1** Connect 4 mm dia. tube (white) 1 and 4 mm dia. tube (yellow) 2 to the solenoid valve 3.
- 2** 4 mm dia. tubes 1, 2 are passed through the right side box and out through hole 4 in the electrical component base.
- 3** Attach clamp 5 to the underside of the electrical component base and fix 4 mm dia. tubes 1, 2.
- 4** After wiring and piping, bundle the harness and the air tube.

Covers



- 1** Attach the optional cover 1 and the removed covers 2, 3.

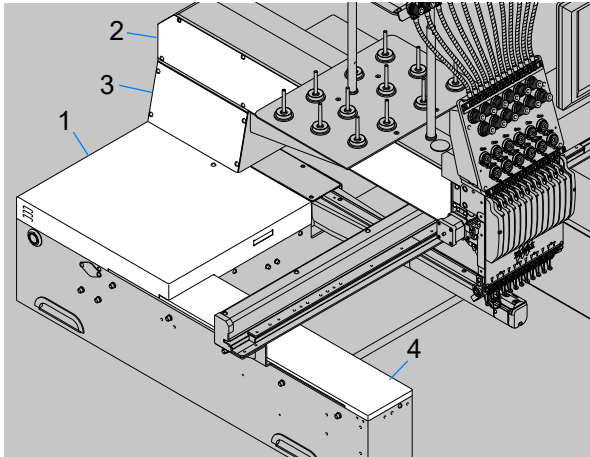
Pressure indicating label



- 1** Stick the pressure indicating label 1 on the cover 2.

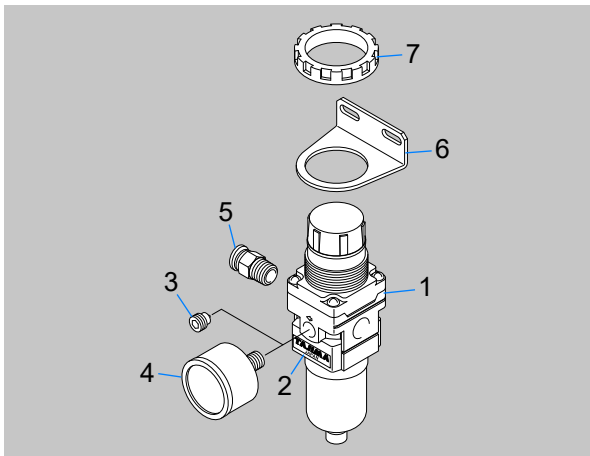
2-3. TMBP2-XC

Covers

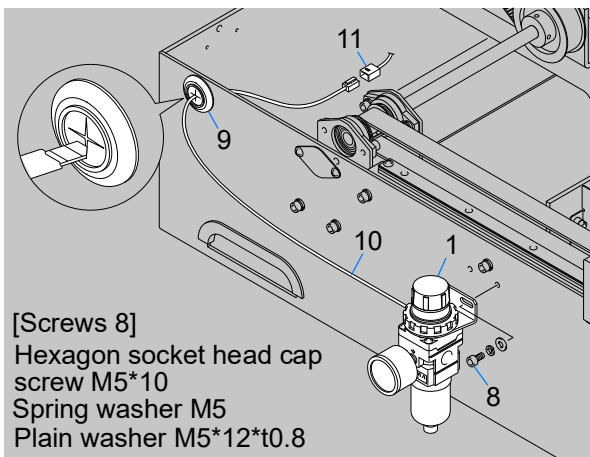


- 1 Detach the covers 1, 2, 3, 4.

Regulator

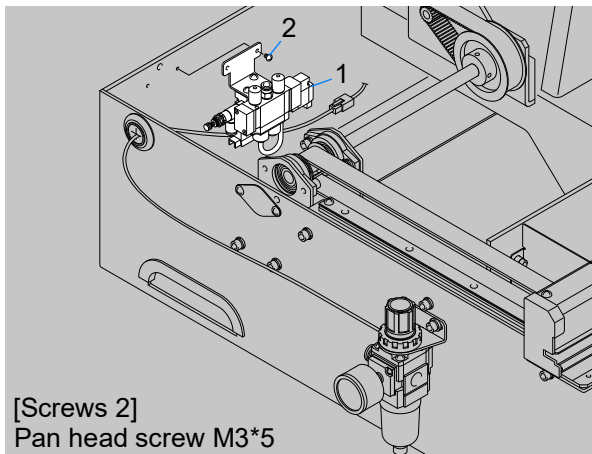


- 1 Detach the cap 3 of the regulator 1 on the side with the seal 2 attached, and attach the pressure gauge 4.
- 2 Attach the half union 5 to the regulator 1.
- 3 Attach the bracket 6 to the regulator 1 with nut 7.



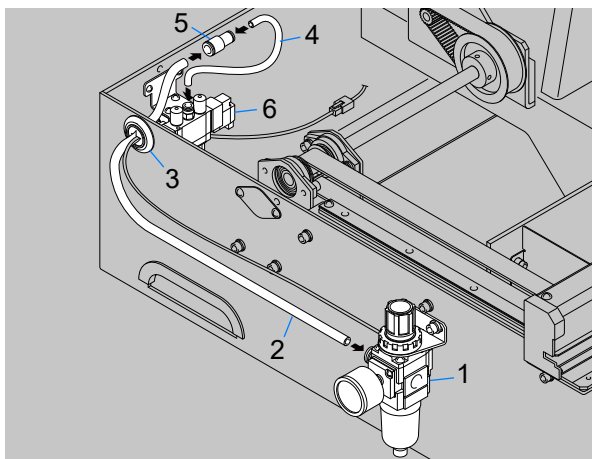
- 4 Attach the regulator 1 to the machine with screws 8.
- 5 Make a cross cut to the grommet 9 to insert the regulator harness 10.
- 6 Connect the regulator harness 10 to the sensor harness 11, and connect the sensor harness 11 to CN5 on the control card.

Solenoid valve



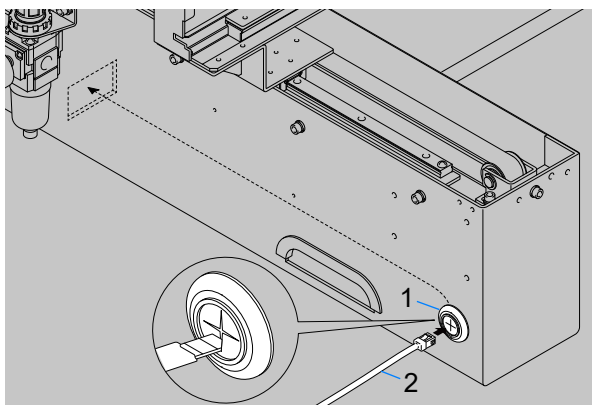
- 1 Attach the solenoid valve 1 inside the stand with screws 2.

Regulator connection

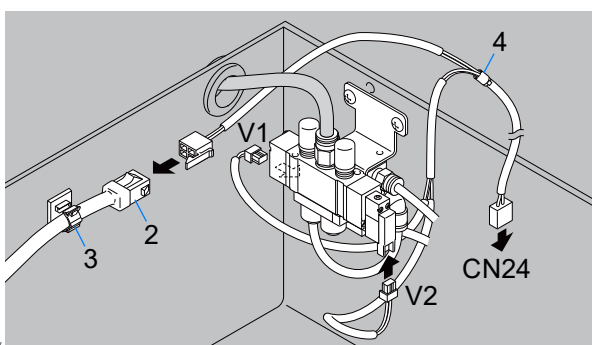


- 1 Connect the 8 mm dia. tube 2 to the regulator 1 and insert into grommet 3.
- 2 Connect the 8 mm dia. tube 2 and 6 mm dia. tube 4 with the reducing straight union 5.
- 3 Connect the 6 mm dia. tube 4 to the solenoid valve 6.

Foot switch



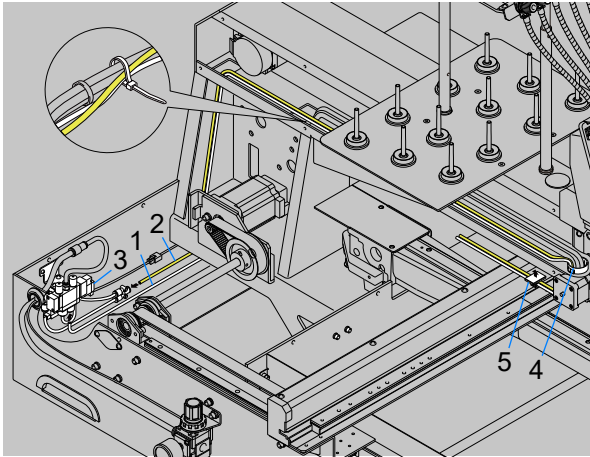
- 1 Make a cross cut to the grommet 1 to insert the footswitch harness 2, and guide it to the rear of the machine.



- 2 Stick the clamp 3 on the side face of the stand, and fix the foot switch harness 2.
- 3 Connect the foot switch harness 2 to the relay harness 4.
- 4 Connect the solenoid valve (V1, V2) and the connector CN24 of the control card with the relay harness 4.

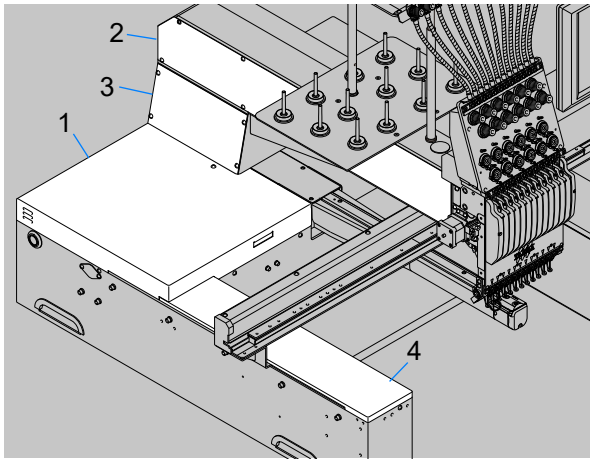
2. Attaching Parts

Piping



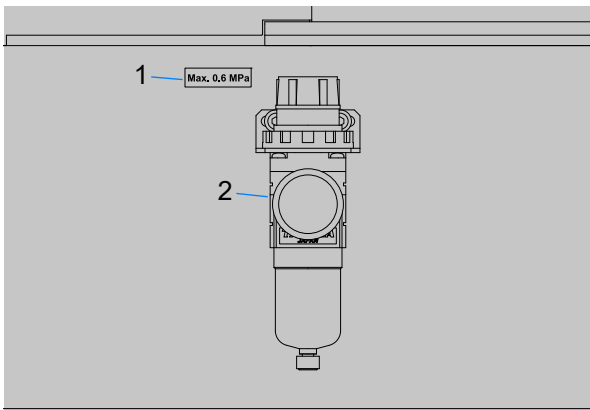
- 1 Connect 4 mm dia. tube (white) 1 and 4 mm dia. tube (yellow) 2 to the solenoid valve 3.
- 2 4 mm dia. tubes 1, 2 are passed through the arm and out through the hole 4 in the underside.
- 3 Attach clamp 5 to the underside of the arm and fix 4 mm dia. tubes 1, 2.
- 4 After wiring and piping, bundle the harness and the air tube together with neighboring wires.

Covers



- 1 Attach the covers 1, 2, 3, 4.

Pressure indicating label



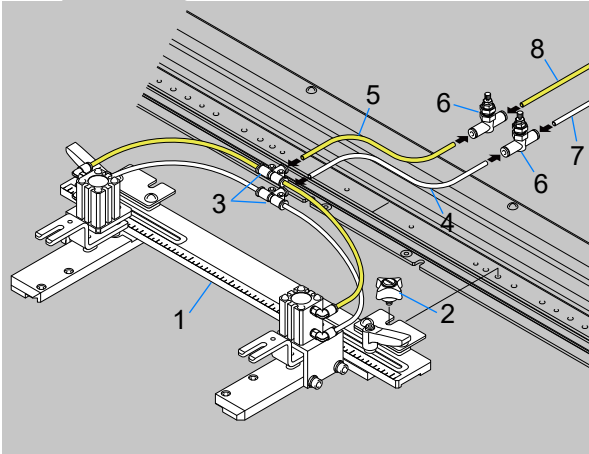
- 1 Stick the pressure indicating label 1 around the regulator 2.

3. Switching frame

3-1. Detaching the frame unit

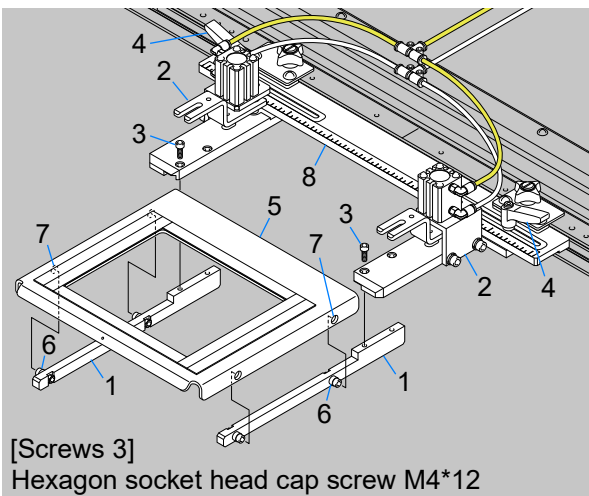
Detach the frame unit that is currently attached.

3-2. Attaching Frame Unit

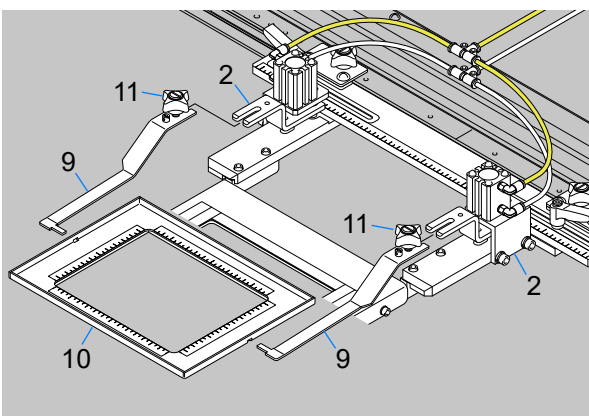


- 1 Attach the base frame 1 with knobbed screws 2.
- 2 Connect 4 mm dia. tube (white) 4 and 4 mm dia. tube (yellow) 5 to tees 3.
- 3 Connect the speed controller 6 to 4 mm dia. tube (white) 4 and 4 mm dia. tube (yellow) 5.
- 4 Connect 4 mm dia. tube (white) 7 and 4 mm dia. tube (yellow) 8 led from the solenoid valve to the speed controller 6.

Clamp frame



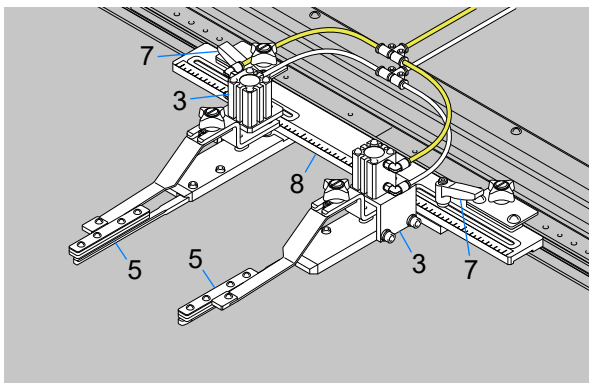
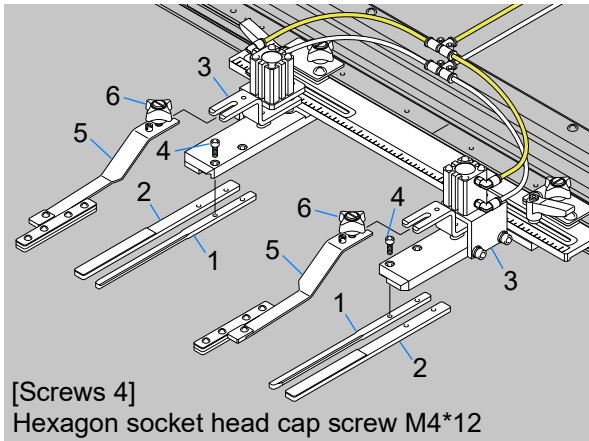
- 1 Attach the holder 1 to the presser unit 2 with screws 3.
- 2 Loosen lever 4 and move presser unit 2 inside.
- 3 Place the base frame 5 on the holder 1, move the presser unit 2 outside, and insert the spacer 6 of the holder 1 into the hole 7 of the base frame 5.
- 4 Center the base frame 5 and base frame 8, and tighten lever 4 to fix the presser unit 2.



- 5 Insert the tip of the presser 9 into the hole in the center of the presser frame 10.
- 6 Attach the presser 9 to the presser unit 2 with the knobbed screws 11.

3. Switching frame

Pocket frame



- 1 Attach fabric base A 1 or fabric base B 2 to pressure unit 3 with screws 4.

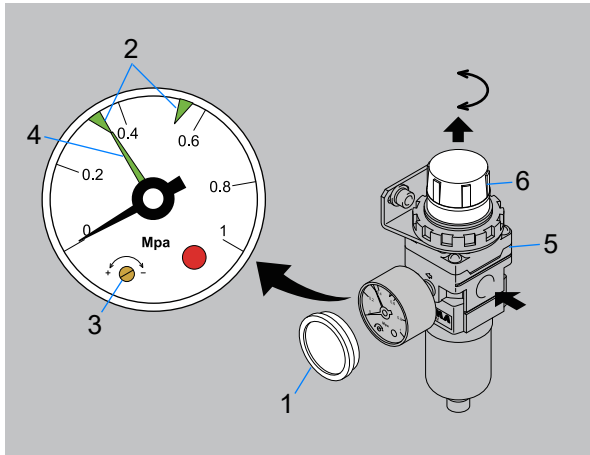


- Fabric base B is a strengthen the holding power type.

- 2 Attach the presser 5 to the presser unit 3 with the knobbed screws 6.
- 3 Loosen lever 7 and move presser unit 3 to adjust the spacing of presser 5.
- 4 Align the centers of the presser 5 and base frame 8, and tighten lever 7 to fix the presser unit 3.

4. Air setting and adjustment

4-1. Air setting

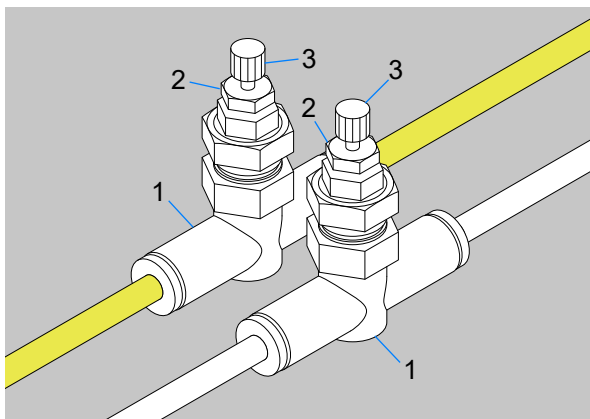


- 1 Detach the pressure gauge cover 1, and set the indicator to "0.35 to 0.55 Mpa".
- 2 Turn the setting screw 3 using a flat head screw driver to adjust a green pointer 4 to 0.35 Mpa.
- 3 Supply air to the regulator 5.
- 4 Pull up the knob 6 and turn it, and adjust the pressure of the regulator 5 to 0.55 MPa.
- 5 Lower the knob 6 and restore the cover 1.

4-2. Adjustment of opening/closing speed of the presser



- The speed controller adjusts flowing volume of the air to control opening/closing speed and pressing strength of the presser.



- 1 Loosen the lock nut 2 of speed controller 1.
- 2 Turn knob 3 to adjust the opening/closing speed of the presser.



- Turning the knob clockwise will reduce opening/closing speed, and turning it counterclockwise will increase that speed.
- The white tube adjusts the rate of ascent and the yellow tube adjustst the rate of descent.
- Operate the foot switch to opening/closing the presser, and perform adjustment while watching opening/closing speed of the presser.

- 3 Tighten the lock nut 2.

5. Operation panel settings

5-1. Frame setting

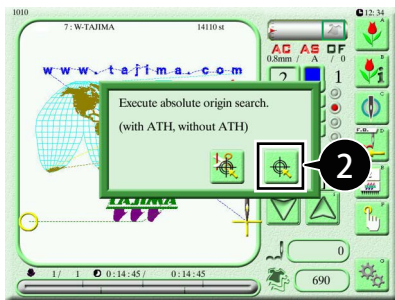
⚠ Caution


🚫 Do not put your hands near the frame perimeter. The frame will move, which may cause injury to your finger or hand.

1 Turn ON the power

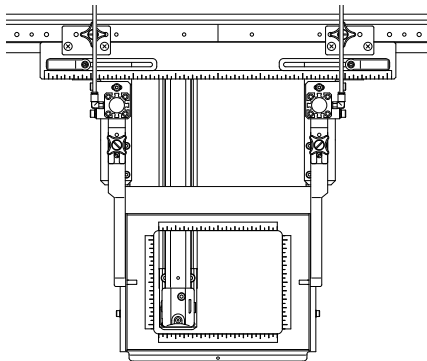
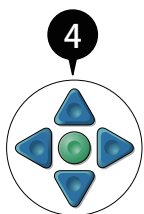


- If the screen for execute absolute origin search is displayed, execute the procedure from step 2.
- If the screen for execute absolute origin search does not displayed, execute the procedure from step 4.

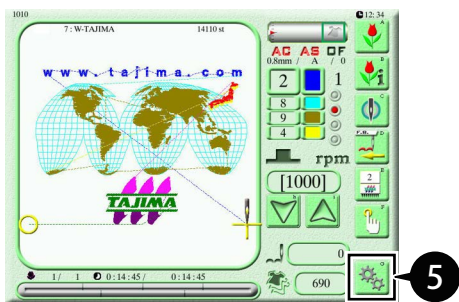


2 Press 

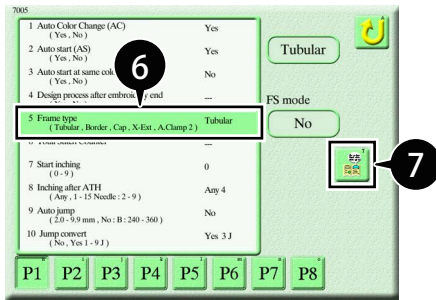
3 Press the stop switch immediately when the frame starts to move.



4 Operate the frame travel keys to move the frame to the left front.

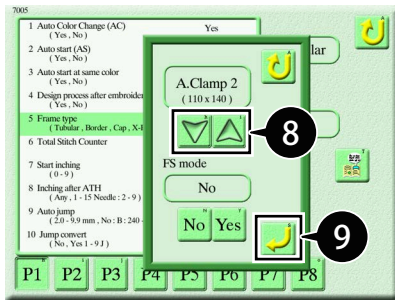


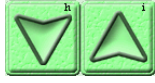
5 Press  on the main screen.



6 Select "5. Frame type".

7 Press .



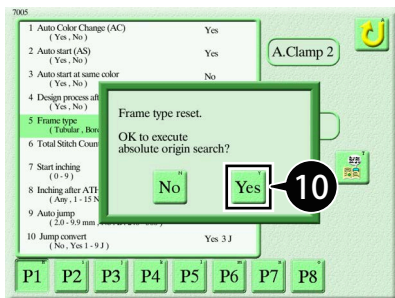
8 Press  and select the attached size
[A.Clamp 2].



- For pocket frames, it is not necessary to make this setting, but it is recommended to select [A.Clamp 2 (80 x 120)].

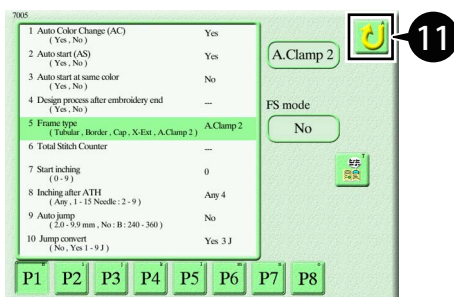
9 Press .

10 Press .



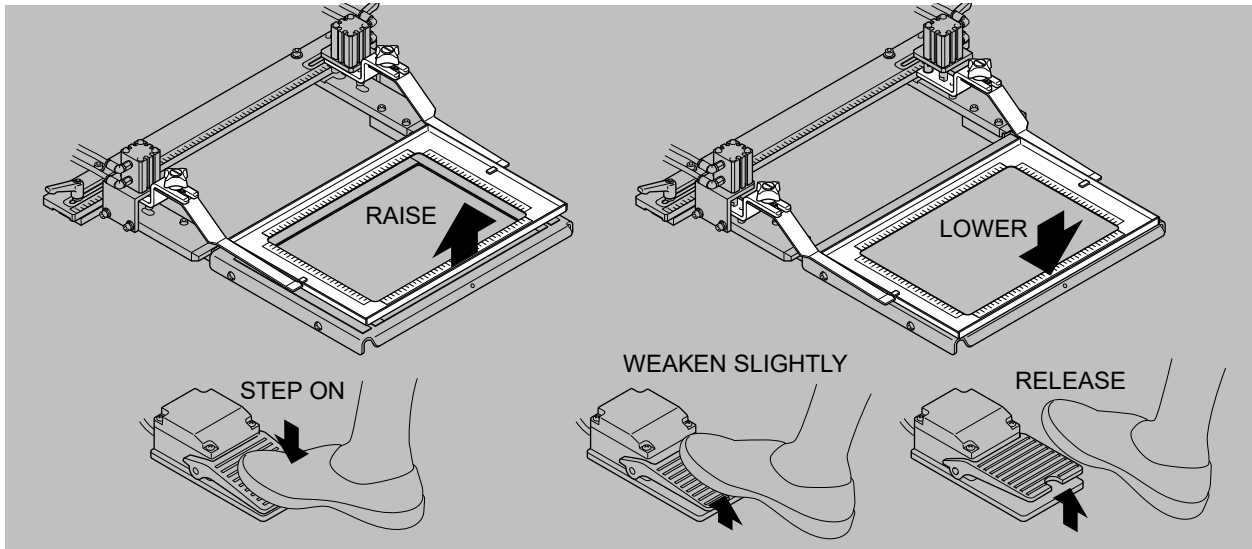
11 Press .

You are returned to the main screen.



6. Foot switch

6-1. How to operate



The foot switch uses to press the fabric in two steps (weak / strong).

- (1) Stepping on the foot switch will open the presser.
- (2) When weakening to step slightly on the foot switch, the presser frame is weakly pressed so that the fabric can be moved.
- (3) When releasing a foot from the foot switch, the presser frame will strongly close down.



- If the presser closes down while stepping on the foot switch, the piping is incorrect. Check whether it is properly piped.

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■ **Manufactured by : TISM Co.,Ltd.**

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