



USER'S MANUAL

Multi-Head Automatic Embroidery Quilting Machine

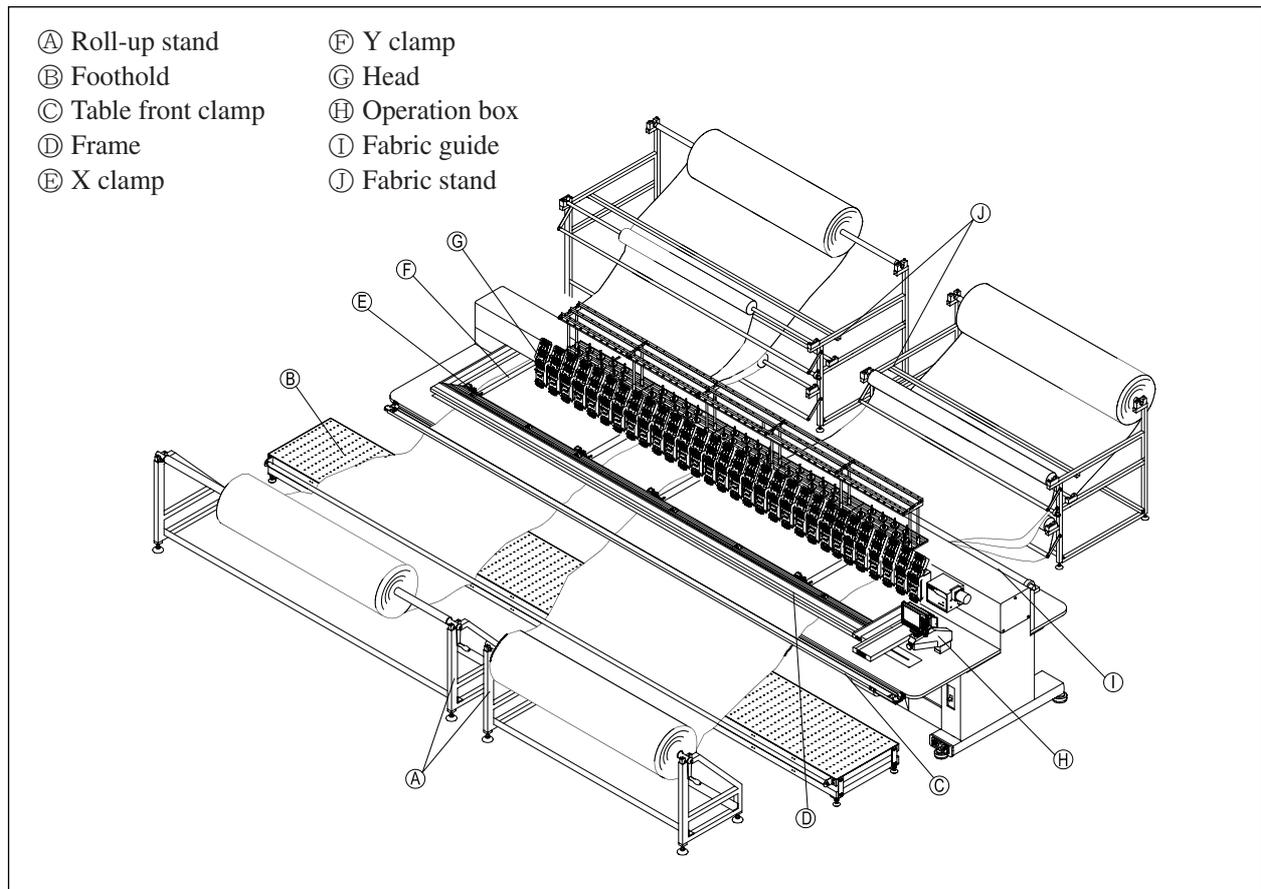
SWF/E – Series

- 1. THIS IS AN INSTRUCTION FOR SAFE USE OF *SMF*® AUTOMATIC EMBROIDERY MACHINES. READ THOROUGHLY BEFORE USE.**
- 2. CONTENTS IN THIS INSTRUCTION MAY CHANGE, WITHOUT PRIOR NOTICE, FOR IMPROVEMENT OF MACHINE QUALITY AND THUS MAY NOT CORRESPOND TO THE MACHINE YOU PURCHASED. CONTACT YOUR SALES AGENT FOR INQUIRIES.**
- 3. THIS IS DESIGNED AND MANUFACTURED AS AN INDUSTRIAL MACHINE. IT SHOULD NOT BE USED FOR OTHER THAN INDUSTRIAL PURPOSE.**

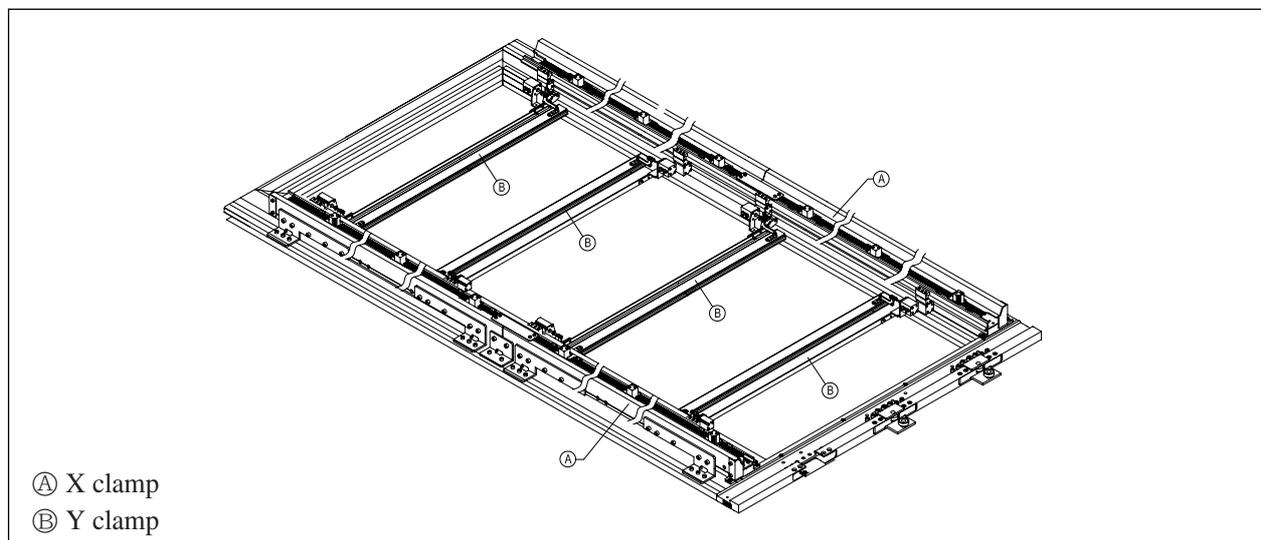
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NAMES OF MACHINE PARTS

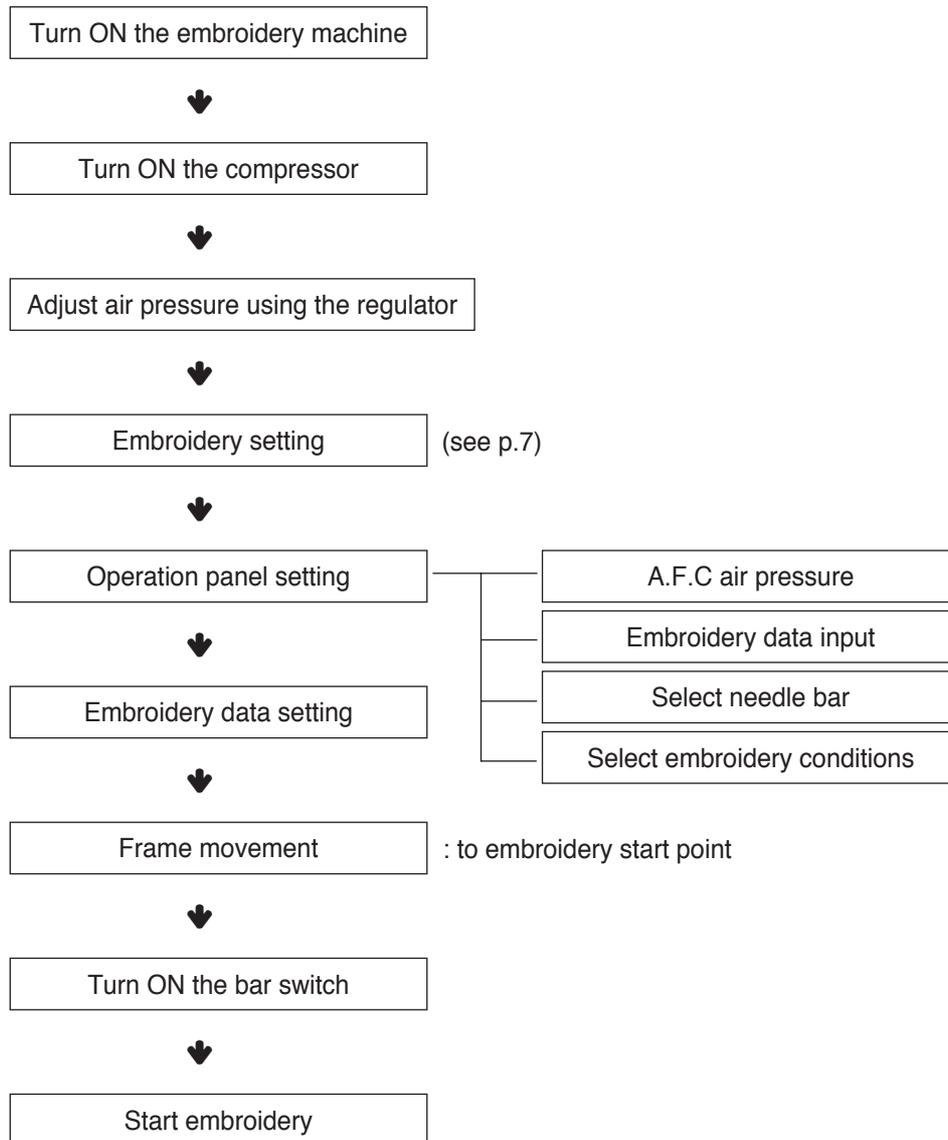


[Fig.1]



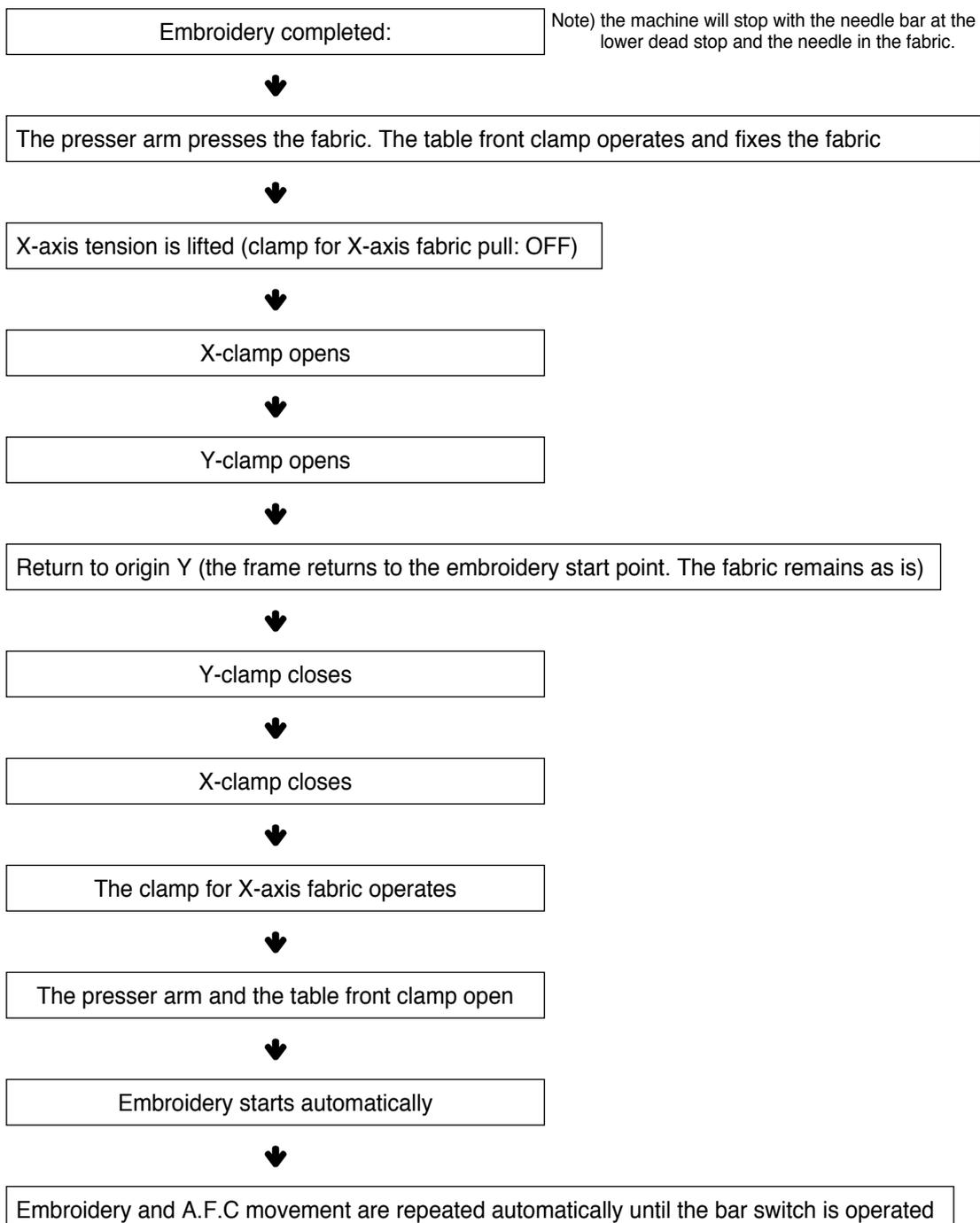
[Fig.2]

EMBROIDERY OPERATION



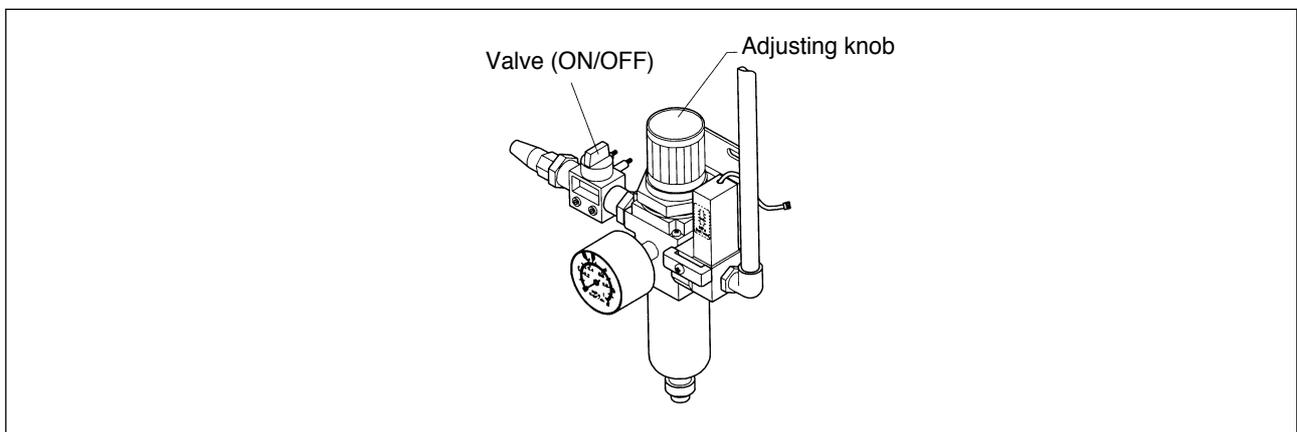
A.F.C OPERATION

The frame clamp will be operated automatically in the following sequence when the embroidery is completed.



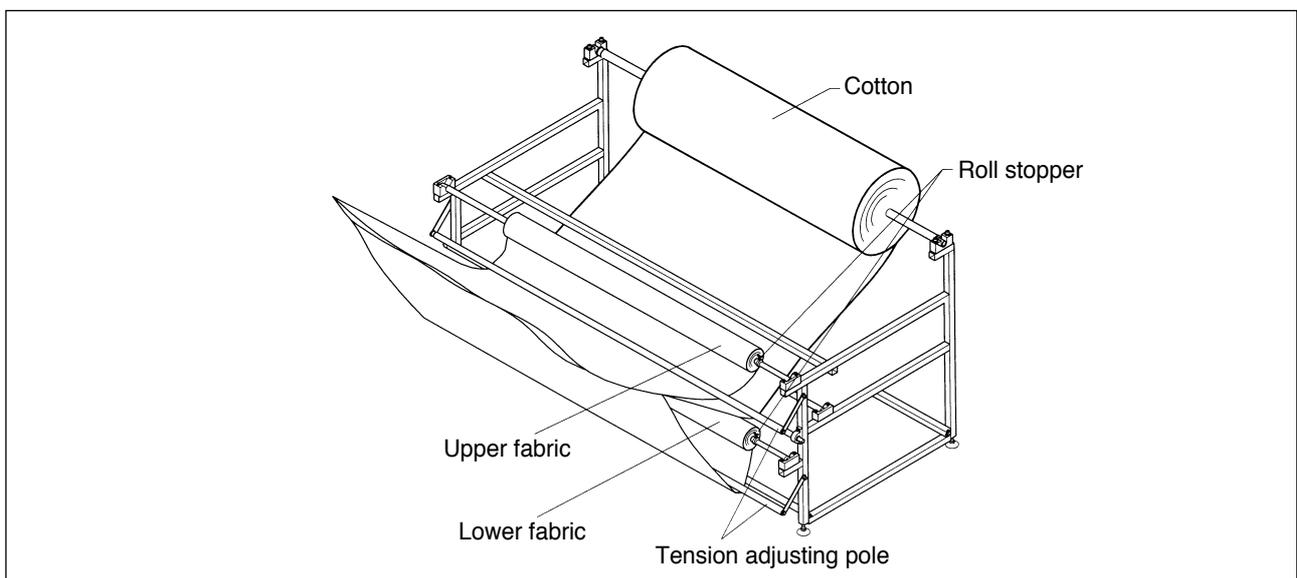
EMBROIDERY SETTING

1. Turn ON the embroidery machine and the compressor before you set the fabric. Check if the compressor measures over 5.5kgf/cm².
2. Open the compressor valve.
3. Fix the pressure of the regulator at 5kgf/cm² using the adjusting knob.



[Fig.3]

4. Place upper fabric, lower fabric and cotton on the fabric stand.
 - Fix the position of the fabric and cotton (left and right) with a roll stopper.
 - Ensure that the upper fabric and the lower fabric are feed underneath each tension adjusting pole.



[Fig.4]

5. Open the arm presser, X clamp, Y clamp, and the table front clamp using the A.F.C valve on the operation box.

■ Manual Operation of the A.F.C Valve

1) To use the AFC valve, press the **F6 TOOLS** button on the main function menu. On the screen in [Fig. 5], select the **AFC** button for operation.

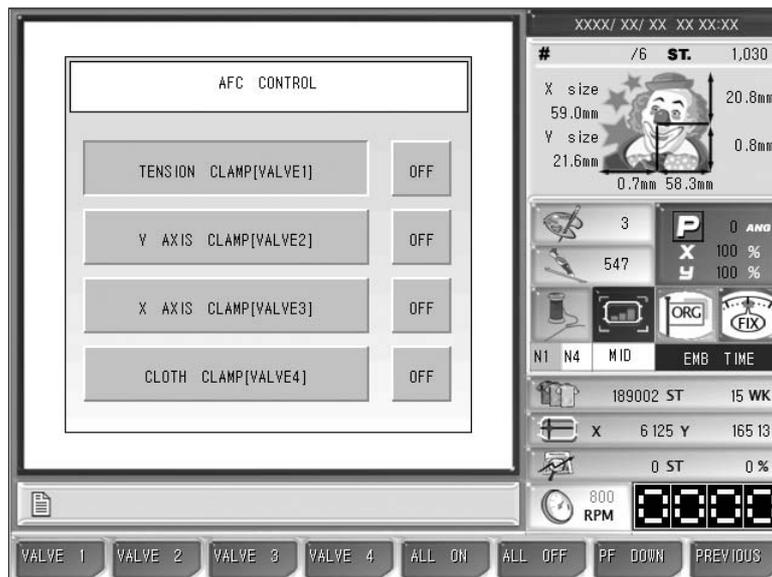
① STOP MODE:

- If you call a design in the STOP mode you will see the following screen:



[Fig.5]

2) When the **AFC** button is pressed in [Fig. 5], the screen appears as in [Fig. 6].



[Fig.6]

3) Shifting between the valves manually

Press VALVE # and pull the bar switch to turn ON or OFF the particular valve. For instance, press VALVE 1 in [Fig.7] screen and pull the bar switch start to turn on the VALVE 1. Pull the switch stop to turn off the VALVE 1.

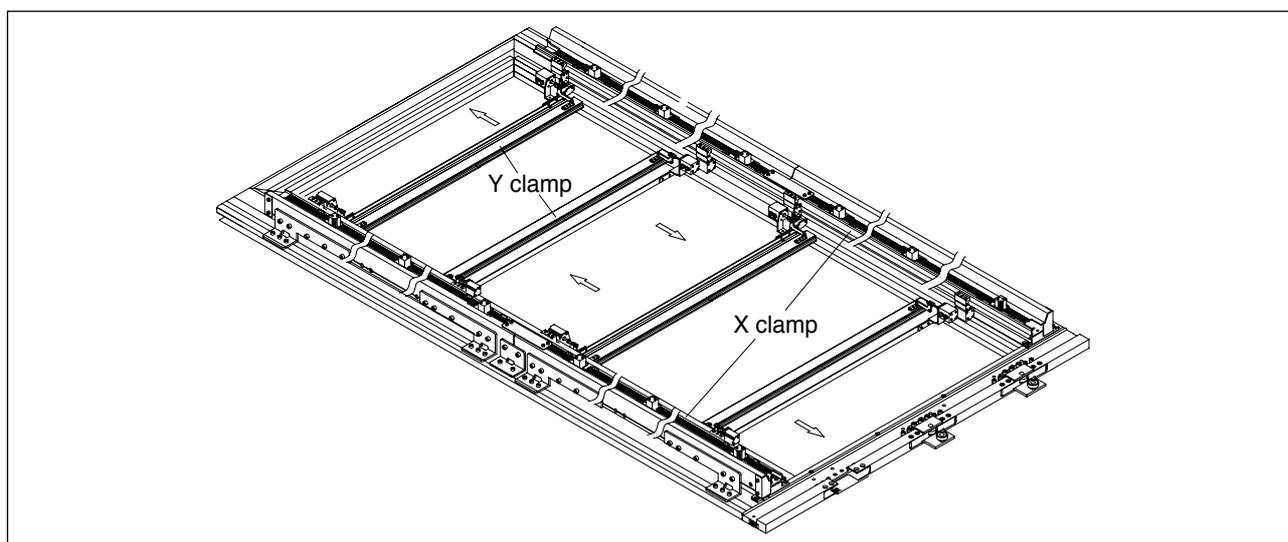
■ Valve Functions

VALVE	FUNCTION	POWER	OPERATION
VALVE 1 (clamp for fabric tension in X direction)	Adjusts fabric tension in the X direction	ON	Lifts fabric tension
		OFF	Pulls the fabric
VALVE 2 (clamp for Y-direction press)	Y clamp	ON	Y clamp closes and presses the fabric
		OFF	Y clamp opens and frees the fabric
VALVE 3 (clamp for X-direction press)	X clamp	ON	X clamp closes and presses the fabric
		OFF	X clamp opens and frees the fabric
VALVE 4 (clamp for fixing fabric)	Presser arm and table front clamp	ON	Presser arm frees the fabric
		OFF	Presser arm frees the fabric. Table front clamp closes and pulls the fabric to the operator.

- ALL ON : All the valves are automatically turned ON.
- ALL OFF : All the valves are automatically turned OFF.
- PF DOWN : The needle bar moves. Press it to move down the needle bar. PF UP will appear on the screen. Press PF UP to lift up the needle bar. PF DOWN will appear on the screen.

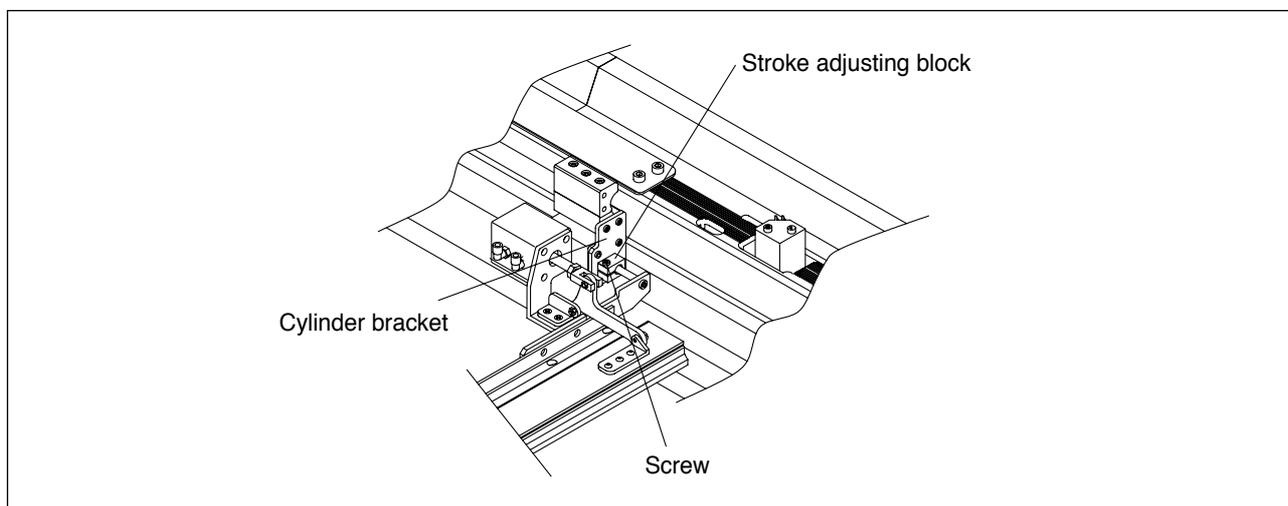
ADJUSTING CLAMP FOR FABRIC PULL IN X-DIRECTION

1. To pull fabric in X-direction on Y clamp, close both the X clamp and Y clamp. The fabric will move in the direction shown below. You can set the stroke (pull distance) between 0mm and 20mm on left and right.



[Fig.7]

2. Adjusting the stroke.
 - 1) Set the pressure of the regulator at 2-2.5kgf/cm².
 - 2) Unfasten the stroke adjusting block.
 - 3) Adjust the position of the fabric.
 - 4) With the fabric pulled, push the stroke adjusting block to the cylinder bracket and fasten the screw.
 - 5) Adjust the pressure of the regulator to 5kgf/cm².

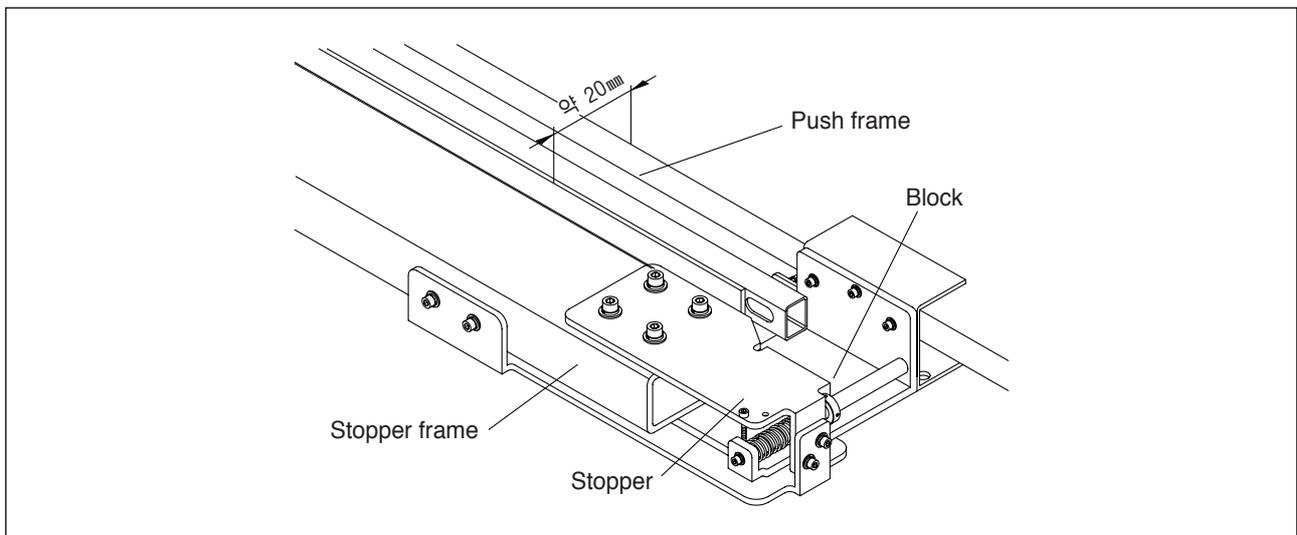


[Fig.8]

※ Make sure to check if the stroke adjusting block is pushed fully to the cylinder bracket (with the fabric pulled). Otherwise the X clamp may operate unstably and damage the embroidery.

ADJUSTING STROKE OF TABLE FRONT CLAMP

1. Adjusting the stroke of the table front clamp
 - Move the block forward and backward to adjust the distance between the push frame and the stopper frame to the fabric (generally 20mm).
 2. Adjusting the stroke of the fabric pull (toward the operator)
 - You can adjust the stroke of the fabric pull by changing the location of the stroke adjusting screws (2 screws). Move the stopper screw to the left hole to reduce the stroke and to the right hole to increase the stroke.
- ※ The stroke varies according to the distance between the push frame and the push frame stopper - the closer the distance, the larger the stroke.

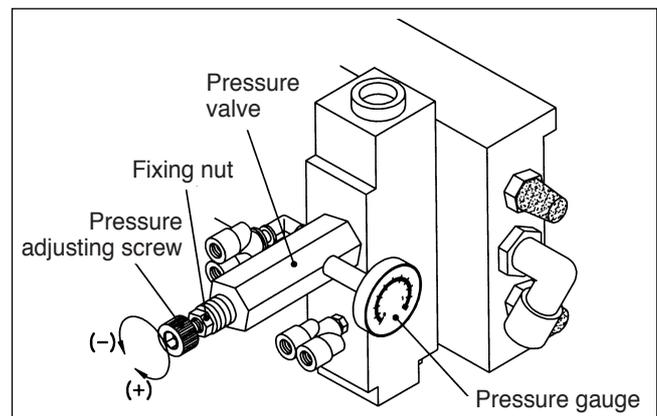


[Fig.9]

3. Adjusting the pressure of the table front clamp
 - 1) The stroke of the fabric pull also depends on the pressure of the table front clamp. Adjust the pressure as described below.

2) Adjusting the pressure:

Turn the pressure adjusting screw clockwise to increase the pressure and counterclockwise to decrease the pressure. Refer to the pressure gauge for an adequate pressure level. Fasten the fixing nut after adjustment [Default pressure: 4kgf/cm² (0.39MPa)].



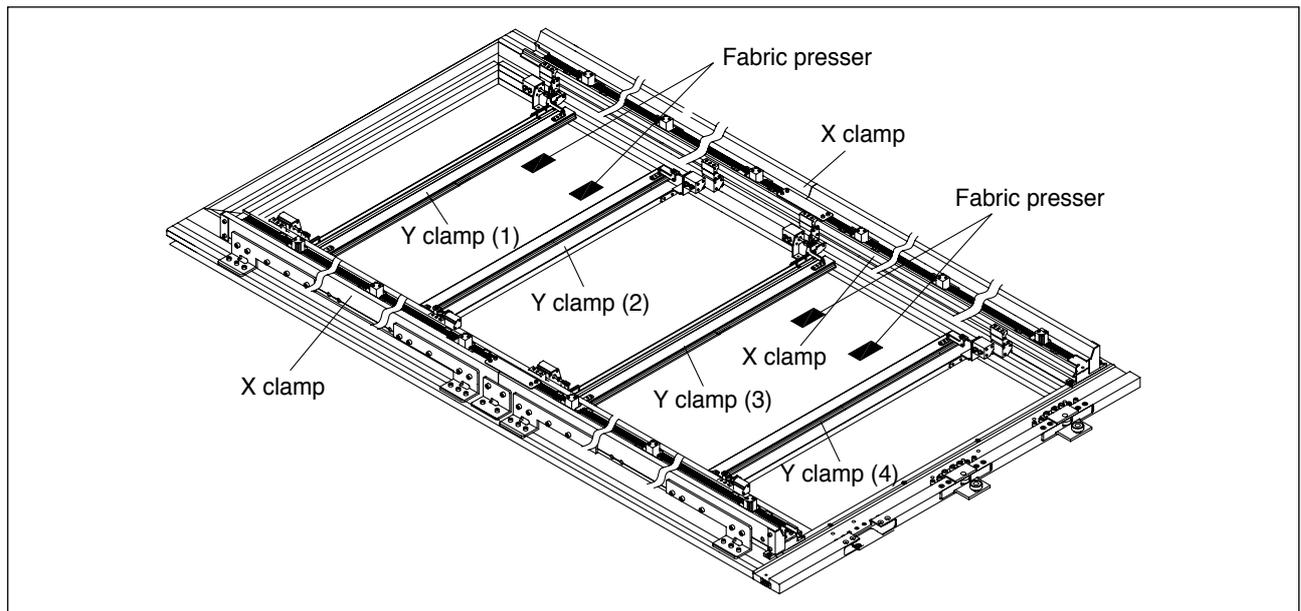
[Fig.10]

[CAUTION]

Turn ON the table front clamp before adjusting the pressure (see p.9). Otherwise you cannot read the pressure gauge.

MOVEMENT OF Y-CLAMP AND PRESSER ARM

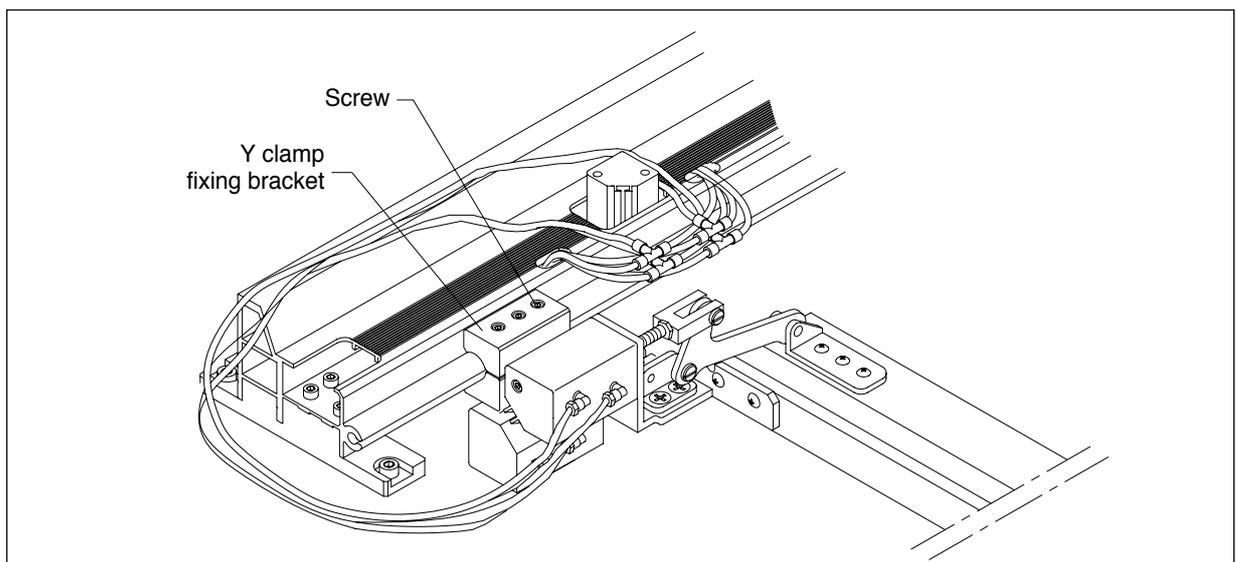
1. You can adjust the position of the Y clamp according to the size of the work material.



[Fig.11]

1) Adjusting the Y clamp:

- Unfasten the X-clamp fixing bracket and move the Y clamp according to the size of the work material (number of heads to be used).
- Adjust so the Y clamp is perpendicular to the X clamp.
- Disassemble the unused heads and presser arms.



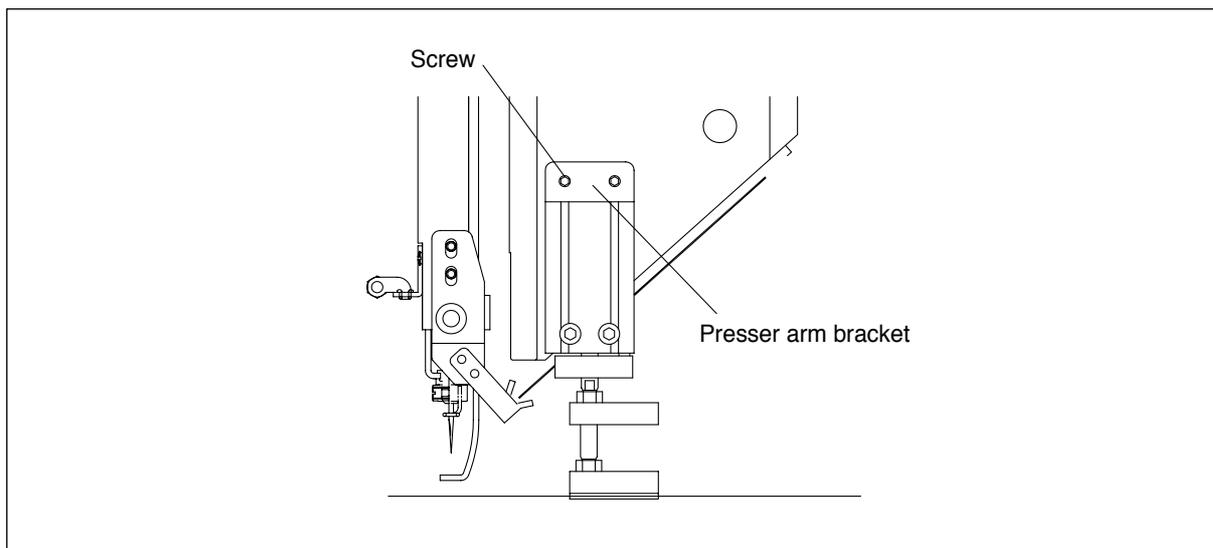
[Fig.12]

2) Moving the presser arm

- Move the presser arm according to the location of the Y clamp.
- Install the presser arm close to the Y clamp.
- To move the presser arm, unfasten the presser arm bracket screw on the right side of the arm.

[CAUTION]

After adjusting the Y clamp and the presser arm, check the scope of embroidery. Check if the Y clamp interferes with the needle and the presser arm on the right and the left side of the embroidery.



[Fig.13]