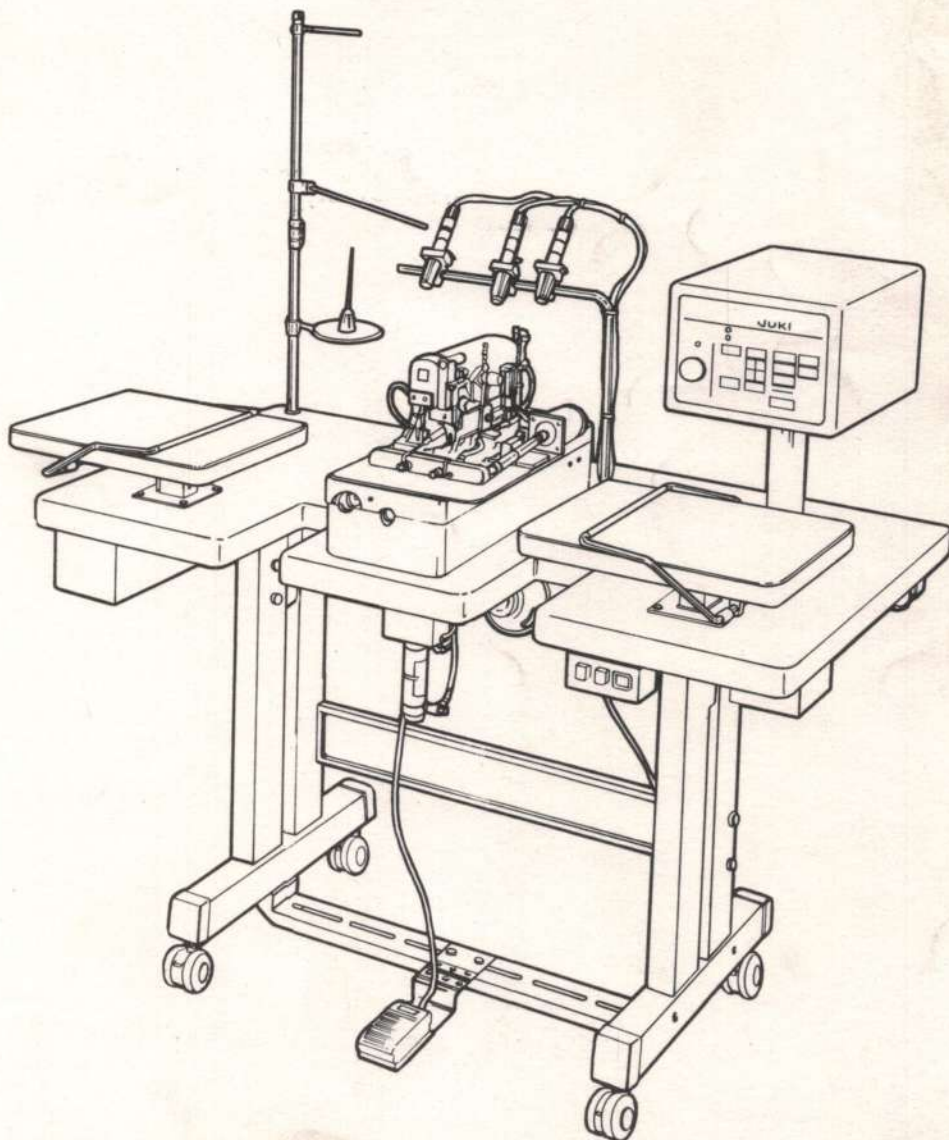


JUKI

Decorative Sleeve Buttonholing Indexer

ACF-182

INSTRUCTION MANUAL



No.01

19531805

Congratulations on your purchase of a JUKI ACF-182 decorative sleeve buttonholing indexer.

Please read this instruction manual carefully before using the machine in order to get the most out of it and to enjoy using it for a long time.

This instruction manual covers automatic sewing only, so please read the Instruction Manual for the MBH-180S in conjunction with this manual.

PRECAUTIONS BEFORE OPERATION

1. Be sure to lubricate the machine before using it. Refer to the Instruction Manual for the MBH-180S concerning the parts to be lubricated.
2. When you operate the unit for the first time after installation, be sure to tilt the machine and turn ON the power switch so as to check that the clutch unit rotates in the direction of the arrow.
3. Be sure that the machine is operated in accordance with the voltage and phase specified on the nameplate on the motor.

CAUTION DURING OPERATION

1. Keep your hands away from the needle when you turn ON the power switch.
2. During operation, be careful not to allow your fingers or any other person's fingers to pass under the needle.
3. Before tilting the machine head or the V-belt, be sure to turn OFF the power switch first.
4. If the unit is provided with a belt cover, never operate the machine with the belt cover removed.
5. Be sure to turn OFF the power switch when adjusting the sewing machine or feeding device.

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1. GENERAL

The ACF-182 is an industrial automatic sewing machine. As a high-speed, 1-needle, decorative sleeve buttonholing indexer, it is mainly used to sew decorative stitches (decorative sleeve buttonholes) near the edges of sleeves in men's suits.

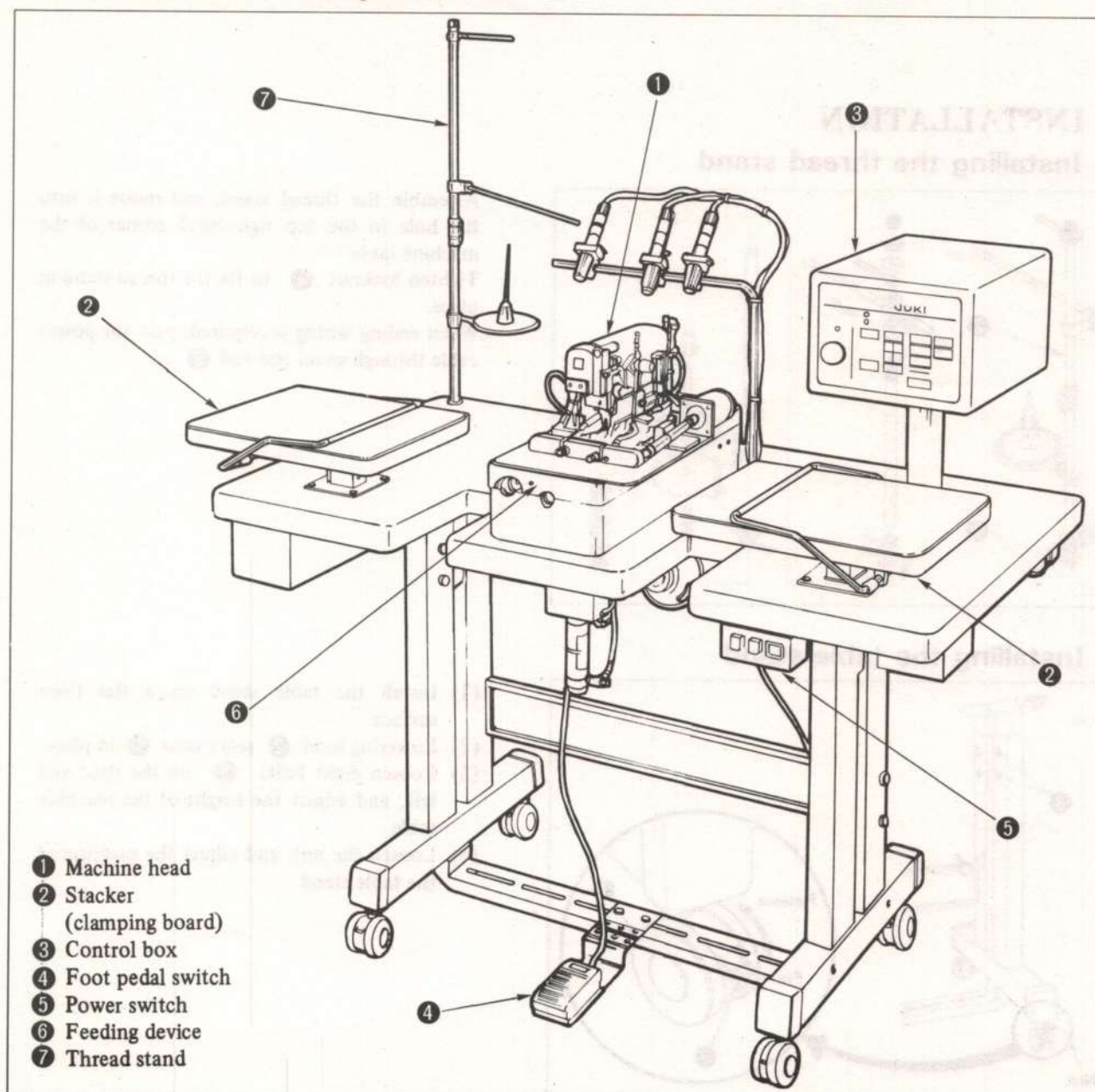
A special belt feed mechanism has been incorporated as the feeding device so that an accuracy finished seam is made at high speed. As optional devices, a wiper, automatic swing device, photoelectric tube unit have been also incorporated.

1) Features

- (1) With the ACF-182, the need for skilled operators may be avoided.
- (2) Highly efficient operation is assured.
- (3) The number of buttonholes and the intervals between them may be specified with ease.
- (4) A special belt driving mechanism actuated by the stepping motor has been incorporated so as to allow the material to be fed accurately.

2) Configuration

The following shows the main components of the ACF-182.



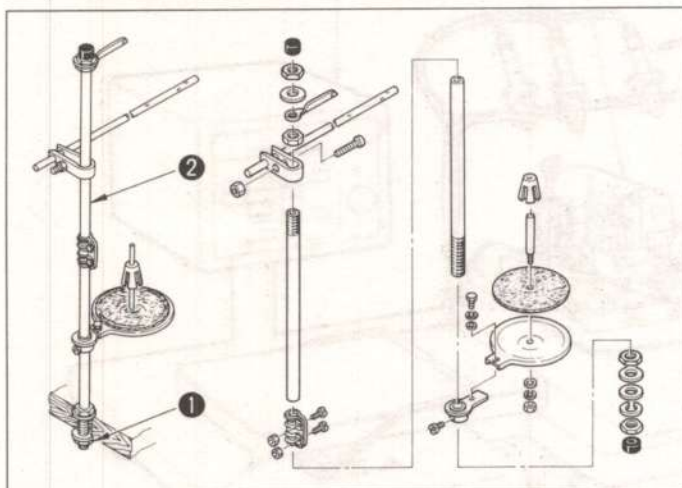
- ① Machine head
- ② Stacker
(clamping board)
- ③ Control box
- ④ Foot pedal switch
- ⑤ Power switch
- ⑥ Feeding device
- ⑦ Thread stand

2. SPECIFICATIONS

1) Machine head :	MBH-180S/ACH (for exclusive use with the ACF-182)
2) Sewing speed :	2,750 s.p.m.
3) Stitch length :	1/4" (6.4 mm) to 7/8" (22.2 mm)
4) Overlocking width :	2.0 mm (normal)
5) Feeding pitch :	0.4 to 1.0 mm
6) Needle bar stroke :	27 mm
7) Lift of the work clamp check :	5 mm (when the stitch length is 5/8")
8) Number of decorative sleeve buttonholes :	1 to 99 (set to the desired number)
9) Feeding amount between the decorative sleeve buttonholes :	1 to 999 mm (set to the desired number)
10) Feeding method :	Special belt feed by the stepping motor
11) Cloth feeding speed :	100 mm/sec.
12) Table dimensions :	670 mm x 1,200 mm
13) Max. number of the material pieces that can be set on the clamping device :	50
14) Operating air consumption :	12 l/min.
15) Power consumption :	300W

3. INSTALLATION

1) Installing the thread stand

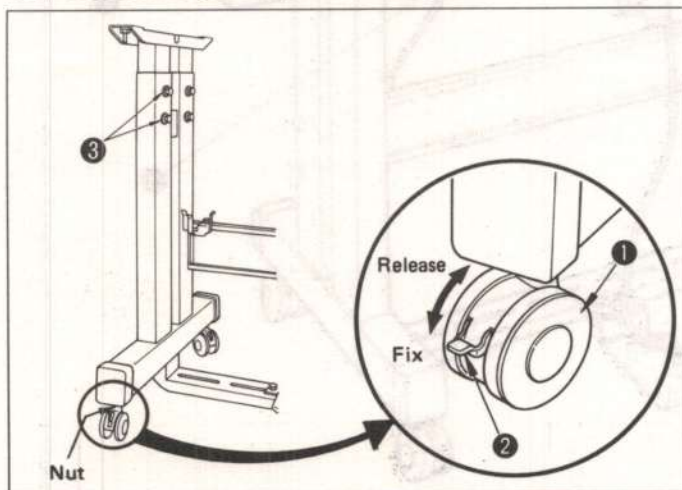


Assemble the thread stand, and insert it into the hole in the top right-hand corner of the machine table.

Tighten locknut **①** to fix the thread stand in place.

When ceiling wiring is required, pass the power cable through spool rest rod **②**.

2) Installing the table stand



(1) Install the table stand on a flat floor surface.

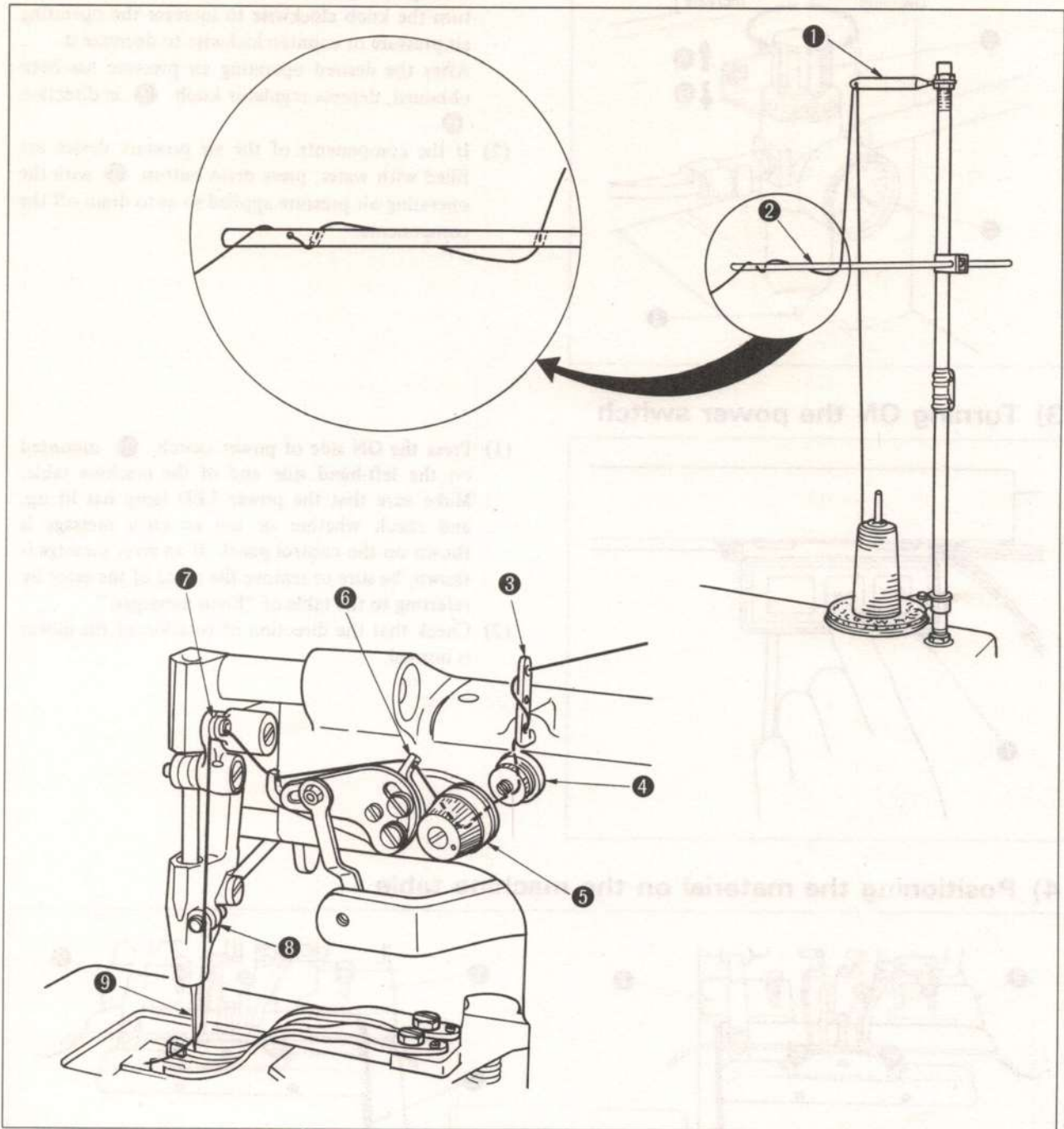
(2) Lowering lever **②** sets caster **①** in place.

(3) Loosen eight bolts **③** on the right and left, and adjust the height of the machine table.

(4) Loosen the nut, and adjust the position of the table stand.

4. OPERATION

1) Threading the machine head



Thread the machine head as illustrated.

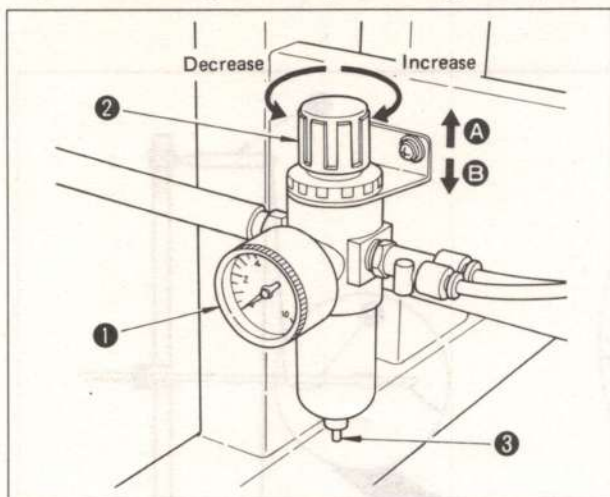
(Caution) Be sure to thread the machine after the power switch has been turned OFF.

- Three-holed thread guide ③ is threaded in different ways depending on the type of thread to be used. When a hard twisted thread is to be used, thread all three holes of the thread guide. For a soft twisted thread, thread two holes of the thread guide. The same applies for a cotton thread.
- When passing the thread through thread tension controller ④ for bartacking, release the thread tension disk, and place the thread along the cut-groove.
- Pass the thread through needle eyelet ⑨ from the right-hand side, and pull it out from the left-hand side. Allow 40 to 45 mm of thread to come out from the needle eyelet.

★ **Thread breakage or wornout**

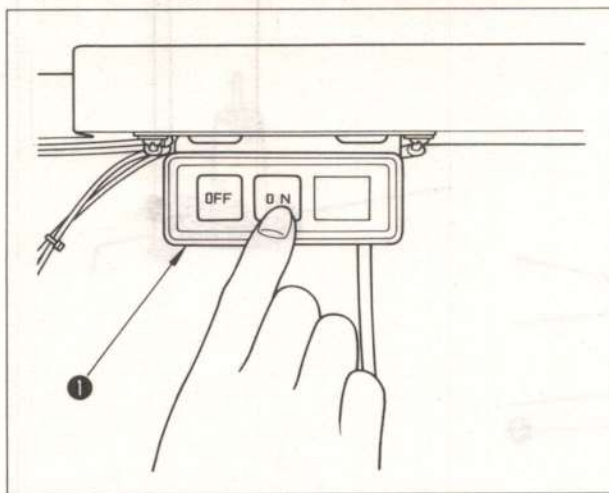
If the thread often breaks or wears out with a particular kind of material, be sure to gradually replace the thread with thicker ones such as from #30, to #40, then to #50.

2) Checking the operating air pressure



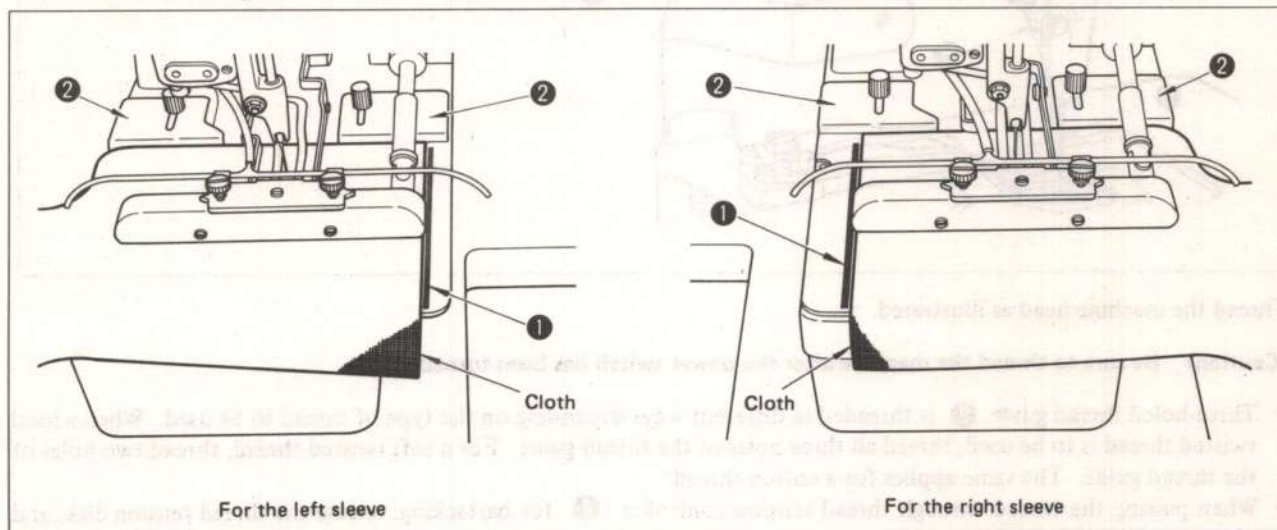
- (1) Set the pointer of pressure gauge ① to 6 kgf/cm². Pulling up regulator knob ② in direction A, turn the knob clockwise to increase the operating air pressure or counterclockwise to decrease it. After the desired operating air pressure has been obtained, depress regulator knob ② in direction B.
- (2) If the components of the air pressure device are filled with water, press drain button ③ with the operating air pressure applied so as to drain off the components.

3) Turning ON the power switch



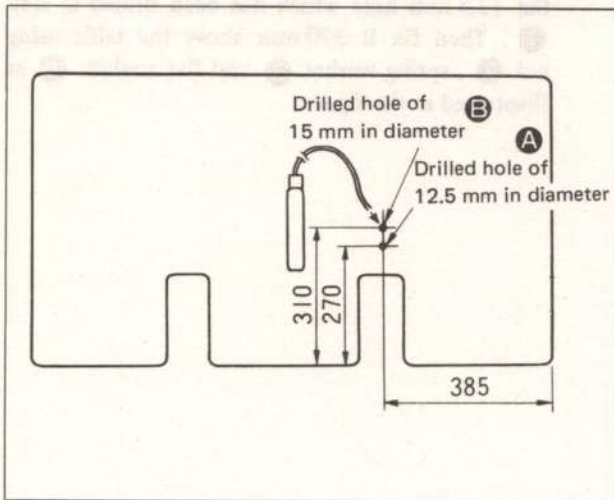
- (1) Press the ON side of power switch ① mounted on the left-hand side end of the machine table. Make sure that the power LED lamp has lit up, and check whether or not an error message is shown on the control panel. If an error message is shown, be sure to remove the cause of the error by referring to the table of "Error messages."
- (2) Check that the direction of rotation of the motor is normal.

4) Positioning the material on the machine table



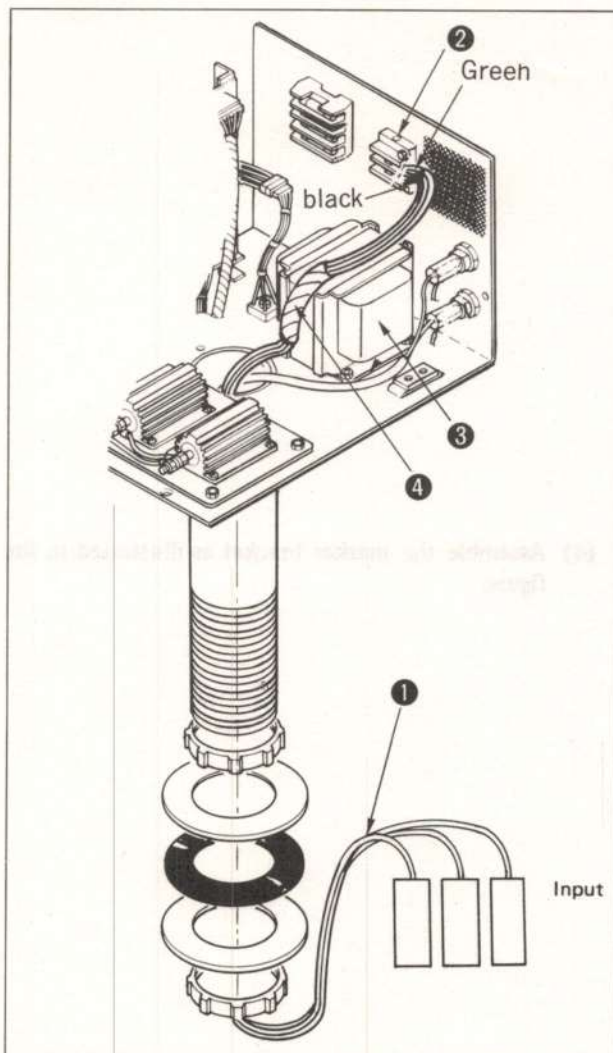
Set the material on the machine table using tape ① supplied with the unit and cloth guide ②, as shown in the figure.

5) Assembling the positioning device of the photoelectric tube unit

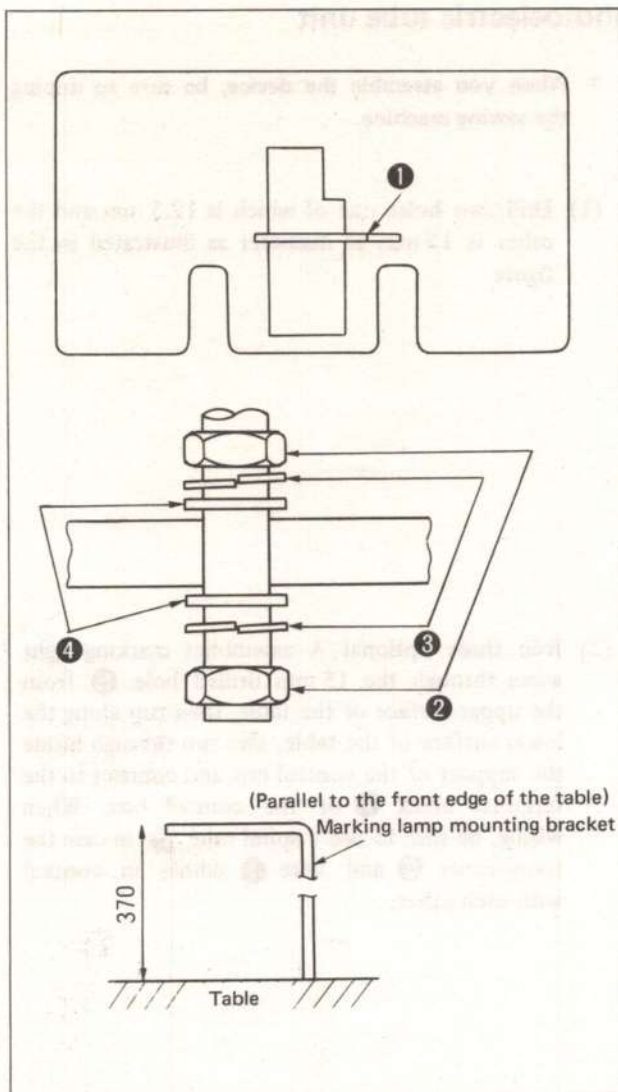


* When you assemble the device, be sure to unplug the sewing machine.

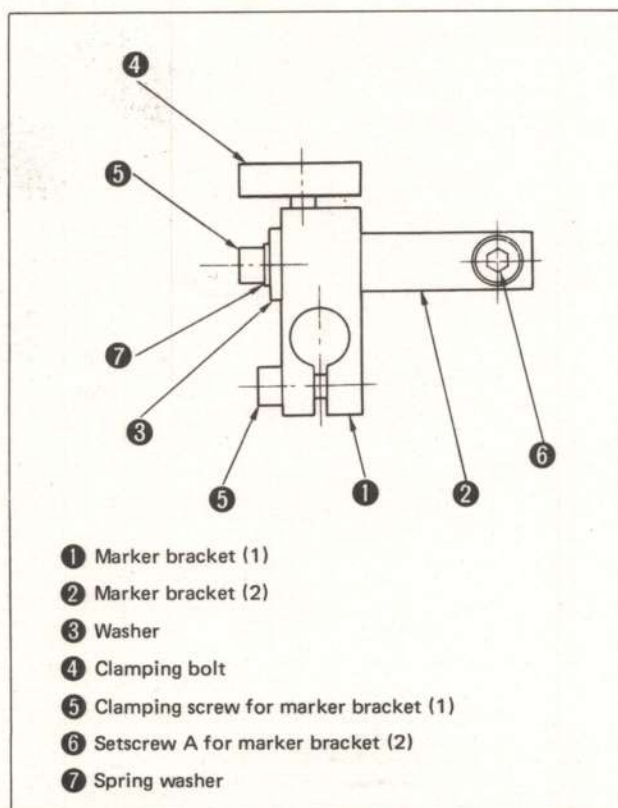
- (1) Drill two holes one of which is 12.5 mm and the other is 15 mm in diameter as illustrated in the figure.



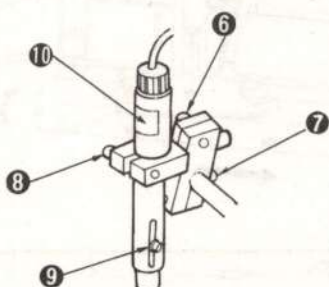
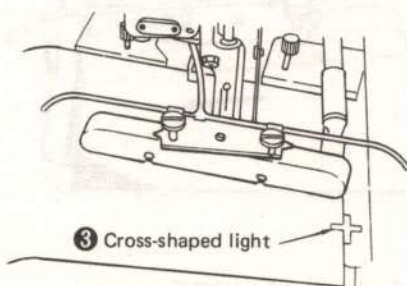
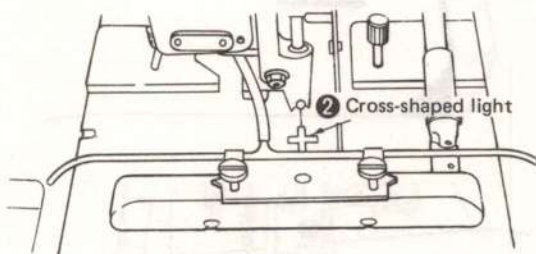
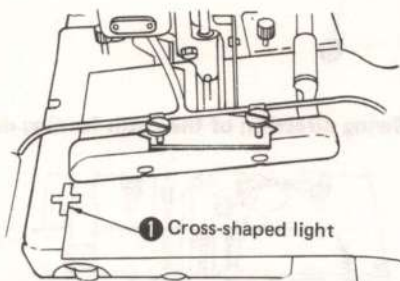
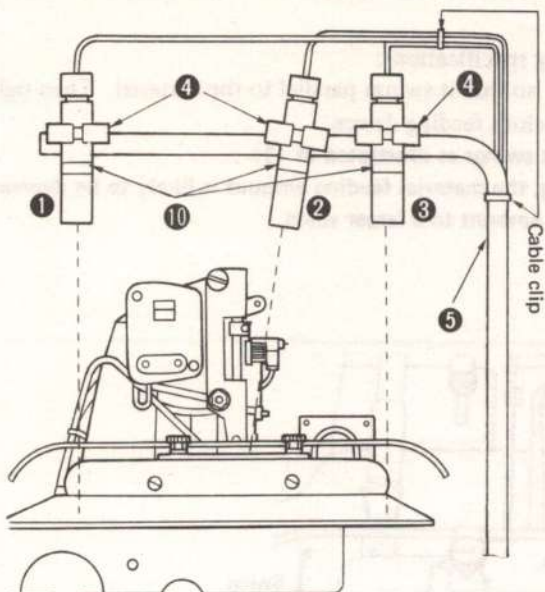
- (2) Run three optional A assemblies marking light wires through the 15 mm drilled hole B from the upper surface of the table, then run along the lower surface of the table, also run through inside the support of the control box and connect to the terminal block 2 of the control box. When wiring, be sure to use a spiral tube 4 in case the transformer 3 and wire 1 comes in contact with each other.



- (3) Pass marking lamp mounting bracket ① through the 12.5 mm hole which has been drilled in step ①. Then fix it 370 mm above the table using nut ②, spring washer ③ and flat washer ④ as illustrated in the figure.



- (4) Assemble the marker bracket as illustrated in the figure.



- (5) Attach marking lamps 1, 2 and 3 on mounting bracket 5 using marker brackets 4.

Align marking lamp 1 with the bottom of the left-hand side sleeve, marking lamp 2 with the needle entry point and marking lamp 3 with the bottom of the right-hand side sleeve as shown in the figure. Then tighten screws 6 and 7.

To obtain the clearest lamp lights at the predetermined point to be radiated, loosen setscrews 8 and 9 and adjust the position of the lamps until the sharpest cross-shaped lamp lights are obtained by moving the entire unit of the marking lamps or sliding the top end of each of the lamps. Then tighten setscrews 8 and 9. Be sure to stick high-temperature warning seal 10 on each of the lamps.

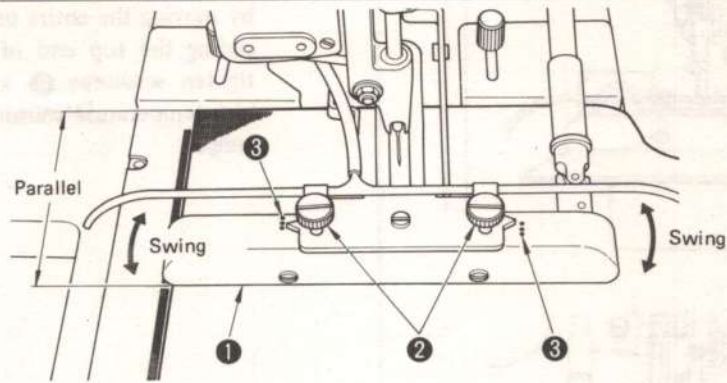
6) Swinging the cloth feeding device

Swing the cloth feeding device in accordance with the stitching specifications.

Loosen setscrews ②, and set the cloth feeding device ① so that it swings parallel to the material. Then tighten setscrews ②. Use marker dot ③ as a guide for setting the cloth feeding device.

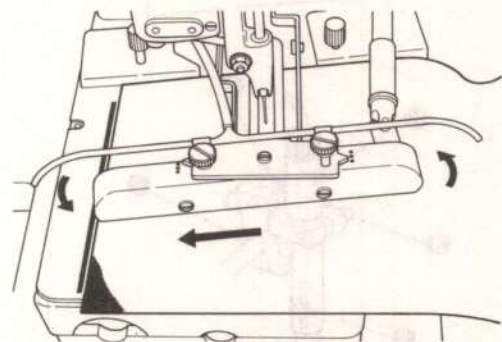
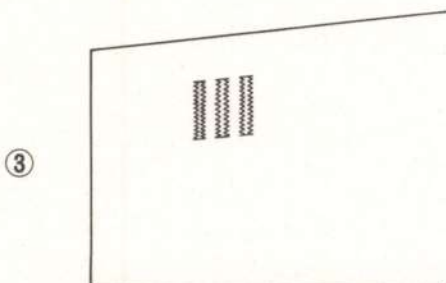
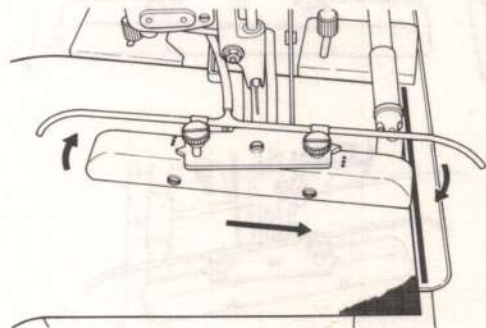
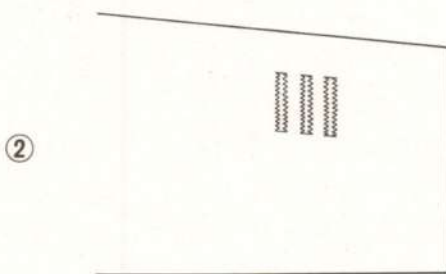
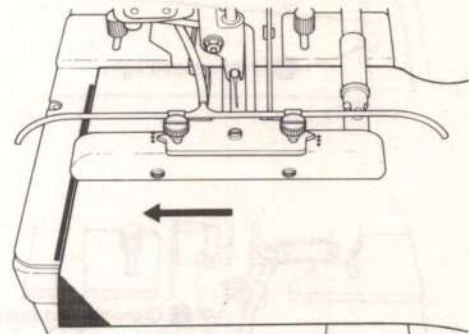
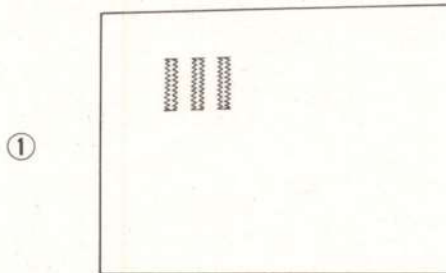
* For alternate stitching, set the cloth feeding device so that it swings as illustrated in ①.

(Caution) If the cloth feeding device is set for a wide swing, the material feeding amount is likely to be decreased. In this case, it is better to set the material feeding amount to a larger value.



Stitching specifications

Swing direction of the cloth feeding device

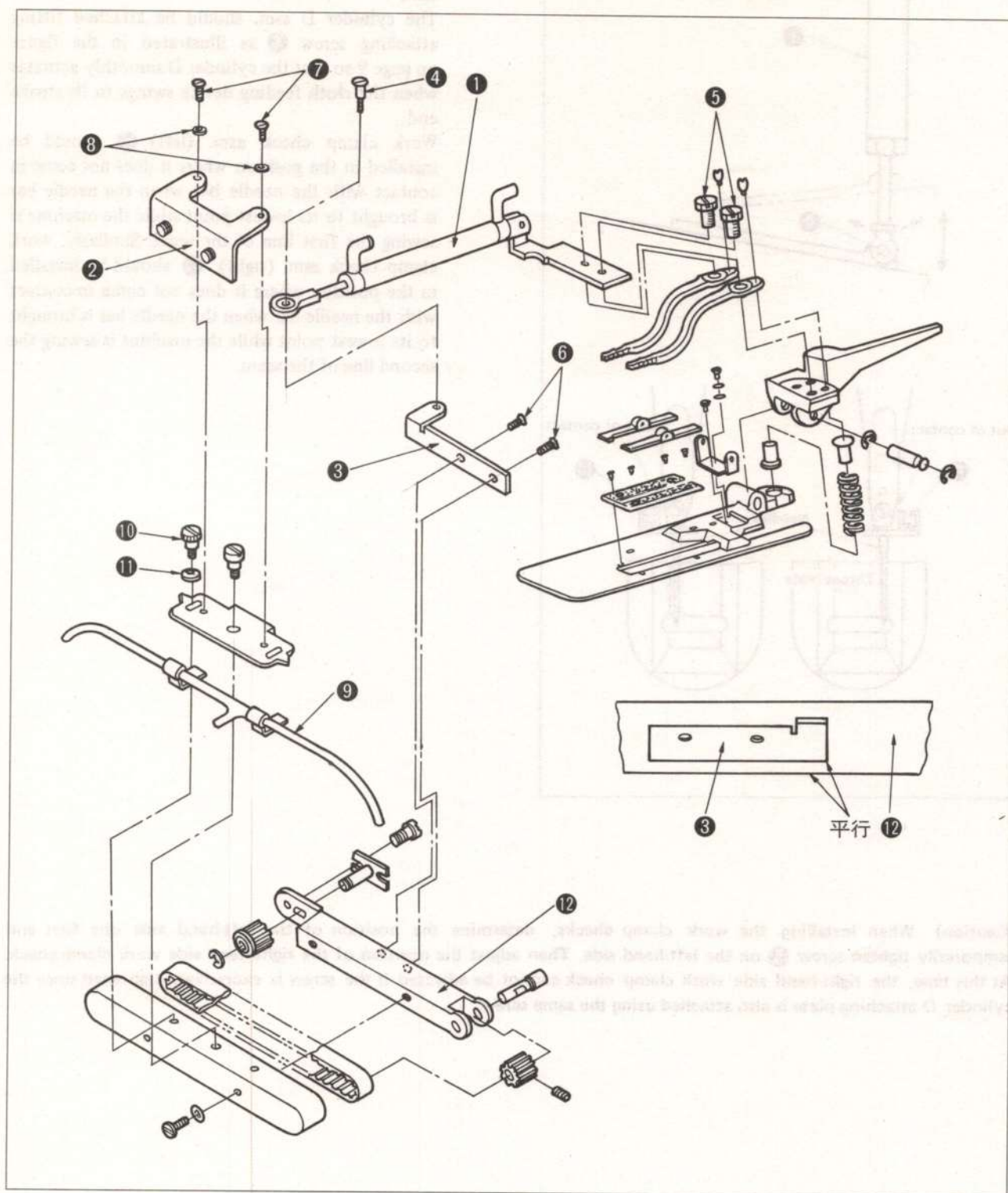


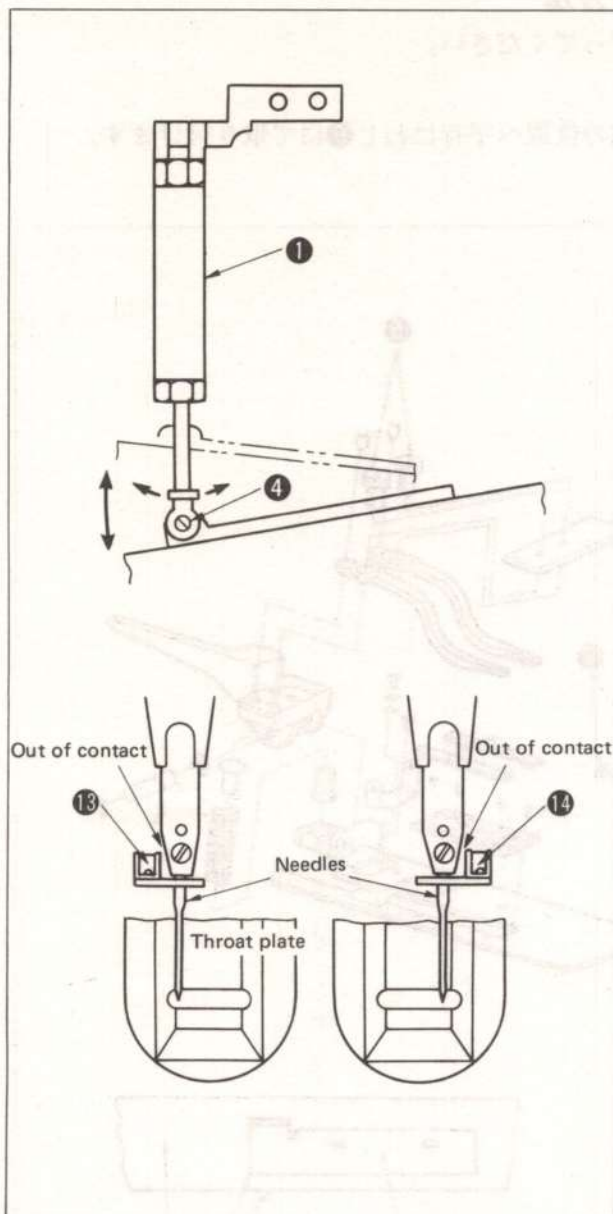
7) 自動スイング装置(オプション)組み付け方法

※装置組み付け中は、コンセントを外して作業を行ってください。

(1) スプロケット支え板取り付け。

スプロケット支え板③をスプロケット支え⑫へ図の位置へ平行にねじ⑥にて取り付けます。





(2) Attaching the cylinder D asm.

Remove screws ⑤ once and attach cylinder D asm. ① using screws ⑤ as illustrated in the figure given on page 9. Refer to the figure on the left for the attaching position of the cylinder D asm.

The cylinder D asm. should be attached fitting attaching screw ④ as illustrated in the figure on page 9 so that the cylinder D smoothly actuates when the cloth feeding device swings to its stroke end.

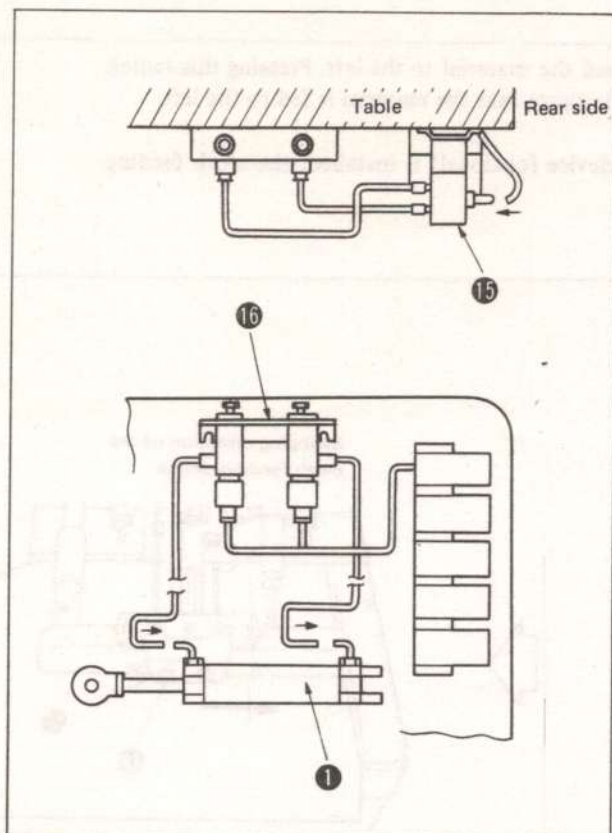
Work clamp check asm. (left) ⑬ should be installed in the position where it does not come in contact with the needle bar when the needle bar is brought to its lowest point while the machine is sewing the first line of the seam. Similarly, work clamp check asm. (right) ⑭ should be installed in the position where it does not come in contact with the needle bar when the needle bar is brought to its lowest point while the machine is sewing the second line of the seam.

(Caution) When installing the work clamp checks, determine the position of the left-hand side one first and temporarily tighten screw ⑤ on the left-hand side. Then adjust the position of the right-hand side work clamp check. At this time, the right-hand side work clamp check cannot be adjusted if the screw is excessively tightened since the cylinder D attaching plate is also attached using the same screw.

(3) Installing the adjusting plate asm.

Attach adjusting plate asm. ② as shown in the figure on page 9 using screws ⑦ and flat washers ⑧. At this time, parts ⑨, ⑩ and ⑪ should be removed.

(4) Installing the pressure reducing valve



Install pressure reducing valve bracket ⑯ in the position indicated in the figure.



Piping to the cylinder D should be conducted as illustrated in the figure.

(Caution) If piping to the cylinder D is incorrect, the cloth feeding device may swing in the opposite direction. So be careful.

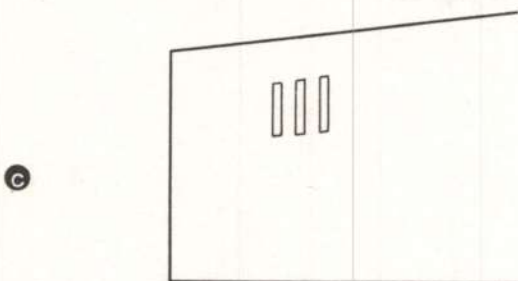
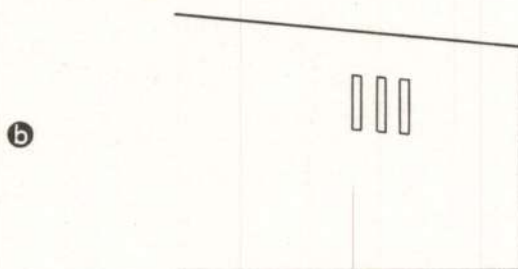
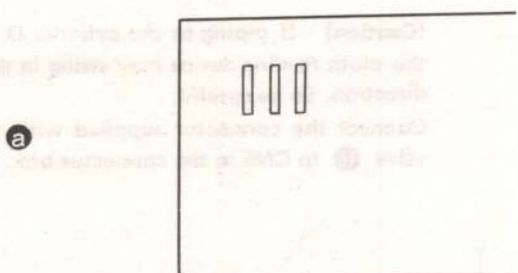
Connect the connector supplied with the solenoid valve ⑮ to CN5 in the connector box.

(5) Confirming the swinging direction of the cloth feeding device

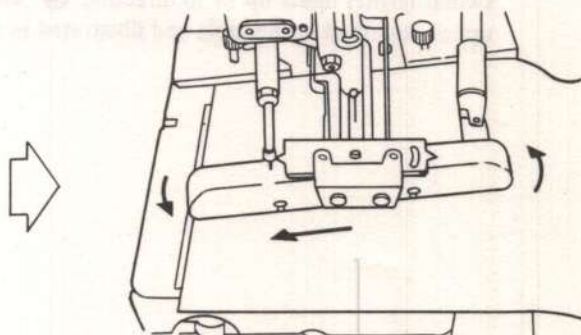
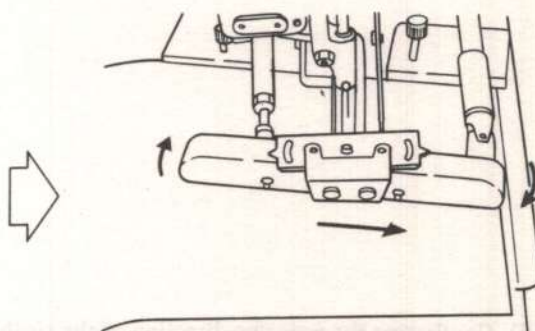
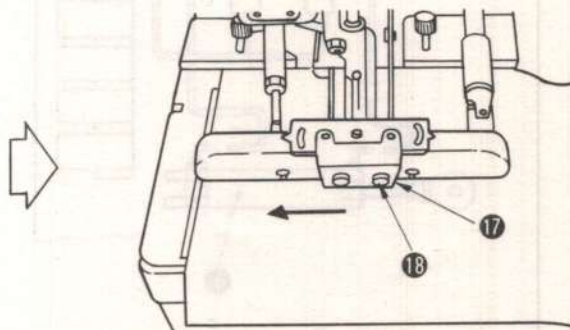
Confirm that the cloth feeding device swings in direction **b** when the LED of the cloth feeding direction selector switch (right) lights up or in direction **c** when the LED of the cloth feeding direction selector switch (left) lights up, as described in the table and illustrated in the figure on page 12.

Name	Function
11 Cloth feeding direction selector switch (right) 	<p>This switch is used to feed the material to the right. Pressing this switch will light up the LED to indicate that the material is fed to the right.</p> <p>(Caution)</p> <p>If the automatic swing device (optional) is installed, the cloth feeding device will swing as b.</p>
12 Cloth feeding direction selector switch (left) 	<p>This switch is used to feed the material to the left. Pressing this switch will light up the LED to indicate that the material is fed to the left.</p> <p>(Caution)</p> <p>If the automatic swing device (optional) is installed, the cloth feeding device will swing as c.</p>

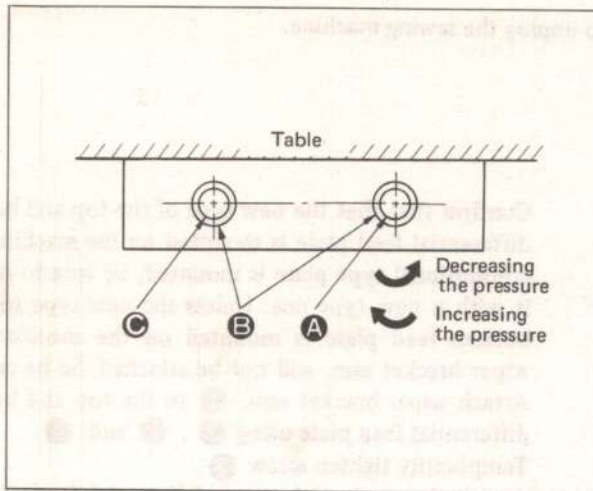
Sewing method



Swinging direction of the cloth feeding device



(6) Adjusting the air pressure of the pressure reducing valve

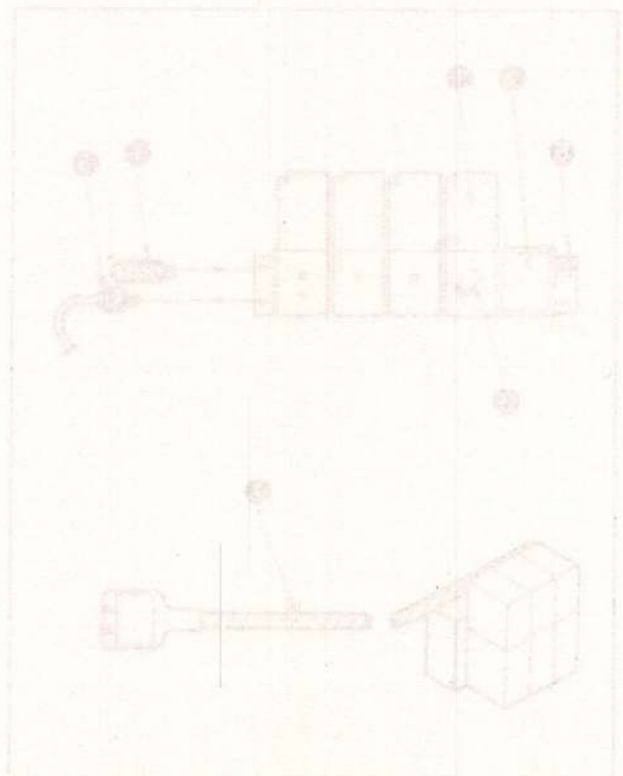


Adjust screws **A** and **B** of the pressure reducing valve so that the air pressure is minimized as long as the cloth feeding device smoothly swings. If the air pressure is too high, turn the screws counterclockwise. If the air pressure is too low, turn the screws clockwise. Once the appropriate air pressure is obtained, fix the screws using **C**.

(Caution) If the air pressure is too high, an excessive load will be applied to the top and bottom differential feed plate. In this state, the cloth feeding device may not swing on the table in parallel. So be careful.

(7) Adjusting the swinging angle

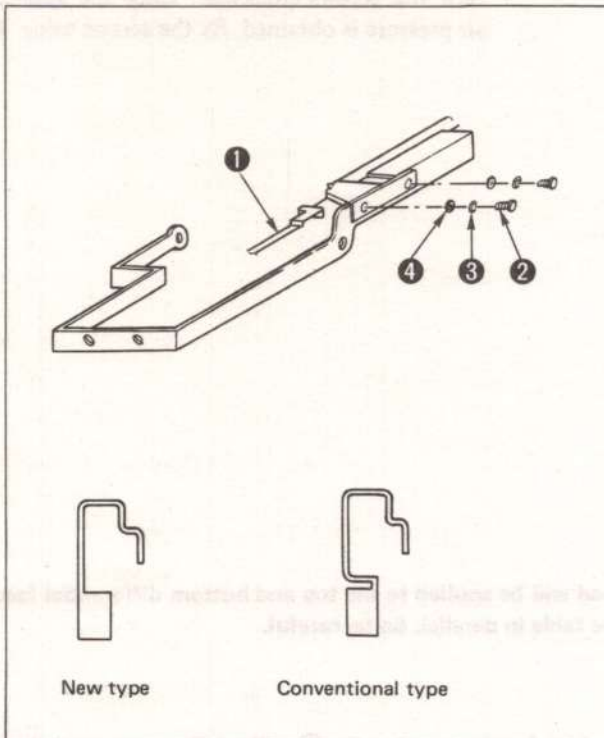
Adjust the swinging angle by changing the position of angle adjusting knobs **18**. Once the appropriate swinging angle is obtained, fix the knobs using angle adjusting knob nuts **17**. In the case of **a** in the figure on page 12, let both knobs **18** come in contact with the belt cover so that the cloth feeding device does not swing when cylinder D asm. **1** actuates.



8) Assembling the wiper device (optional)

* When you assemble the device, be sure to unplug the sewing machine.

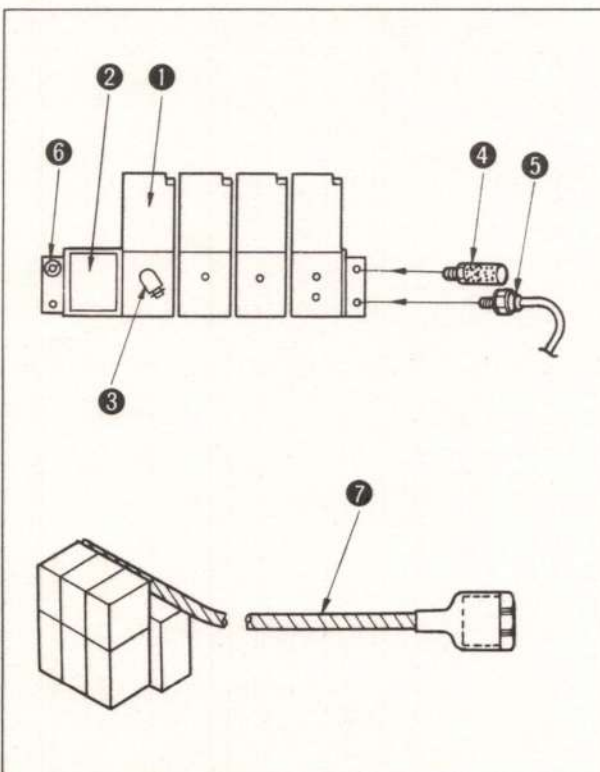
(1) Installing the wiper bracket asm.



Confirm first that the new type of the top and bottom differential feed plate is mounted on the machine. If a conventional type plate is mounted, be sure to replace it with a new type one. Unless the new type top and bottom feed plate is mounted on the machine, the wiper bracket asm. will not be attached. So be careful. Attach wiper bracket asm. ① to the top and bottom differential feed plate using ②, ③ and ④. Temporarily tighten screw ②.

Attach the top and bottom differential feed plate in the position where it has been installed. At this time, it may not be attached with ease since it may come in contact with the work clamp lifting cylinder. Take care not to allow the wiper bracket, work clamp lifting cylinder, etc. to bend.

(2) Installing the solenoid valve asm. for wiper

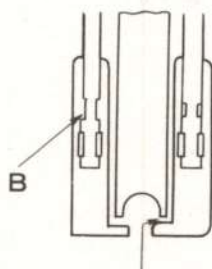
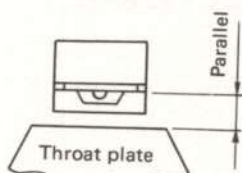
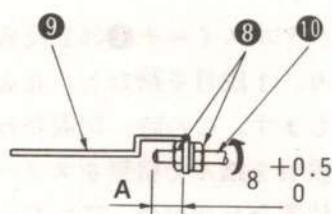
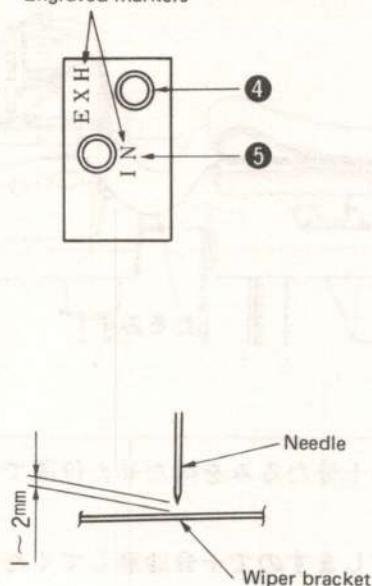


As for the wiring of the solenoid valve, connect the connector supplied with the solenoid valve to CN6 in the connector box.

Attach solenoid valve asm. for wiper ① block plate ② and spiral tube ⑦ on the five-way manifold.

At this time, attach tube fitting elbow union ③ to solenoid valve asm. for wiper ①. Then attach the five-way manifold asm. on the table using five wooden screws ⑥.

Engraved markers



Out of contact when cylinder E fully protrudes.

(Caution) Take care to connect the wiper bracket with the manifold correctly using engraved markers of "IN" ⑤ and "EXH" ④ on the manifold.

If the markers "IN" and "EXH" are reversed, the wiper bracket will be kept protruded. So be careful.

The air tube coming out of the wiper bracket asm. should be passed through the same place as the other air tubes. Then wire it using a wire clip or the like preventing it coming in contact with the components which rotate or move during operation. Then attach the wire on elbow union ③.

Attach the wiper bracket asm. using screw ② in Fig. 1 in the position where a clearance of 1 to 2 mm is obtained between the needle and the wiper bracket and the wiper bracket and cylinder nut do not come in contact with the top and bottom differential feed plate, work clamp check, etc. when the cylinder E fully protrudes.

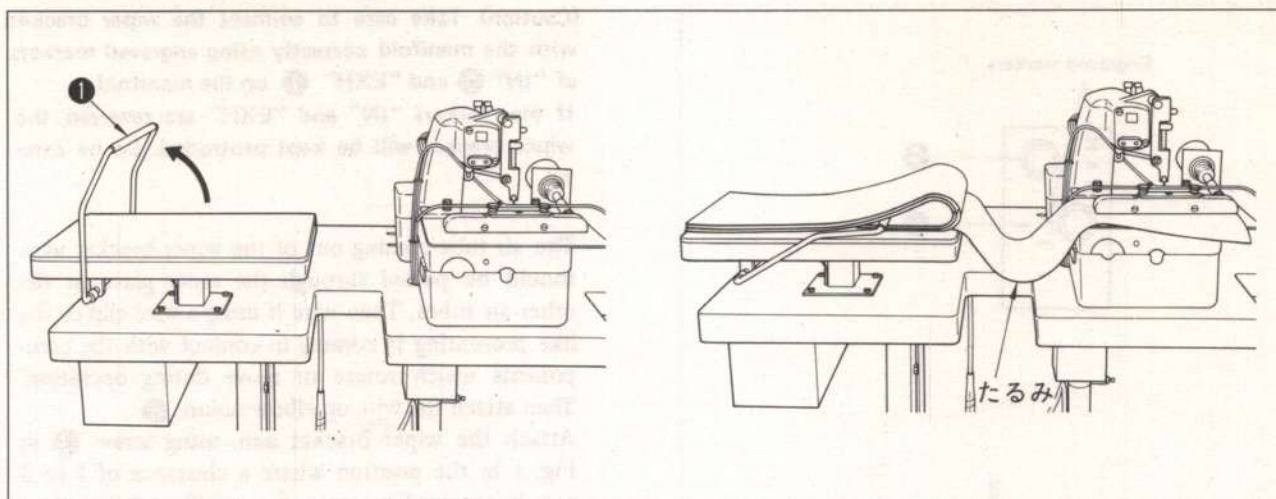
(Caution) At the time of adjustment, the wiper bracket may come in contact with the needle and scratches on the wiper bracket may result. So be careful.

Wiper bracket ⑨ and cylinder E ⑩ have been factory-attached providing a distance of 8 to 8.5 mm between them at the time of delivery. If it is found that the thread does not come off without fail when checking the performance of the wiper, turn cylinder nut ⑧ in the direction of arrow to decrease distance A so that the thread comes off without fail. Then fix wiper bracket ⑨ by tightening cylinder nut ⑧.

At this time, wiper bracket ⑨ should be positioned in parallel to the throat plate so that it catches the needle thread in its indented section.

Press the thread remainder asm. until it securely attaches to section B.

9) クランプ装置への布セット



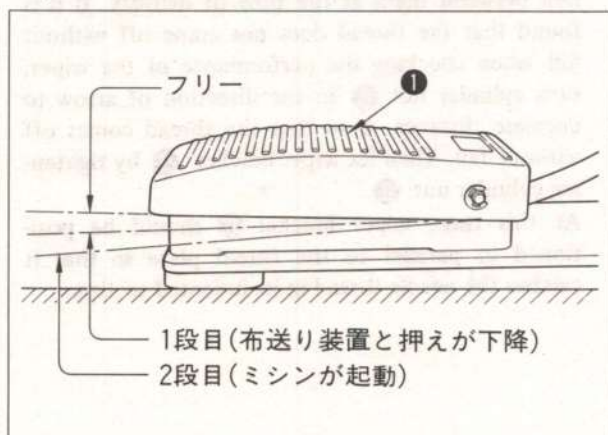
布押えクランプ①を上げ布をセットします。この時、布には十分たるみを持たせた位置でクランプを下げセットしてください。

(注意)たるみが不十分ですと、セツパ間距離が短くなったりしますので十分注意してください。

10) 布送り量・かがり数セット

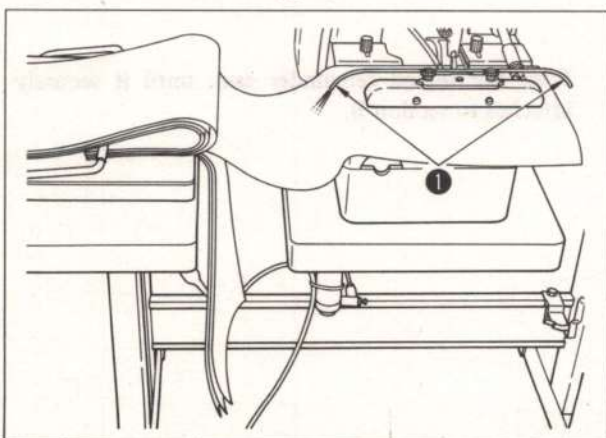
“コントロールボックスについて”(P17)を参考にして、布送り量及びかがり数をセットしてください。セットしないままスタートスイッチを踏むと、エラー表示Errが出ますので必ずセットしてください。

11) フートペダルスイッチの操作



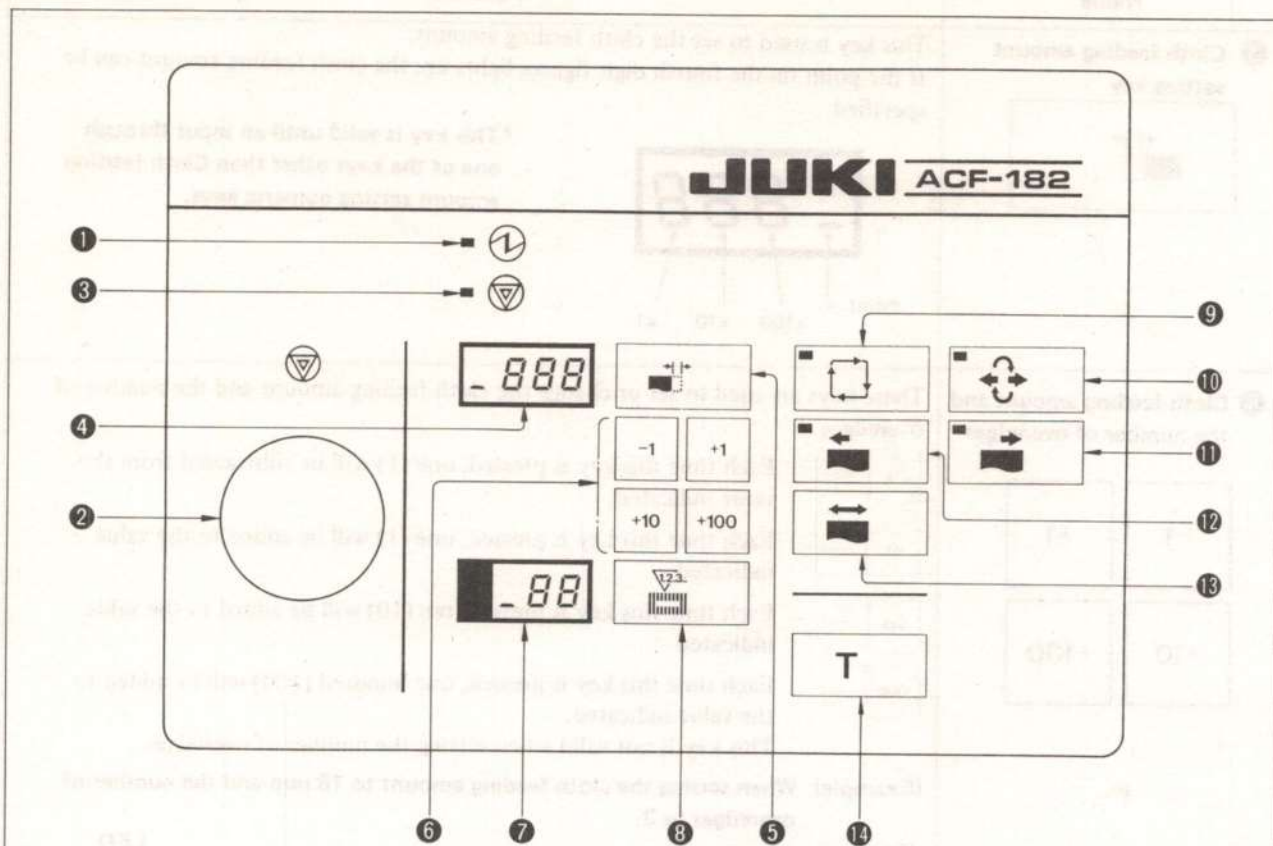
フートペダルスイッチ①は2段式スイッチになっており、1段目を踏むと、布送り装置と押えが下降します。この時、位置合わせが合っていれば2段目を踏んで縫製をスタートさせてください。位置合わせが合っていない時は、足をフートペダルスイッチ①から外して、もう一度セットしなおしてください。



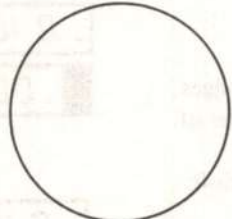


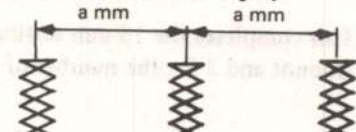
12) スタッカーの作動

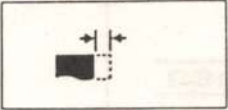
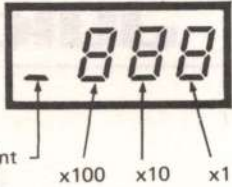
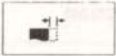

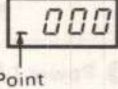
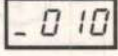
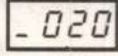
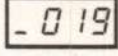
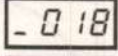
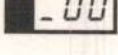
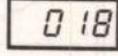
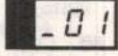
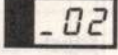
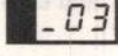




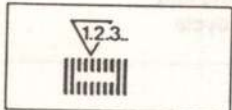
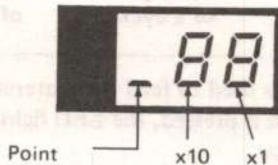
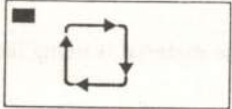
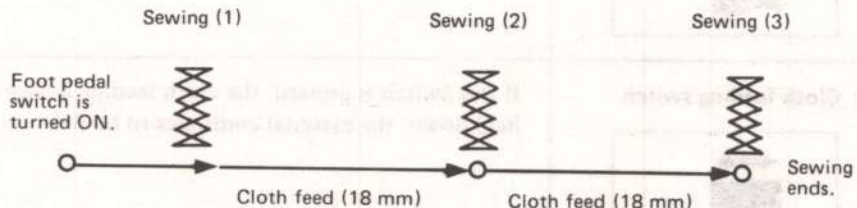
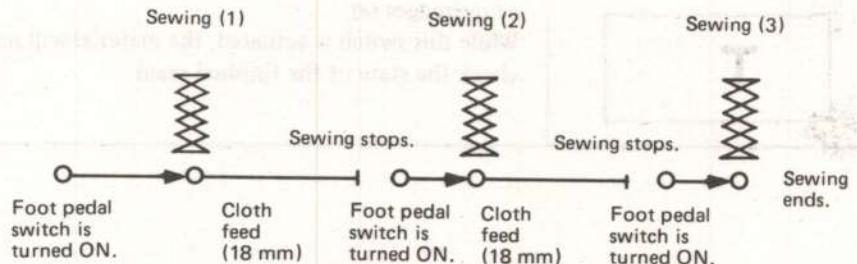
縫製終了と同時に、ノズル①からエアーが噴射し、布をスタックします。


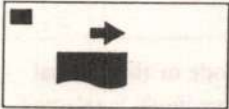
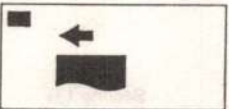
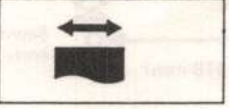
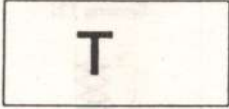
13) Control box



Name	Function
1 Power LED lamp 	Lights up when the power is ON.
2 Emergency stop switch  	<p>This works to stop the machine and other devices during sewing.</p> <p>If the power switch is turned ON, the machine will finish one overedging, and the cloth feeding device and work clamp check will go up. The machine will then stop. All switch operations will now no longer be valid. Press the emergency stop switch again to reset the machine.</p>
Emergency stop LED lamp 	Lights up upon an emergency stop.
Cloth feeding amount and error indicator LED 	<p>Indicates the cloth feeding amount.</p> <p>Specified interval a is shown in mm. Then an error occurs, the relevant error number is shown on the display.</p>  <p>*Refer to "Error messages" for further details.</p>

Name	Function
<p>5 Cloth feeding amount setting key</p> 	<p>This key is used to set the cloth feeding amount. If the point on the fourth digit figures lights up, the cloth feeding amount can be specified.</p>  <p>*This key is valid until an input through one of the keys other than Cloth feeding amount setting numeric keys.</p>
<p>6 Cloth feeding amount and the number of overedges</p> <div style="display: flex; flex-wrap: wrap;"> <div style="border: 1px solid black; padding: 5px; margin: 5px;">-1</div> <div style="border: 1px solid black; padding: 5px; margin: 5px;">+1</div> <div style="border: 1px solid black; padding: 5px; margin: 5px;">+10</div> <div style="border: 1px solid black; padding: 5px; margin: 5px;">+100</div> </div>	<p>These keys are used to set or change the cloth feeding amount and the number of overedges.</p> <div style="display: flex; align-items: flex-start;"> <div style="margin-right: 20px;"> <p>Key operation</p>  <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 5px;">+10</div> <div>Press number setting key</div> </div> <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 5px;">+10</div> <div>Press number setting key</div> </div> <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 5px;">-1</div> <div>Press number setting key</div> </div> <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 5px;">-1</div> <div>Press number setting key</div> </div> <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 5px;"></div> <div>Press the setting key for the number of overedges. Make sure that the LED indicating the number of overedges lights up. The point on the fourth digit figure for the cloth feeding amount setting now goes out.</div> </div> <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 5px;">+1</div> <div>Press number setting key</div> </div> <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 5px;">+1</div> <div>Press number setting key</div> </div> <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 5px;">+1</div> <div>Press number setting key</div> </div> </div> <div style="margin-left: 20px;"> <p>Press the cloth feeding amount setting key. Make sure that the cloth feeding amount LED lights up.</p> <p>Press number setting key +10 .</p> <p>Press number setting key +10 .</p> <p>Press number setting key -1 .</p> <p>Press number setting key -1 .</p> <p>Press the setting key for the number of overedges. Make sure that the LED indicating the number of overedges lights up. The point on the fourth digit figure for the cloth feeding amount setting now goes out.</p> <p>Press number setting key +1 .</p> <p>Press number setting key +1 .</p> <p>Press number setting key +1 .</p> <p>This completes the 18 mm setting for the cloth feeding amount and 3 for the number of overedges.</p> </div> <div style="margin-left: 20px; text-align: right;"> <p>LED indication</p>           </div> </div>

Name	Function
7 LED indicating the number of overedges 	Indicates the number of overedges. (Sewing cycle) 
8 Setting key for the number of overedges 	This key is used to set the number of overedges. If the point on the third digit figure lights up, the number of overedges. 
9 Automatic/manual mode selector switch 	This switch is used to select either the automatic sewing mode or the manual sewing mode. The LED lights up when the automatic sewing mode is selected. (Example) Sewing process when the cloth feeding amount is set to 18 mm and the number of overedge is set to 3. <ul style="list-style-type: none"> Automatic sewing mode  Manual sewing mode  <p>When the sewing stops, the cloth feeding device is lowered. When the sewing ends, the cloth feeding device is raised.</p> <p>* In the manual sewing mode, an emergency stop will be actuated if the foot pedal switch is not depressed within 30 seconds with the machine having been stopped between each manual operation.</p>

Name	Function
<p>⑩ Alternate sewing selector switch</p> 	<p>This switch is used to select the material feed direction, either alternate right and left directional sewing or constant single directional sewing. The LED lights up when the alternate sewing mode is selected.</p> <ul style="list-style-type: none"> • Alternate left and right directional sewing The sewing direction is automatically reversed once each sewing cycle is completed. <p>(Example) Right → Left → Right → Left Sewing end of a cycle Sewing end of a cycle Sewing end of a cycle</p>
<p>⑪ Cloth feeding direction selector switch (Right)</p> 	<p>This switch is used to feed the material from the right. If this switch is pressed, the LED lights up to show that the material is being fed from the right.</p>
<p>⑫ Cloth feeding direction selector switch (Left)</p> 	<p>This switch is used to feed the material from the left. In this switch is pressed, the LED lights up to show that the material is being fed from the left.</p>
<p>⑬ Cloth feeding switch</p> 	<p>If this switch is pressed, the cloth feeding device comes down. With this switch held down, the material continues to be fed.</p>
<p>⑭ Test sewing switch</p> 	<p>If this switch is pressed, the machine sews one overedge regardless of the number of overedges set. While this switch is actuated, the material will not be fed. So use this switch to check the state of the finished seam.</p>

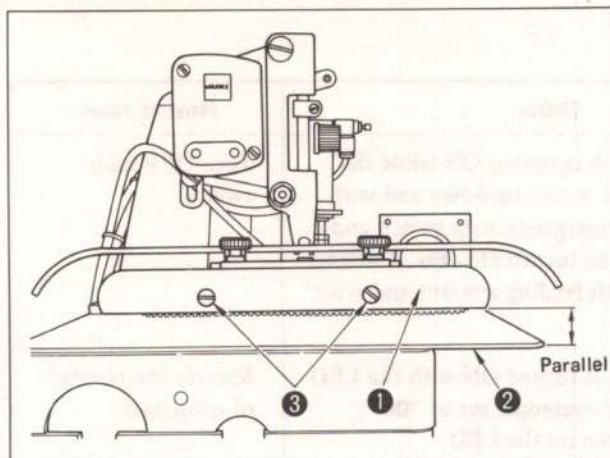
★ Error messages

If the machine malfunctions, one of the following error messages will be shown on the cloth feeding amount and error LED.

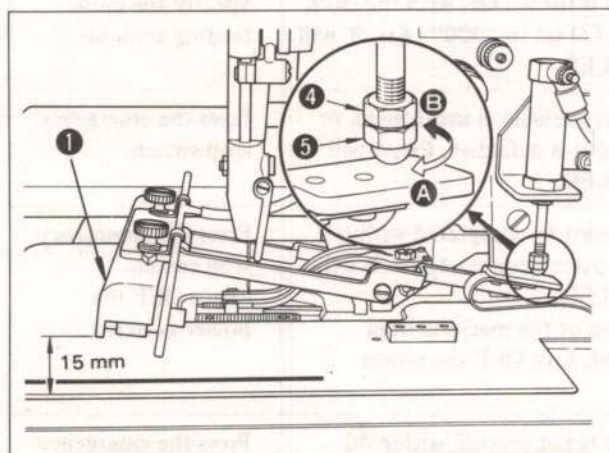
Error message No.	Error description	Cause	How to reset
Err. 1	Switch adjustment error	If the power switch is turned ON while the work clamp check is coming down and with the start switch, emergency stop switch and proximity sensor all turned ON, Err. 1 will be shown on the cloth feeding amount and error LED.	Turn OFF each switch.
Err. 2	"0" start error for the number of overedges	If the start switch is turned ON with the LED for the number of overedges set to "00", Err. 2 will be shown on the LED.	Specify the number of overedges.
Err. 3	"0" start error for the cloth feeding amount	If the start switch is turned ON with the cloth feeding amount LED set to "000", Err. 3 will be shown on the LED.	Specify the cloth feeding amount.
Err. 4	Low operating air pressure error	If the operating air pressure is inadequate, or the proximity sensor is defective, Err. 4 will be shown on the LED.	Press the emergency stop switch.
Err. 5	Sewing error	If an overedge cannot be completed within 3 seconds after the overedging start, Err. 5 will be shown on the LED. (If the stop motion of the machine head cannot be actuated, turn OFF the power switch.)	Press the emergency stop switch. (Turn OFF the power switch.)
Err. 6	Manual setting error	If the start switch is not pressed within 30 seconds after the machine has stopped on stand-by (while the machine has stopped waiting for the start switch to be pressed after one overedging cycle has been completed and the material has been fed into the machine), Err. 6 will be shown on the LED. *While Err. 6 is shown on the LED, the remaining part of the seam to be sewn which has been interrupted by Err. 6 can be finished by turning ON the foot pedal start switch.	Press the emergency stop switch. *Re-start Turn ON the foot pedal start switch.

5. ADJUSTMENTS

1) Cloth feeding device



- (1) Loosen setscrews ③, and adjust so that the cloth feeding device ① is positioned parallel with cloth plate ②. After making the adjustment, firmly tighten setscrews ③.



- (2) Loosen locknut ④, and by turning box nut ⑤ adjust so that the lifting amount of the cloth feeding device ① is 15 mm.

Turning the box nut in direction A

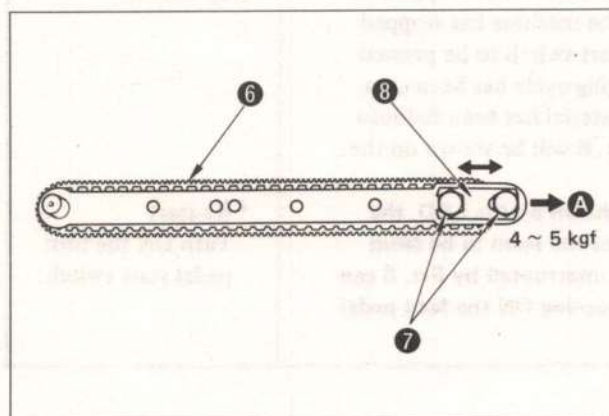
..... The lifting amount of the cloth feeding device will be increased.

Turning the box nut in direction B

..... The lifting amount of the cloth feeding device will be decreased.

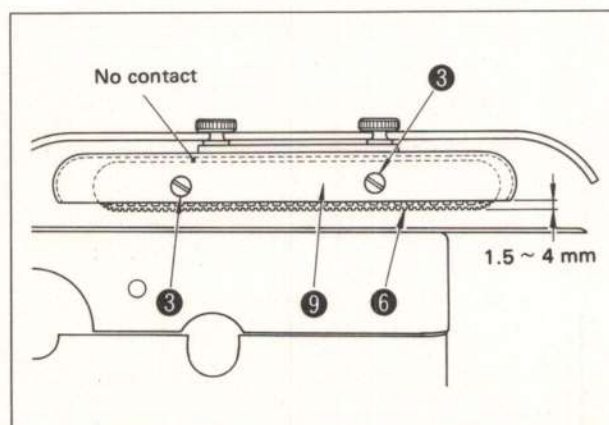
After making the adjustment, firmly tighten locknut ④.

*The lifting amount can be adjusted within a range of 10 to 20 mm.

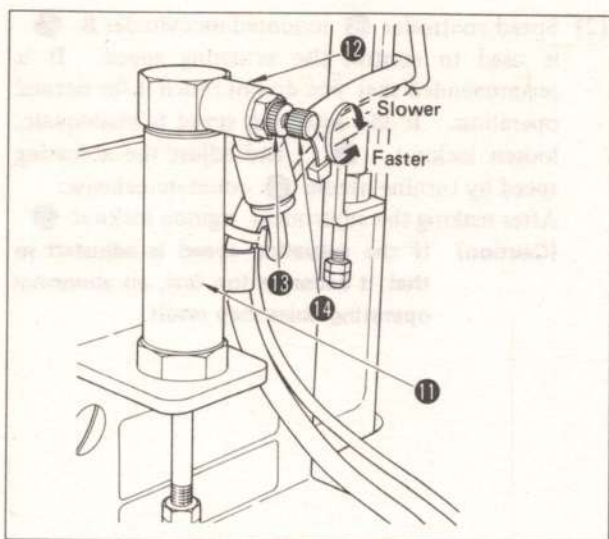


- (3) Loosen setscrews ⑦, and adjust the tension of cloth feeding belt ⑥ by pulling sprocket B supporting plate ⑧ with 4 to 5 kgf in direction A.

After making the adjustment, firmly tighten setscrews ⑦.

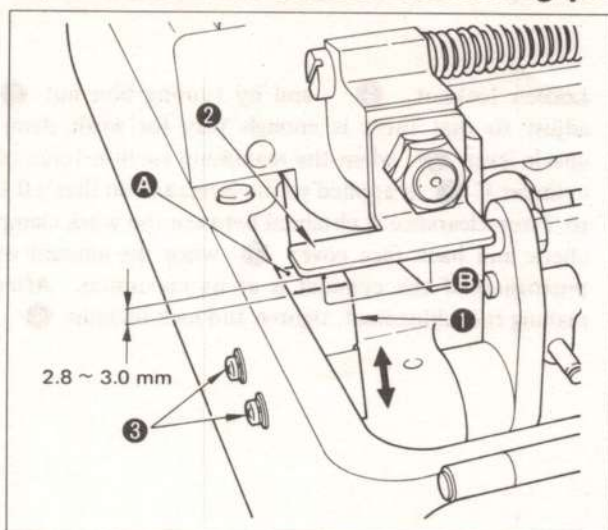


- (4) Loosen setscrew ③, and adjust the position of cloth feeding belt cover ⑨. The cloth feeding belt cover should not come in contact with cloth feeding belt ⑥. Furthermore, cloth feeding belt cover ⑨ should be positioned so that its bottom face is 1.5 to 4 mm above cloth feeding belt ⑥.



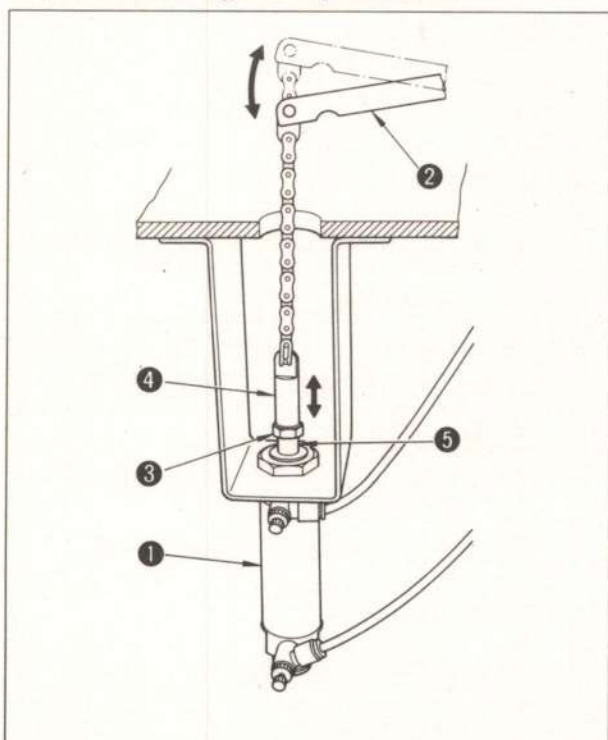
- (5) If the cloth feeding device goes up too fast with an abnormal operating noise, loosen locknut 13 of speed controller 12 in cylinder A 11, and turn needle 14 clockwise so as to decrease the lifting speed of the cloth feeding device. If the lifting speed becomes excessively slow, turn needle 14 counterclockwise so as to obtain the optimum speed. After making the adjustment, tighten locknut 13.

2) Sensor and sensor detecting plate



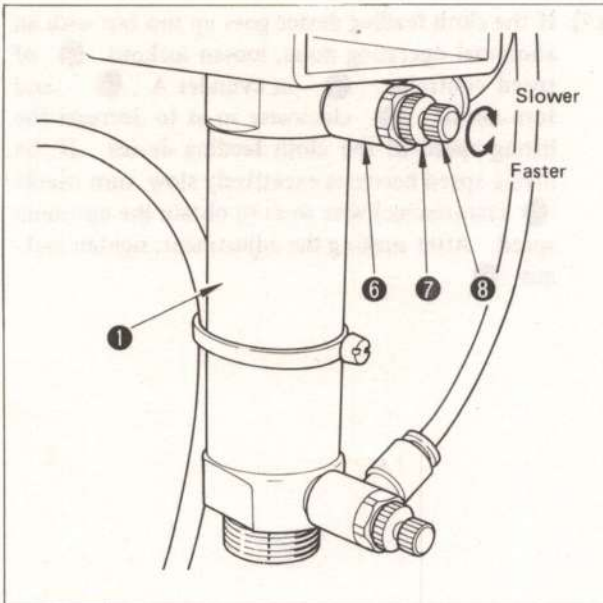
Loosen setscrews 3, move sensor 1 in the direction of the arrow (up and down), and adjust so that sensor 1 is positioned with sensor detecting plate 2 and so that a 2.8 to 3.0 mm clearance is obtained between them (A and B).

3) Actuating components



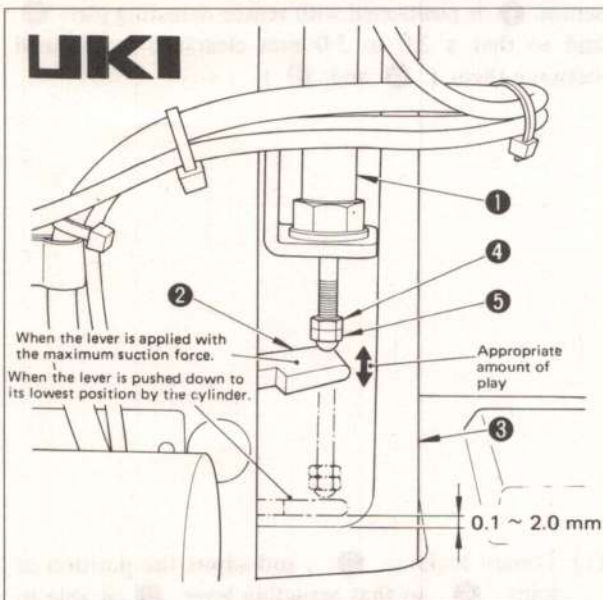
- (1) Loosen locknut 3, and adjust the position of joint 4 so that actuating lever 2 is able to bring the machine to a complete stop when the maximum suction force of cylinder B 1 is applied to the lever.

If the machine cannot be brought to a complete stop, adjust by turning the cylinder shaft 5 clockwise. After making the adjustment, tighten and lock locknut 3.



- (2) Speed controller ⑥ mounted on cylinder B ① is used to control the actuating speed. It is recommended that you do not touch it for normal operation. If the actuating speed is inadequate, loosen locknut ⑦, and adjust the actuating speed by turning needle ⑧ counterclockwise. After making the adjustment, tighten locknut ⑦. **(Caution)** If the actuating speed is adjusted so that it becomes too fast, an abnormal operating noise may result.

4) Work clamp check components

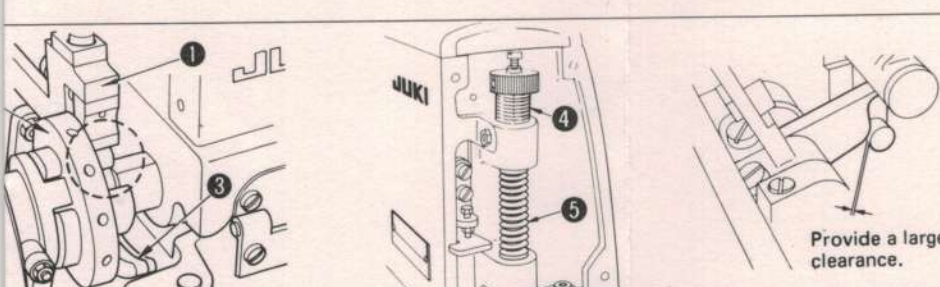


Loosen locknut ④, and by turning box nut ⑤ adjust so that there is enough play for work clamp check lever ② when the maximum suction force of cylinder C ① is applied to the lever, and so that a 0.1 to 2 mm clearance is obtained between the work clamp check and back face cover ③ when the amount of protrusion of the cylinder is at its maximum. After making the adjustment, tighten and lock locknut ④.

6. TROUBLES AND CORRECTIVE MEASURES

Trouble	Points to be checked	Check results
When the power switch is turned ON, Err. 1 is shown on the display and the LED lights up.	<div>Foot pedal switch</div> <div>Emergency stop switch</div> <div>Proximity sensor</div>	<div>The foot pedal is ON.</div> <div>The emergency stop is turned ON.</div> <div>The proximity sensor is turned ON.</div>
When the start switch is turned ON, Err. 2 will be shown on the display, and the LED will light up.	LED indicating the number of overedges	"00" is shown on the display
When the start switch is turned ON, Err. 3 will be shown on the display, and the LED will light up.	Cloth feeding amount LED	"000" is shown on the display
When the start switch is turned ON, Err. 4 is shown on the display, and the LED lights up.	<div>Operating air pressure</div> <div>Proximity sensor</div> <div>Cylinder B</div>	<div>The operating air pressure is too low.</div> <div>The proximity sensor is turned ON.</div> <div>The actuating speed is too slow.</div>
During sewing, Err. 5 is shown on the display, and the LED lights up.	Stop-motion arm	Stop-motion arm is not driving cam ②
When the machine stops on stand-by during the manual operation mode, Err. 6 is shown on the display, and the LED lights up.	Check how many seconds the machine stops on stand-by after sewing an overedge.	30 seconds or more



	Cause	Corrective measures
switch has been turned	The power switch is turned ON with the foot pedal switch ON.	Release the foot pedal switch to turn it OFF.
stop switch has been	The power switch is turned ON with the emergency stop switch ON.	Release the emergency stop switch to turn it OFF.
sensor switch has been	The power switch is turned ON with the machine in the stop-motion state, causing the proximity switch to be turned ON.	After one overedge has been sewn, the proximity switch will be turned OFF.
on the display.	The number of overedges has not been specified.	Specify the number of overedges.
on the display.	The cloth feeding amount has not been specified.	Specify the cloth feeding amount.
air pressure is low.	Improper regulator adjustment.	Adjust the operating air pressure to 6 kgf/cm^2 .
sensor cannot be	Faulty proximity sensor	Replace the proximity sensor.
speed of cylinder B is	The speed controller for cylinder B has been excessively tightened.	Refer to 5-3)-(2) on page 24.
	Improper adjustment of the clearance between the sensor and the sensor detecting plate.	Re-adjust the clearance between the sensor and the sensor detecting plate. Refer to 5-2) on page 23.
m ① stops on	Faulty stop-motion	<ol style="list-style-type: none"> 1. Since the pressure of the spring in stop-motion pressure spring ⑤ is too high, decrease the pressure of the spring using adjusting screw ④. 2. Decrease the brake pressure of driving cam brake ③. 3. Increase the tension of the motor belt. 4. Delay the timing for the clutch driving arm roller to press the stop-motion arm.
		
more have elapsed.	The start switch has not been pressed within 30 seconds after an overedge has been sewn.	Press the start switch again, and sew the remaining overedges on to the material, or press the emergency stop switch so that the machine is released from the emergency stop.

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Please do not hesitate to contact our distributors or agents in your area for further informations when necessary.

*Appear and specification listed in this instruction manual are subjected to change without notice.

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