



SOH-300

INSTRUCTIONS

SOH-300 Series

Integrated sewing unit for hemming flat sleeves and/or bottoms.

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Troubleshooting(electrical trouble)

Description•Specifications

SOH

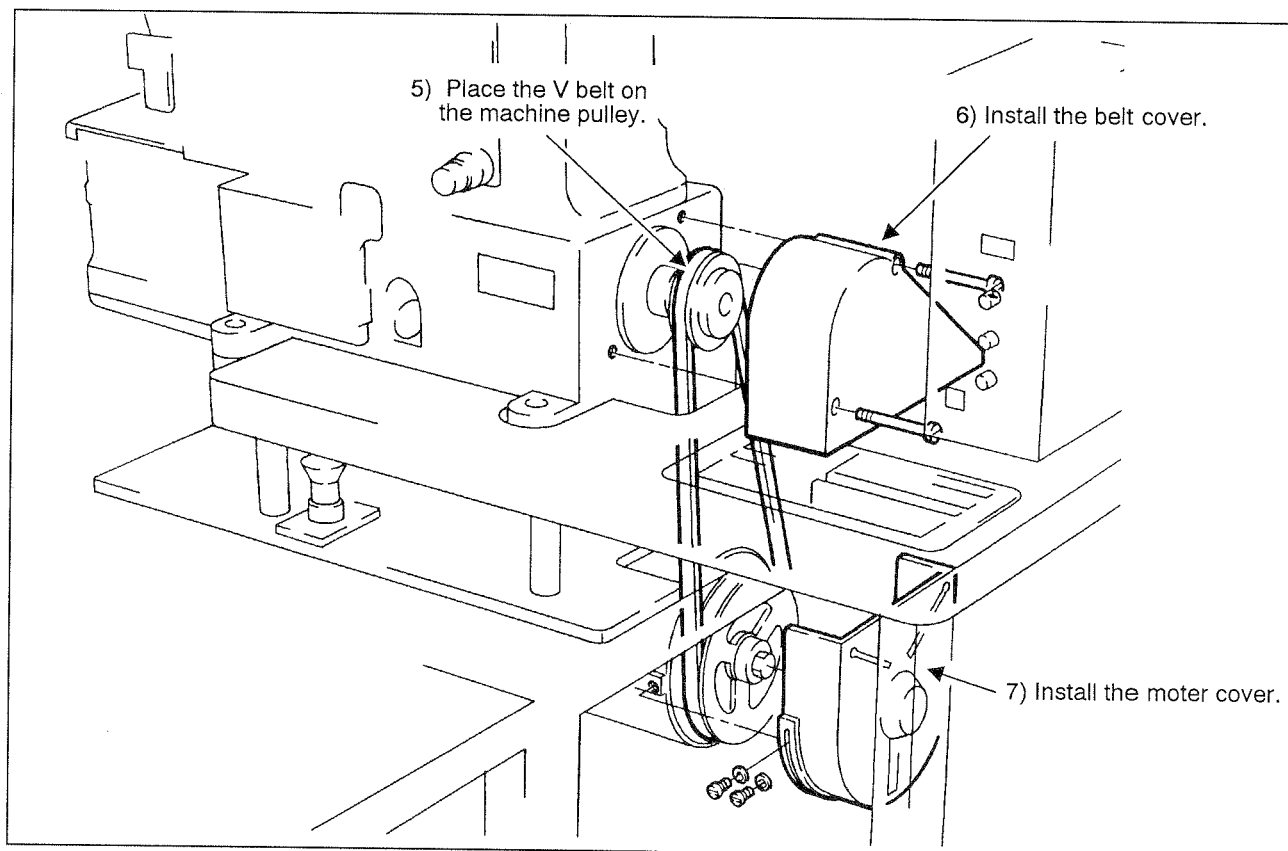
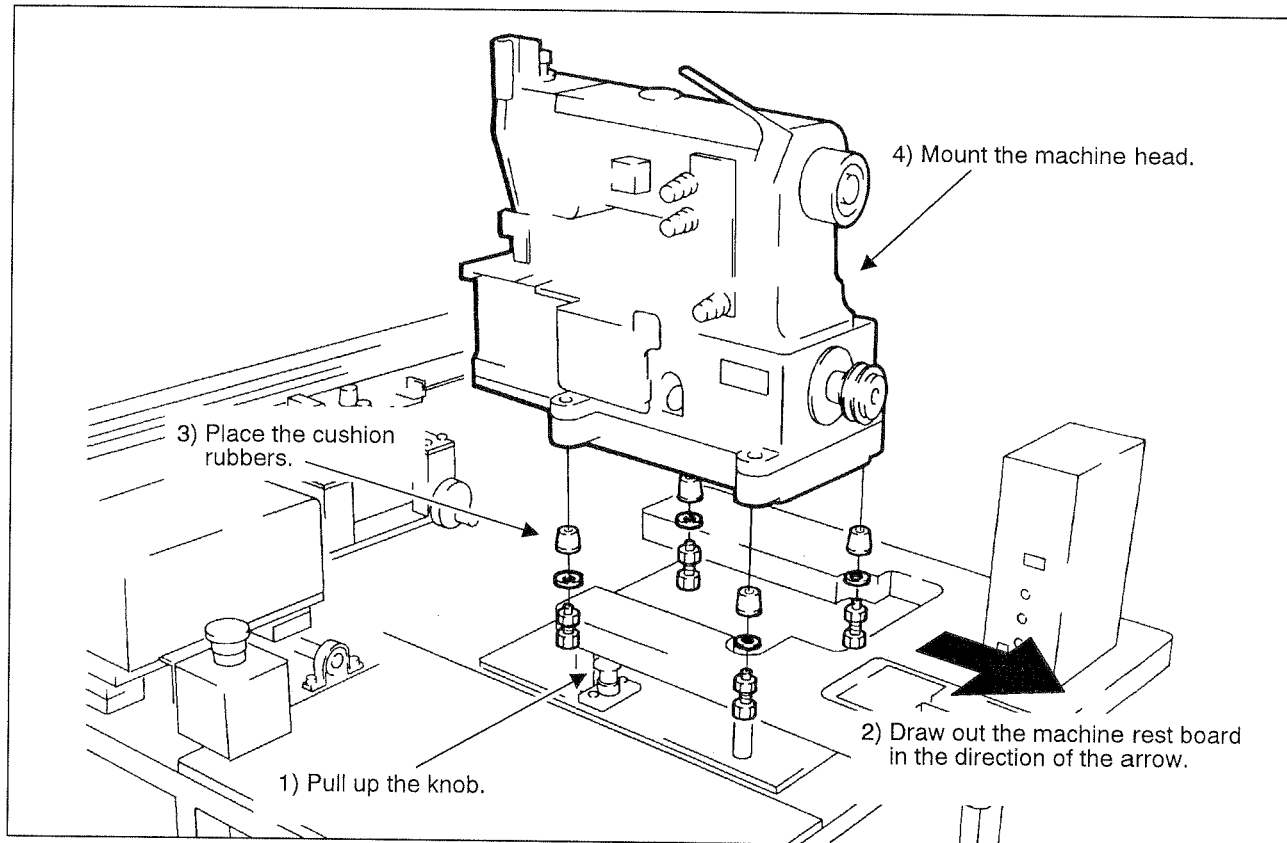
-300 Series
Integrated sewing unit for hemming
flat sleeves and/or bottoms

Installation

Installation

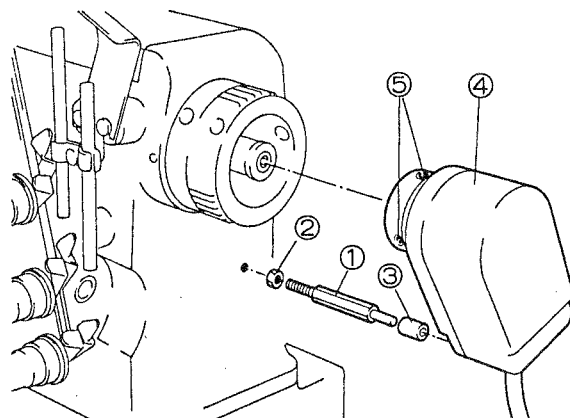
Installing the sewing machine

1. To install the sewing machine •Place the unit on the level surface of the floor.



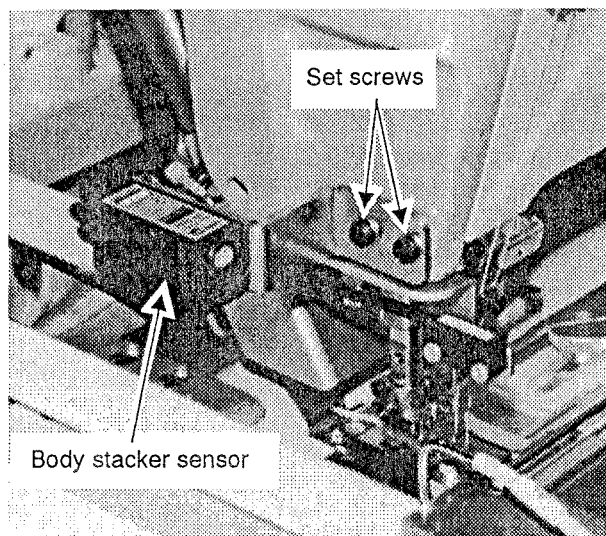
2.To install the positioner

Install the positioner. Refer to sequence ① to ⑤ (see below). Secure pin screw ① with nut ②.
Connect the plug. Refer to the wiring diagram on pages 8 and 9.



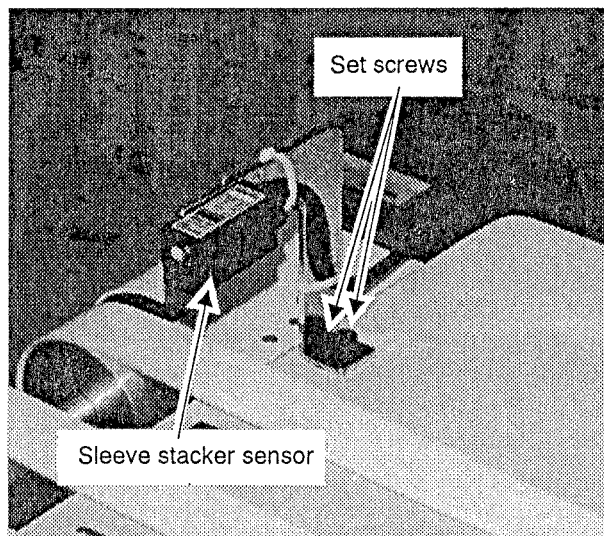
3.To install the body stacker sensor for the SOH- 320

Connect the plug. Refer to the wiring diagram on page 9.



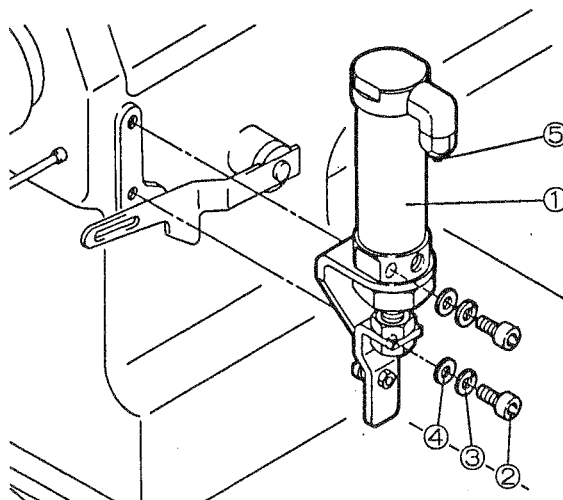
To install the sleeve stacker sensor (optional)

Connect the plug. Refer to the wiring diagram on pages 8 and 9.



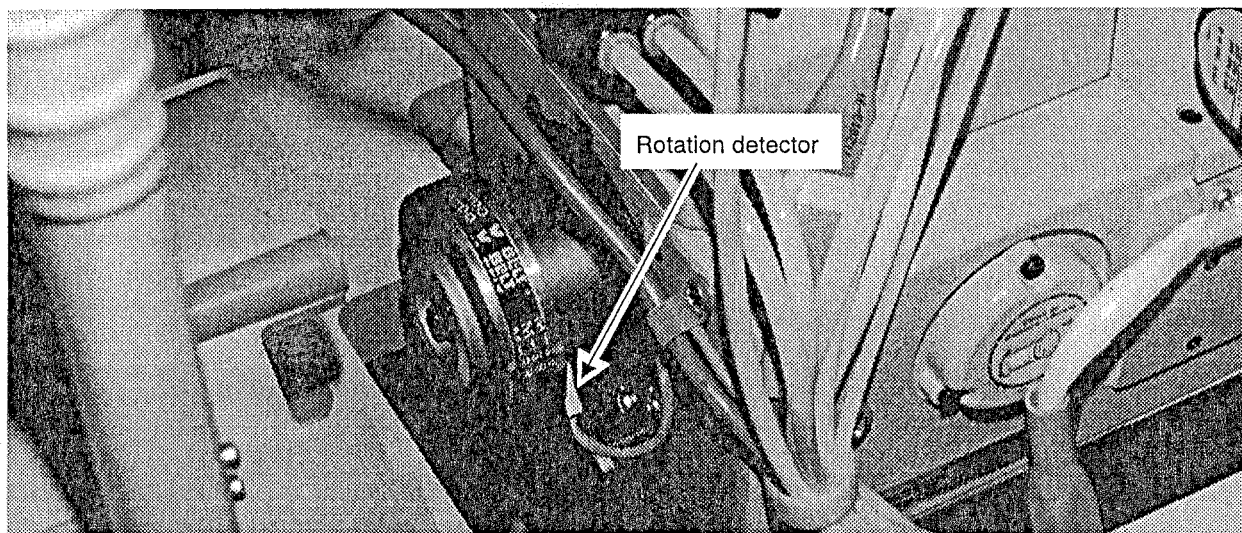
4.To install the foot lift cylinder

Install the foot lift cylinder. Refer to sequence ① to ④ shown below.
Connect the air line to ⑤. Refer to the air line connecting diagram on page 11.



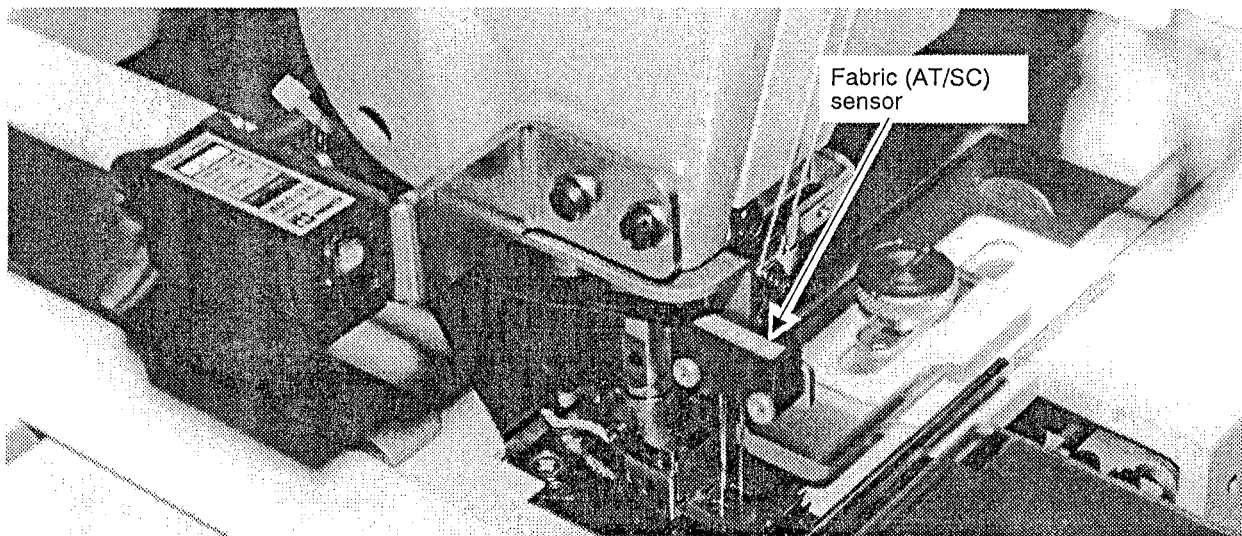
5.To connect the rotation detector relay cord

Connect the plug. Refer to the wiring diagram on pages 8 and 9.



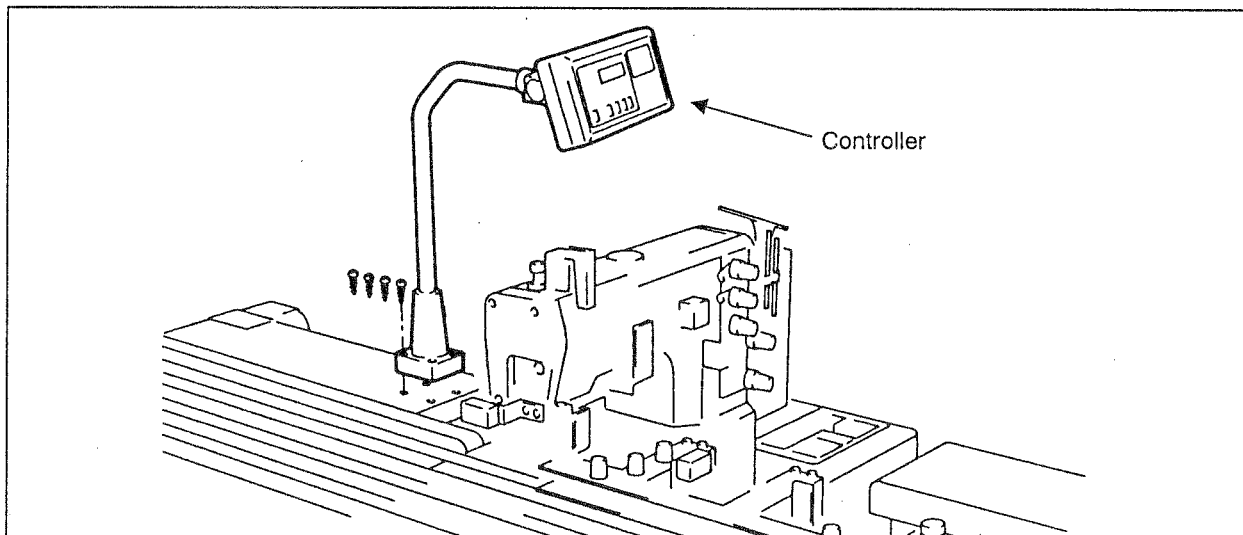
6.To connect the fabric (AT/SC) sensor relay cord

Connect the plug. Refer to the wiring diagram on pages 8 and 9.

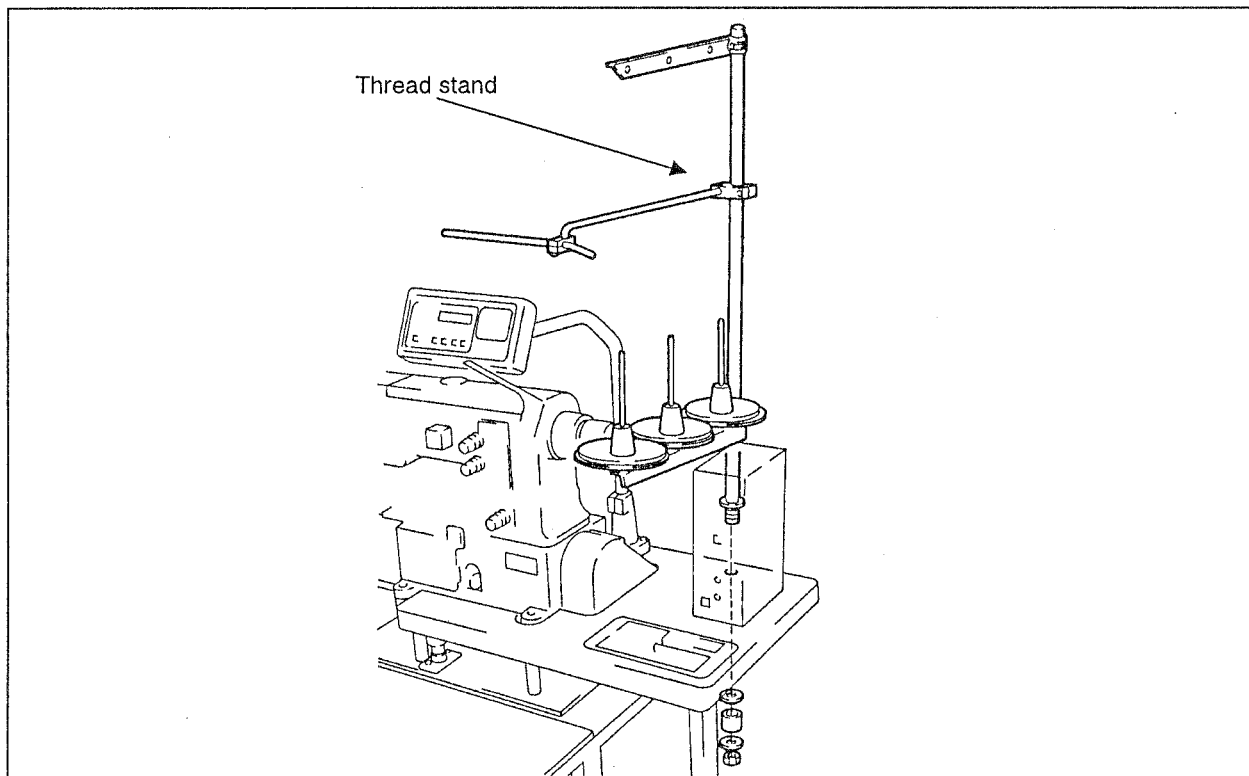


7.To install the controller

Connect the plug. Refer to the wiring diagram on pages 8 and 9.

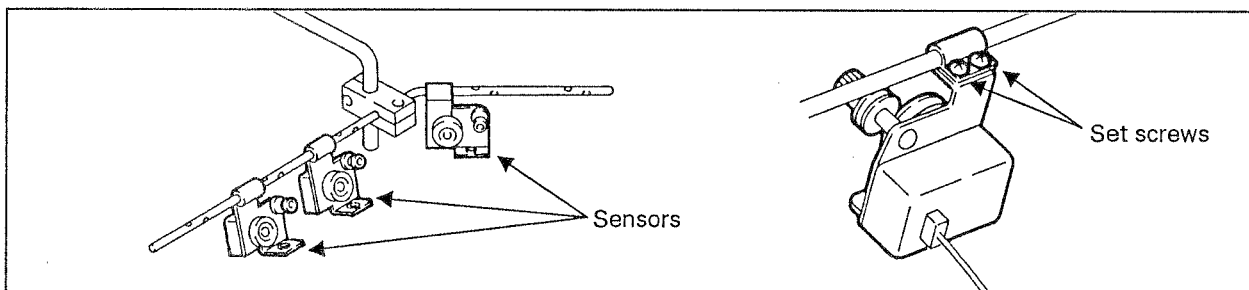


8.To install the thread stand



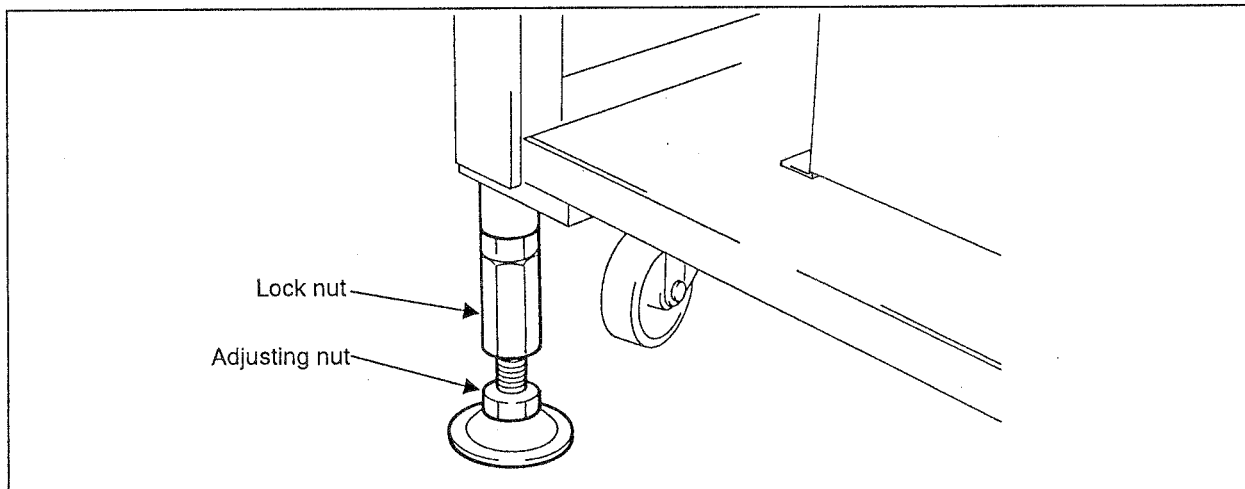
9.To install the TW device (optional)

Connect the plug. Refer to the wiring diagram on pages 8 and 9.



10.To adjust the height of the unit

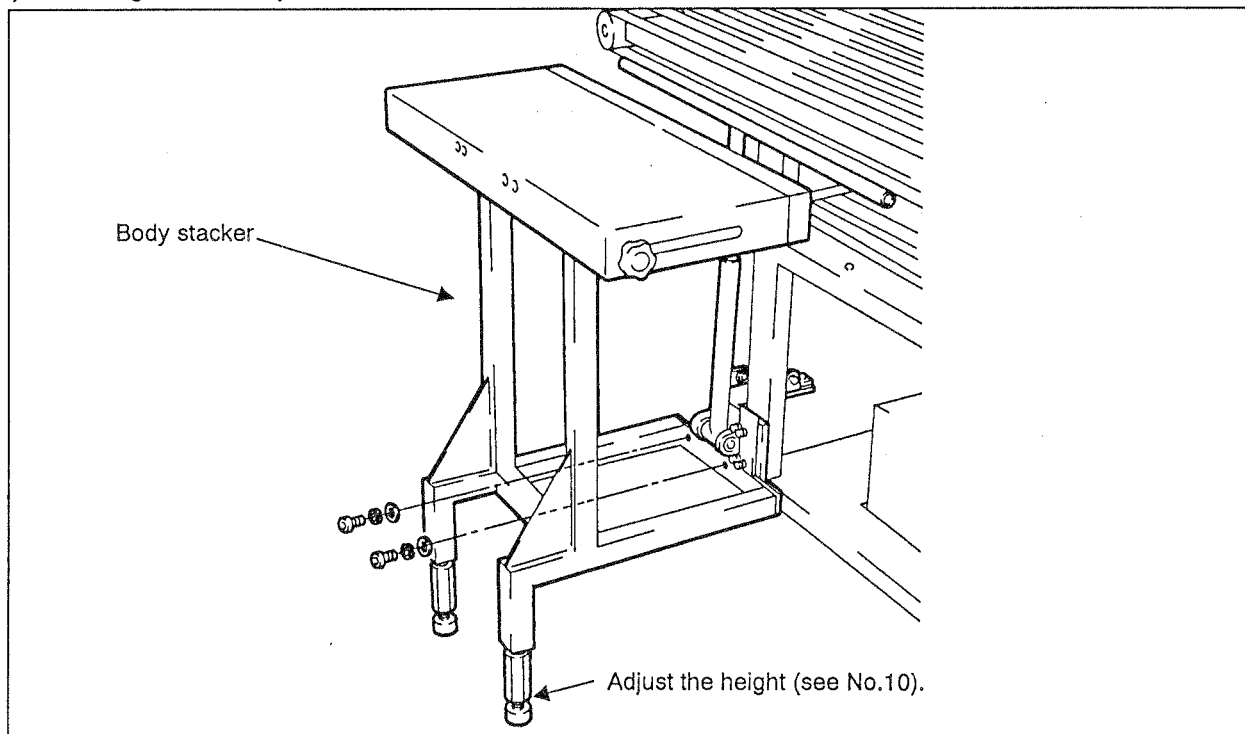
Adjust the height of the unit so that it will be level with the ground.



11.To install the body stacker for the SOH- 320

Connect the air lines for the body stacker. Refer to the air line connecting diagram on page 11.

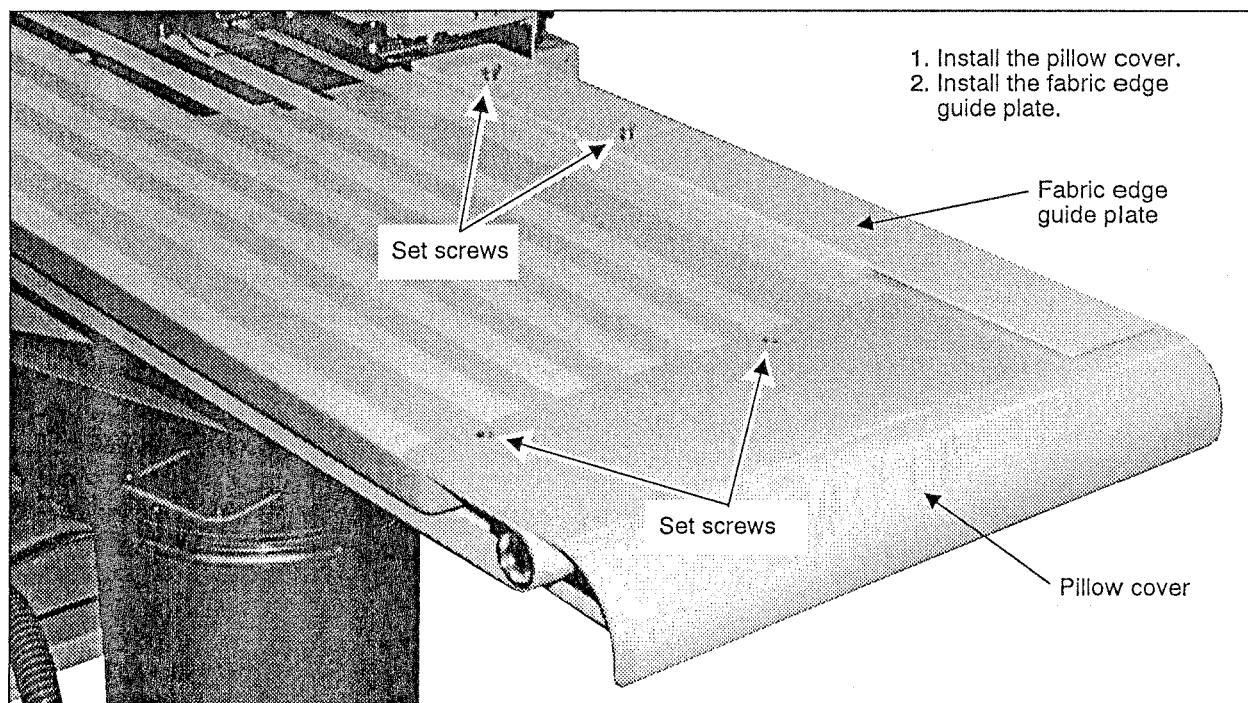
Adjust the height of the body stacker so that it will be flush with the unit.



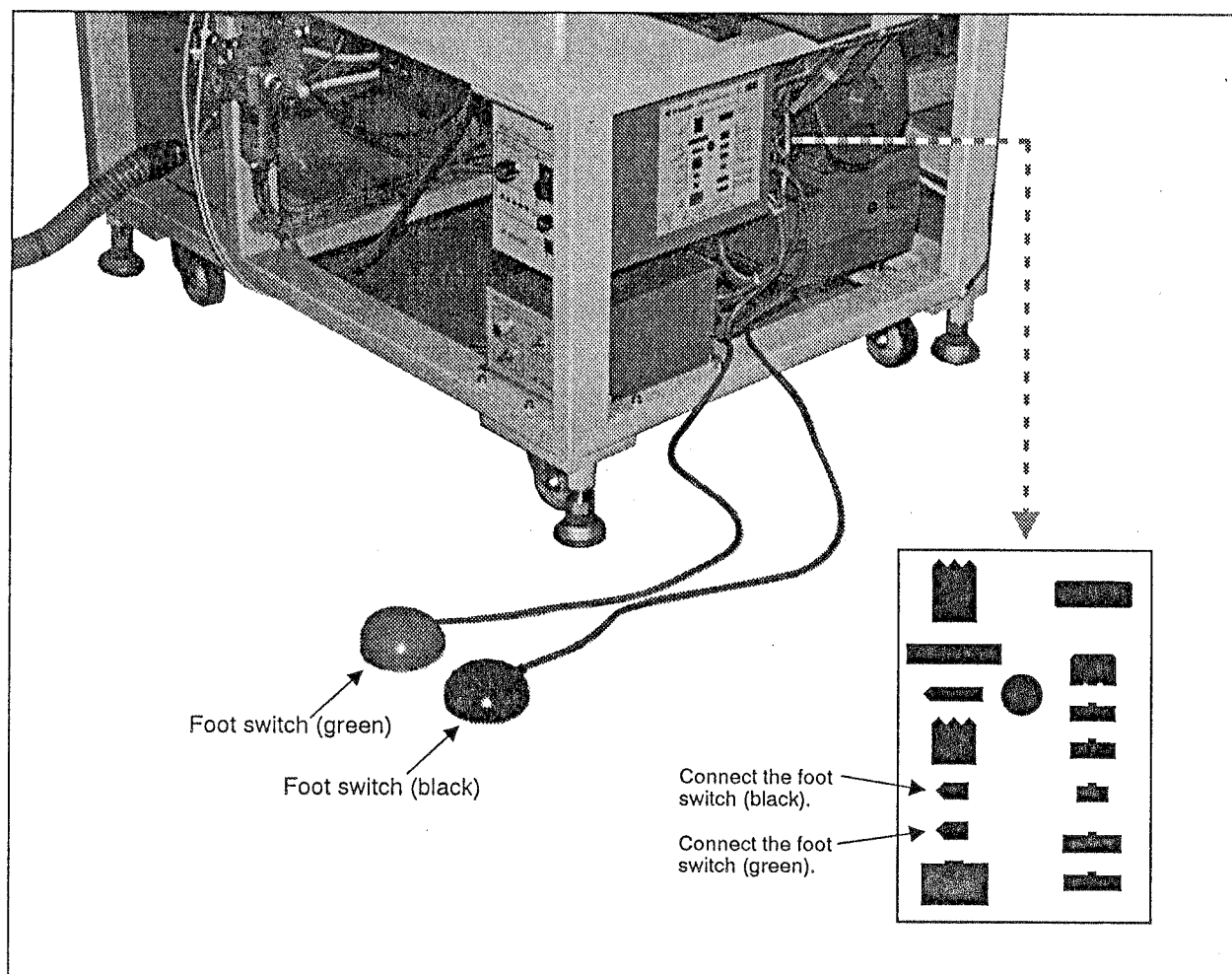
12.To connect the air lines for the dust drum

Connect the air lines for the dust drum. Refer to the air line connecting diagram on page 11.

13.To install the pillow cover and the fabric edge guide plate



14.To connect the foot switches (green, black)



Installation

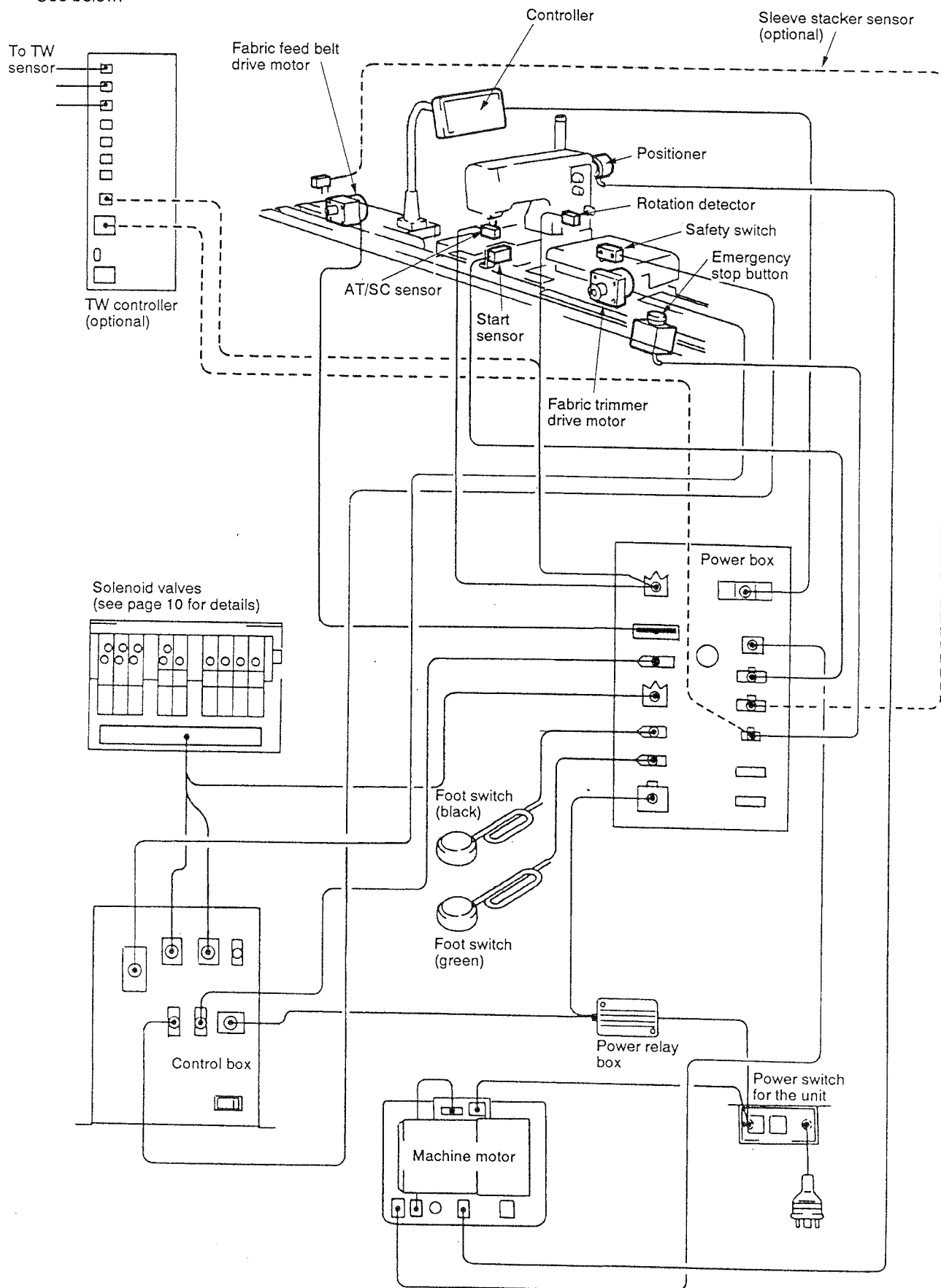
Wiring diagram (SOH-310)



The cords and connectors are color- and shape-coded.

Always shut off the power first and then connect the cords to the connectors while checking each color and shape.

See below.



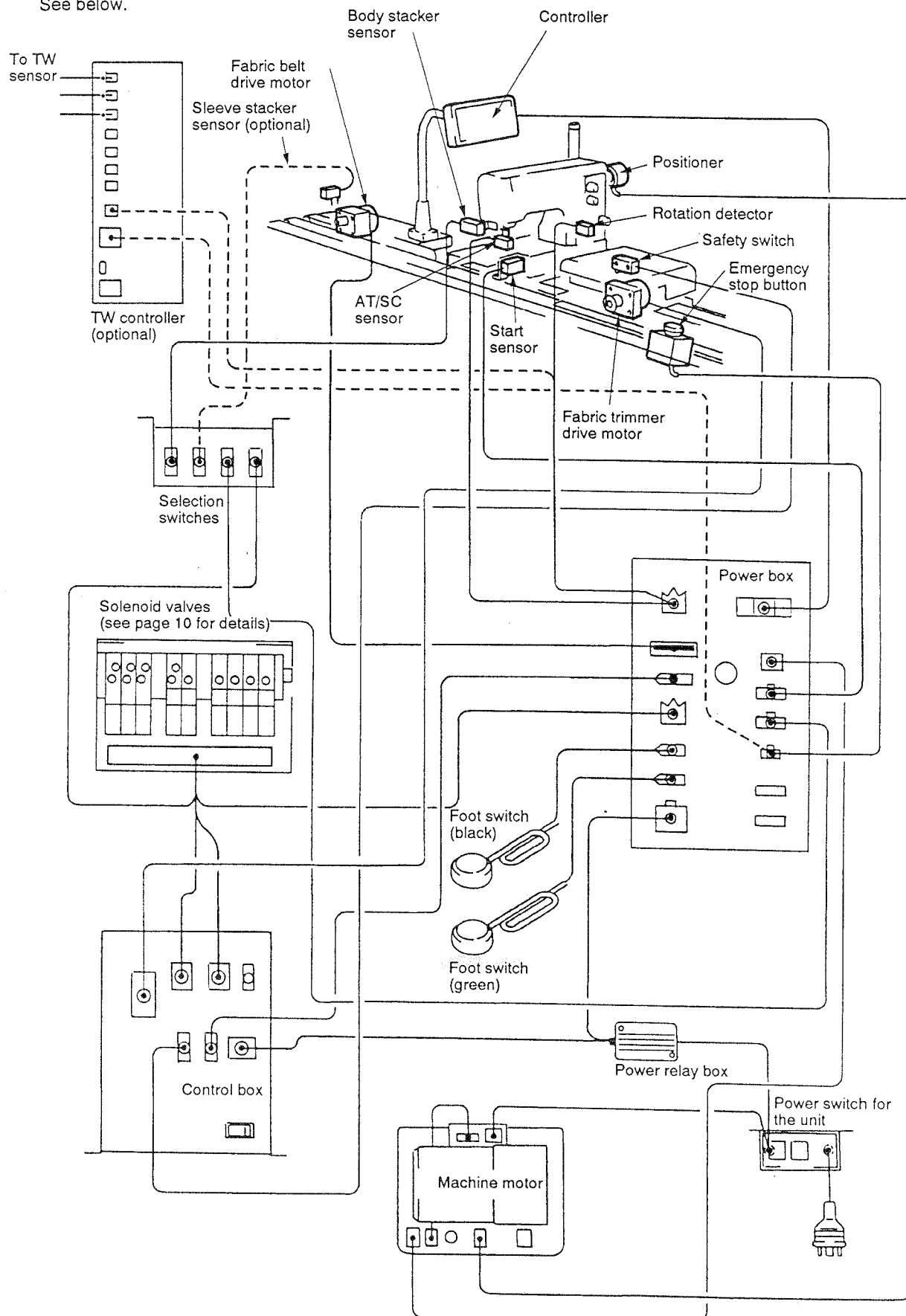
Installation

Wiring diagram (SOH- 320)



The cords and connectors are color- and shape-coded.

Always shut off the power first and then connect the cords to the connectors while checking each color and shape. See below.



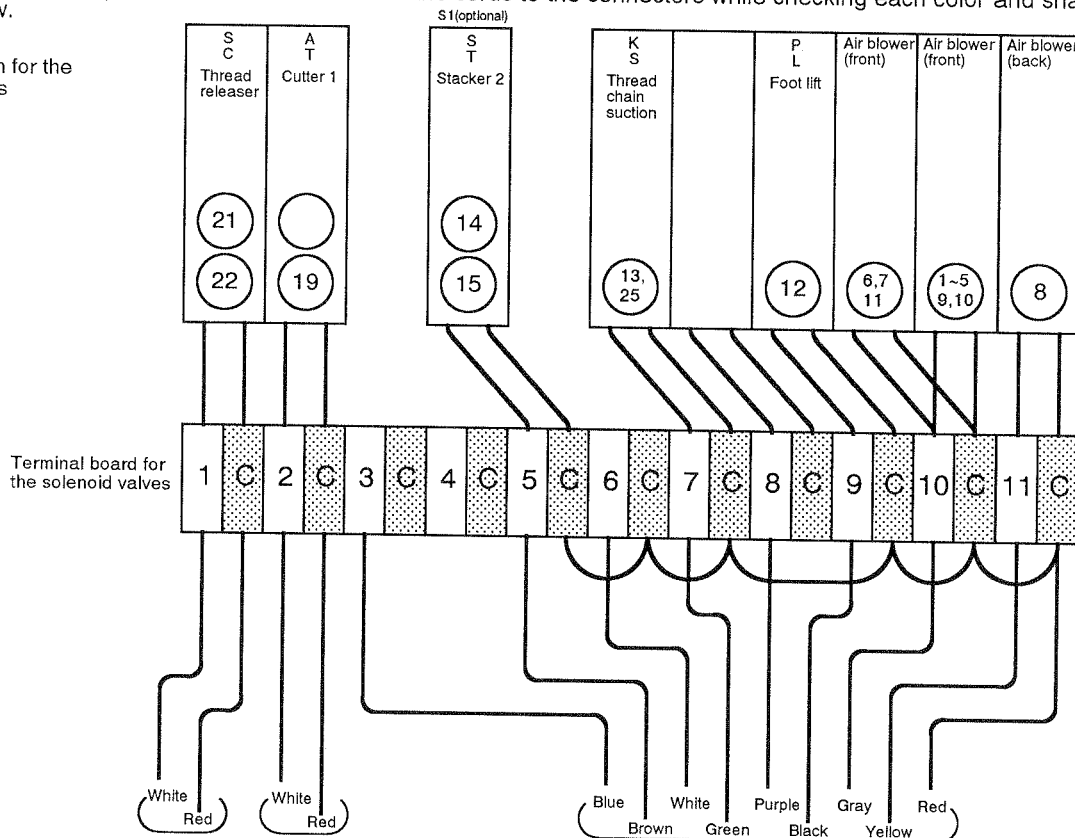
Installation

Wiring diagram for the solenoid valves

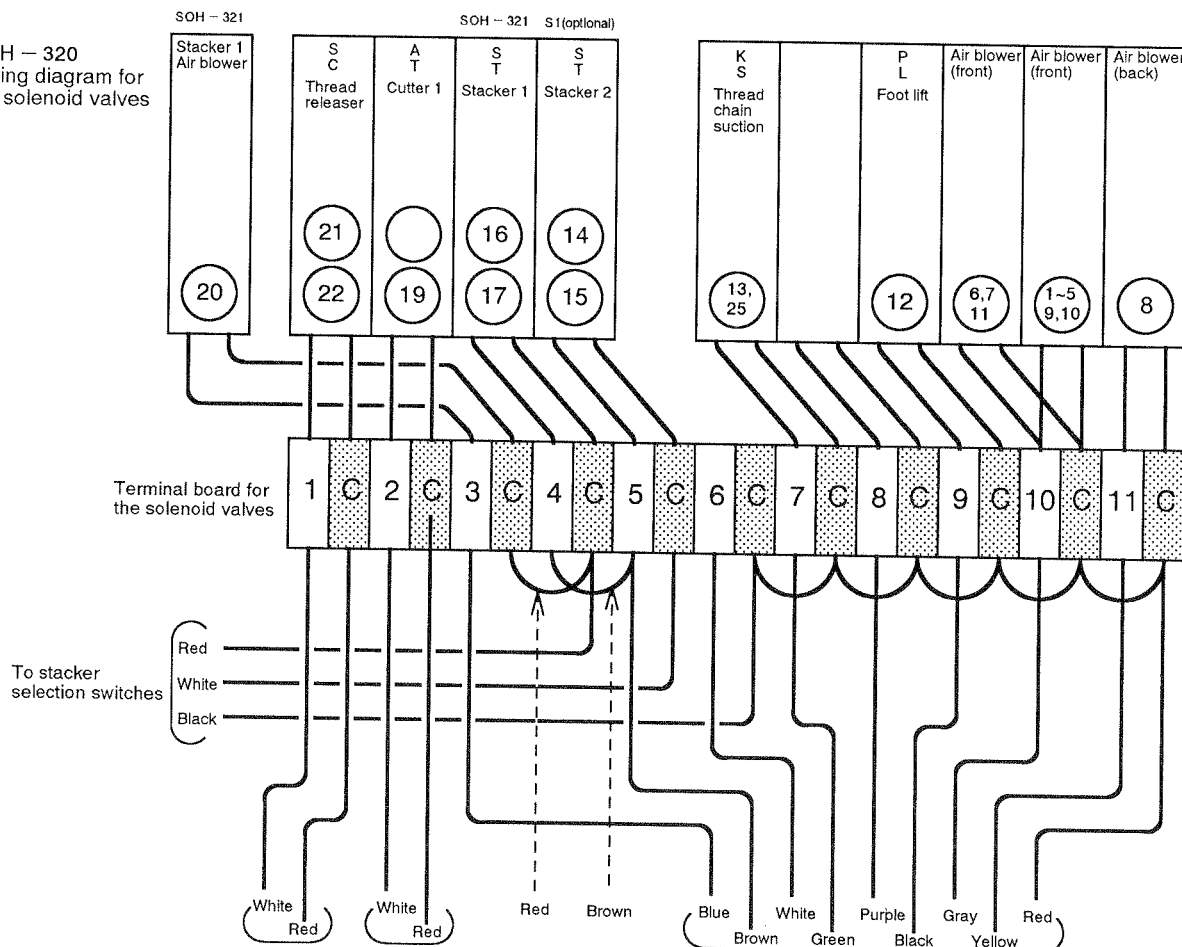


The cords and connectors are color- and shape-coded.
Always shut off the power first and then connect the cords to the connectors while checking each color and shape.
See below.

SOH – 310
Wiring diagram for the
solenoid valves



SOH – 320
Wiring diagram for the
solenoid valves

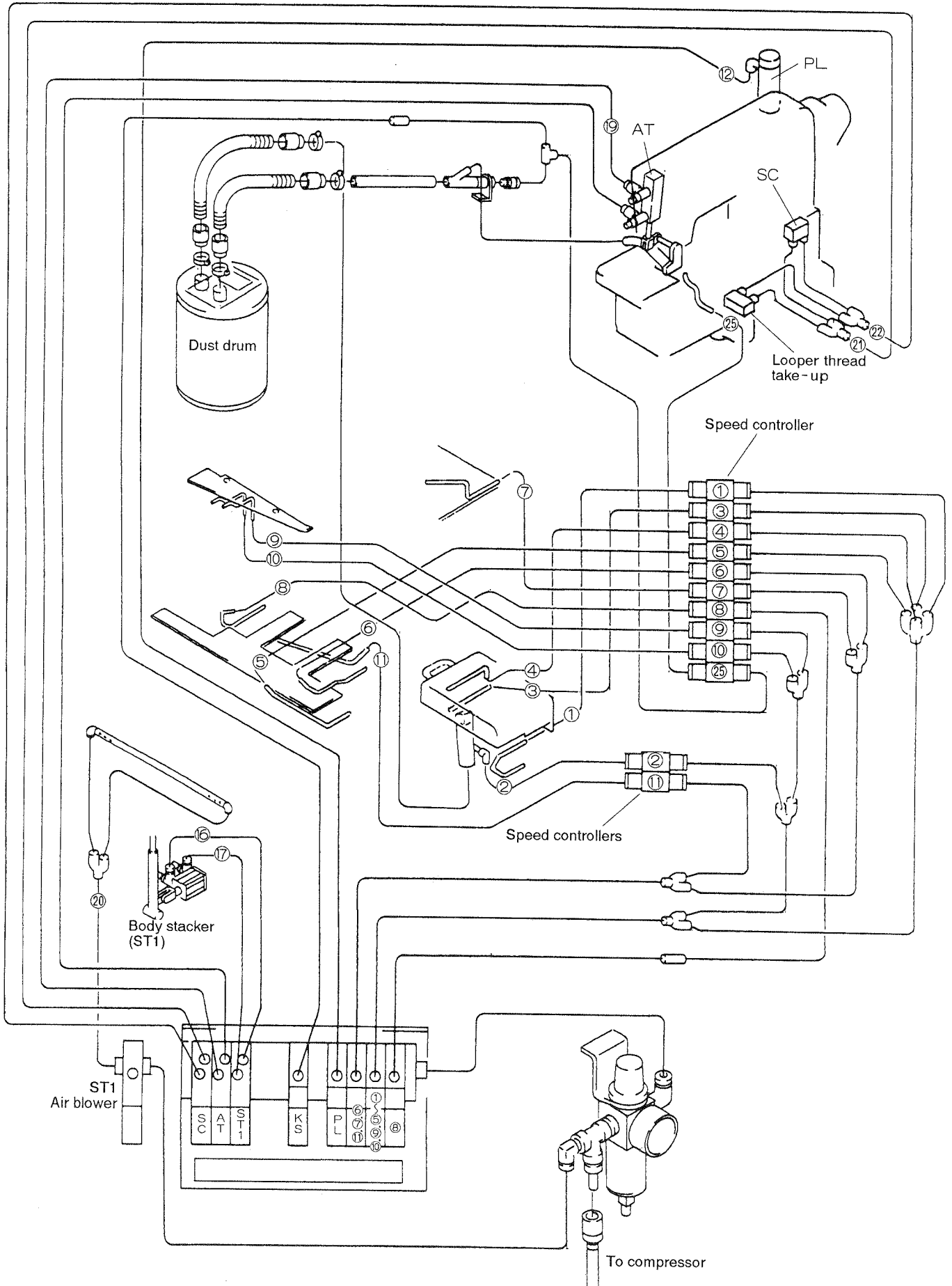


Installation

Air line connecting diagram




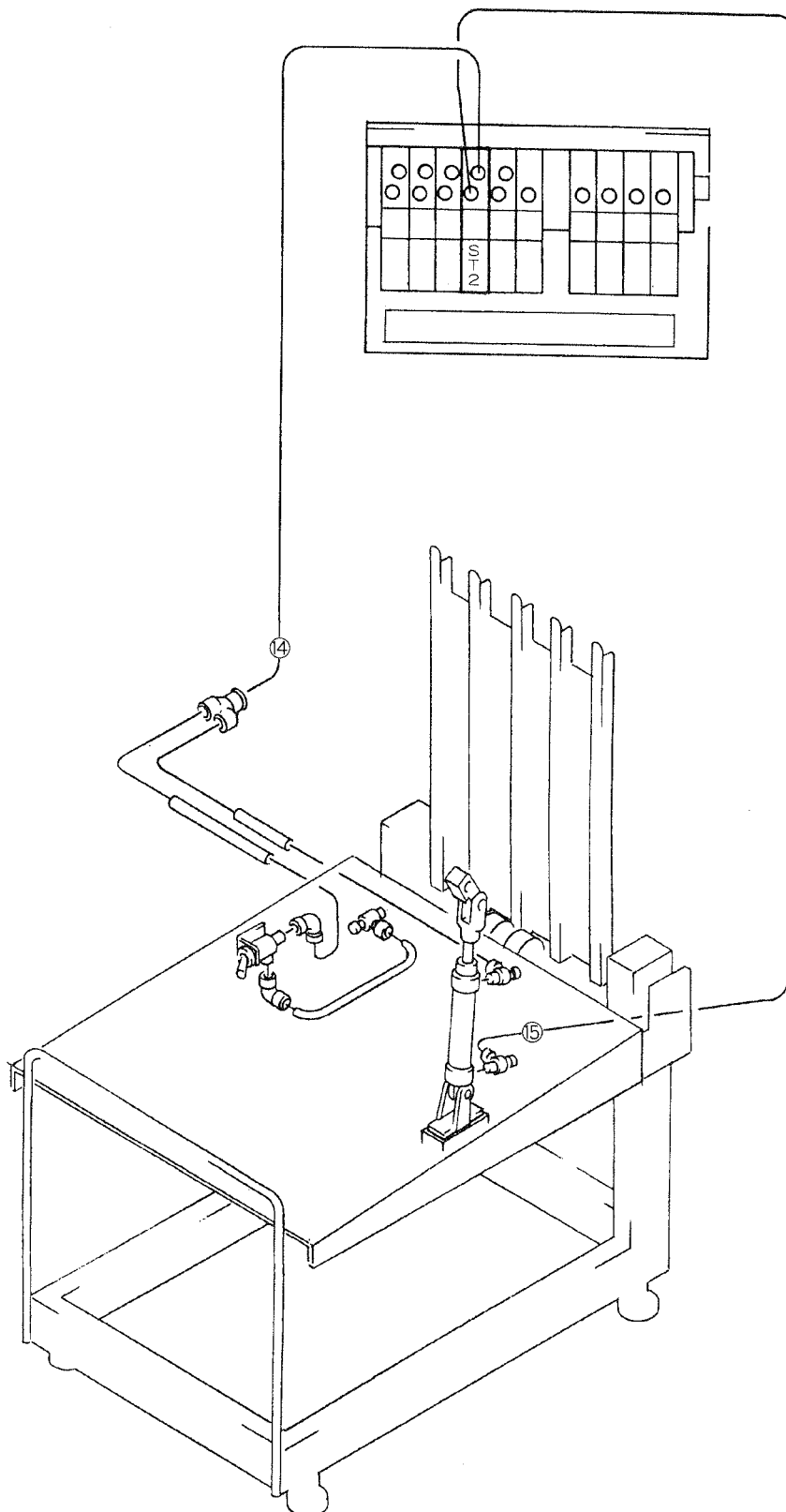
Always turn off the power first and then connect the air lines (see below). Be sure to connect all the air lines before connecting them to the air source.



Installation

Air line connecting diagram Sleeve stacker (optional)

 Always turn off the power first and then connect the air lines (see below). Be sure to connect all the air lines before connecting them to the air source.

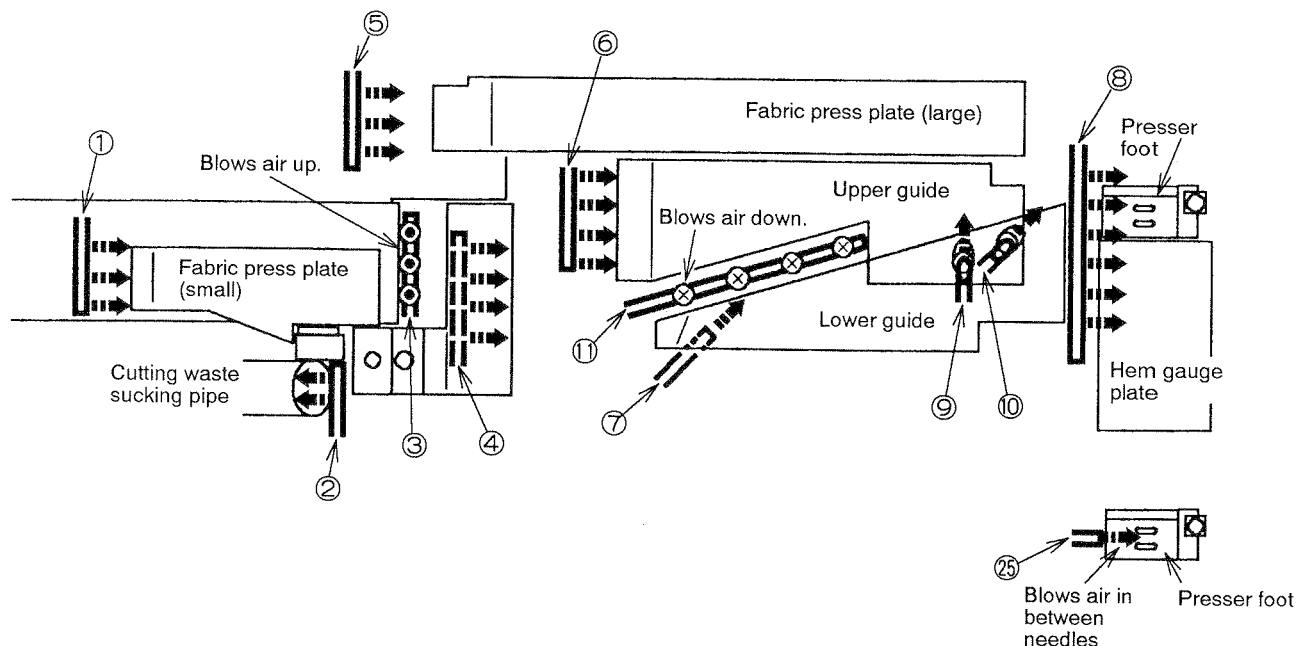


Installation


Service personnel stage
(Mechanic Level)

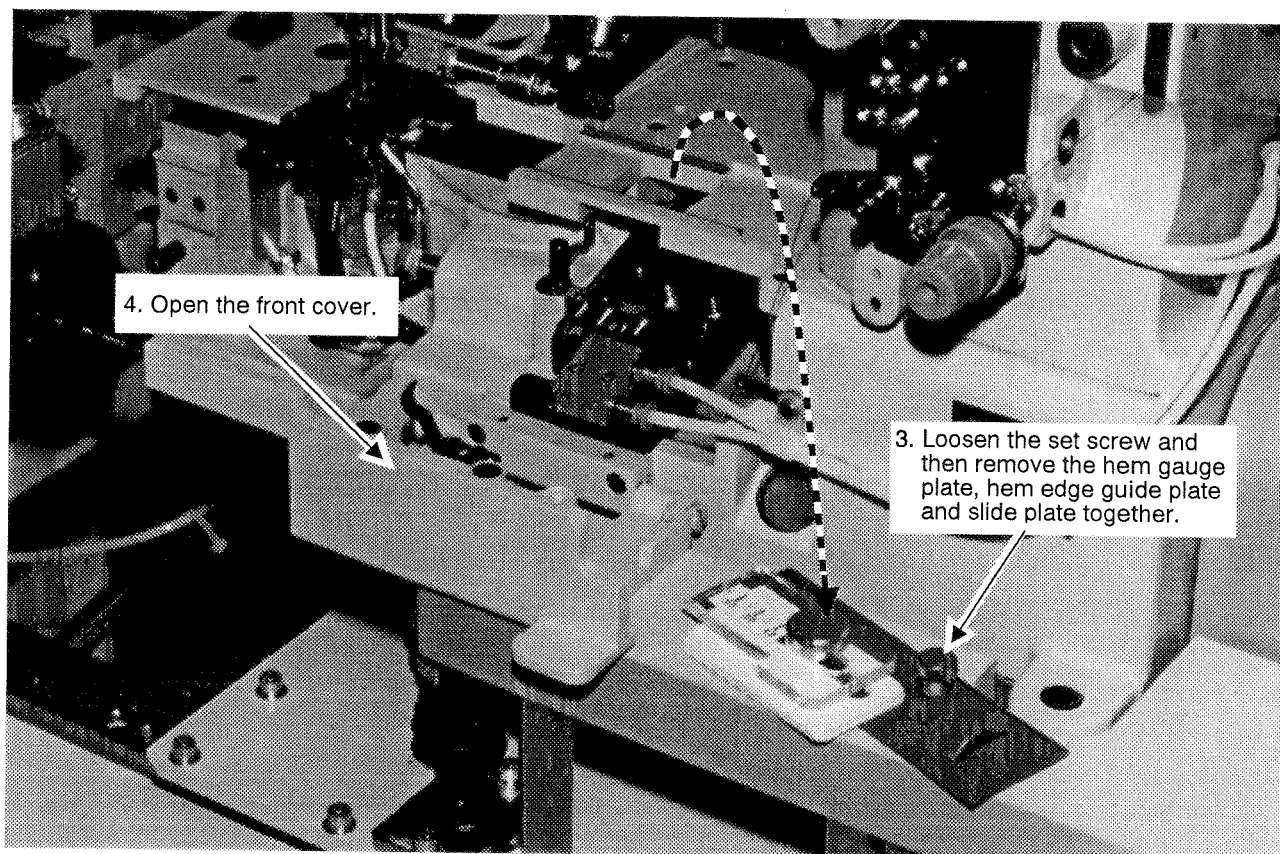
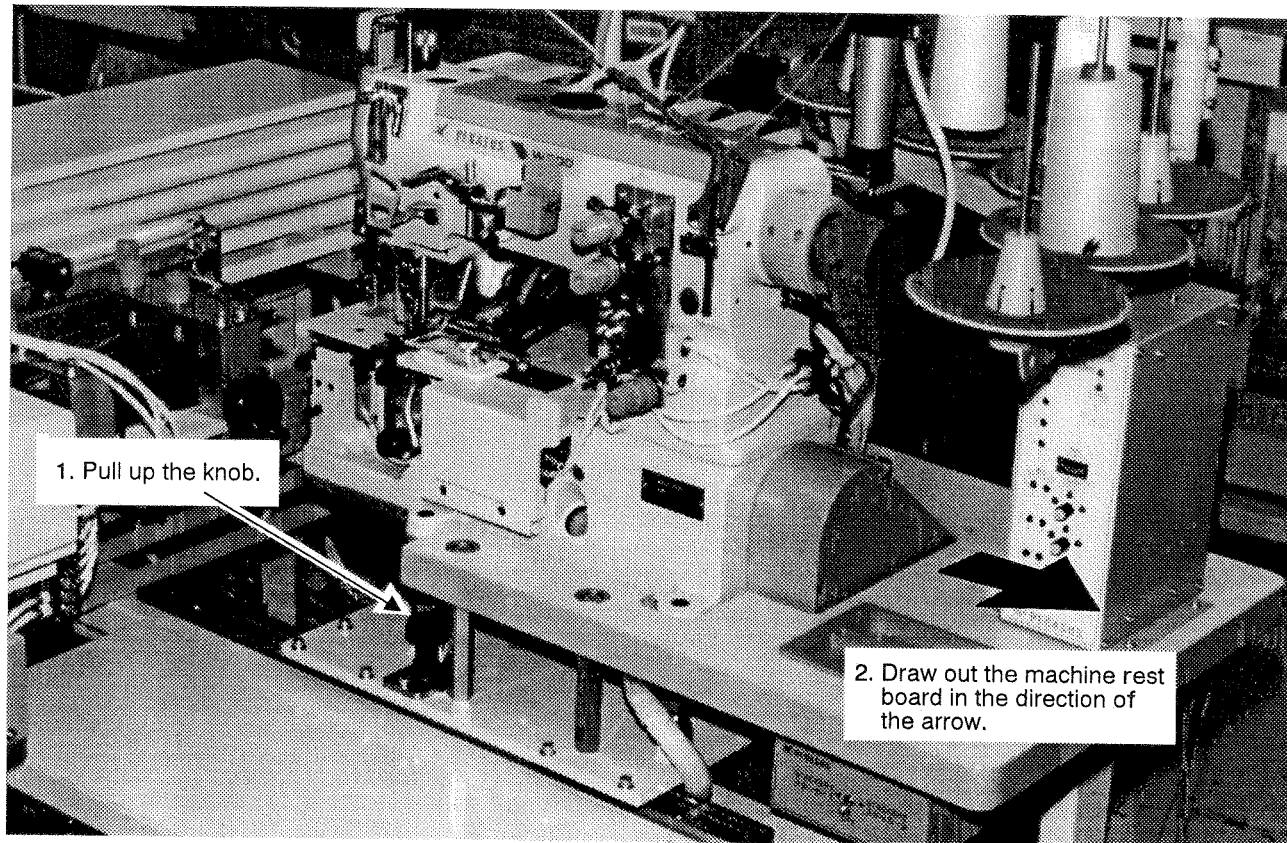
Function of the air blowers (cause of trouble)

To adjust the air blowing pressure, turn the knob which has the same number as on the air blower to be adjusted (the numbered label is attached on each speed controller). See page 11. * Speed controller ⑬ is on the rear side of the machine.



NO.	Function of air blower	Blowing pressure is too heavy.	Blowing pressure is too light.
① ⑤ ⑥	Prevents the fabric from curling so that the fabric can go through each guide smoothly.	The rear end of the fabric is tuned up, so the fabric cannot go through each guide easily.	The fabric is curled, so it cannot go through each guide.
②	Sucks up cutting wastes.	The fabric edge is not evenly trimmed.	Sucks up no cutting wastes.
③	Prevents the fabric from being caught in the belt.	The fabric is fluttered, so it cannot be fed accurately.	The fabric is caught in the belt.
④	Prevents the end of the fabric from being rolled down when the fabric is going under the guide.	The fabric is fluttered, so it cannot be fed accurately.	The end of the fabric is rolled down.
⑦	Prevents the fabric from curling. Feeds the fabric.	The fabric is fluttered, so the hem is not evenly formed.	The fabric is curled.
⑧	Makes the fabric go through the presser foot and the hem gauge plate easily.	The hem is not accurately formed at the start of sewing.	The fabric does not go through the presser foot and the hem gauge plate smoothly.
⑨	Makes the folded fabric tightly touch the middle guide plate in order to form the hem accurately.	The lower fabric is not sewn to the upper fabric correctly at the start of sewing.	The fabric is not folded correctly at the start of sewing, so the hem is not formed accurately.
⑩	Feeds the upper and lower plys correctly.	The lower fabric is not sewn to the upper fabric neatly at the start of sewing.	The fabric is not folded correctly at the start of sewing, so the hem is not formed accurately.
⑪	Folds the fabric neatly.	The fabric is fluttered, so the hem is not formed accurately.	The fabric rides up on the lower guide plate.
②⑤	Forms the needle thread loop correctly when the thread chain is produced.	The needle thread loop is fluttered, so the thread chain is not produced neatly.	The needle thread loop is not formed correctly, so the thread chain is not produced neatly.

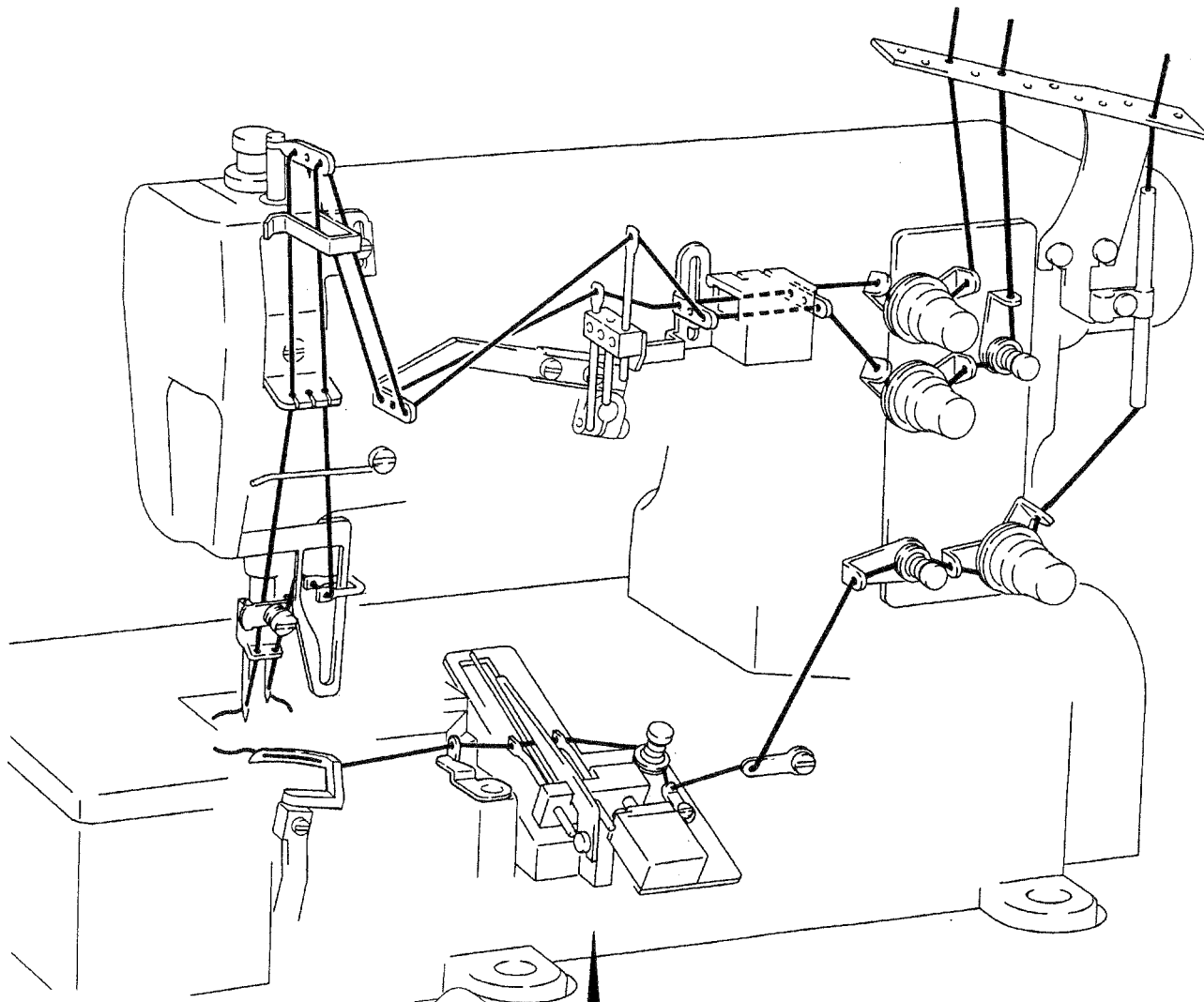
 Always turn off the power first and then thread the machine correctly.



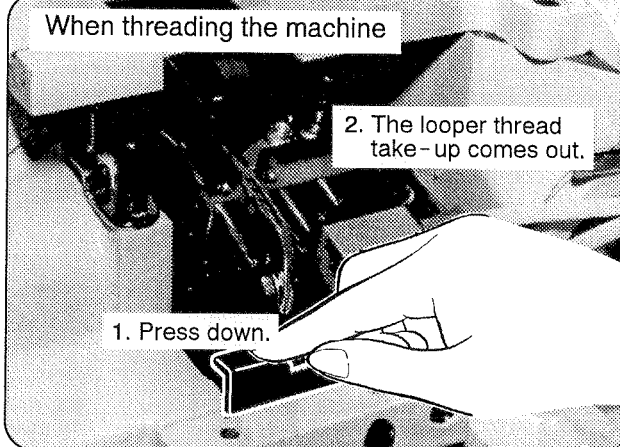
Installation

Threading diagram

Thread the machine correctly as shown below.

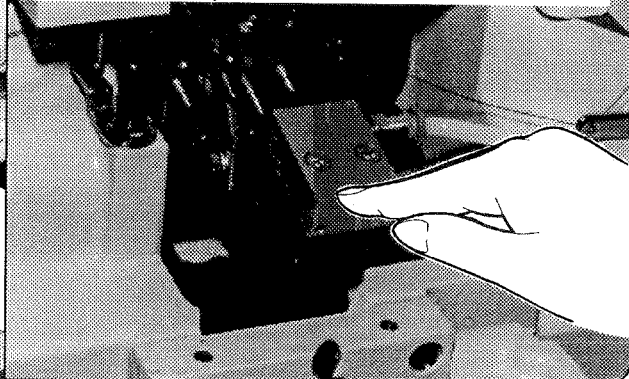


When threading the machine



2. The looper thread take-up comes out.

After threading the machine, replace the looper thread take-up.



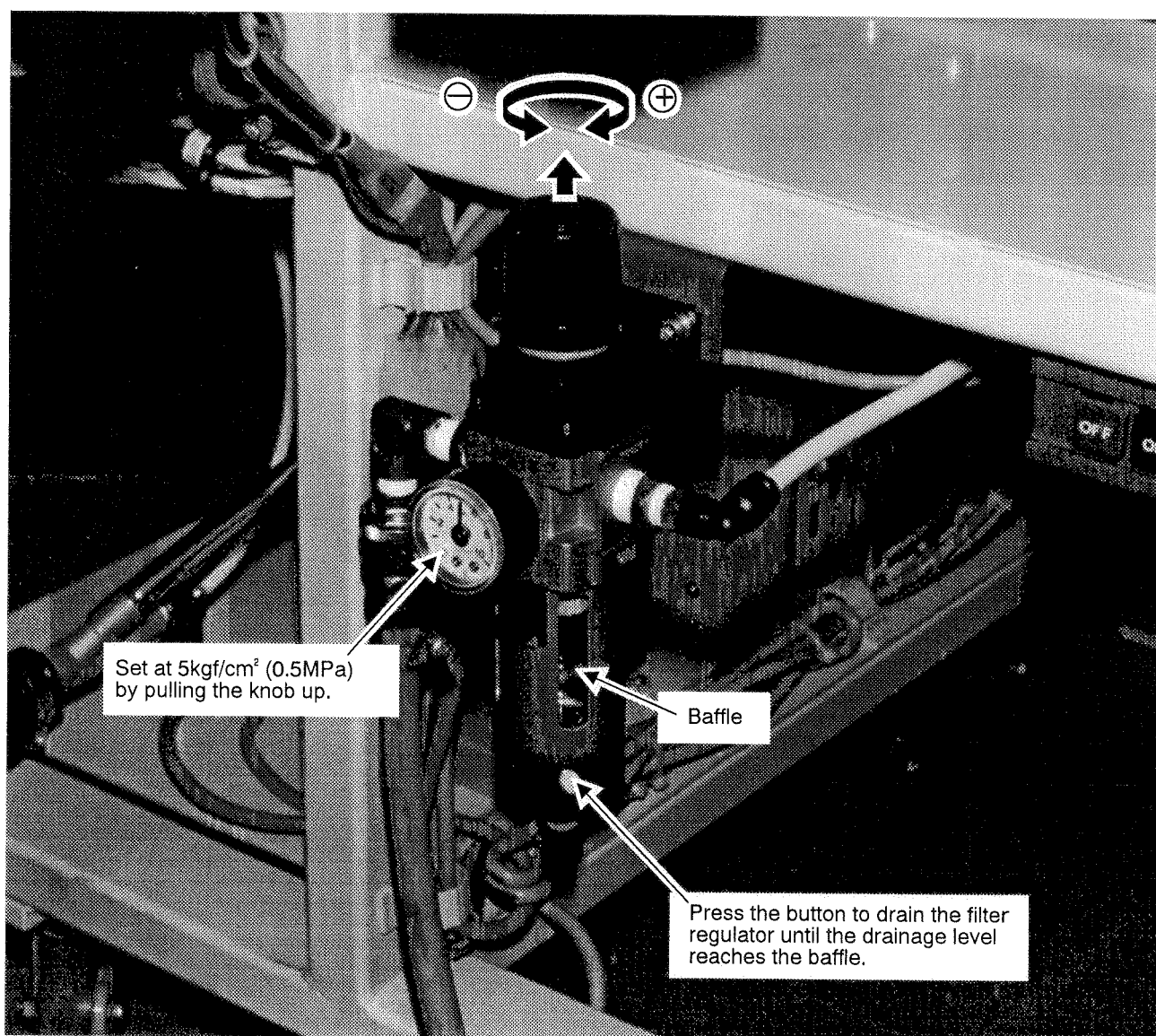
Basic adjustment

Adjusting the filter regulator

1) Connect the air line to the filter regulator.

2) Pull the pressure adjusting knob up until it clicks and then set the filter regulator at 5 kgf/cm^2 (0.5 MPa) by turning the knob clockwise or counterclockwise as required.

- To increase the air pressure, turn the pressure adjusting knob clockwise.
- To decrease the air pressure, turn the pressure adjusting knob counterclockwise.



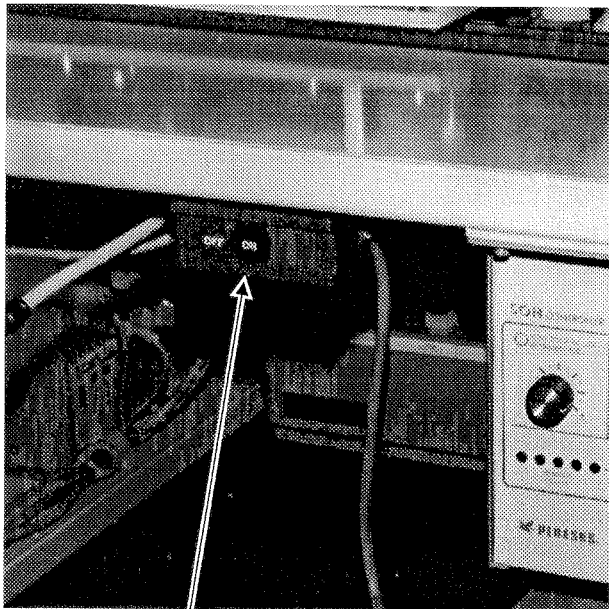
Basic adjustment



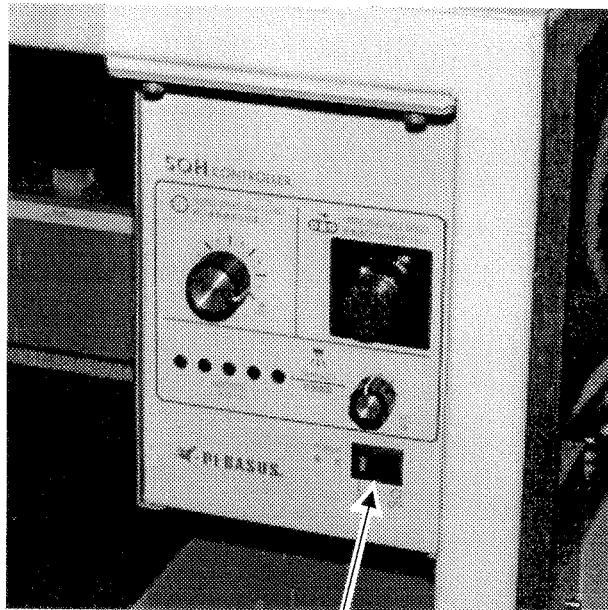
Basic adjustment

Adjusting the sensitivity of the fabric sensors

1. Turn on the power.

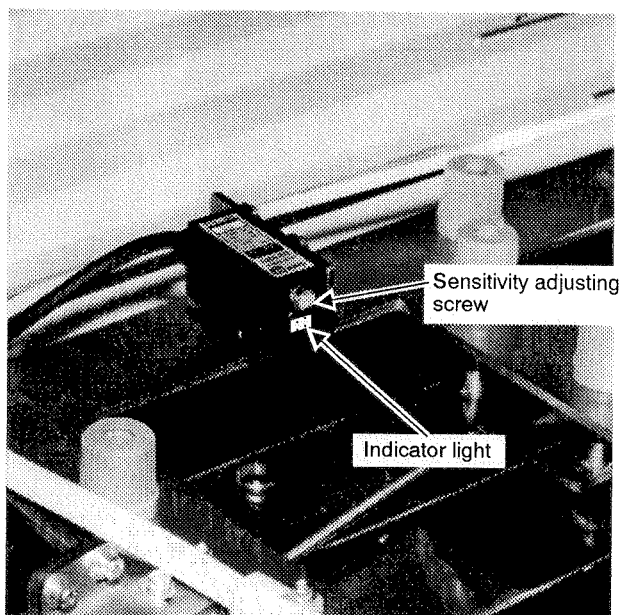


SOH power switch



Power switch for the SOH power box

2. To adjust the sensitivity of the machine start sensor

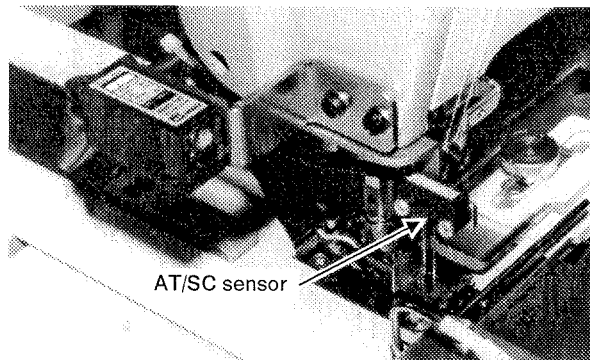


- 1) Turn the sensitivity adjusting screw counterclockwise with no fabric under the sensor until the indicator light (red) is turned on. Note the position as (A).
 - 2) Turn the sensitivity adjusting screw clockwise with the fabric under the sensor until the indicator light (green) is turned on. Note the position as (B).
 - 3) Set the sensitivity adjusting screw in the middle of point (A) and point (B).
 - 4) When the fabric is removed from the sensor, the indicator light (green) is turned on. When the fabric is positioned under the sensor, the indicator light (red) is turned on. Confirm the above.
- If the indicator light (red) is turned on with no fabric under the sensor, the sensor is too sensitive. Decrease the sensitivity by turning the sensitivity adjusting screw counterclockwise.
- ※ To obtain the proper sensitivity, make a fine adjustment repeatedly with the sensitivity adjusting screw.
- To increase the sensitivity, turn clockwise.
 - To decrease the sensitivity, turn counterclockwise.

Basic adjustment

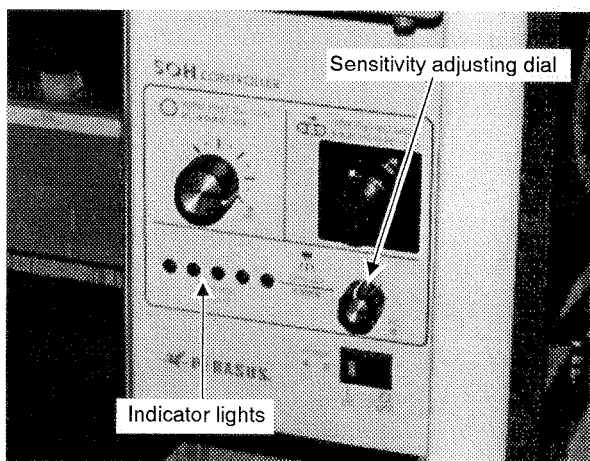
Adjusting the sensitivity of the fabric sensors

3. To adjust the sensitivity of the AT/SC sensor

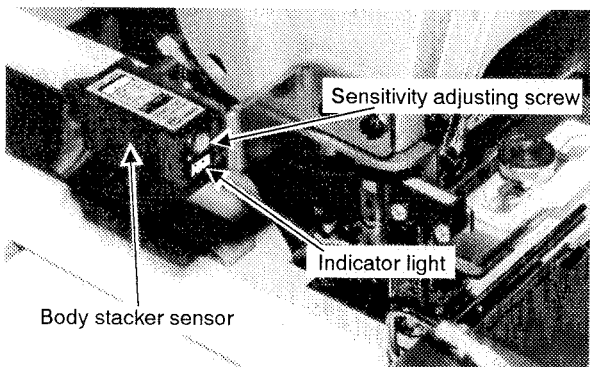


- 1) Turn the sensitivity adjusting dial on the control box counterclockwise all the way to the end with no fabric under the sensor.
- 2) Turn the sensitivity adjusting dial clockwise slowly until five indicator lights are turned on.
- 3) Make sure five indicator lights are turned on with no fabric under the sensor and all five indicator lights are turned off with the fabric under the sensor.

However, if a light weight fabric is used, all the indicator lights may not be turned off with the fabric under the sensor.



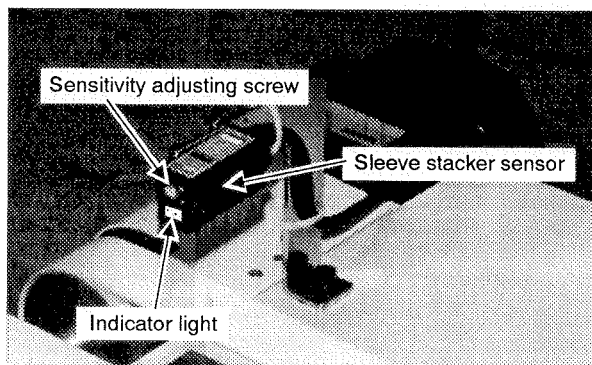
4. To adjust the sensitivity of the body stacker sensor
5. To adjust the sensitivity of the sleeve stacker sensor (optional)



- 1) Turn the sensitivity adjusting screw counterclockwise with no fabric under the sensor until the indicator light (red) is turned on. Note the position as (A).
- 2) Turn the sensitivity adjusting screw clockwise with the fabric under the sensor until the indicator light (green) is turned on. Note the point as (B).
- 3) Set the sensitivity adjusting screw in the middle of point (A) and point (B).
- 4) When the fabric is removed from the sensor, the indicator light (green) is turned on.
When the fabric is positioned under the sensor, the indicator light (red) is turned on.

Confirm the above.

If the indicator light (red) is turned on with no fabric under the sensor, the sensor is too sensitive. Decrease the sensitivity by turning the sensitivity adjusting screw counterclockwise.

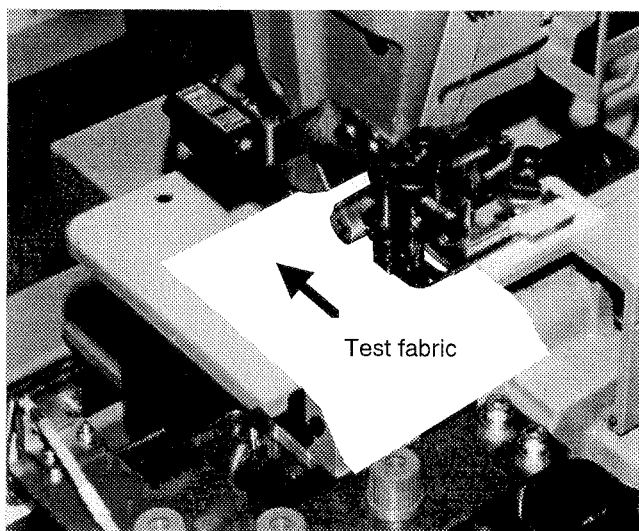


※ To obtain the proper sensitivity, make a fine adjustment repeatedly with the sensitivity adjusting screw.

- To increase the sensitivity, turn clockwise.
- To decrease the sensitivity, turn counterclockwise.

Test sewing

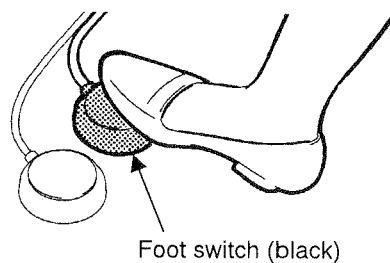
Manual HIGH
Ordering Sewing



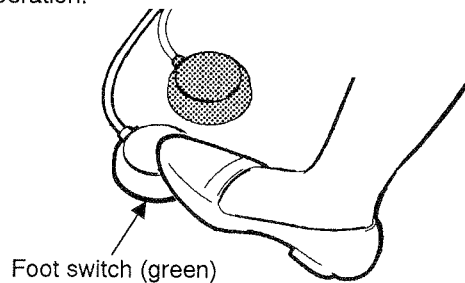
1. Call up "Manual Ordering sewing" on the display. Refer to page 91.

Pressing INC. ▲ button runs the machine at high speed.
Pressing DEC. ▼ button runs the machine at low speed.

2. Press the foot switch (black) to lift the presser foot and position the test fabric under the presser foot.



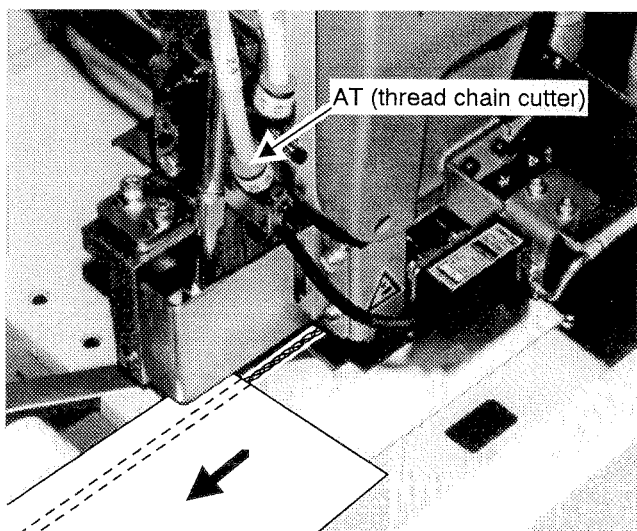
3. Press the foot switch (green) to perform a test sewing operation.



4. Press CURSOR/CUTTER →/↵ button to activate the AT device (thread chain cutter).

5. Check the stitch formation on the fabric.

6. Press PROGRAMMING ⇨ button to return to the initial sewing mode display.

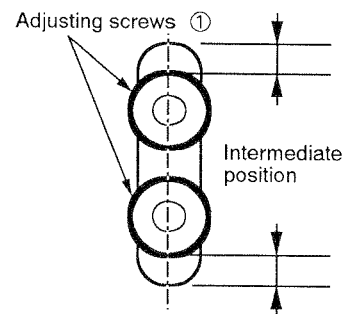
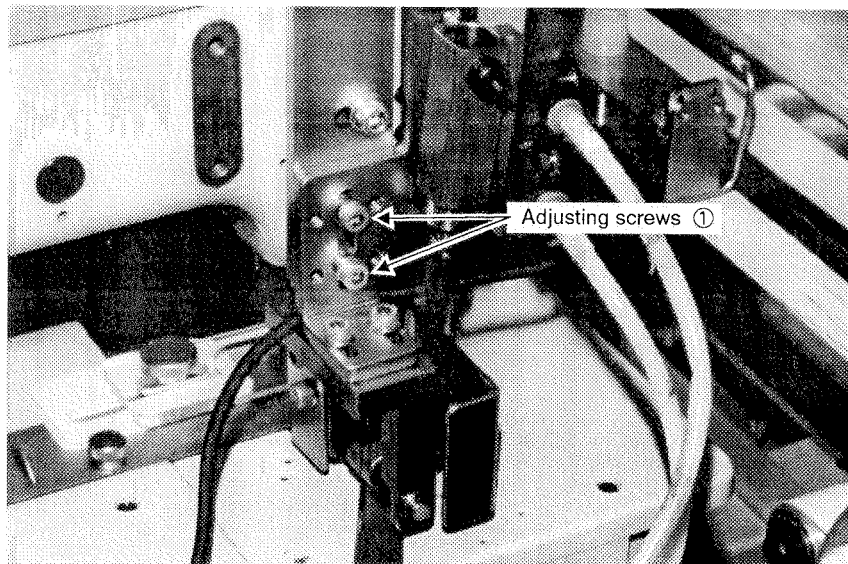


Basic adjustment

Adjusting the AT (thread chain cutter)

1. To adjust the height of the cutter

- 1) Loosen adjusting screw ① and attach (the cutter) at an intermediate position of the mounting slit.

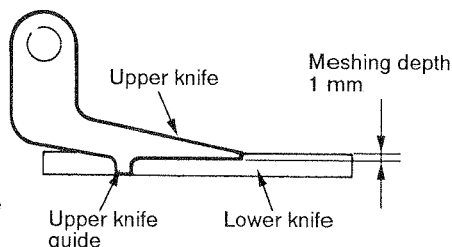
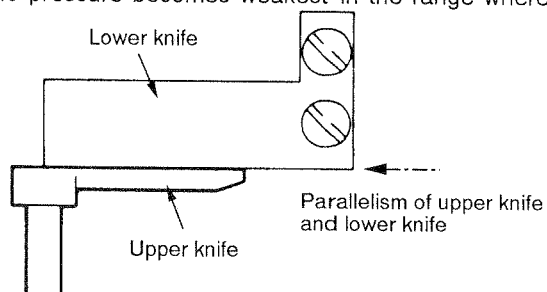
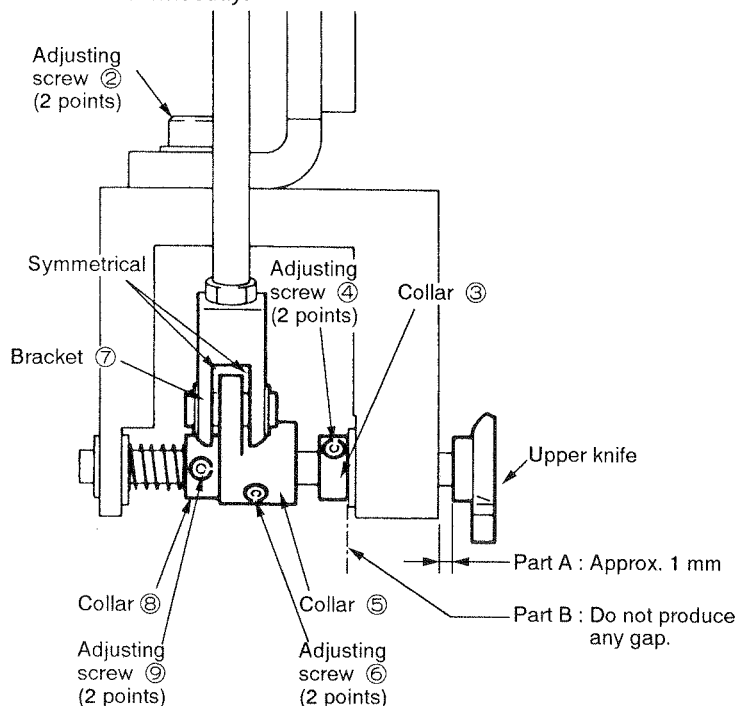


2. To adjust upper knife

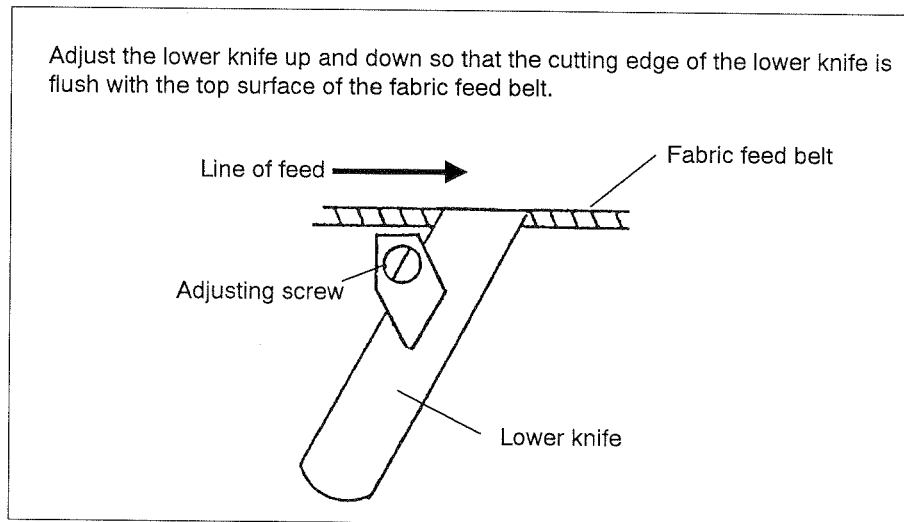
- 1) Put the upper knife and the lower knife parallel to each other and adjust by loosening adjusting screw ② in such a way that a clearance of about 1 mm may be produced at the part A in the state where the upper knife is meshed with the lower knife. (Loosen screws ④, ⑥ in advance when making this adjustment.)
- 2) When only the guide of the upper knife is in contact with the lower knife (state in which the upper knife is slightly raised), adjust the position of collar ③ by loosening adjusting screw ④ in a way not to produce any gap in the part B.
- 3) When the cylinder is at the lowest position, adjust by loosening adjusting screw ⑥ of collar ⑤ and moving the upper knife in such a way that the meshing depth of the upper and lower knives comes to 1 mm. At that time, make bracket ⑦ come to a position symmetrical opposite against collar ⑤.

3. Adjustment of upper knife pressure

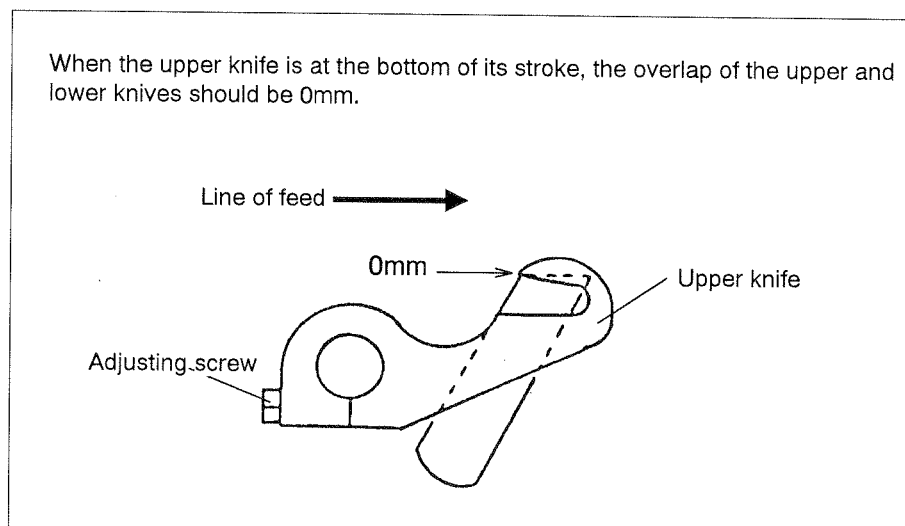
- 1) Adjust the position of collar ⑧ by loosening adjusting screw ⑨ so that the pressure becomes weakest in the range where thread chain are cut smoothly.



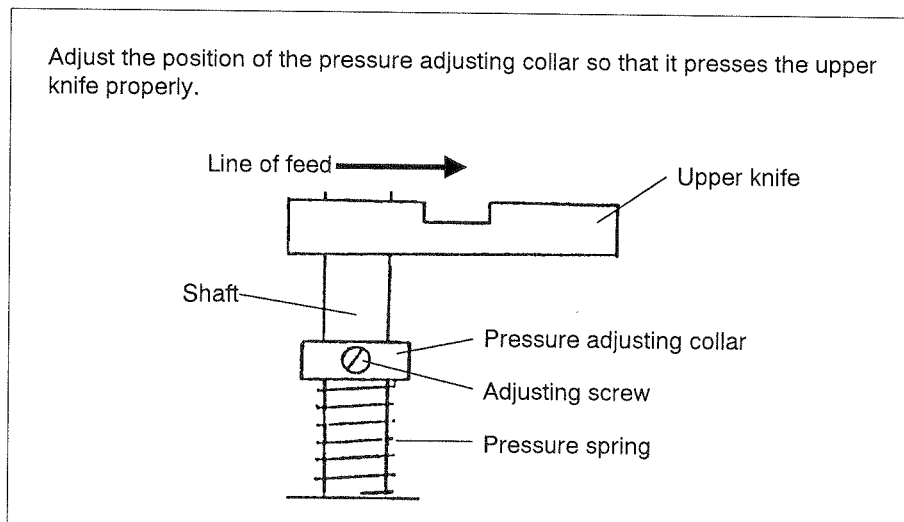
1.To adjust the lower knife up and down



2.To adjust the upper knife up and down



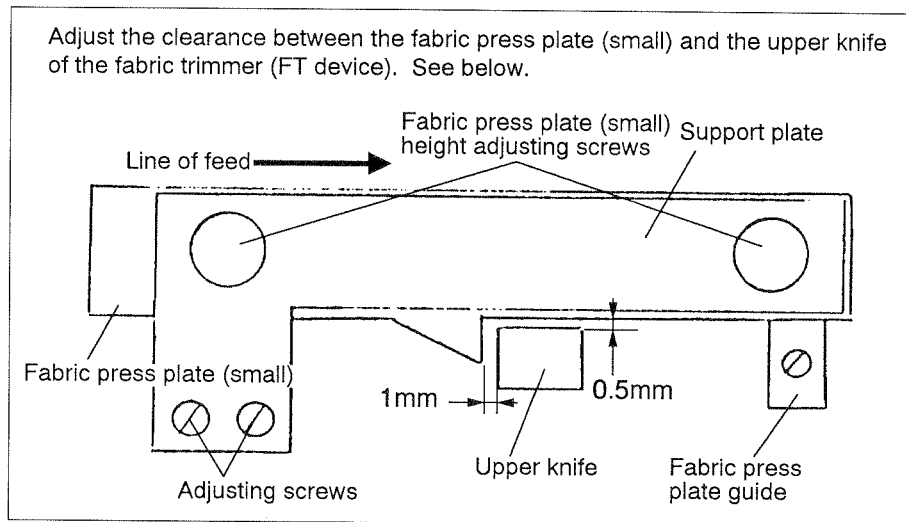
3.To adjust the pressure of the upper knife



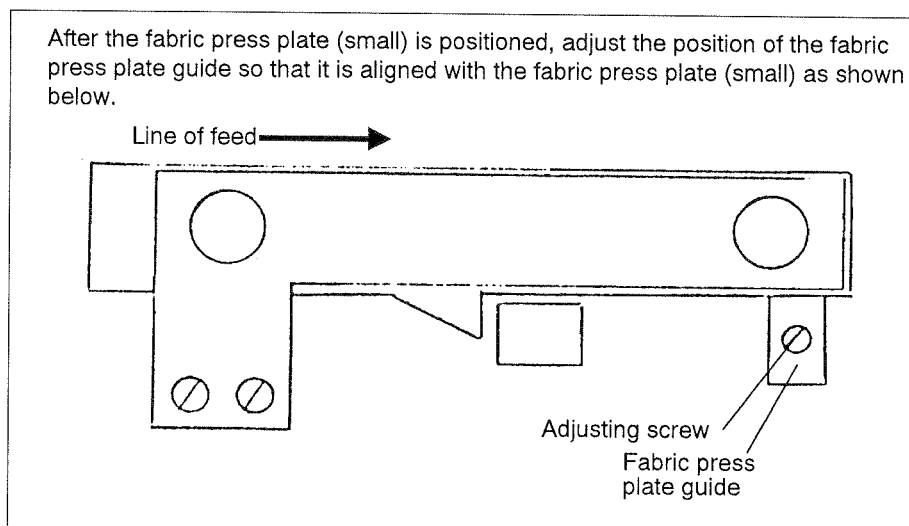
Basic adjustment

Adjusting the fabric press plate (small) Adjusting the fabric press plate guide Adjusting the fabric edge guide plate

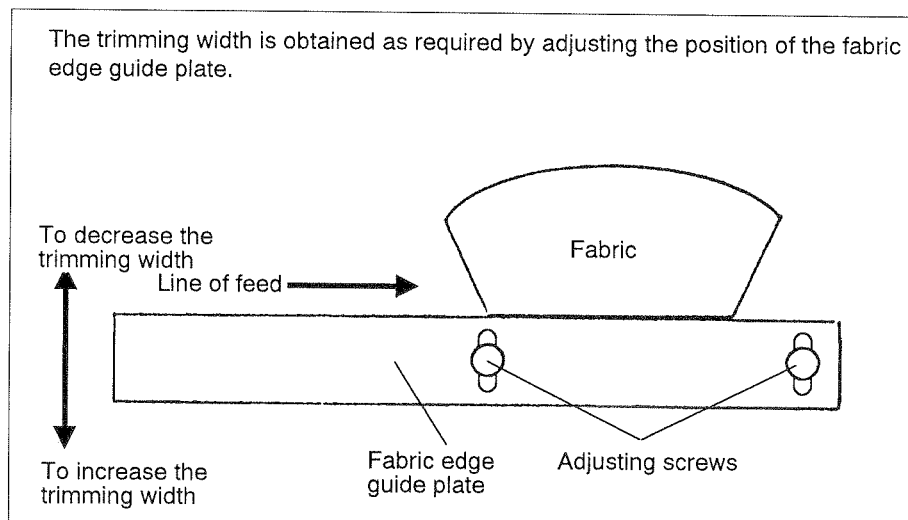
1.To adjust the fabric press plate (small)



2.To adjust the fabric press plate guide



3.To adjust the fabric edge guide plate

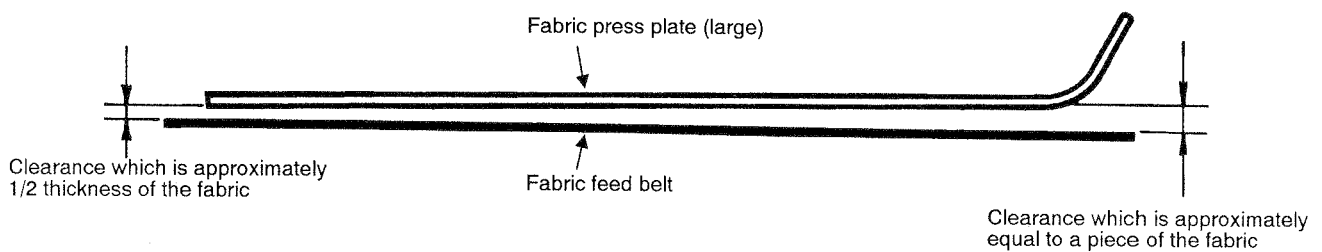
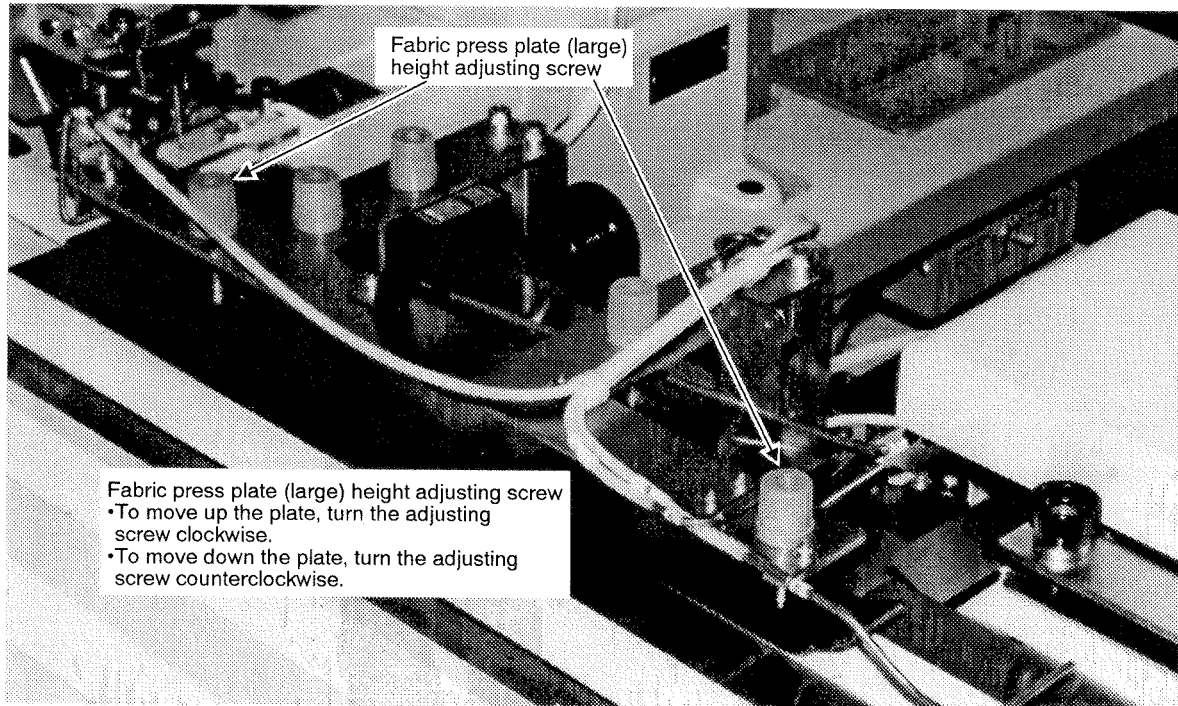


Basic adjustment

Adjusting the fabric folder guide 1

1. To adjust the fabric press plate (large)

- 1) Adjust the height of the fabric press plate (large) so that the fabric can go through the fabric press plate (large) smoothly.



Basic adjustment

Adjusting the fabric folder guide 2

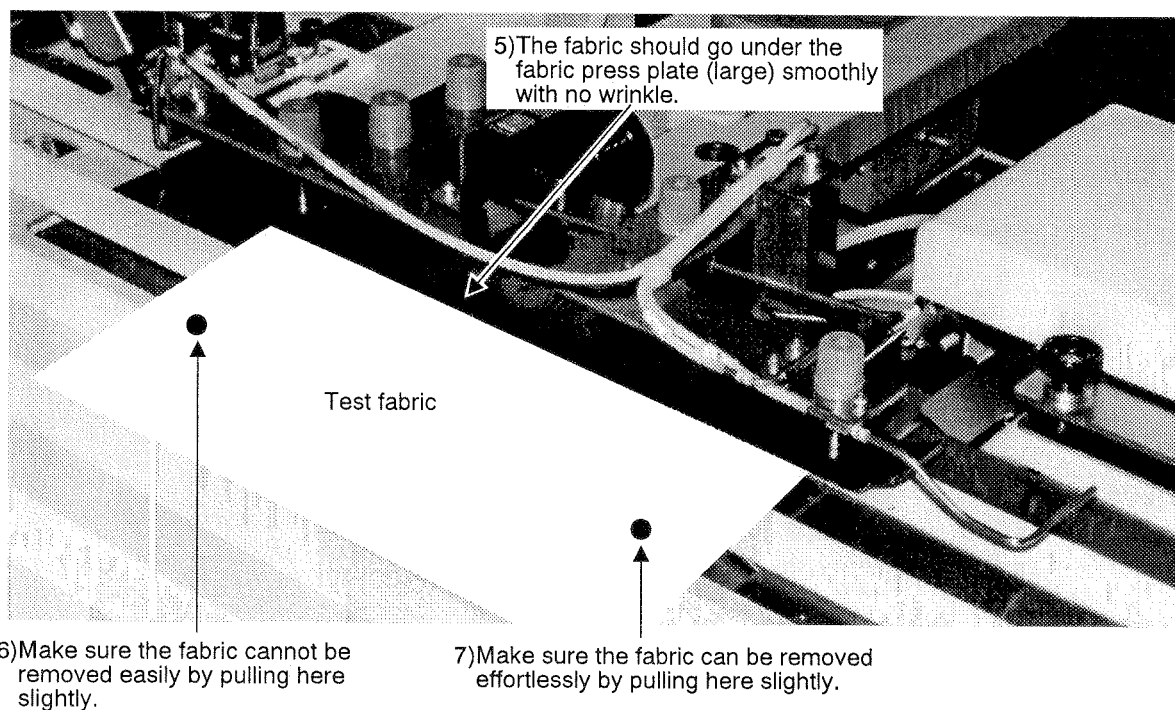
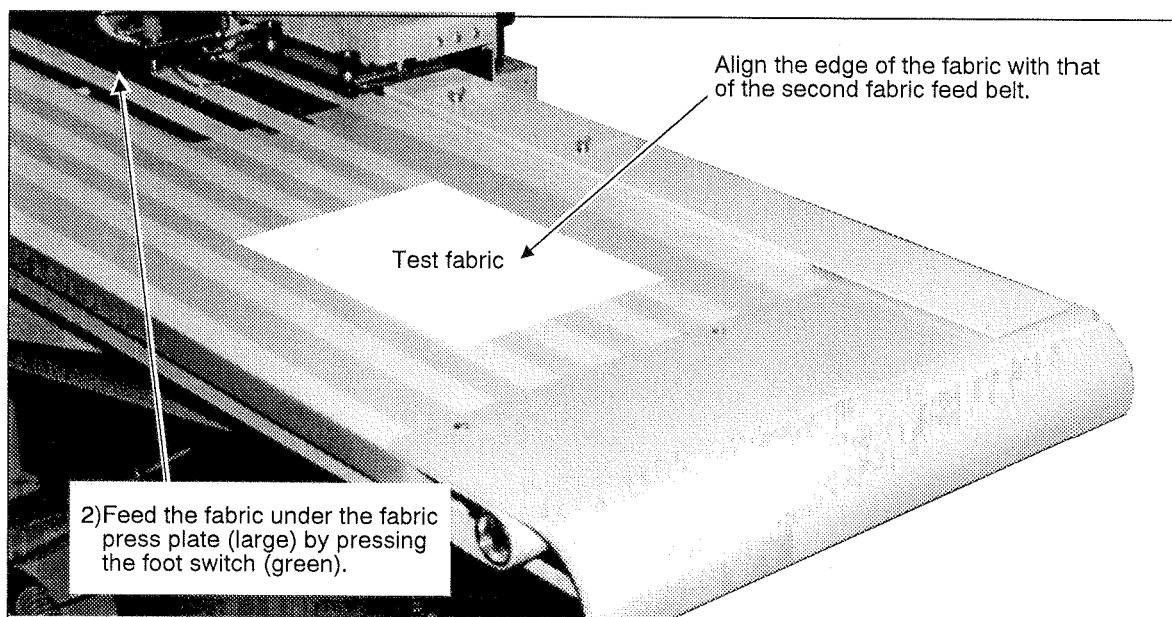
Before adjustment

1. Call up "Belt run manual" on the display. Refer to "Programming sewing data" on page 34.

Belt run manual

To run the fabric feed belt in the operating direction, press the foot switch (green).

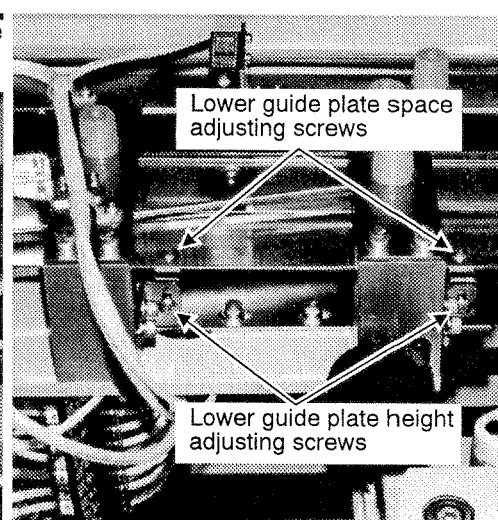
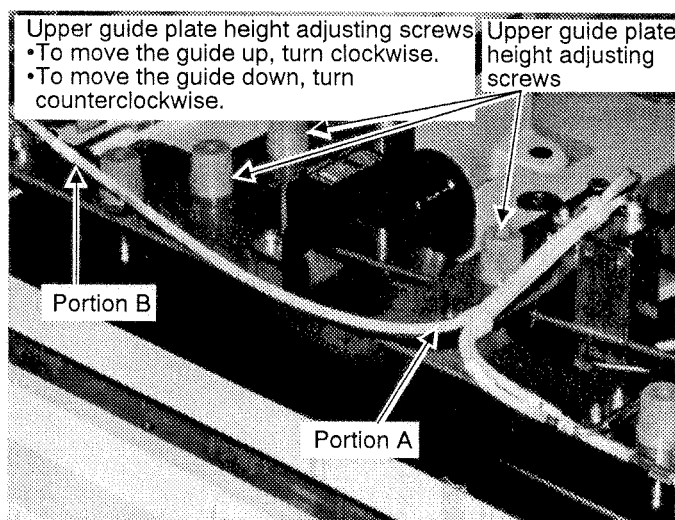
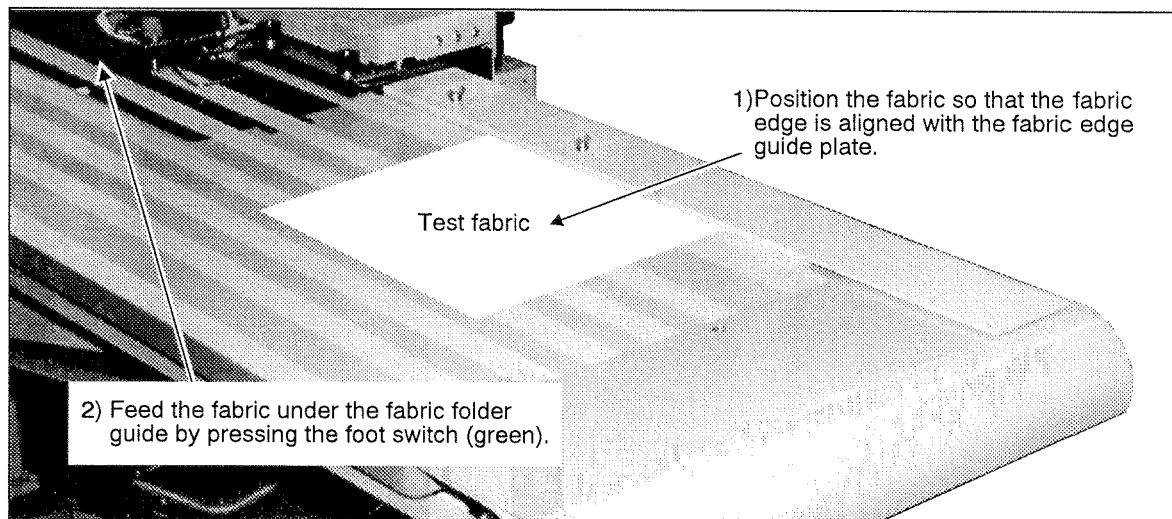
To run the fabric feed belt in the reverse direction, press the foot switch (black).



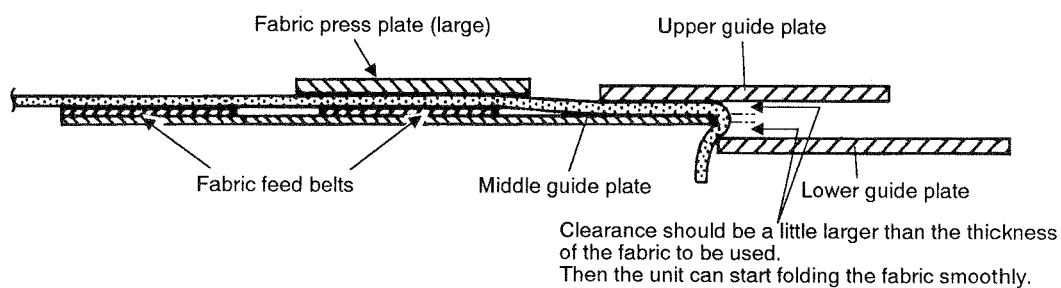
Basic adjustment

Adjusting the fabric folder guide 3

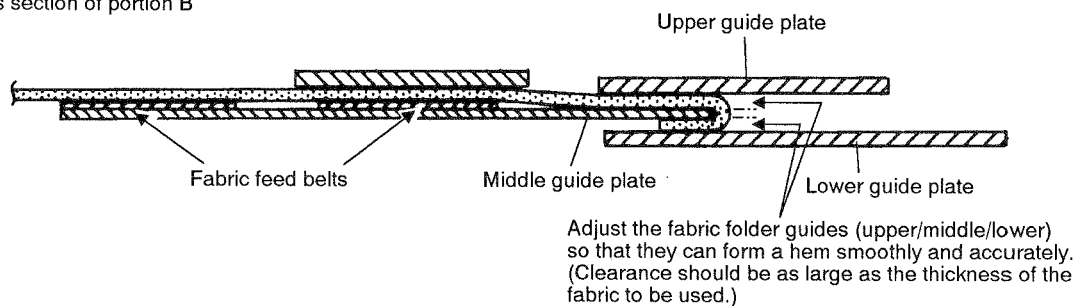
2.To adjust the height of the upper and lower guide plates

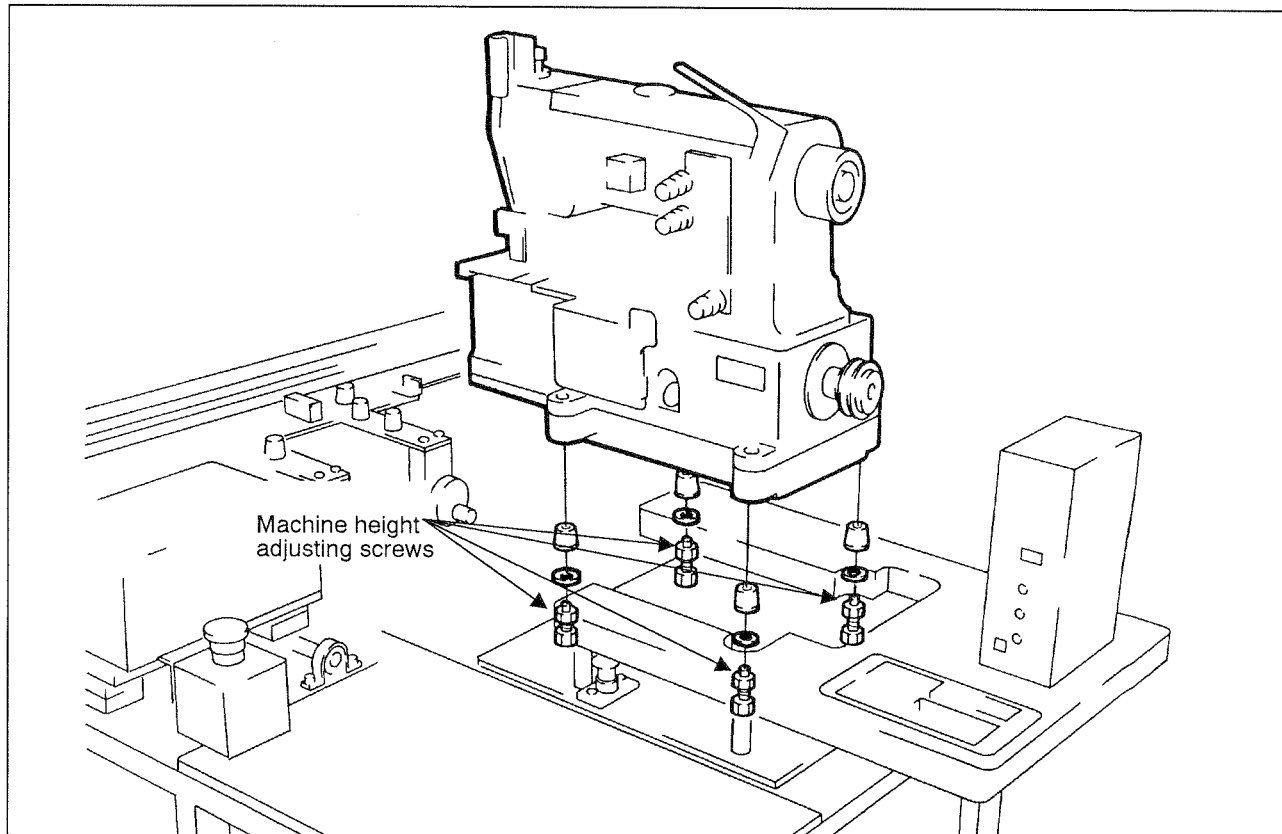


Cross section of portion A

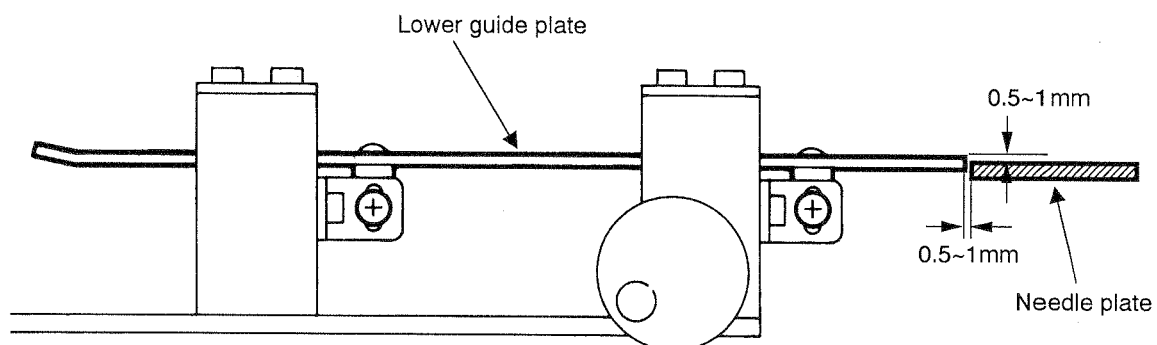


Cross section of portion B



3. To adjust the height of the machine

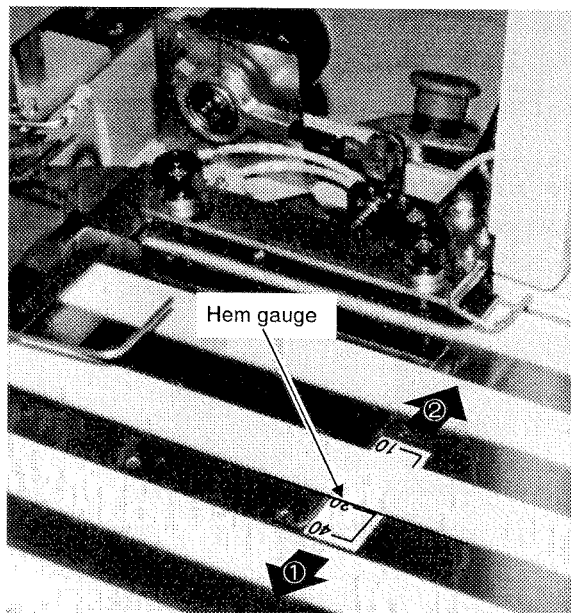
Adjust the height of the machine so that the needle plate is 0.5 - 1mm below the top surface of the lower guide plate.



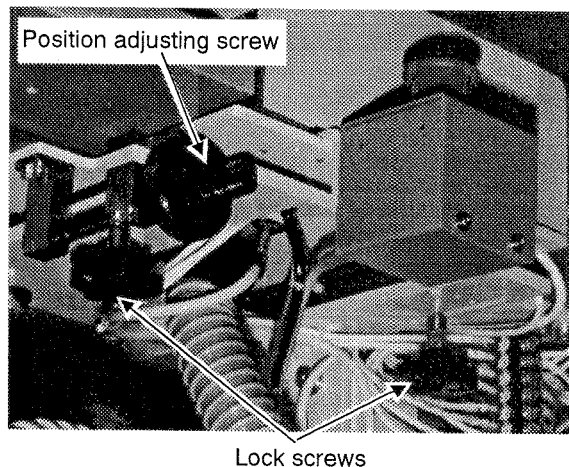
Basic adjustment

Adjusting hem width (20 - 35mm) 1

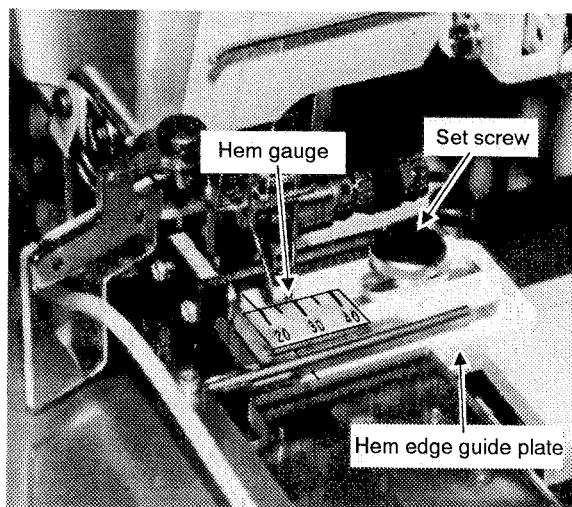
1. To position the fabric trimmer
(to adjust the width of the fabric edge to be cut)



- 1) Loosen the lock screw.
- 2) Adjust the width as required with the position adjusting screw while referring to the hem gauge.
(An exact width may not be obtained by the hem gauge due to the change of fabric thickness. Therefore use the hem gauge just for reference.)



2. To adjust the hem edge guide plate



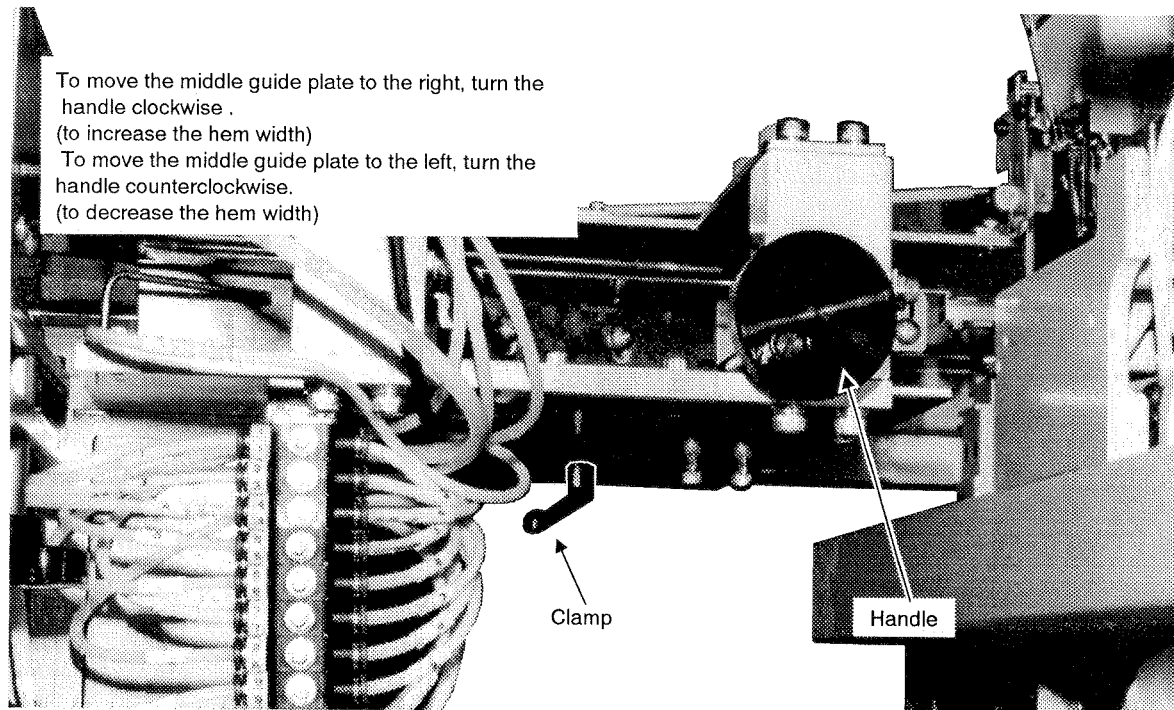
Loosen the set screw. Adjust the hem edge guide plate by moving it to the left or right while referring to the hem gauge. Three kinds of hem edge guide plates (1, 1.5 and 2mm) are available, so replace the guide plate according to the thickness of the fabric if necessary.
(An exact width may not be obtained by the hem gauge due to the change of fabric thickness. Therefore use the hem gauge just for reference.)

Basic adjustment

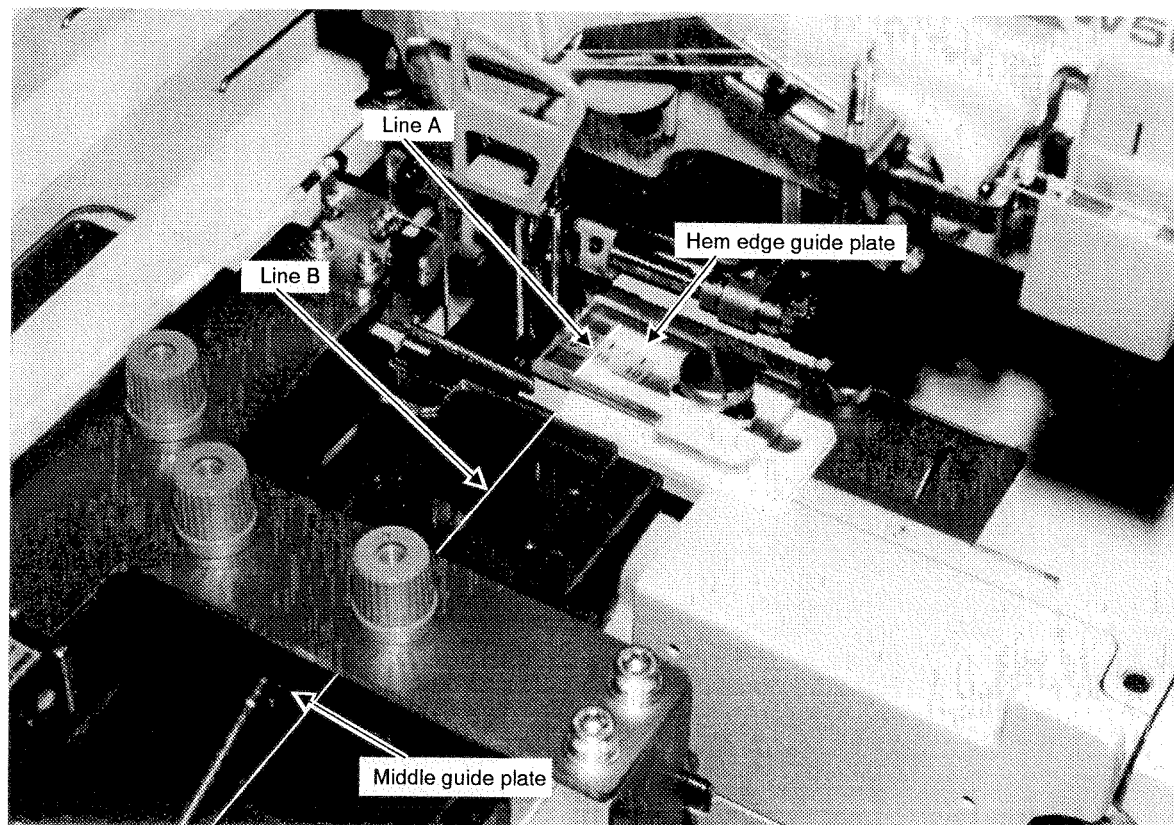
Adjusting hem width (20 - 35mm) 2

3. To position the middle guide plate

1) Loosen the clamp.



2) Turn the handle to align line B on the middle guide plate with line A on the hem edge guide plate which has been adjusted.



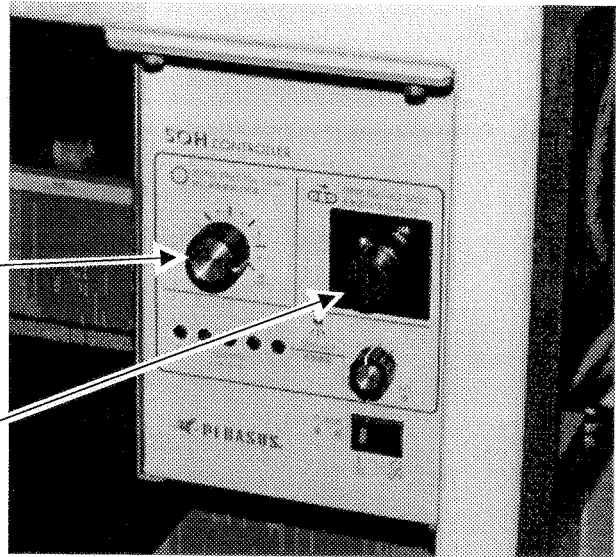
Basic adjustment

Adjusting the machine speed in low speed range and the fabric feed belt speed

1. To adjust the machine speed in low speed range
When the machine is running at the thread chain producing speed, increase the speed enough to produce the thread chain smoothly.

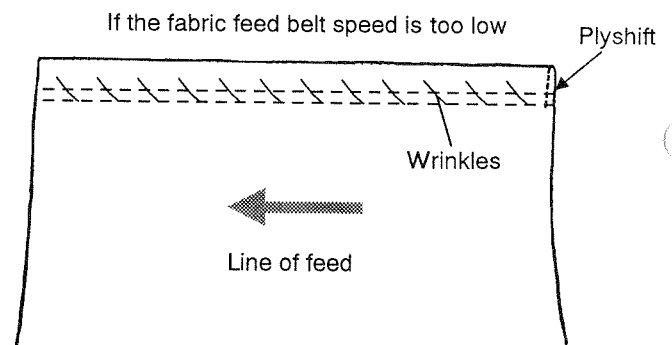
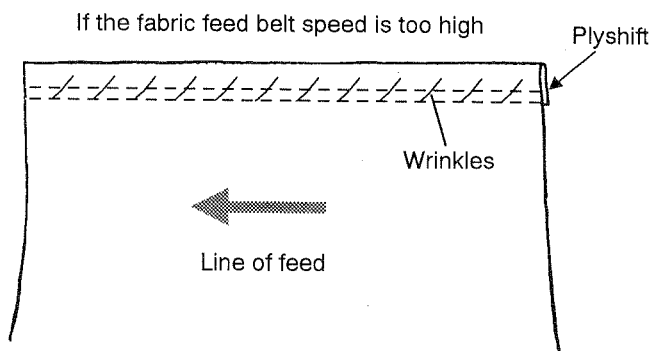
Machine speed (in low speed range) adjusting dial

Fabric feed belt speed adjusting dial



2. To adjust the fabric feed belt speed

When the machine is running at high speed, synchronize the fabric feed belt speed with the machine speed with the fabric feed belt speed adjusting dial.

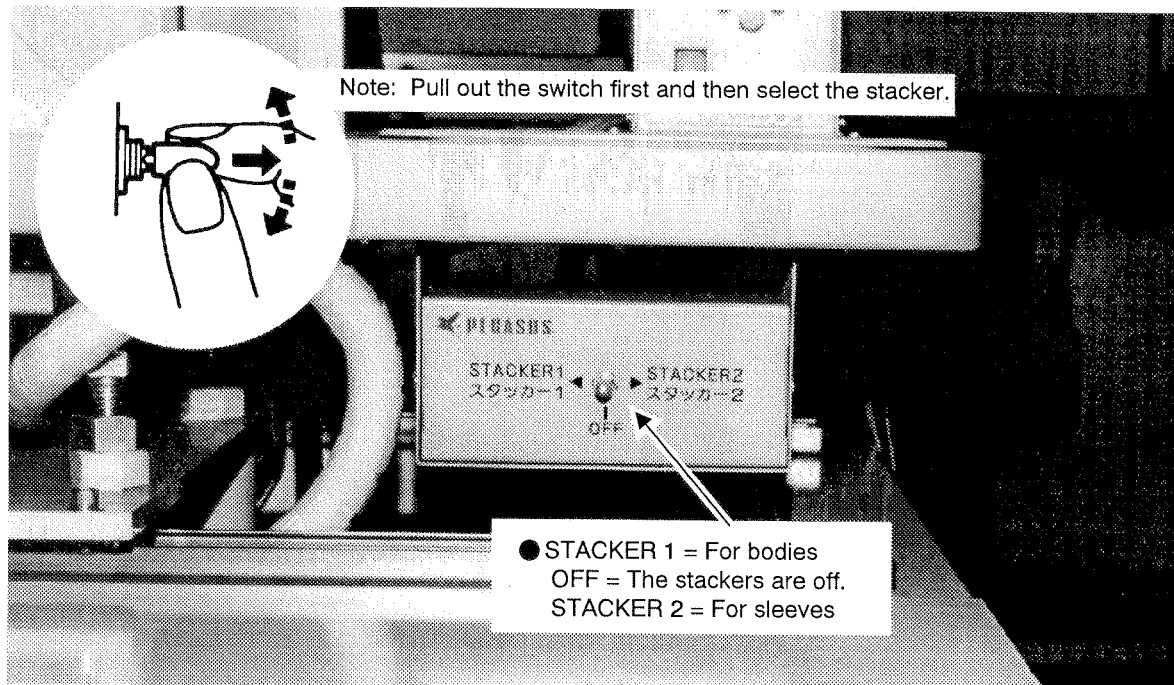


Basic adjustment

Selecting the sleeve/body stacker Returning the stacker tables

1.To select the sleeve/body stacker

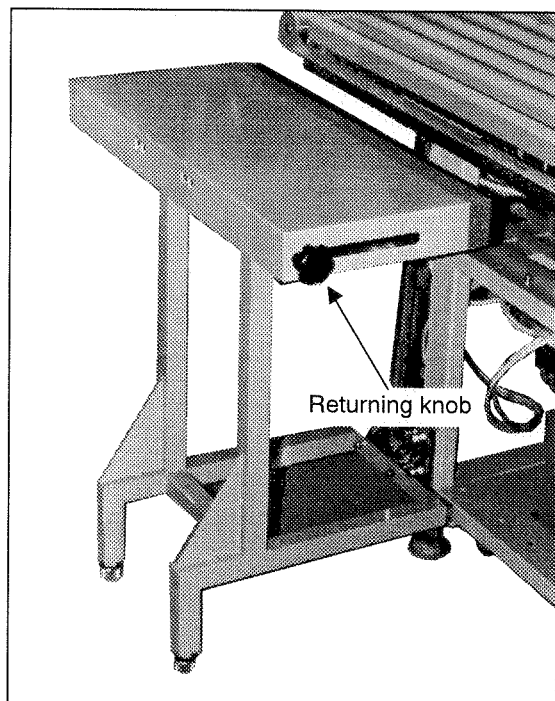
※ Refer to the following instructions for the SOH-320 S1



2.To return the stacker tables

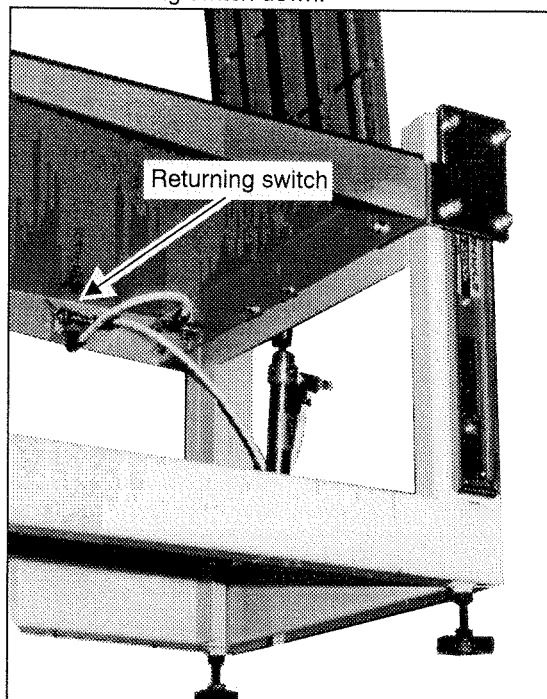
1)Body stacker

After removing finished products, return the stacker table by turning the returning knob.



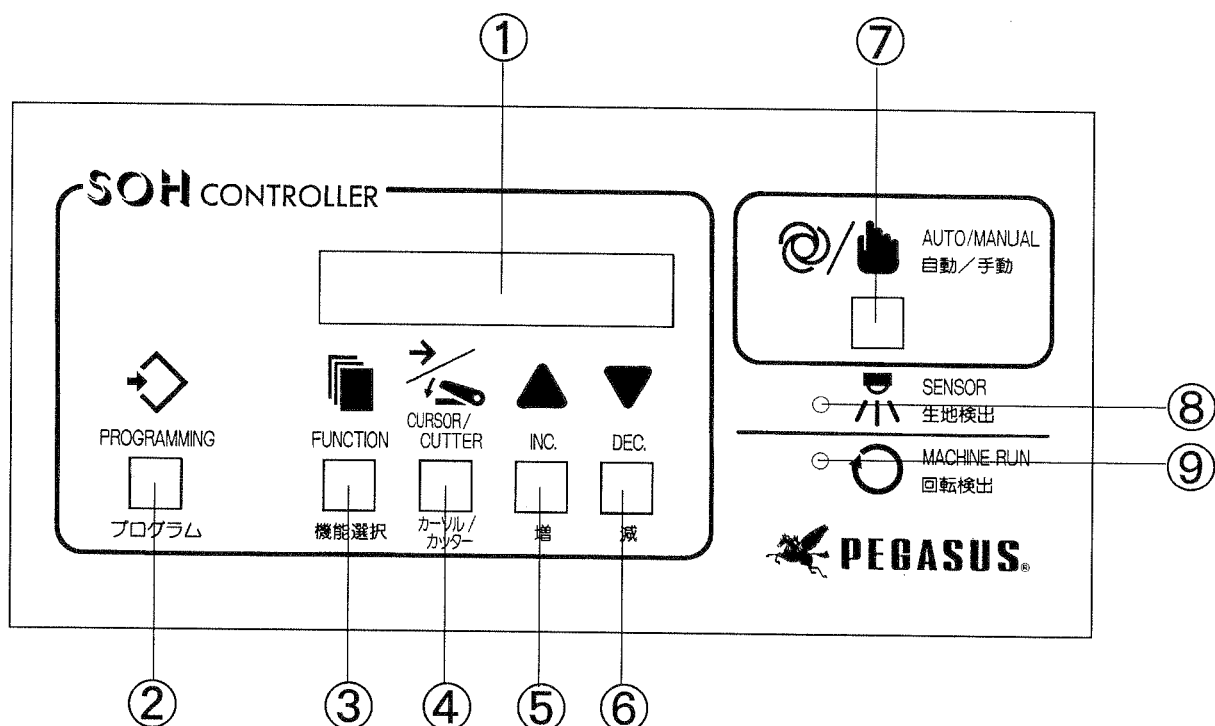
2)Sleeve stacker

After removing finished products, return the stacker table by flipping the returning switch up.
After the returning the stacker table, flip the returning switch down.



Programming sewing data

Descriptions and functions of the control panel



1. Display window

Displays various information.

2. PROGRAMMING button

- Operator stage (Operator Level)
To select the display, "Manual Ordering Sewing" or "Memo"
- Service personnel stage (Mechanic Level)
To call up various kinds of counters or timers to control this sewing unit.

3. FUNCTION button

- Operator stage (Operator Level)
To select the display, "Test Sewing", "Belt run manual" or "Piece Count"
- Service personnel stage (Mechanic Level)
To call up each function
To change the display sequentially in the programming mode

4. CURSOR/CUTTER button

- To move the cursor that indicates a particular position to be entered in the programming mode
- To move a space on the display "Memo"
- To activate the AT device in order to cut the thread chain in the test sewing mode.

5. INC. button

To increase the number to be entered in the programming mode

6. DEC. button

To decrease the number to be entered in the programming mode

7. AUTO/MANUAL button

To select AUTO or MANUAL sewing (test sewing)


8. Fabric detector light

When the light from the fabric sensor is interrupted by the fabric, this light is turned on.
(Detecting the fabric edge is a reference for setting each counter and timer.)

9. Rotation detector light

Turns on every time the machine has finished one cycle.

1. How to turn on the power

Turn on the SOH power switch while pressing PROGRAMMING  button.

If the power of the SOH is on, turn it off and then perform the above procedure.

2. To select each function

<Initial display>

No. 01 Auto

Press  button.

Manual HIGH
Ordering Sewing

Press  button.

Belt run manual

Press  button.

Select ON or OFF.

Piece Count ON
00000 ▲▼RESET

A number is added
each time when a
piece has been finished.


Press  button.

Continued on the following page.

To select a sewing pattern

To select AUTO or MANUAL

Select a pattern No. to be programmed by INC. ▲ or DEC. ▼ button.

Select AUTO or MANUAL with AUTO/MANUAL  button.


MANUAL Keep the foot switch (green) on to sew the fabric.

AUTO Once you press the foot switch (green), the unit will sew the fabric automatically.


Stitch formation checking mode

Pressing INC. ▲ button runs the machine at high speed.

Pressing DEC. ▼ button runs the machine at low speed.

Pressing CURSOR/CUTTER  button operates the AT device for cutting the thread chain.

※ Refer to page 76 for more information.

CS shows on the display by pressing AUTO/MANUAL  button.

The machine runs at the thread chain producing speed.
The sensors does not operate.

To adjust the fabric feed belt/fabric folder guide


To rotate the belt in the operating direction, press the foot switch (green).

To rotate the belt in the reverse direction, press the foot switch (black).

Output counter

If the output counter display is needed, select "ON."

If not, select "OFF."

Select ON or OFF by pressing AUTO/MANUAL  button.

To reset the output counter, press INC. ▲ and DEC. ▼ buttons simultaneously.

Basic adjustment


Programming sewing data 2

(Selecting each function)

Continued from the previous page.

Machine Speed
00000 spm HIGH

Displays the machine speed.

Displays the selected speed range.
Press  button.

Japanese
ニホンゴヒョウジ

Displays the selected language.

Press  button.

<Initial display>

No. 01
Auto

Machine speed display

To confirm the machine speed while sewing

Press INC. ▲ button to display the machine speed in high speed range (plain seaming).

Press DEC. ▼ button to display the machine speed in low speed range (thread chain producing).

Selecting a language displayed on the window

Select Japanese or English by pressing INC. ▲ or DEC. ▼ button.

Initial display

The display window returns to the initial stage.


Basic adjustment

Mechanic Level

Programming sewing pattern data 1

(Setting "Memo" and timers)



1. How to turn the power on.


Turn on the push button while pressing PROGRAMMING  button.
If the power on, turn it off and then perform the above procedure.

2. Select a pattern number to be programmed.

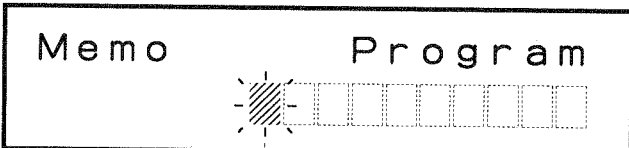
<Initial display>



Select a pattern No. to be programmed by pressing INC.  or DEC.  button.

Press  button to call up the display "Memo Program".

3. To program the sewing pattern




Entry of memos

To enter up to 10 letters such as memos or the name of sewing pattern. These letters are shown in the initial display.

The cursor is blinking at the entry point.

The following letters can be entered.

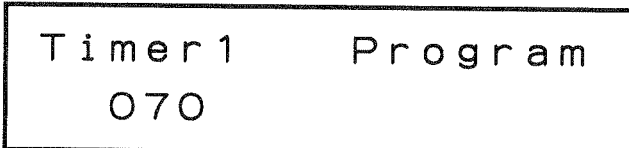
English

 !"#\$%&'()*+,-./0123456789:;<=>?@
ABCDEFGHIJKLMNOPQRSTUVWXYZ [¥]
^ _ `abcdefghijklmnopqrstuvwxyz { | } → ←

Japanese

。 「 」 ・ ヲ アイ ウ エ オ カ キ ク ケ コ サ シ ス セ ソ
タ チ ツ テ ト ナ ニ ヌ ネ ノ ハ ヒ フ ヘ ホ マ ミ ム メ モ
ヤ ュ ョ ラ リ ル レ ロ ワ ン 〃 °

Press  button.






× 1/100sec.



Press  button.

Continued on the following page.

To enter memos

- 1) Place the cursor on the entry point as desired with CURSOR  button.
- 2) Select letters to be entered by pressing  or  button.
- 3) Move the cursor to the next entry point.
- 4) Perform the above procedures repeatedly.

Low speed operation timer (factory - set time: 0.7 sec.)

Program the time from when the light from the machine start sensor is interrupted by the fabric to when the machine speed is changed from low speed to high speed. Enter the time with  or  button.

Basic adjustment

(Mechanic Level)

Programming sewing pattern data 2

(Setting each timer)

Continued from the previous page.

Timer 2 Program
070

× 1/100sec.

Press  button.

Timer 3 Program
200

× 1/100sec.

Press  button.

Timer 4 Program
040

× 1/100sec.

Press  button.

Timer 5 Program
030

× 1/100sec.

Press  button.

Timer 6 Program
000

× 1/100sec.

Press  button.

Timer 7 Program
030

× 1/100sec.

Press  button.

Continued on the following page.

Presser foot descending timer (factory - set time: 0.7 sec.)
Program the time from when the light from the machine start sensor is interrupted by the fabric to when the presser foot starts descending.

Normally select "OFF" on the display "PL Program" and sew the fabric with the presser foot lowered.
Enter the time with ▲ or ▼ button.

High speed operation timer (factory - set time: 2.0 sec.)
Program the time from when the fabric has gone through the light from the machine start sensor to when the machine speed is changed from high speed to low speed.
Enter the time with ▲ or ▼ button.

Low speed operation timer (factory - set time: 0.4 sec.)
Program the time from when the machine starts to run at low speed to when the fabric feed belt stops.
Enter the time with ▲ or ▼ button.

Machine stop timer (factory - set time: 0.3 sec.)
Program the time from when the fabric feed belt stops to when the machine stops.
Enter the time with ▲ or ▼ button.

Fabric feed belt start timer (factory - set: 0 sec.)
Program the time from when the fabric feed belt stops to when the fabric feed belt restarts in the automatic start mode.
Enter the time with ▲ or ▼ button.

Stacker operation timer (factory - set time: 0.3 sec.)
When the stacker operation mode is set for "IN", program the time from when the light from the stacker sensor is interrupted by the fabric to when the stacker gets actuated.
When the stacker operation mode is set for "OUT", program the time from when the fabric has gone through the light from the stacker sensor to when the stacker gets actuated.
Enter the time with ▲ or ▼ button.

Basic adjustment

(Mechanic Level)

Programming sewing pattern data 3

(Setting each timer and stitch counters)

Continued from the previous page.

↓

Timer8	Program
040	

× 1/100sec.

Press  button.

↓

Timer9	Program
000	

× 1/100sec.

Press  button.

↓

Timer10	Program
000	

Press  button.

↓

ATstart	Program
15	

Press  button.

↓

ATend	Program
35	

Press  button.

↓

SCstart	Program
10	

Press  button.

Continued on the following page.

Stacker air blower operation timer
(factory - set time: 0.4 sec.)

Program the time from when the stacker get actuated to when the stacker air blower starts blowing air.
Enter the time with ▲ or ▼ button.

Stacker stop timer (factory - set time: 0 sec.)

Program the time from when the stacker air blower starts blowing air when the stacker returns home.
Enter the time with ▲ or ▼ button.

Timer 10 is vacant.

AT stitch counter for the first cutting of the thread chain
(factory - set: 15 stitches)

Program the stitch count from when the light from the AT thread chain cutting sensor is interrupted by the fabric to when the AT get actuated.
Enter the stitch count with ▲ or ▼ button.

AT stitch counter for the second cutting of the thread chain
(factory - set: 35 stitches)

Program the stitch count from when the fabric has gone through the light from the AT thread chain cutting sensor to when the AT get actuated.
Enter the stitch count with ▲ or ▼ button.

SC stitch counter to change the SC device
(thread releaser) from the thread chain mode to the plain seaming mode (factory - set: 10 stitches)

Program the stitch count from when the light from the SC sensor is interrupted by the fabric to when the SC device is changed from the thread chain mode to the plain seaming mode.

Basic adjustment

(Mechanic Level)

Programming sewing pattern data 4

(Setting counters, timers and selecting function)

Continued from the previous page.

SCend Program
00

Press  button.

ATTimer Program
10

× 1/100sec.

Press  button.

RPstart Program
0

Press  button.

RPend Program
10

Press  button.

Stacker Program
OUT

Press  button.

PL Program
ON

Press  button.

Continued on the following page.

SC stitch counter to change the SC device (thread releaser) from the plain seaming mode to the thread chain mode (factory - set stitch count: 0) Program the stitch count from when the fabric has gone through the light from the SC sensor to when the SC device is changed from the plain seaming mode to the thread chain mode.

Enter the stitch count with ▲ or ▼ button.

AT device operation timer (factory - set time: 0.1 sec.) Program the time when the AT device is operating. Enter the stitch count with ▲ or ▼ button.

No function.

No function.

To select when to start the stacker timer
If you select "IN", the timer starts counting when the light from the stacker sensor is interrupted by the fabric.
If you select "OUT", the timer starts counting when the fabric has gone through the light from the stacker sensor.
Select "IN" or "OUT" with ▲ or ▼ button.

To select the presser foot operation mode
Normally select "OFF."
Select "ON" or "OFF" with ▲ or ▼ button.

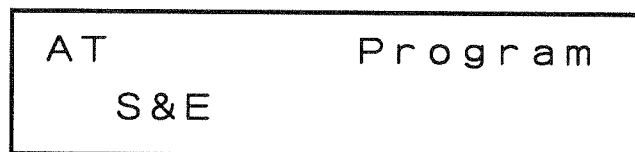
Basic adjustment

(Mechanic Level)

Programming sewing pattern data 5

(Setting counters, timers and selecting function)

Continued from the previous page.



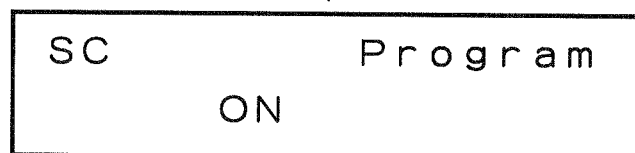
To select the AT device (thread chain cutter) operation mode

Select any one of four modes "OFF", "START", "END", "S & E."

Normally select "S & E."

Select any one of four modes with ▲ or ▼ button.

Press  button.



To select the SC device (thread releaser) operation mode

Select the SC device operation mode.

If you select "ON", the SC device automatically changes from the plain seaming mode to the thread chain mode.

If you select "OFF", the SC device does not operate.

The plain seaming mode is continued.

Normally select "ON."

Select "ON" or "OFF" with ▲ or ▼ button.

Press  button.

The display returns to "MEMO."

SOH

-300 Series

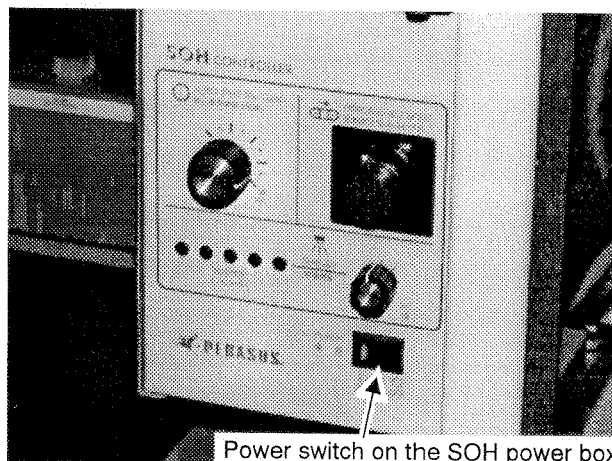
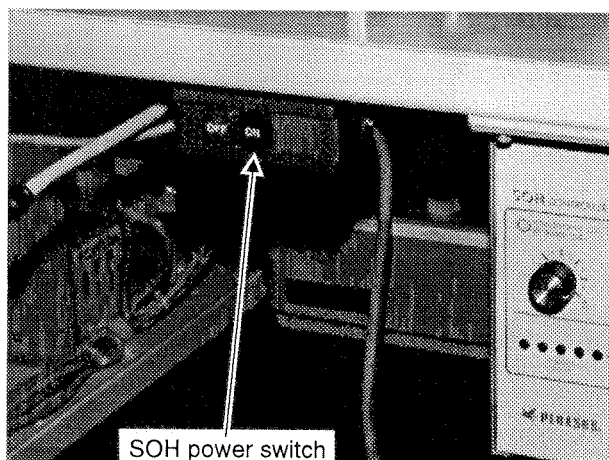
*Integrated sewing unit for hemming
flat sleeves and/or bottoms*

Sewing procedures and safety switch



PEGASUS®

1. Turn on the SOH unit.



2. To select a sewing pattern, and AUTO or MANUAL

<Initial display>



Select a sewing pattern, and AUTO or MANUAL.

Select a pattern No. to be programmed with ▲ or ▼ button.

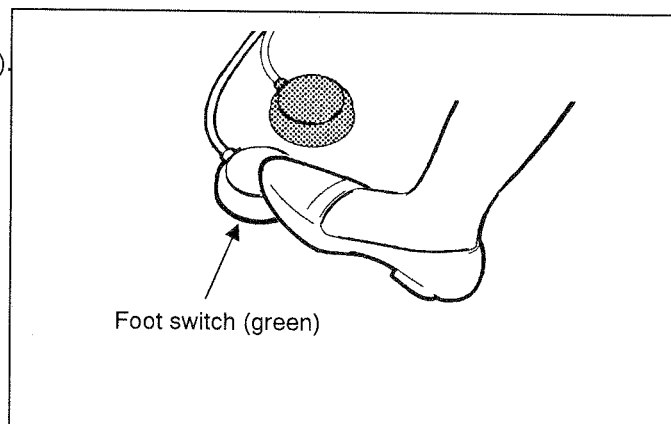
Select AUTO or MANUAL with AUTO/MANUAL Ⓢ/Ⓜ button.

MANUAL... Keep the foot switch (green) on to sew the fabric.

AUTO ... Once you press the foot switch (green), the unit will sew the fabric automatically.

3. Foot switch (green)

To start running the fabric feed belt, press the foot switch (green).

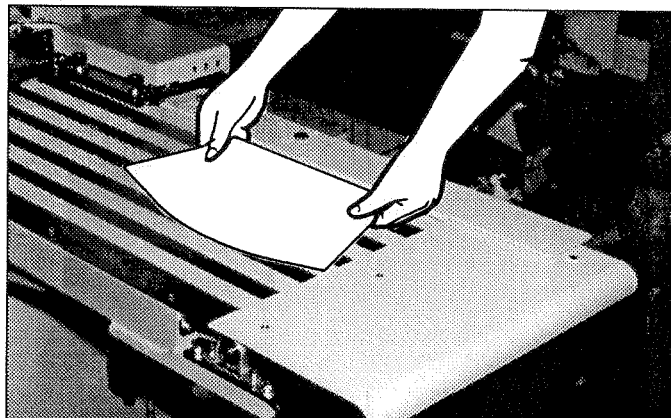


4. Position the fabric on the fabric feed belt.

Align the edge of the fabric with the fabric edge guide plate.

Otherwise the fabric of required hem width may not be obtained.

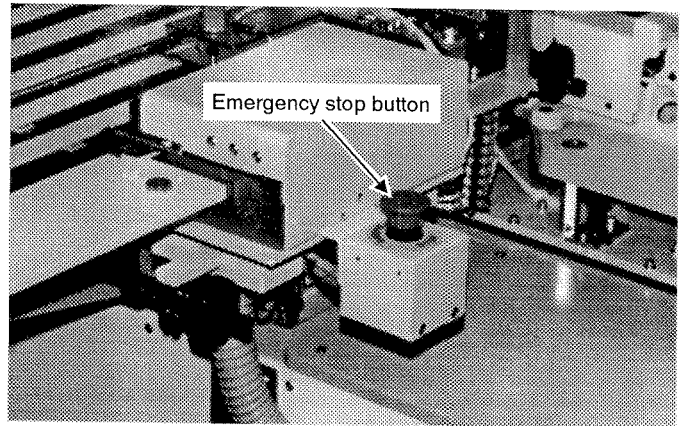
5. If the foot switch (green) is pressed again, the whole unit will stop.



Emergency stop button

If any trouble occurs, press the emergency stop button to stop the whole unit urgently.

To release the emergency stop, turn off the SOH power switch.
After settling the trouble, turn on the power.



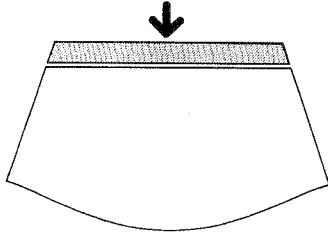
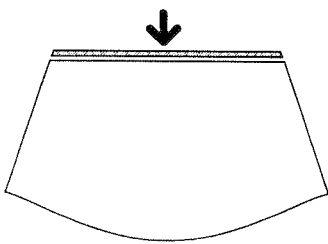
Troubleshooting

(sewing/mechanical trouble)

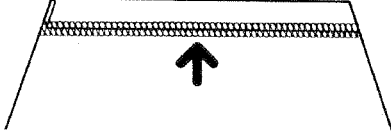
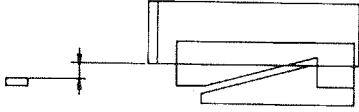
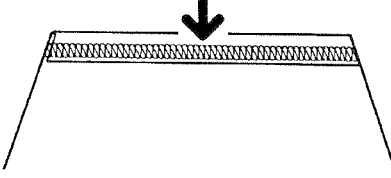
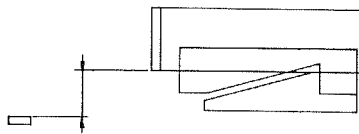
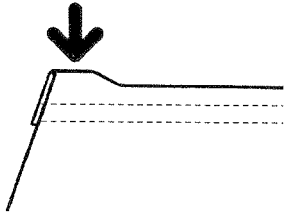
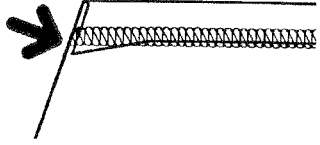
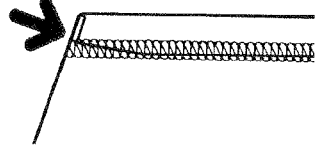


PEGASUS®

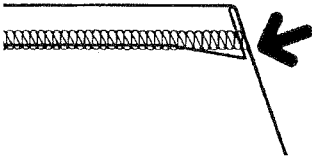
SOH- 300 Troubleshooting (sewing/mechanical trouble)

NO.	Phenomenon	Cause	Remedy	Inst. page
1	Heavy trimmings by the fabric trimmer 	a) The fabric edge guide plate is set far from the knife.	Set the fabric edge guide plate close to the knife so that trimmings will be reduced.	23-3
		b) The fabric is not positioned correctly (the edge of the fabric rides on the fabric edge guide plate).	Position the edge of the fabric along with the fabric edge guide plate.	42-4
2	Less trimmings or no trimmings by the fabric trimmer 	a) The fabric edge guide plate is set too close to the knife.	Set the fabric edge guide plate away from the knife so that trimmings will be increased.	23-3
		b) The fabric is not positioned correctly (the edge of the fabric is positioned away from the fabric edge guide plate).	Position the edge of the fabric along with the fabric edge guide plate.	42-4
3	The cutting action of the fabric trimmer is not proper.	a) The lower knife becomes dull.	Sharpen or replace the lower knife.	
		b) The upper knife becomes dull.	Sharpen or replace the upper knife.	
		c) The upper knife pressure against the lower knife is too light.	Adjust the collar which presses against the upper knife pressure spring in order to increase the pressure.	22-3
		d) Overlap of the upper and lower knives is too little or much.	Adjust the position of the upper and lower knives.	22-1, 2
		e) The fabric press plate (small) does not press the fabric down firmly, so the fabric comes off from the plate.	Adjust the height of the fabric press plate (small) so that it can press the fabric down firmly.	23-1
		f) The position of the fabric press plate (small) is not correct (the clearance between the plate and the upper knife is too large). Therefore the fabric comes off from the plate when the fabric is trimmed.	Install the fabric press plate (small) close to the upper knife. However, the plate should not touch the upper knife.	23-1

SOH- 300 Troubleshooting (sewing/mechanical trouble)

NO.	Phenomenon	Cause	Remedy	Inst. page
4	The fabric edge of the hem is sewn further into the seam. 	a) The distance between the knife of the fabric trimmer and the middle guide plate is too short. 	Move the knife of the fabric trimmer in order to increase the distance.	28-1
5	The fabric edge of the hem is sewn out of the seam. 	a) The distance between the knife of the fabric trimmer and the middle guide plate is too long. 	Move the knife of the fabric trimmer in order to decrease the distance.	28-1
6	The hem width at the start of sewing is wide. 	a) The fabric press plate (large) does not press the fabric down firmly, so the fabric comes off from the guides.	Adjust the height of the fabric press plate (large) so that it can press the fabric down firmly.	24
		b) The clearances between the upper guide plate, middle guide plate and lower guide plate are too large, so they do not press the fabric down firmly.	Adjust each clearance so that it is equal to the thickness of a piece of the fabric.	24-26
		c) The hem edge guide plate to the right of the presser foot is not positioned on the extension line from the middle guide plate. Therefore the fabric comes off from the guides.	Position the hem edge guide plate to the right of the presser foot on the extension line from the middle guide plate.	29-2
		d) Air from the air blower under the lower guide plate is too little, so the fabric comes off from guides.	Increase the air from air blower ⑨ on the lower guide plate.	13
7	The hem edge at the end of sewing is sewn out of the seam. 	a) Belt speed is lower than machine speed.	Increase the belt speed with the fabric feed belt speed adjusting knob on the control box so that it will be synchronized with the machine speed.	30-2
		b) Air from the air blower under the lower guide plate is too much, so the fabric is pushed away.	Decrease the air from air blower ⑨ on the lower guide plate.	13
8	The hem edge at the end of sewing is sewn further into the seam. 	a) Belt speed is higher than machine speed.	Decrease the belt speed with the fabric feed belt speed adjusting knob on the control box so that it will be synchronized with the machine speed.	30-2

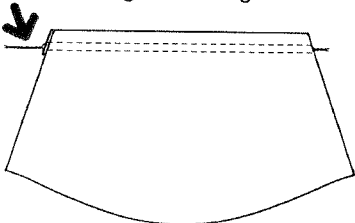
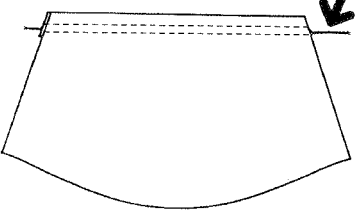
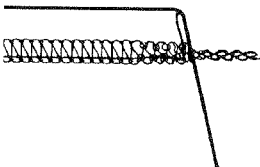
SOH- 300 Troubleshooting (sewing/mechanical trouble)

NO.	Phenomenon	Cause	Remedy	Inst. page
9	<p>The lower ply of the hem at the start of sewing is not aligned with the upper ply.</p> 	a) The distance between the needle plate and the lower guide plate is too large. Therefore the fabric edge comes against the needle plate.	There should be 0.5 – 1mm between the needle plate and the lower guide plate.	26~27
		b) The lower guide plate is positioned lower than the needle plate, so the fabric edge comes against the needle plate.	Adjust so that the top surface of the lower guide plate is flush with that of the needle plate or the top surface of the lower guide plate is slightly higher than that of the needle plate.	26~27
		c) Air from the air blower under the lower guide plate is too little, so the fabric comes off.	Increase the air from air blower ⑩ on the lower guide plate.	13
		d) The fabric press plate (large) does not press the fabric down firmly, so the fabric comes off from the plate.	Adjust the height of the fabric press plate (large) so that it can press the fabric down firmly.	24~26
		e) The upper guide plate does not press the fabric down firmly, so the fabric comes off from the plate.	Adjust the height of the upper guide plate so that it can press the fabric down firmly.	26
10	The fabric edge does not go under the upper guide plate smoothly.	a) The fabric edge comes against the radius tip of the fabric press plate (large).	Adjust the height of the guide on the end of the fabric press plate (large) so that the fabric edge can go under the fabric press plate (large) smoothly.	24
11	The fabric rides on the presser foot.	a) The position of the upper guide plate is too high (the plate cannot press the fabric down firmly).	Lower the upper guide plate so that the fabric can go under the presser foot smoothly.	24
		b) Air from the air blower in front of the presser foot is too little.	Increase the air from air blower ⑧ so that the fabric can go under the presser foot smoothly.	13

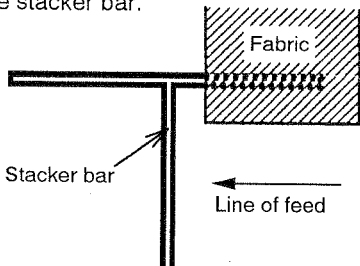
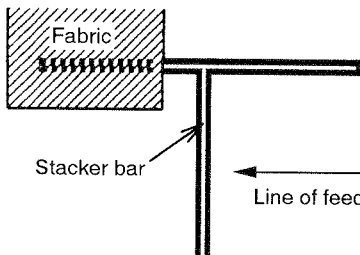
SOH- 300 Troubleshooting (sewing/mechanical trouble)

NO.	Phenomenon	Cause	Remedy	Inst. page
12	The thread chain is not produced. The thread breaks occurs when the thread chain is being produced.	a) The needle is bent.	Replace the needle.	
		b) Wrong installation of the needle.	Make sure the needle is inserted into the needle holder correctly and the needle's eye is turned to the front.	
		c) Wrong threading.	Thread the machine correctly.	15
		d) Wrong looper setting.	Set the looper correctly.	
		e) Thread chaining is uneven because the tension spring pressure for the right needle thread or looper thread is too light.	To make the thread tension even, adjust the right needle thread tension or looper thread tension.	
		f) The SC (thread releaser) does not operate because SC PROGRAM is set for OFF.	Set SC PROGRAM for ON.	40
		g) The height of the main feed dog is too low.	Adjust the height of the main feed dog so that the thread chain is produced smoothly.	
		h) Presser foot pressure is too heavy.	Decrease the pressure by loosening the presser foot pressure adjusting screw, yet be sufficient to feed the fabric properly.	
		i) The SC device tightens the thread too early at the start of sewing (the thread is tightened when the thread chain is produced).	Increase the value of SC start to delay the timing at which the SC device loosen the thread at the start of sewing (1 - 2 stitches at the start of sewing should be loosened).	38
		j) The SC device loosens the thread too late at the end of sewing (the thread is tightened when the thread chain is produced).	Decrease the value of SC end to hasten the timing at which the SC device loosen the thread at the end of sewing (1 - 2 stitches at the end of sewing should be loosened).	39
		k) Needle thread take-up movement timing is too late against needle up- and -down movement timing, so the needle loop is too large and is collapsed, causing a needle loop skip.	<ul style="list-style-type: none"> •To hasten the timing, change the position of the needle thread take-up drive crank . •Remove the needle thread from the needle thread disc to make the needle loop small. •Increase the air from air blower ②⑤ . 	15 13

SOH- 300 Troubleshooting (sewing/mechanical trouble)

NO.	Phenomenon	Cause	Remedy	Inst. page
13	The AT device (thread chain cutter) does not cut the thread chain neatly.	a) The lower knife becomes dull.	Sharpen or replace the lower knife.	
		b) The upper knife becomes dull.	Sharpen or replace the upper knife.	
		c) The upper knife is leaning against the lower knife or there is a clearance between the upper and the lower knives.	Adjust the installation angle of the upper knife to remove the clearance.	21
		d) The operating speed of the upper knife is too slow.	Loosen the speed control for the upper knife drive air cylinder to increase the operating speed of the upper knife.	21
		e) The value set in the AT timer is too small.	Increase the value. Initial value is 010.	39
14	The length of the thread chain at the start of sewing is too long. 	a) The value set in AT start is too small.	Increase the value.	38
15	The length of the thread chain at the end of sewing is too long. 	a) The value set in AT end is too large.	Decrease the value.	38
16	Seams (needle thread) at the start of sewing is loose. 	a) The value set in SC start is too large.	Decrease the value.	38
17	Seams (needle thread) at the end of sewing is loose.	a) The value set in SC end is too small.	Increase the value.	39
18	Cutting wastes trimmed by the FT device (fabric trimmer) is not sucked up into the dust drum.	a) Air from air blower ② is too small.	Increase the air.	13
		b) Cutting wastes stops in the air line to the drum.	Remove the cutting wastes from the air line.	
		c) The dust drum is packed with cutting wastes, so the sucking force is decreased.	Empty the dust drum.	

SOH- 300 Trouble shooting 【Body stacker】

NO.	Phenomenon	Cause	Remedy	Inst. page
1	The stacker is not activated.	a) The stacker is not switched from the sleeve stacker mode.	Select Stacker 1.	31
		b) The sensitivity of the sensor is not adjusted properly.	Adjust the sensor properly.	19-4
		c) Time at which the stacker bar gets activated is not set.	Increase the value in Timers 8 and 9.	38
		d) The speed control for the stacker bar drive air cylinder is tightened.	Loosen speed controls ⑩ and ⑪.	11
2	The fabric is blown away.	a) The stacker table is not returned in place and the stacker bar does not hold the fabric.	Return the stacker table home by turning the stacker table returning knob.	31-2
		b) Stacker bar operating time is too short, so the bar is not holding the fabric.	Increase the value in Timer 8.	38
		c) The speed control is tightened, so the stacker bar is not activated and is not holding the fabric.	Increase the operating speed of the stacker bar by loosening speed control ⑩.	11
3	The fabric is stacked to the right of the stacker bar. 	a) Start Timing of the stacker bar is too early.	Increase the value set in Timer 7.	37
4	The fabric is stacked to the left of the stacker bar. 	a) Start Timing of the stacker bar is too late.	Decrease the value set in Timer 7.	37
		b) The operating speed of the stacker bar is too slow.	Increase the speed by loosening speed control ⑩ for the stacker bar drive air cylinder.	11
5	The fabric is not blown away.	a) Air blowing time is too short.	Increase the value set in Timer 9.	38
		b) Wrong air blowing direction.	Correct the direction.	
		c) The finished products are stacked too much, so the air cannot blow out.	Remove the finished products.	
6	The stacker is not returned in place.	a) The stacker table returning knob is not adjusted.	Adjust the stacker table returning knob.	31-2

SOH- 300 Trouble shooting 【Sleeve stacker】

NO.	Phenomenon	Cause	Remedy	Inst. page
1	The stacker is not activated.	a) The stacker is not switched from the body stacker mode.	Select Stacker 2.	31
		b) The sensitivity of the sensor is not adjusted properly.	Adjust the sensor properly.	19-5
		c) Time at which the stacker bar gets activated is not set.	Increase the value in Timer 8.	38
		d) The speed control for the stacker bar drive air cylinder is tightened.	Loosen the speed control.	12
2	The fabric is blown away.	a) The stacker board is moved before the fabric is put completely on it.	Increase the value set in Timer 7.	37
		b) The stacker board operating time is too short, so the fabric is not stacked neatly.	Increase the value in Timer 8.	38
3	The fabric drops.	a) Timing at which the stacker board starts moving is too late.	Decrease the value in Timer 7.	37
		b) The stacker board operating time is too short.	Increase the value in Timer 8.	38
		c) The operating speed of the stacker board is too slow.	To increase the speed, loosen the speed control for the stacker drive air cylinder.	12
4	The stacker table does not return home.	a) The stacker table returning switch is not changed.	Change the returning switch.	31-2

Trouble shooting

(electrical trouble)

1)Sensitivity of the sensor

Make sure the sensitivity of the sensor is adjusted properly by following the instructions in this manual.

2)Relay cord plug

Make sure the relay cord plug is connected securely by referring to the wiring diagram.

3)Relay cord

Make sure the relay cord is not broken by referring to the wiring diagram.

4)Solenoid valve

If the solenoid valve is broken, replace the solenoid valve connector with a normal one and then check for the operation.

5)Air supply

Make sure air is supplied to the air regulator uniformly.

6)Air lines

Make sure the air lines are connected securely by referring to the air line connecting diagram.

7)Air valve, speed control

Make sure the air valve or speed control is not tightened too much.



SOH- 300 Troubleshooting (electrical trouble)

NO.	Phenomenon	Cause	Remedy	Inst. page
1	The power is not turned on.	a) The power cord is disconnected from the power source.	Connect the power plug to the power source firmly.	42
		b) The power switch of the controller is OFF or is not completely ON.	If it is OFF, turn the power on, or if it is not completely ON, turn the power on again correctly.	
		c) The fuse is broken.	Replace the fuse. Note) If the fuse is often broken, contact our sales office or representative.	
2	The machine does not run.	a) The machine start sensor is not adjusted correctly.	Adjust the machine start sensor is adjusted correctly.	18-2
		b) The relay cord plug is disconnected or the relay cord is broken.	Connect the relay cord firmly or confirm the relay cord is not broken.	8,9
		c) Machine motor trouble (The machine motor controller display shows an error code.)	Check for the motor by referring to the instructions for the error code in the machine motor instruction manual.	
3	The machine does not stop.	a) The machine start sensor is not adjusted properly.	Adjust the machine start sensor properly.	18-2
4	The machine does not stop (the machine keeps running at the positioning speed).	a) The machine belt tension is light.	Adjust the machine belt tension properly.	
		b) Malfunction of the position detector for the machine motor.	Check to see if the earth wire for the position detector is grounded.	
		c) Defective position detector for the machine motor.	Replace the position detector.	
5	The rotation detector LED on the controller is left on.	a) The relay cord for the rotation detector is not connected correctly.	Connect the relay cord for the rotation detector to another connector.	
6	The display on the controller shows error No.00 or 01.	a) The sleeve stacker has static.	Connect the sleeve stacker and unit with the earth wire.	
		b) The supply voltage is being decreased or dipped (intermittently decreased).	Check to see if the supply voltage is obtained correctly. Take the power from other power lines.	
		c) Noise gets into the controller from the power line.	Confirm that the power source is not connected to many lines or the lines are not connected to the power source in a row. If noise is not removed, insert a noise filter or a ferrite core obtainable into the power line.	
		d) The machine and unit have static.	<ul style="list-style-type: none"> •Confirm the machine and unit are grounded. •Confirm the earth wire of the power line is accurately grounded. •Ground the parts that tend to have static using another thick cord. 	

SOH- 300 Troubleshooting (electrical trouble)

NO.	Phenomenon	Cause	Remedy	Inst. page
7	The fabric feed belt does not start.	a) The initial display is called up on the controller display window.	Call up the initial display on the display window.	34
8	The fabric trimmer motor does not start.	a) The safety cover is not closed.	Close the safety cover securely.	
		b) The plug for the cover safety switch relay cord is disconnected. The cover safety switch relay cord is broken.	Connect the relay cord securely. Confirm the relay cord is not broken.	
		c) The cover safety switch is broken.	Replace the cover safety switch.	
9	The AT device (thread chain cutter) is not activated.	a) The sensitivity of the AT/SC sensor is not adjusted properly.	Adjust the sensitivity properly.	
		b) OFF is selected on AT function display.	Make sure OFF is not selected on the AT function display (usually set at "S & E").	40
		c) The value set in the AT timer is too small.	Increase the value set in the AT timer.	39

Sewing specifications

Applications	SOH- 311 : Hemming flat sleeves for T-shirts, polo shirts, etc. SOH- 321 : Hemming flat sleeves and/or bottoms for T-shirts, polo shirts, etc.
Fabric weight	Light, Medium
Fabric	Plain knit fabric, Honeycomb fabric, Rib knit fabric, Interlock fabric
Thread	Needle thread: Polyester spun Looper thread: Polyester spun,wooly nylon
Hem width	Finished width of sleeve opening/bottom: 20- 35mm

Unit specifications

Model	SOH- 311 SOH- 321
Machine equipped	W562-85BC
Approximate dimensions	SOH- 311 :W 2700mm × D 1580mm × H 1580mm [with thread stands and stacker for sleeves] SOH- 321 :W 2700mm × D 1580mm × H 1580mm [with thread stands and stacker for sleeves and bottoms]
Machine speed	4,000 s.p.m.
Number of needles	2
Number of threads	3
Stitch length	2.2- 3.2mm
Needle space	4.8,5.6,6.4
Overedge width	—
Differential feed ratio	0.5- 1.3mm
Air pressure	5kgf/cm ² (0.5MPa)
Air consumption	250NI/min
Power source	Single phase : 100, 220, 240V 3 phase : 200, 220, 240V
Power consumption	700W/h



MEMO

Lined area for writing the memo content.

MEMO

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The description in this INSTRUCTIONS is subject to change without notice.