ljamato®

Instruction Manual

HIGH SPEED FLAT BED INTERLOCK STITCH MACHINE
WITH RIGHT HAND FABRIC TRIMMER AND METERING DEVICE

VF2429G, S, VF2529G, S
VF2439-1, VF2539-1

This instruction manual includes adjustments differed from
VF2400.
Before using your machine mentioned above, please read both
of the instruction manuals and understand the contents well.
After reading the instruction manual, please keep it in a
location where it is easily accessible to the operator.

CONTENTS

Attention

◇This instruction manual is designed mainly for technicians, but it is advisable that also operators read the instructions with 😊 mark to use the machine properly.

◇The numbers in lower left corners of figures are figure numbers. We use them in texts as needed for your reference.

Attention

⚠ Safety instructions ⚠

Warning label on sewing machine

VF2429G, S with metering device


```
ケガ注意
CAUTION
```

```
⚠高電圧警告   このカバーを開けるときは、
⚠DANGER      電源スイッチを切った後、
             5分たってから開けること。

To open this cover,
turn off power
supply and wait
more than 5 minutes
before opening.
```
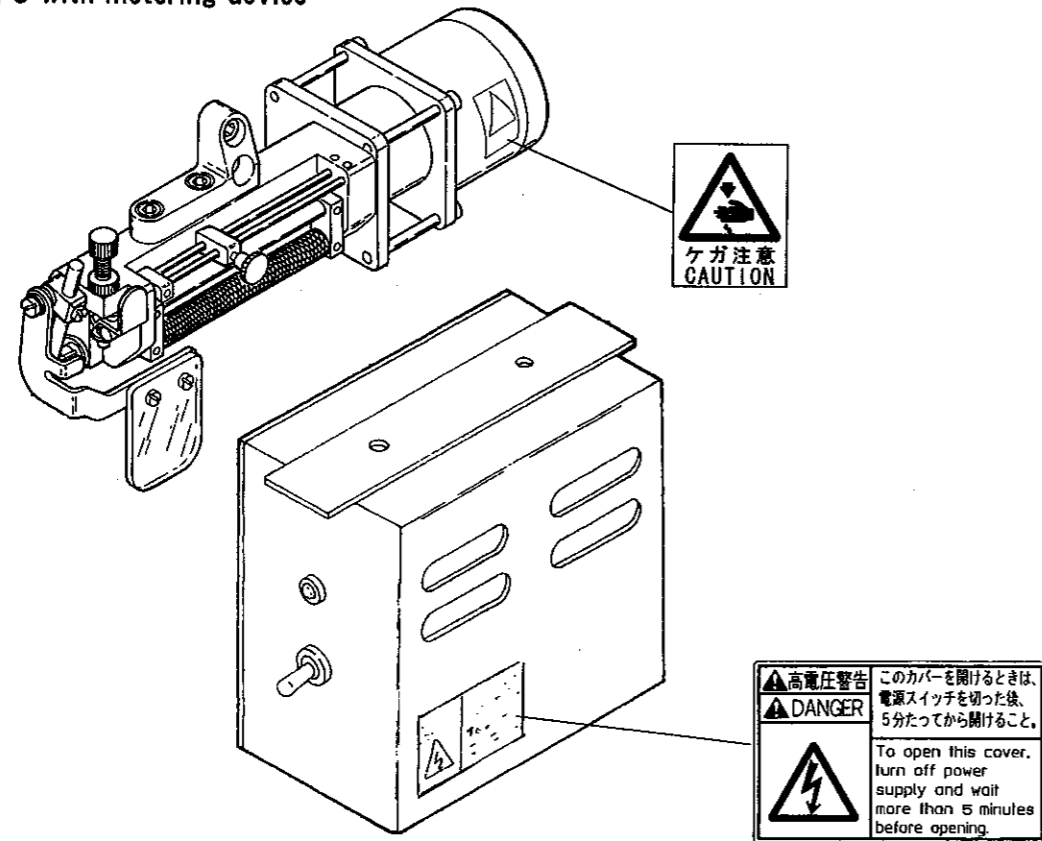
VF2439-1 with metering devicwe


```
ケガ注意
CAUTION
```
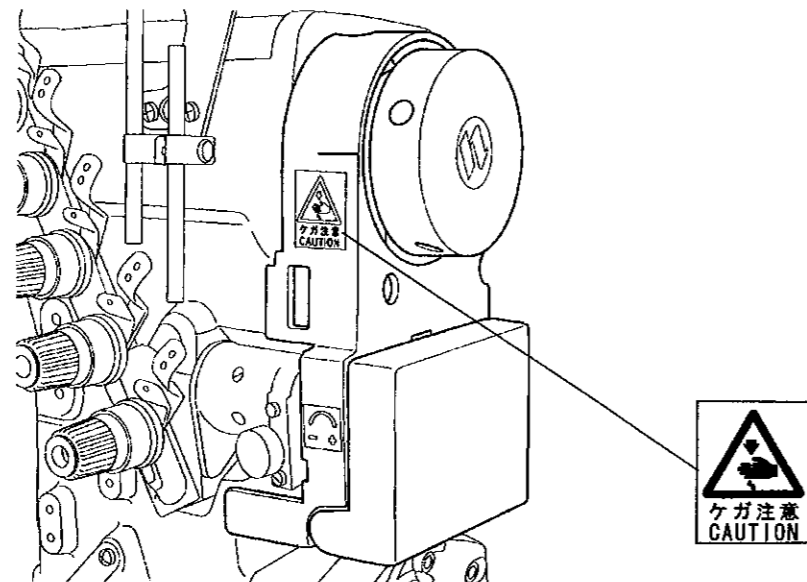
1. Sewing speed

Maximum sewing speed is 5000 rpm and standard speed is 4500 rpm.

Run a new machine at 4300 rpm during the first 200 hours (for about one month) so that the machine can offer a long service life in good condition.

2. Installation

2.1 Supporting board （Semi-submerged type）

Install a machine correctly referring to Figs. 1, 2, and 3.

Set the screws in the supporting board and cover the screws with the rubber cushions. Fix the the supporting board to the machine table and install a machine securely on the rubber cushions.

B

supporting board

chute(upper)

Fig. 1

Thickness of table	Pcs. of A	Pcs. of B
40 mm	3 pcs. × 3 = 9	2 pcs. × 2 = 4
45 mm	2 pcs. × 3 = 6	1 pc. × 2 = 2
50 mm	1 pc. × 3 = 3	0

Table 1

A   4 mm

supporting board

Fig. 2

4 mm   B

2.2 Table cutting diagram （Semi-submerged type）

Section E-E

Section F-F

center of V-belt

(VF2429G, S, 2529G, S only)

Operator

Fig. 4

Refer to the instruction manual of the motor for dimensions A, B, C, and D.

2.3 Control panel (only for VF2429G, S, VF2529G, S)

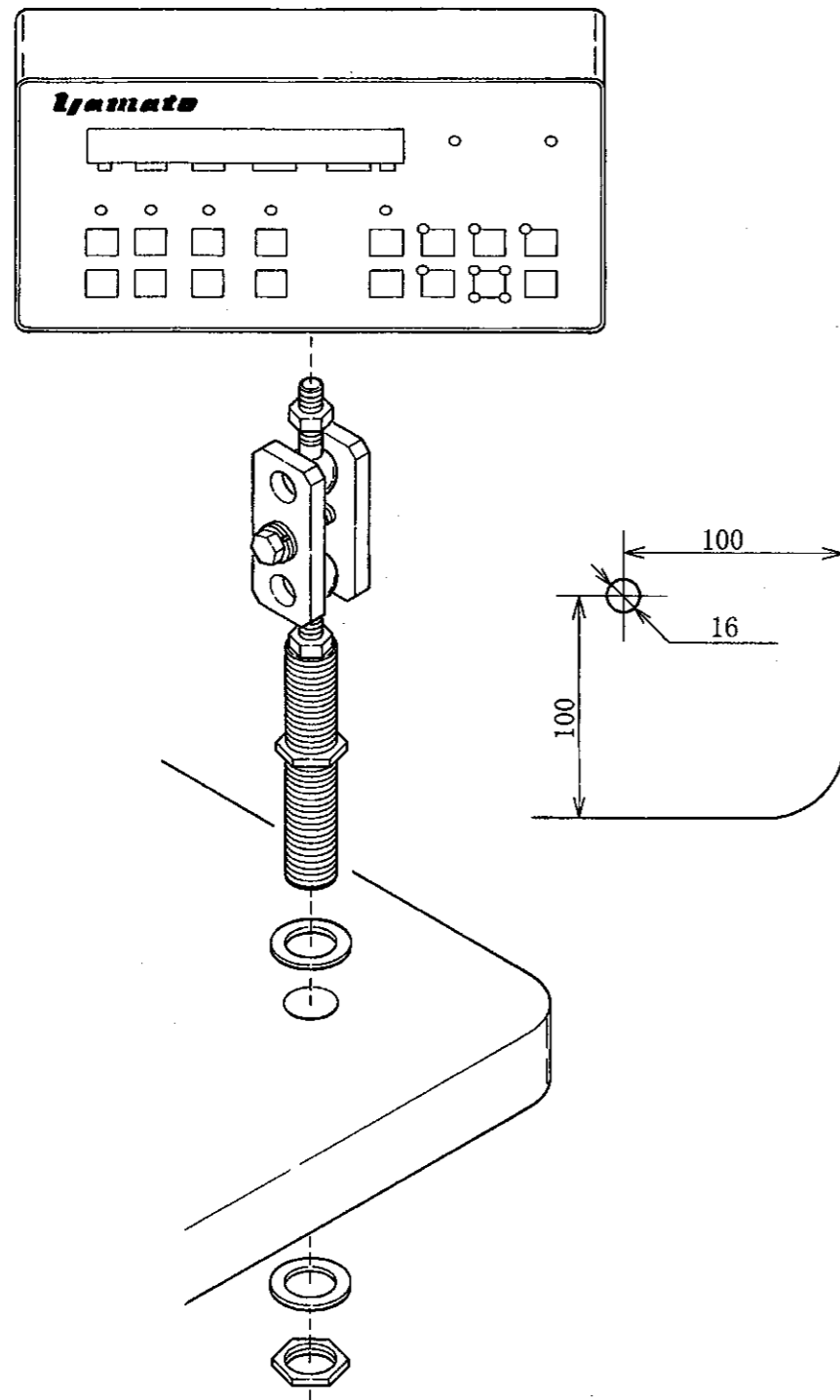Install the control panel to the machine table through a setting hole (ϕ 16) after drilling it. (See Fig. 5)

Fig. 5

2.4 Wiring (only for VF2429G, S, VF2529G, S)

⚠ WARNING

Turn the power switch OFF before operating.
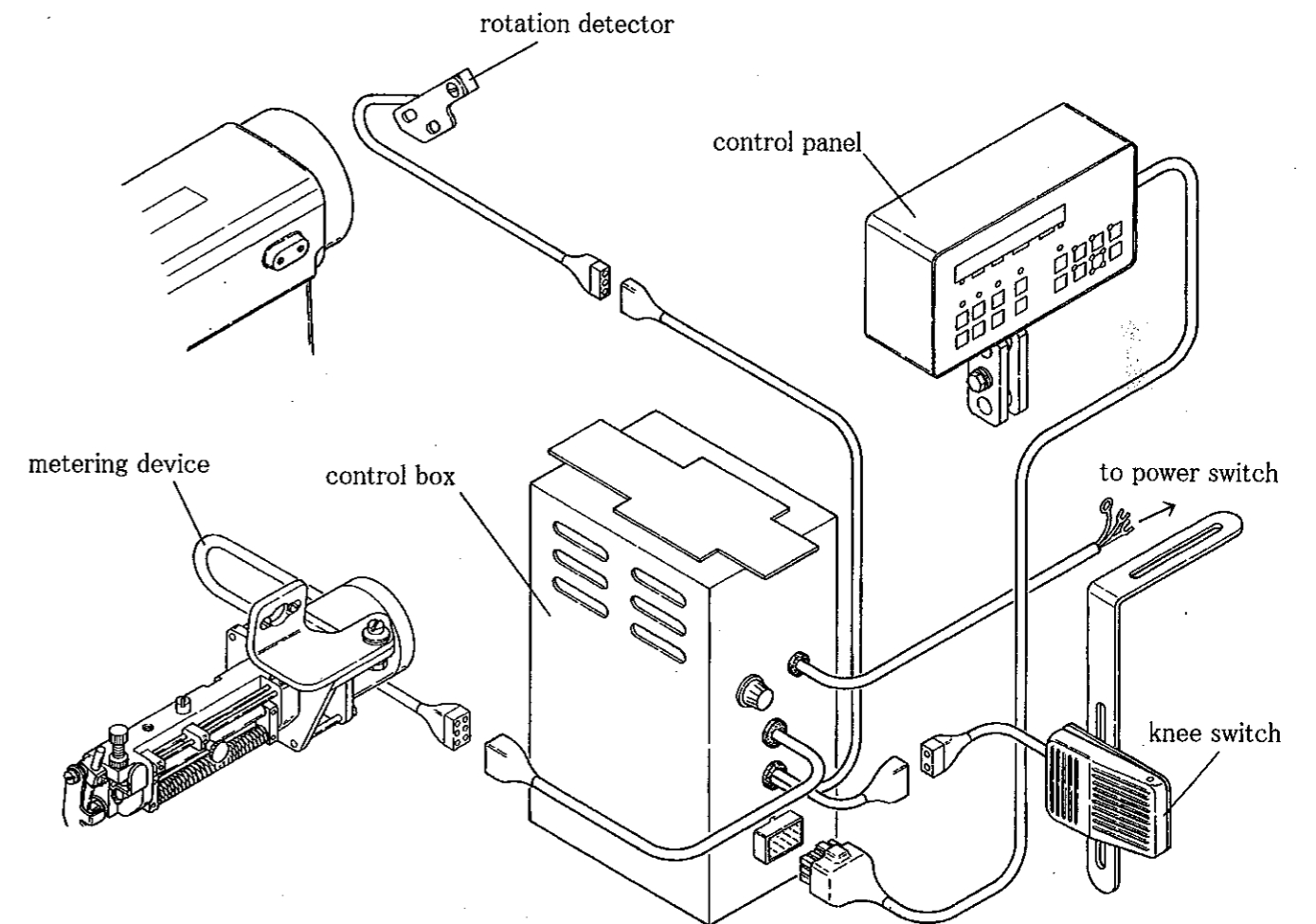
Connect each connector to the corresponding connector.

Fig. 6

3. Proper operation

2.5 Connecting power cords (only for VF2429G, S, VF2529G, S)

⚠ **WARNING**

Unplug the power cord from outlet before operating.

Connect red and black cords of power cord to the motor side terminals of the power switch.
Connect the green cord used for the earth to the same screw used for the earth of the motor.
(See Fig. 7)
Note: Connect the cords to the motor side terminals in the power switch.

⚠ **CAUTION**

Touching the cords to moving parts can cause breakage. Fix them to the legs of the table without breaking.
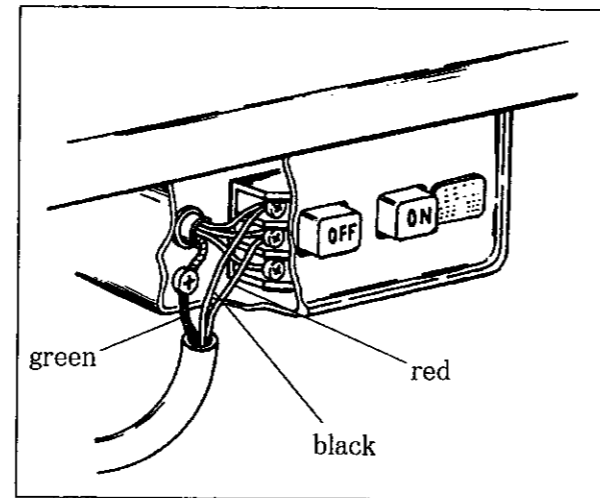

Fig. 7

2.6 Changing voltage (only for VF2429G, S, VF2529G, S)

⚠ **WARNING**

Unplug the power cord from outlet and then operate after five minutes and more.

Applicable voltages are indicated on the control box.
○ Change the pin into the transformer terminal depending on the voltage to be used.
○ Change the fuse depending on its voltage reffering to Table 2.
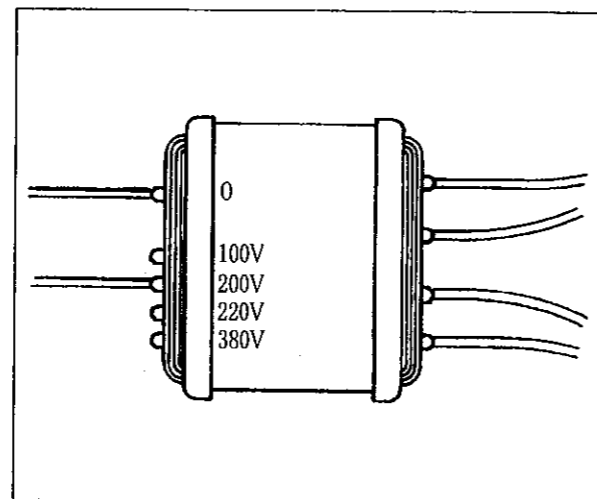
Fig. 8

2.7 Precautions (only for VF2429G, S, VF2529G, S)

Use applicable fuse specified on the control box.
The same diameter of a glass tube cannot be always used for the same capacity of ampere.
Check the ampere to be used. (See Table 2)

⚠ **CAUTION**

If used over specified capacity of fuse, it can cause serious trouble.

power voltage	capacity of fuse
100V	4A
200V	2A
220V	2A
380V	1A

Table 2

3.1 Threading

⚠ **WARNING**

Before operating, ALWAYS turn the motor switch OFF and check that the motor has already stopped.

Set the needle thread retainer disc to the needle clamp on this machine.
Thread through the needles as shown in Fig. 9.

for woolly   standard

Fig. 9

3.2 Setting elastic tape

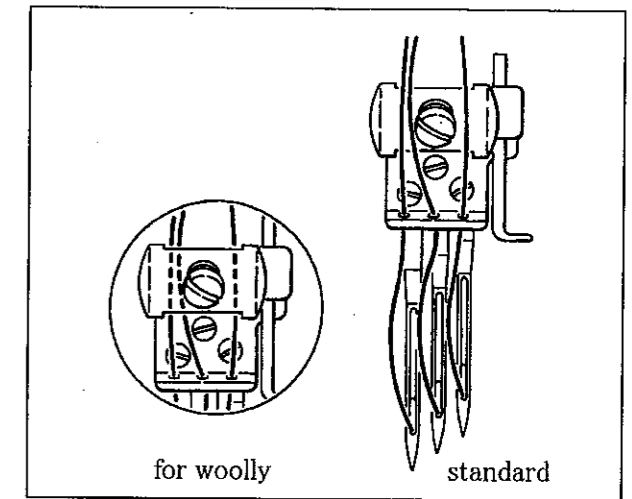Set a tape correctly referring to Fig. 10.

Pressing the roller lever ① will make a clearance between the rollers .
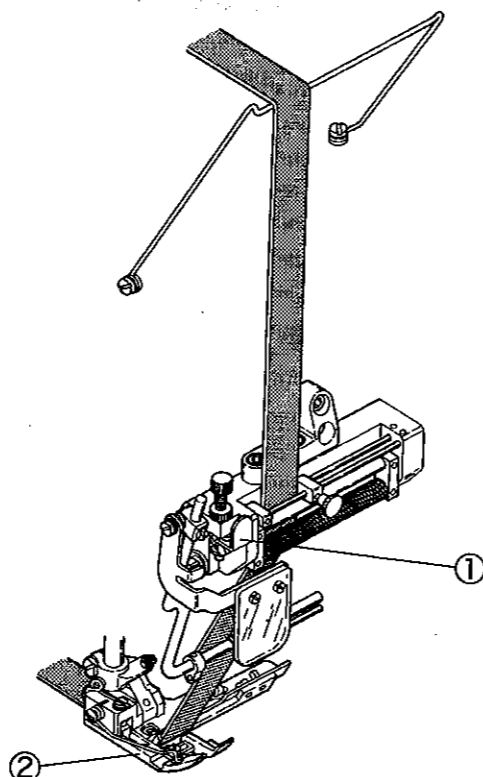
Pull a tape through the bottom of the presser foot ② .

Fig. 10

3.3 When not using metering device (only for VF2429S and VF2529S)

Pull the left end toward you and turn it to the right to see around the needle drop easily.
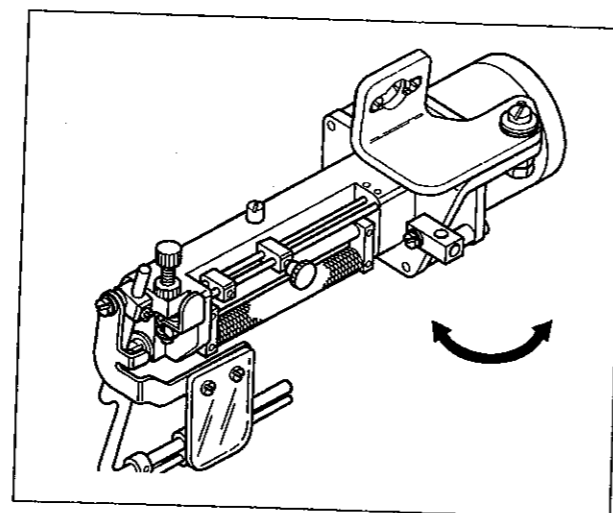
Fig. 11

3.4 Feeding amount of elastic tape (only for VF2439-1, VF2539-1)

Loosen the nut① and adjust feeding amount while checking the pointer ② and the graduations of the clutch lever ③ as below.

● To increase feeding amount, turn the adjusting screw ④ clockwise and move the pointer ② in the direction "L" .
● To decrease feeding amount, turn the adjusting screw④ counterclockwise and move the pointer ② in the direction "S" .

Note: After tightening the nut ① , turn the adjusting screw ④ clockwise to tighten it securely without play.

Fig. 12

If required feeding amount cannot be obtained, loosen the screw ⑤ and adjust it as below.

● To decrease feeding amount, turn the adjusting screw⑥ clockwise.
● To increase feeding amount, turn the adjusting screw ⑥ counterclockwise.

Fig. 13

3.5 Designations and functions of control panel (only for VF2429G,S, VF2529G, S)

This model has modes A – Z and each mode can be subdivided into 20 processes.

Set one mode corresponding one piece of fabric and one process depending on the tension amount of a tape on its fabric.
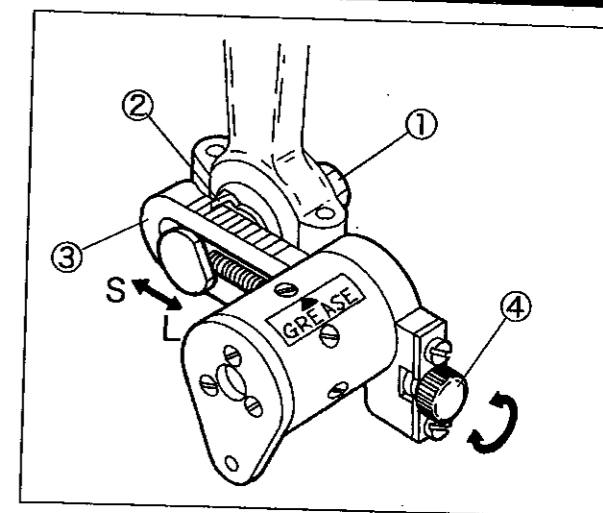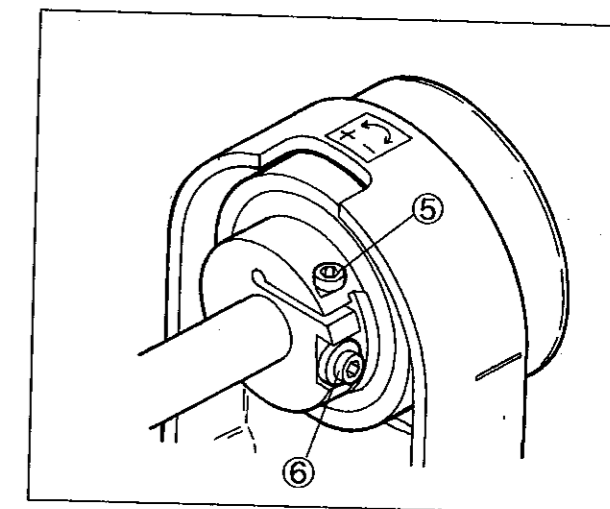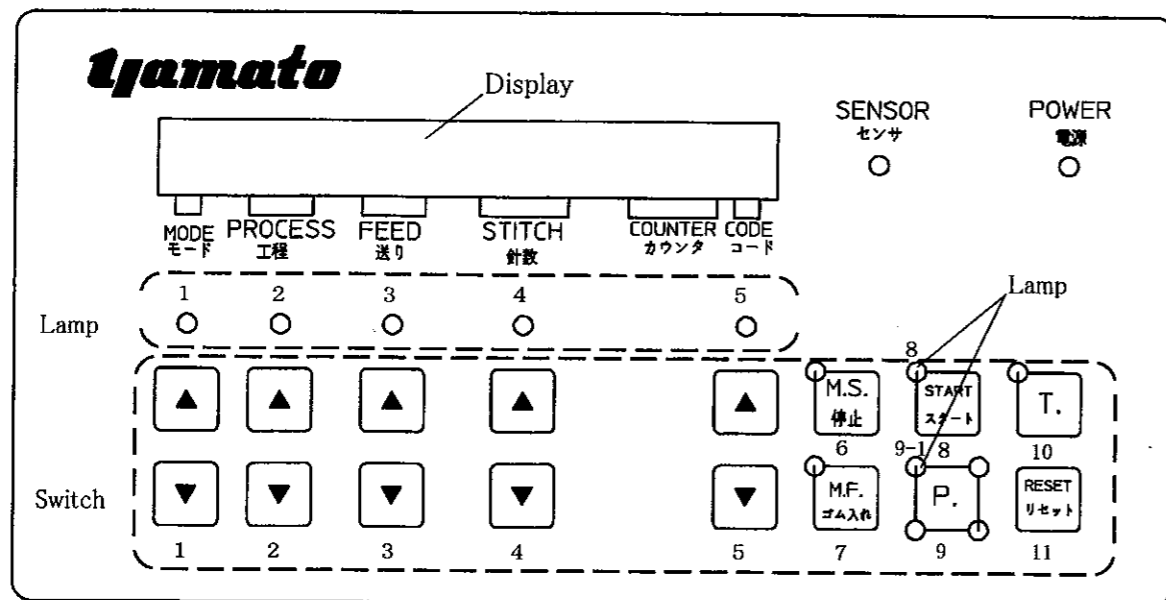

3.5.1 Details of control panel

(1) Display

    Numbers and alphabets are displayed to show the current control condition.

(2) Lamp (1, 2, 3, 4, and 5)

    The switch under the lit lamp can be functioned.

(3) Switch

    For the following switches, pressing ▲ increases the value and pressing ▼ decreases it.

    ☆ Switch 1 (Mode)

        Select the mode A – Z.

    ☆ Switch 2 (Process)

        Set the process 1 – 20. Feeding amount, stitch number, and the code in the process are displayed.

    ☆ Switch 3 (Feeding)

        Set the feeding amount. Keep pressing it will increase or decrease the value automatically.

    ☆ Switch 4 (Stitch number)

        Set the stitch number. Keep pressing it will increase or decrease the value automatically.

What is process? What is mode?

Process: to sew a fabric under preset conditions (feeding, stitch number)
Mode: to sew a part of fabric with some combined processes.
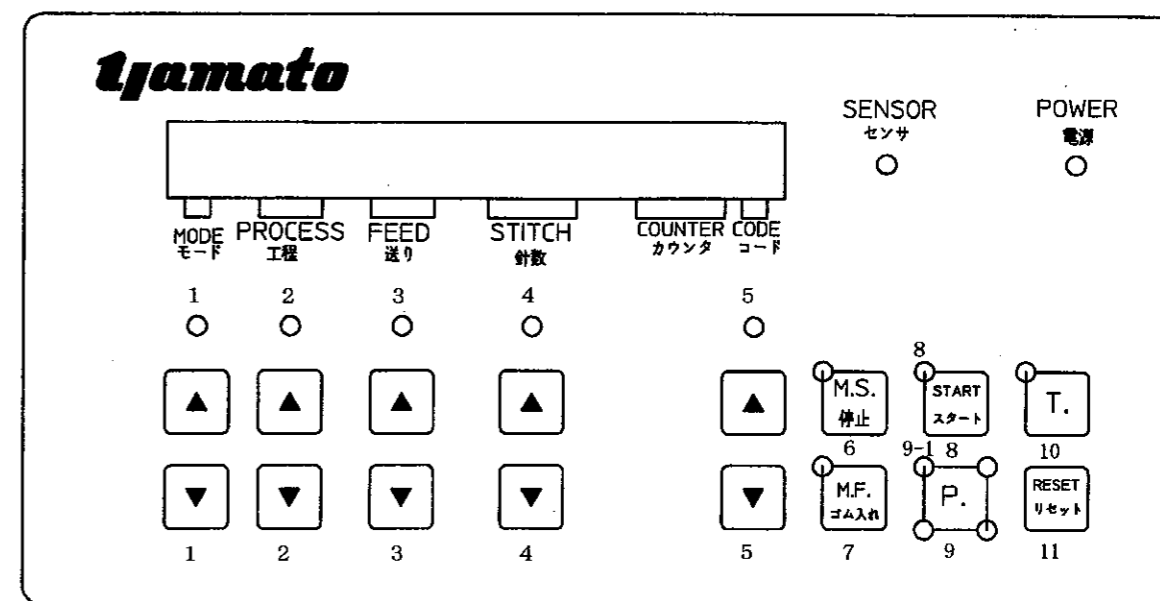
☆ Switch 5 (Code)

    Set the code to proceed the program.

    Select the code depending on the function.

    Code A: Press the knee switch to shift the next process.

    Code B: After sewing preset stitch number, the sewing shifts to the next process automatically.

        It shows which number of stitch at the process on the counter display during sewing.

    Code C: Return to 1st Process.

        Be sure to set Code C when 3rd Process for Process 2 fabrics and when 7th Process for Process 6 fabrics.

☆ Switch 6, 7

    Not used.

☆ Switch 8 (Start)

    Pressing this switch will light Lamp 8. (Also When the power switch turns on, it will light.)

    Only in this state, sew the fabrics and change the feeding amount.

☆ Switch 9 (P.)

    When the machine stops, pressing this switch will light Lamp 9-1.

    Only in this state, change mode, process, feeding amount, stitch number, and code.

☆ Switch 10

    Not used.

☆ Switch 11 (Reset)

    When the machine stops, pressing this switch will return to 1st Process.

(4) Sensor lamp

    Not used.

(5) Power lamp

    This lamp lights when the power turns on.

3.5.2 Feeding amount

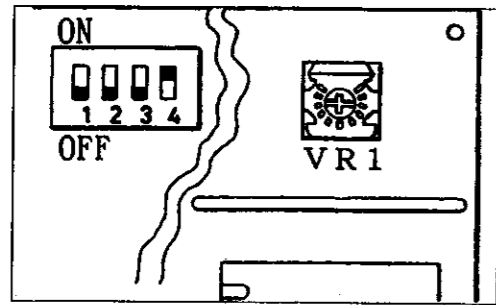Table 3 shows feeding tape length of stepping motor (mm/stitch) when setting feeding amount from "00" to "99".

Adjust the feeding amount by Switch "S1" in the control box.

OFF: to adjust standard feeding tape length
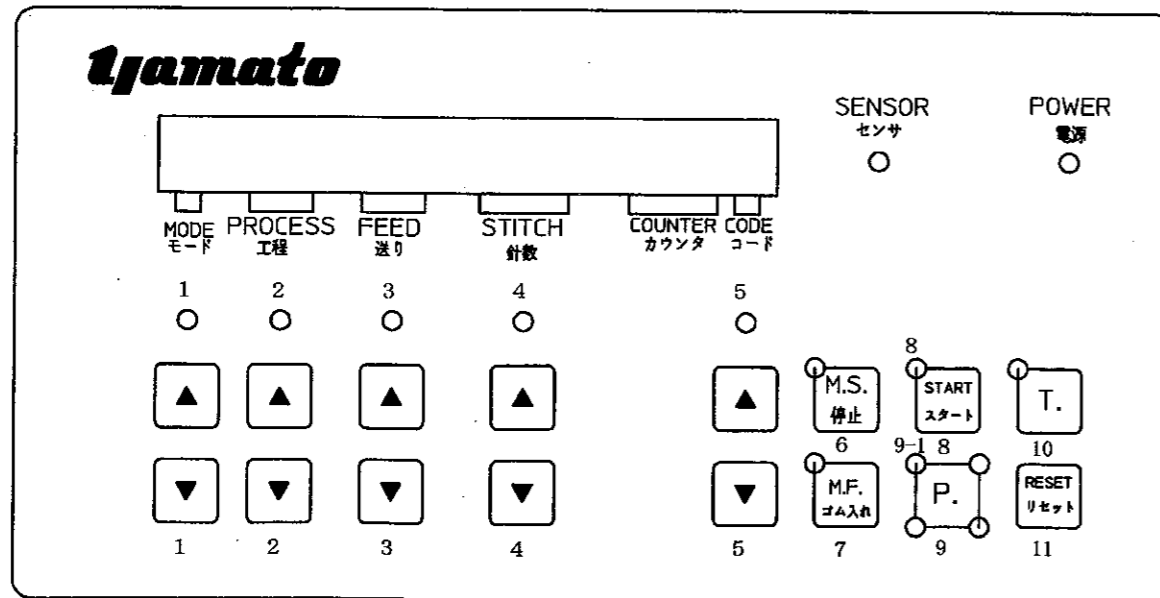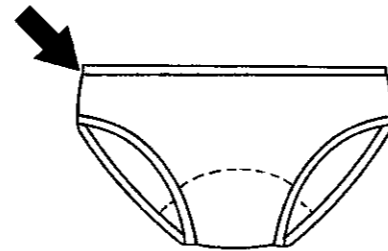
ON: to adjsut feeding tape length shorter

Feeding amount	Feeding length (mm)	
	S1 : OFF	S1 : ON
00	1.00	0.36
20	1.63	1.00
40	2.26	1.63
60	2.89	2.26
80	3.52	2.89

Table 3

3.5.3 Example of application

(Ex. 1) When sewing waist at one process, program by the keys as below.

The machine has been adjusted the same at shipment as shown in the right.

Display

1. Set the process to "1" by reset switch (Switch 11).

   `A 01 30 000 000 A`

2. Set it the programming state by Switch 9.

   `A 01 30 000 A`

3. Set the code to "A" by Switch 5.

   `A 01 30 000 A`

4. Set it the starting state by Switch 8.

   `A 01 30 000 000 A`

5. Set the proper feeding amount to "30" by Switch 3 while sewing.

   `A 01 30 000 000 A`

6. Finished.

* After that, place a fabric and start sewing.

(Ex. 2) When sewing both of the leg parts, make it flat in Processes 1, 3, 4, and 6 and gathering in Processes 2 and 5. Set the stitch number by setting code B in Processes 2 and 5. (Set the feeding amount and the stitch number to the standard value respectively.)
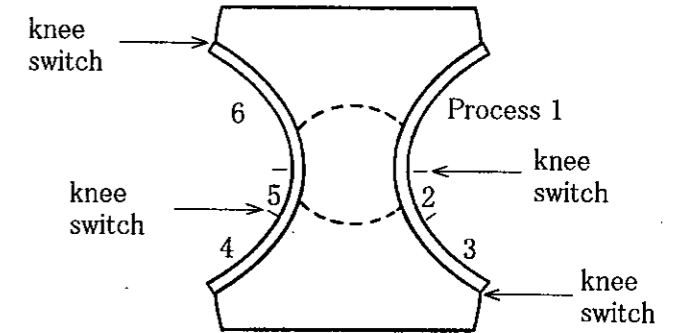
Programming set

Display

1. Set the process to "1" by Switch 11.

   `A 01 30 000 000 A`

2. Set it the programming state by Switch 9.

   `A 01 30 000 A`

3. Set the mode to "B" by Switch 1.

   `B 01 00 000 A`

4. Set the feeding amount to "30" by Switch 3.

   `B 01 30 000 A`

5. Set the code to "A" by Switch 5.

   `B 01 30 000 A`

6. Set the process to "2" by Switch 2.

   `B 02 00 000 A`

7. Set the feeding amount to "05" by Switch 3.

   `B 02 05 000 A`

8. Set the stitch number to "050" by Switch 4.

   `B 02 05 050 A`

9. Set the code to "B" by Switch 5.

   `B 02 05 050 B`

10. Set the process to "3" by Switch 2.

    `B 03 00 000 A`

11. Set the feeding amount to "31" by Switch 3.

    `B 03 31 000 A`

12. Set the code to "A" by Switch 5.

    `B 03 31 000 A`

13. Set the process to "4" by Switch 2.

    `B 04 00 000 A`

14. Set the feeding amount to "35" by Switch 3.

    `B 04 35 000 A`

15. Set the code to "A" by Switch 5.

    `B 04 35 000 A`

16. Set the process to "5" by Switch 2.

    `B 05 00 000 A`

17. Set the feeding amount to "04" by Switch 3.

    `B 05 04 000 A`

18. Set the stitch number to "050" by Switch 4.

    `B 05 04 050 A`

19. Set the code to "B" by Switch 5.

    `B 05 04 050 B`

20. Set the process to "6" by Switch 2.

    `B 06 00 000 A`

21. Set the feeding amount to "34" by Switch 3.

    `B 06 34 000 A`

22. Set the code to "A" by Switch 5.

    `B 06 34 000 A`

23. Set the process to "7" by Switch 2.

    `B 07 00 000 A`

24. Set the code to "C" by Switch 5.

    `B 07 00 000 C`

* All programs have been input completely.
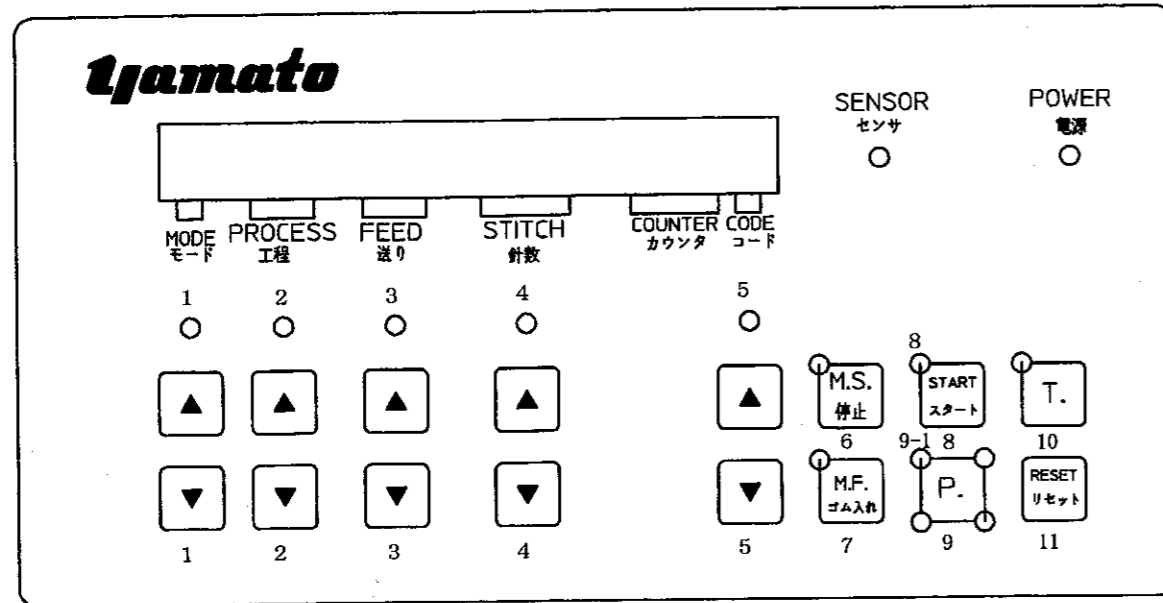
Sewing procedures

						Display
1. Set the process to "1" by Switch 2.						B 01 30 000 A
2. Set the starting state by Switch 7.						B 01 30 000 A
3. Place a fabric and sew in Process 1. Set the proper feeding amount to "29" by Switch 3 while sewing.						B 01 30 000 000 A B 01 29 000 000 A
4. Shift to Process 2 by pressing the knee switch. Set the proper feeding amount to "05" by Switch 3 while sewing.						B 02 05 050 000 B
5. After count up, it shifts to Process 3 automatically.						B 03 31 000 000 A
6. Set the proper feeding amount to "35" by Switch 3 while sewing.						B 03 35 000 000 A
7. Shift to Process 4 by pressing the knee switch.						B 04 35 000 000 A
8. Set the proper feeding amount to "37" by Switch 3 while sewing.						B 04 37 000 000 A
9. Shift to Process 5 by pressing the knee switch.						B 05 04 050 000 B
10. After count up, it shifts to Process 6 automatically.						B 06 34 000 000 A
11. Set the proper feeding amount to "32" by Switch 3 while sewing.						B 06 32 000 000 A
12. Press the knee switch to finish the sewing.						
13. Check that the stitch number is proper. If not, re-set proper value.						B 01 29 000 000 A

4. Adjustments

⚠ WARNING

Before adjusting, ALWAYS turn the motor switch OFF and check that the motor has already stopped.

4.1 Chip guard and presser foot tape guide

VF2429G, S, VF2529G,S

Loosen the screw② to adjust the presser foot tape guide① right or left depending on the needle distance and a part to be sewn on a tape.

Set the chip guard③ depending on a trimming width.

Loosen the screw④ to set it near the upper knife as closely as possible.

VF2439-1, VF2539-1

Adjust the lace guide(left)⑤ right or left depending on the needle distance and a part to be sewn on a tape.

Set the lace guide(right)⑥ depending on a tape width.

Loosen the screws⑦⑧ to adjust them.

Set the chip guard⑨ depending on a trimming width.

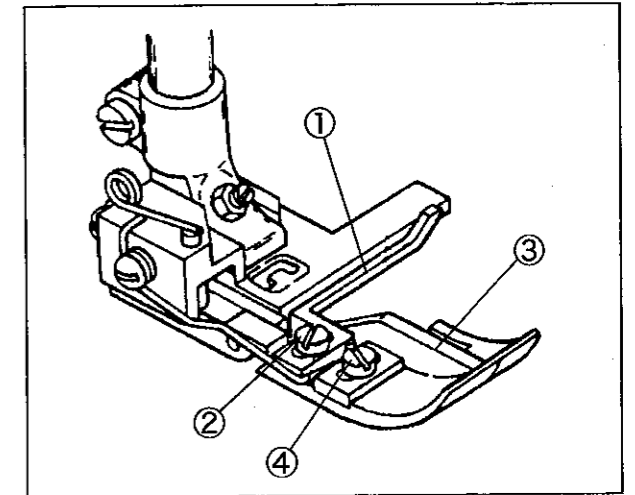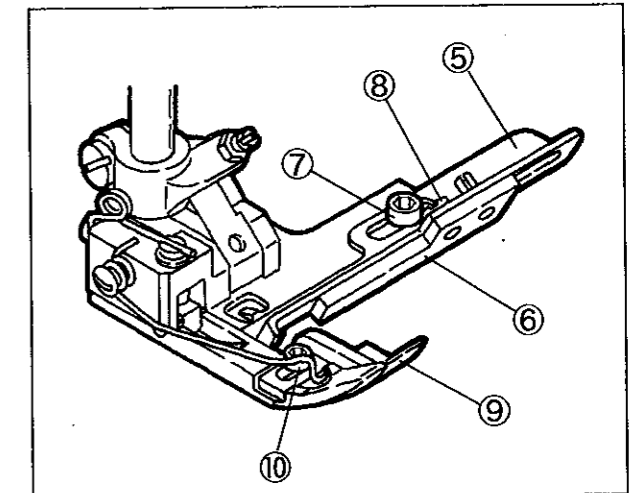Loosen the screw⑩ to set it near the upper knife as closely as possible.

Fig. 14

Fig. 15

4.2 Tape guide

(1) Set the tape guide bar(long)① to a low position enough
for sewing.

(2) Set the inside of the tape guide, c. set② along "A" on
the presser foot tape guide ③ or the lace guide(left)⑤.
Set the tape guide④ to guide a tape smoothly depending
on a tape width.

(3) After positioning the tape guide bar(long)①, loosen the
screw ⑥ to position the tape guide stopper ⑦.
It prevents the needle bar from touching the tape guide,
c. set ② and makes the position of the tape guide bar
(long) ①.
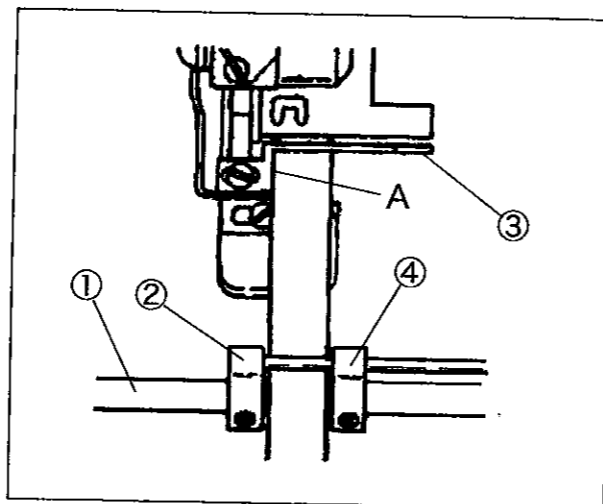
図16 VF2429G, S, VF2529G, S

図17 VF2439-1, VF2539-1

4.3 Pressure of elastic feed roller

To adjust the pressure of elastic tape with tension roller
(small)①, loosen the lock nut② and turn the adjusting screw
③.

● To increase the pressure, turn the adjusting screw③
clockwise.

● To decrease the pressure, turn it counterclockwise.

Keep the pressure as low as possible.

Too tight or loose pressure can cause uneven feeding of a
tape.

REFERENCE

Too much change in tension of a tape from the bobbin
may occur uneven sewing finish size even if the tension
roller(large) feeds an elastic tape correctly.
An automatic elastic feeder "AEF-31" can feed an
elastic tape smoothly and constant sewing finish can be
obtained.

4.4 Maintenance of metering device

Replacement and repair:

Improper installation of the metering device can cause im-
proper feeding of an elastic tape, skip stitch, needle break-
age, bad sewing performance and others.

Carefully install the device as following points:

(1) Check that the roller shaft turns smoothly after setting
it. Loosen the screws ④ and ⑤ and make interlining
to adjust it. (only for VF2439-1, VF2539-1)

(2) Set the tension roller(small)① to turn smoothly like a
top. Improper turning of it can cause irregular feeding
of a tape.

(3) Set the tension link⑥ and its shaft to turn smoothly.

(4) Set the tension spring pressure of the tension roller
(small)① as low as possible so that it can follow the
rotation.

Lubrication:
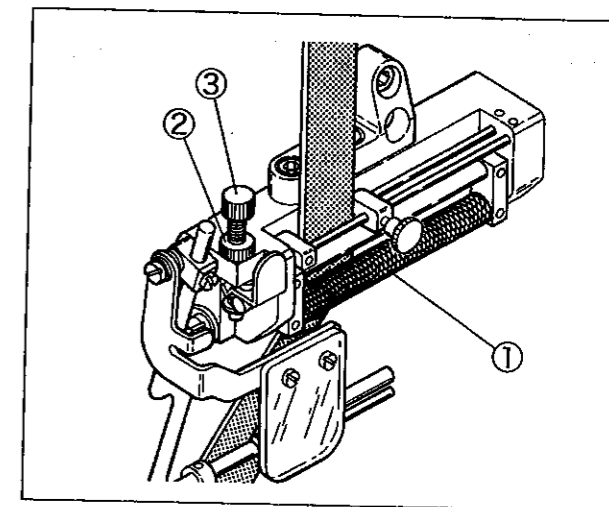
Fig. 19
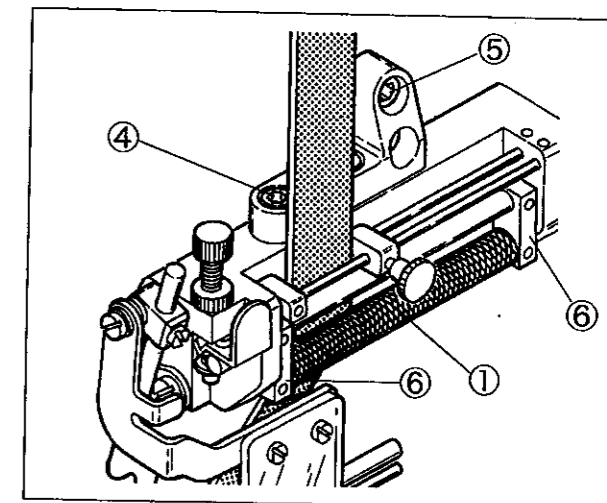
Fig. 20
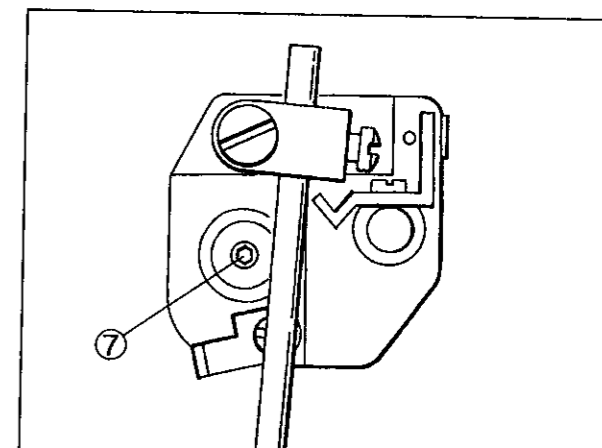
⚠ WARNING

Before adjusting, ALWAYS turn the motor switch OFF and check that the motor has already stopped.

4.5 Trimming width

Open the side cover and loosen the screw ①. Then, the upper and lower knife holders move right and left at the same time.

Tighten the screw ① after adjusting the position.
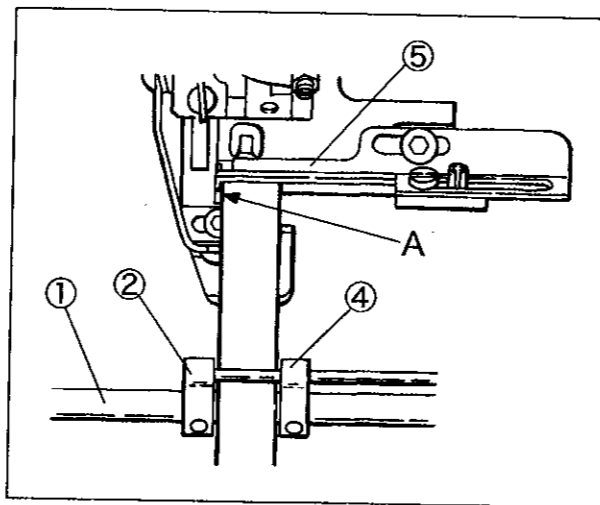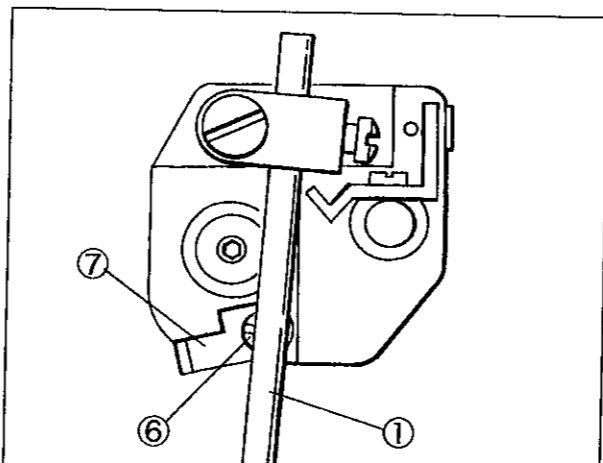
(Supply a few drops of oil into the oil hole ② if needed.)
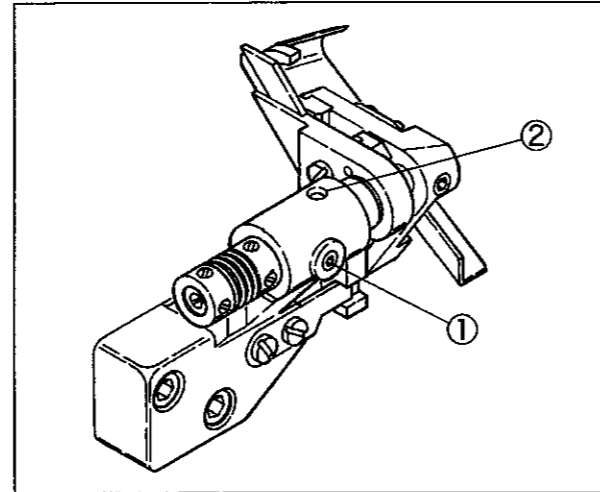
Fig. 22

⚠ WARNING

Before adjusting, ALWAYS turn the motor switch OFF and check that the motor has already stopped.

4.6 Trimming mechanism

4.6.1 Installing and removing lower knife

Removing lower knife:

(1) Loosen the screws ① of the collar(right).
(2) Push the collar(left)② to the right to make the clearance between the upper and lower knives.
(3) Tighten the screws ① slightly.
(4) Loosen the screw ③ of the lower knife clamp and pull it out the lower knife ④.

Installing lower knife:

(1) Position the lower knife ④ tip even with the top of the stitch plate and tighten the screw ③ securely.
(2) Loosen the screws①. (The upper knife engages with the lower knife by the spring.)
(3) Put a thread between the upper and lower knives to check the sharpness of them while turning the pulley manually.
(4) Tighten the screws ① securely.
(5) Recheck the sharpness of the knives.
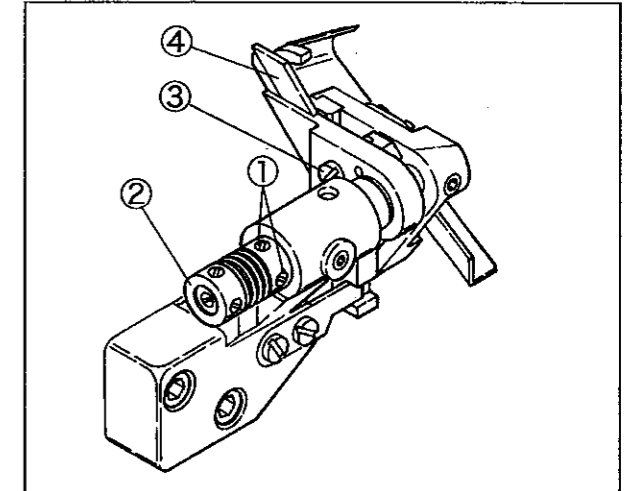
Fig. 23

4.6.2 Installing and removing upper knife

Removing upper knife:

(1) Loosen the screws ①.
(2) Push the collar(left)② to the right to make the clearance between the upper and lower knives.
(3) Tighten the screws ① slightly.
(4) Loosen the screw ⑤ to remove the upper knife ⑥.

Installing upper knife:

(1) Install the upper knife ⑥ with the screw ⑤.
(2) Loosen the screws①. (The upper knife engages with the lower knife by the spring.)
(3) Put a thread between the upper and lower knives to check the sharpness of them while turning the pulley manually.
(4) Tighten the screws ① securely.
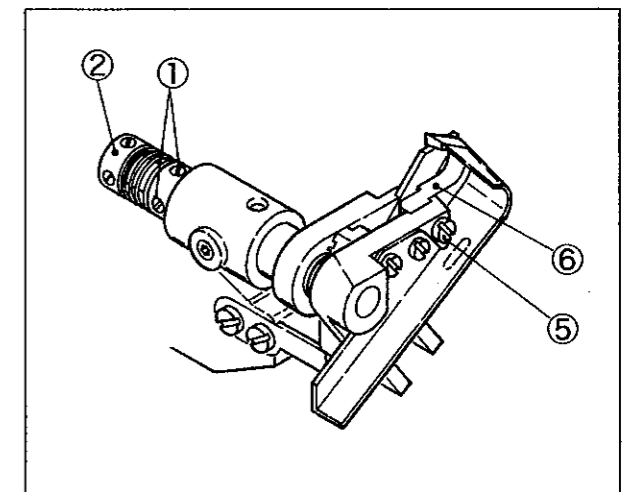(5) Recheck the sharpness of the knives.

Fig. 24

5. Specifications

⚠ WARNING

Before adjusting, ALWAYS turn the motor switch OFF and check that the motor has already stopped.

4.6.3 Engagement between upper and lower knives

The upper knife② engages with the lower knife① as shown in Fig. 25 when the upper knife moves to the lowest point. Loosen the screw③ and move the upper knife② and the upper knife holder up or down to adjust it.

Hold the upper knife driving shaft bushings⑥ with the upper knife driving shaft lever(right)④ and the spacer⑤ without palying the upper knife shaft⑦ right or left.

Then, tighten the screw③ securely.

top of stitch plate

0 ~ 0.5 mm

Fig. 25

Fig. 26

4.6.4 sharpening knives

If the lower knife cuts badly, re-sharpen it. (See Fig. 27)

The upper knife made of super hard alloy is unnecessary to re-sharpen for about one year and normal grinder is not useful for re-sharpening it.

Keep another upper knife for spare.

If needed, contact us directly or the dealer for re-sharpening it.

10 mm

10°

45°

10°

2 mm

10 mm

Model	VF2429G VF2529G	VF2429S VF2529S	VF2439-1 VF2539-1	VF2439-1-5 VF2539-1-5
Description	High speed flat bed 2 or 3-needle interlock stitch machine with right hand fabric trimmer and stepping motor driven metering device (fixed)		High speed flat bed 2 or 3-needle interlock stitch machine with right hand fabric trimmer and clutch type metering device (swing-out)	High speed flat bed 2 or 3-needle interlock stitch machine with right hand fabric trimmer
Dimensions	500 (L) × 250 (W) × 430 (H) mm			
Weight	44.5 kg (without EC)		46 kg	
Stitch Type	ISO 406, 407, 602, 605			
Application	Attaching elastic lace			
Sewing Speed	Max.: 5000 rpm Standard: 4500 rpm			
Stitch Length	1.4 – 3.6 mm The number of stitches 7 – 18 stitches per inch (25.4 mm) 8 – 21 stitches per 30 mm			
Needle system	UY128GAS #10 – #14			
Needle Distance	VF2429: 3.2 mm, 4.0 mm, 4.8 mm VF2529: 5.6 mm, 6.4 mm		VF2439-1: 3.2 mm, 4.0 mm VF2539-1: 5.6 mm, 6.4 mm	
Presser Foot Lift	Parallel setting of presser foot(lower)			
	with spreader: 6.0 mm		with spreader: 4.0 mm	
Feed Regulation	Push button system			
Differential Ratio	1:0.7 – 1:2			
Differential Feed Regulation	External lever even during operation			
Lace wide of metering device	70 mm			
Lubricating Oil	YAMATO SF OIL #28			
Lubrication	Lubrication automatically by pump.			
Capacity of Oil Reservoir	1100 cc			
Compliance with Regulation	Compliant with the PL Law and the CE Marking			
Installation	Semi-submerged type			