# ENGLISH

## CONTENTS

1. SPECIFICATIONS	2000
INSTALLING THE MULTICUTTING DEVICE	8886 <sup>8</sup>
(3) Installing the cloth cutting knife base A asm(4) Changing the position of the knife stopper	
3. CONNECTING THE PNEUMATIC COMPONENTS	9
4. ADJUSTING THE MULTICUTTING DEVICE	. 41
5. ADJUSTING THE PNEUMATIC COMPONENTS	. 12 12
6. SETTING THE DIP SWITCH	
7. REPLACING THE CLOTH CUTTING KNIFE	13
8. ADJUSTING THE CLOTH CUTTING KNIFE PRESSURE(1) Adjusting the knife pressing amount	.14
9. SETTING THE PATTERN DATA	15 15 16
D. MEMORY SWITCH	17

# 1. SPECIFICATIONS

Specifications	SS △ M type
Application	Men's and ladies' wear
Sewing speed	400 to 2,200 rpm (adjustable in 100 rpm steps)
Stitch length (Notes 1 and 2)	10 to 38 mm (with looper thread trimmer)
	10 to 50 mm (in case of removing looper thread trimming device)
Stitch bite width (Notes 3 and 4)	2.0 to 3.2 mm
Taper bar length	0 mm, 3 to 15 mm
Lift of presser foot	13 mm (Max. 16 mm)
Method of changing sewing shape	Program selection method
Buttonhole cutting system (Note 5)	Cut-before knife, cut-after knife, without knife
Feed system	Intermittent feed by stepping motor
Cloth cutting drive	Vertical drive by stepping motor
Needle (Note 3)	DO × 558 #90 to 110
Safety device	Temporary stop switch and automatic stop function at the time of detection of trouble
Lubricating oil	JUKI New Defrix Oil No. 2
Air pressure	0.49 Mpa
Air consumption	6 & /min (8-cycle/min)
Noise level	81.5 dB/max. speed 2,200 rpm
Dimensions	1,060 mm (W) $ imes$ 790 mm (L) $ imes$ 1,230 mm (H) (Excluding thread stand)
Power consumption	550 VA
Gross weight	185 kg

Note 1: Stitch length becomes as follows in accordance with the knife holder.

#### With looper thread trimmer (Memory switch No. 22 = 1)

	Knife holder	Max. stite	h length	Min. stitch length		
Part No.	length (mm)	Eyelet buttonhole (mm)	Decorative buttonhole (mm)	Eyelet buttonhole (mm)	Decorative buttonhole (mm)	
32087801 *	18	38 (*)	38 (*)	18	10	
32087702	26	38 (*)	38 (*)	26	16	
32087603	32	38 (*)	38 (*)	32	22	
32088106	18	38 (*)	38 ( * )	10	10	
32088007	26	38 (*)	38 (*)	16	16	
32087900	32	38 (*)	38(*)	22	22	

\* : Provided as standard

(\*): When stitch length exceeds 32 mm at the time of straight bartacking and round bartacking, defective clamping or defective cutting of looper thread, and gimp may occur.

## Without looper thread trimmer (Memory switch No. 22 = 0)

Knife holder	Max. stitch length			
length (mm)	Eyelet buttonhole (mm)	Decorative buttonhole (mm)		
18	38	38		
26	46	46		
32	50	50		

\* Min. stitch length is the same as that with looper thread trimmer.

Note 2: Be sure to use the knife holders exclusive for the multicutting device (32087801, 32087702, 32087603, 32088106, 32088007 and 32087900).

In addition, be careful of the clearances between the knife holder and the right/left presser feet. (The knife holder may come in contact with the presser holding plate at the time of cloth cutting.)

Note 3: Stitch bite width and needle No. are set as follows at the time of delivery from the factory.

Stitch bite width: 2.8 mm

Needle No. : #100

(When changing the stitch bite width or the needle No., make sure of the installing positions of needle and looper, and the spreaders, the timing to open/close the spreaders, and the clearance between the needle and the needle guard.)

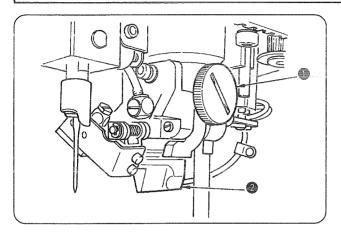
- Note 4: The range of stitch bite width can be changed from 2.0 to 3.2 mm to 2.6 to 4.0 mm by changing the optional left looper and the optional left spreader.
- Note 5: When the cut-before knife is selected, the knife holder may come in contact with the presser and the presser holding plate if the clearances between the knife holder and the right/left presser feet are small.

# 2. INSTALLING THE MULTICUTTING DEVICE



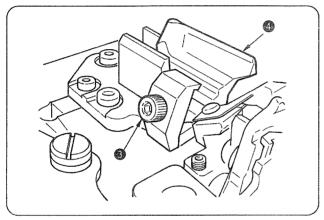
#### **WARNING:**

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.

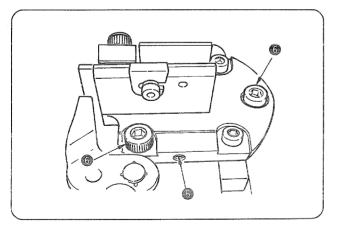


- (1) Removing the cloth cutting knife base
- 1) Turn OFF the power and the air to the machine.
- 2) Loosen fixed screw 
  and remove knife holder

  .



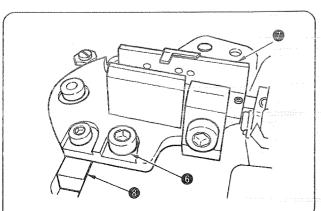
3) Loosen setscrew 3 and remove cloth cutting knife

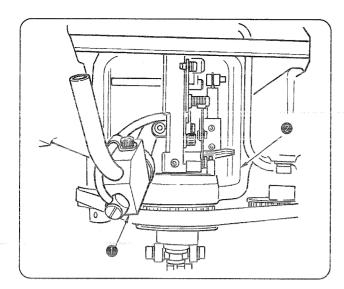


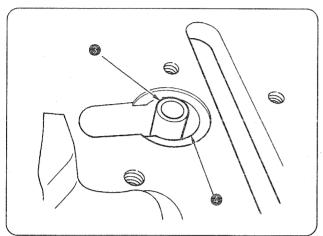
- 4) Loosen setscrew 5. 1.5 m M
- 5) Remove three setscrews (a) in the knife base and remove cloth cutting knife base (a) (together with knife base key (b)) from the machine bed. (Remove the piping connected to the base as well.)



Three setscrews @ in the knife base are used again. Keep them without losing.





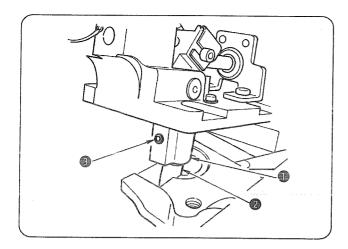


# (2) Installing the cloth chip suction device asm.

- 1) Remove the cloth chip chute hose from the bottom cover.
- 2) Insert cloth chip suction device asm. to machine bed and adjust so that cloth chip chute A appears from hole of the machine bed. (It is possible to insert it from the rear side.)

[Pass the air tube (black) of the cloth chip suction device and the cloth chip hose (white) up to the rear side of the machine bed.]

3) Attach the cloth chip chute hose of the cloth chip suction device asm. to the bottom cover after connecting with the cloth cutting knife base A. (When the diaphragm elbow [Part No.: PJ304120002] is assembled to the bottom cover, remove it and replace it with cloth chip bush [Part No.: 32006504].)





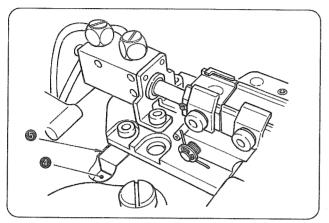
 Loosen two setscrews and remove cloth cutting knife (eyelet) and cloth cutting knife (straight) from the device.

(Refer to "7. REPLACING THE CLOTH CUTTING KNIFE".)

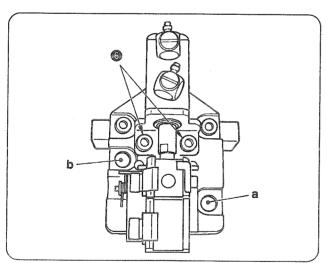
 Insert cloth chip chute A into cloth chip chute boss and fix it with setscrew .



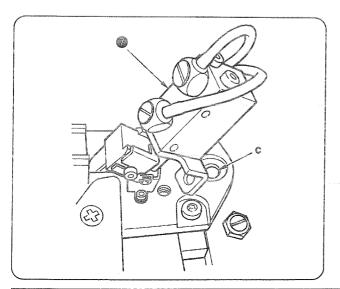
Fix the cloth chip chute asm. so that it does not tilt.



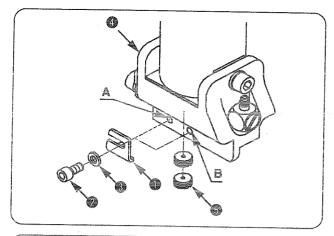
3) Put cloth cutting knife base key (a) in key slot (a) of the machine bed.



4) Put two setscrews in the knife base which have been removed in the process 5) of (1) in the mounting holes, a and b. Then fix them after checking the lateral position of the device (refer to "4.-(1) Adjusting the knife dropping position".).

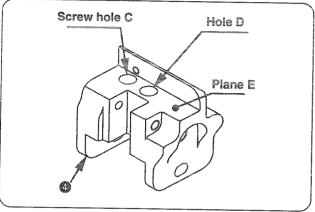


- 5) Remove two setscrews (and raise knife base cylinder .
- 6) Put one setscrew in the knife base which has been removed in the process 5) of (1) in the mounting hole, c and fix it.
- 7) Return knife base cylinder to its home position and fix it with two setscrews .

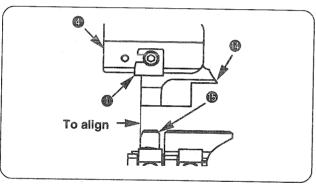


# (4) Changing the position of the knife stopper

1) Remove knife stopper ① of knife fitting base ②, setscrew ② and washer ③, and change from screw hole A to screw hole B.



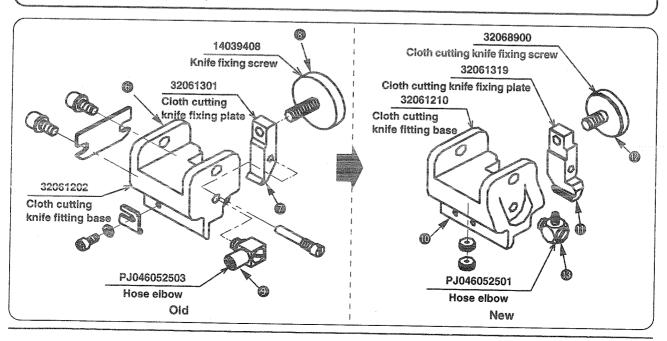
2) Attach two stop plugs to screw hole C so that the stop plugs do not protrude from the knife fitting plane E.



3) Adjust the position of knife stopper so that the back of cloth cutting knife (eyelet) and that of knife holder align with each other.



When old parts below ( , , , and ) are assembled into the sewing machine, replace all of them with new parts ( , , , and ). (Assemble the other old parts in the illustration into new parts without replacing them.)

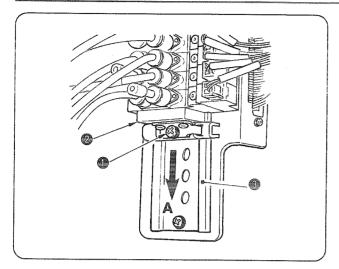


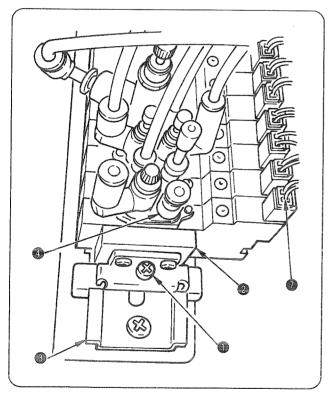
# 3. CONNECTING THE PNEUMATIC COMPONENTS



#### **WARNING:**

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.





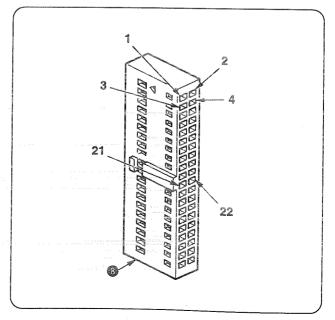
#### (1) Piping the knife base cylinder

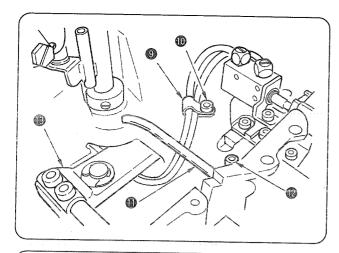
- Loosen setscrew in the end block, draw end block in the direction A, and draw it out from rail
   .
- 2) Attach three bushes supplied with the device as accessories to solenoid valve @ and insert solenoid valve @ into rail @ .
- 3) Insert end block ② into rail ③ and making the solenoid valve come in close contact with it, tighten setscrew ④.



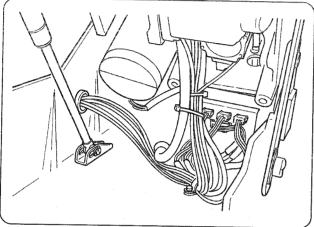
- When tightening setscrew , air leakage will be caused unless the respective solenoid valves come in close contact with each other. Be careful that there is no clearance between them.
- 2. Check that the bushes supplied with the device as accessories are put between the respective solenoid valves and the end block.
- 4) Connect solenoid valve cable to solenoid valvea.
- 5) Insert the pins of solenoid valve cable **a** to the designated places of connector **a**.

Solenoid valve No.	Cable color	Connector No.
<b>9</b>	Red	21
0	Black	22

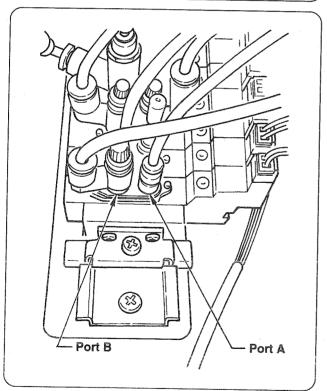




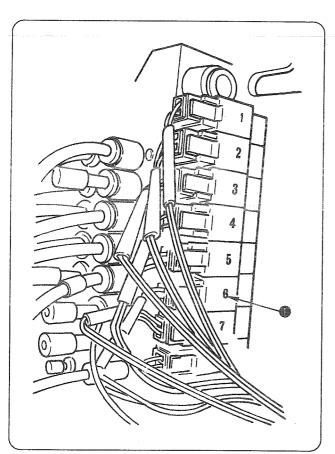
- 6) Fix the air tubes with cable clip (and setscrew (b) supplied with the device as accessories, loosen two gimp pipe B setscrews (b) and pass the air tubes between gimp pipe B (b) and the machine bed.
- 7) Pass them under lengthwise feed guide shaft fixing base (3) and insert them into the inside of the machine bed.



8) Perform piping of the air tubes up to the bottom of the machine table as shown in the illustration and fix them with the air tube of the cloth chip suction device with the clip band supplied with the device as accessories.

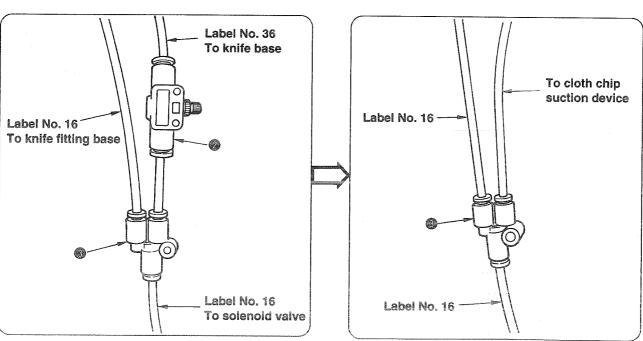


- 9) Connect the air tube on the side where the cloth cutting knife (eyelet) tilts to port A.
- 10) Connect the air tube on the side where the cloth cutting knife (eyelet) rises to port B.



## (2) Piping the cloth chip suction device

- Remove the piping of label No. 36 (to knife base) of solenoid valve No. 6 (cloth chip blow) from the end of Y joint . (Including speed controller
- Insert the piping from the cloth chip device into Y joint from which the piping has been removed.

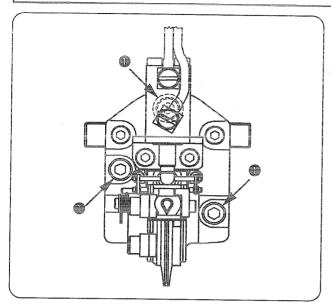


# 4. ADJUSTING THE MULTICUTTING DEVICE



#### **WARNING:**

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.

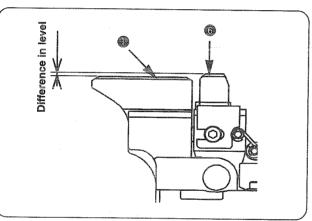


# (1) Adjusting the knife dropping position

1) Loosen three setscrews • in the knife base and adjust the lateral position of the device so that the cutting portion is laterally equal to the stitches.



Adjust the lateral position of the knife holder as well and adjust so that the cloth cutting knife comes to the center of the knife holder.

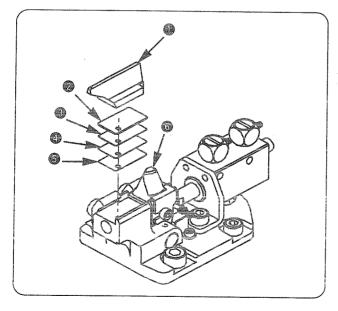


# (2) Adjusting the difference in level between the knives

When replacing the respective cloth cutting knives, difference in level may occur between cloth cutting knife (eyelet) and cloth cutting knife (straight) .

Adjust so that there is no difference in level between cloth cutting knife (eyelet) and cloth cutting knife (straight) .

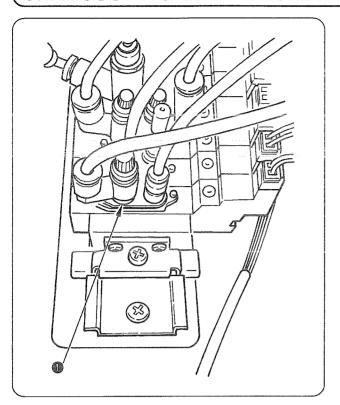
- 1) Remove cloth cutting knife (straight) and knife base spacer A .
- Adjust so that there is no difference in level by means of a combination of knife base spacer B
   , knife base spacer C
   and knife base spacer D
   supplied with the unit as accessories or those attached to the unit.



- When replacing either cloth cutting knife (eyelet) or cloth cutting knife (straight), be sure to check the height.
- 2. When cloth cutting knife (eyelet) is higher, parallel portion cannot be cut.
- 3. When cloth cutting knife (straight) is higher, eyelet portion cannot be cut.
- Be sure to fit knife base spacers B, C and D between knife base spacer A and the knife base.



# 5. ADJUSTING THE PNEUMATIC COMPONENTS



#### (1) Adjusting the speed controller

Adjust speed controller • to such an extent that there is shock when returning the cloth cutting knife (eyelet) from the tilted state.

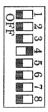
(Standard: Adjust the adjustment screw of the speed controller to the open by approximately one turn from the full close. <Speed controller has been factory-adjusted at the time of delivery.>)



When the return speed of cloth cutting knife (eyelet) is too fast, the position of cloth cutting knife may slip.

## 6. SETTING THE DIP SWITCH

Cloth cutting type can be changed with DIP-SW 4 located on the back of machine head. Turn ON DIP-SW 4 to select the multicutting.



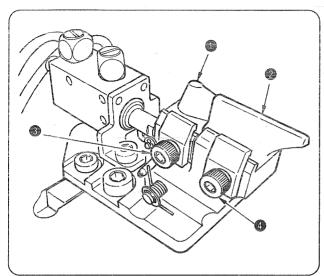
DIP-SW 4	Cloth cutting type
OFF	Standard
ON	Multicutting

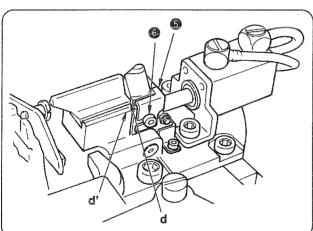
# 7. REPLACING THE CLOTH CUTTING KNIFE



#### **WARNING:**

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.





## (1) Replacing the cloth cutting knife (eyelet)

- Loosen setscrew and remove cloth cutting knife (eyelet)
- 2) Press the knife you desire to replace to stopper and tighten setscrew to fix the knife.



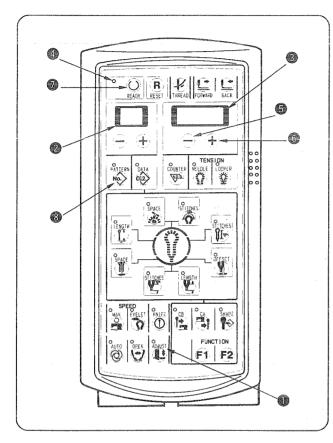
Do not loosen screw @ since stopper @ is for positioning.

### (2) Replacing the cloth cutting knife (straight)

- 1) Loosen setscrew 4 and remove cloth cutting knife (straight) 2.
- 2) Adjust edge "d" of the knife you desire to replace to edge "d" of knife base A and tighten setscrew to fix the knife.

## 8. ADJUSTING THE CLOTH CUTTING KNIFE PRESSURE

- Knife pressing amount of the cloth cutting knife can be changed.
- When replacing the cloth cutting knife or the knife holder, or sewing material is changed, it is necessary to adjust the knife pressing amount or the stopping time of the knife lower position (refer to Instruction Manual for MEB-3200, P.62).
- Perform the change of set value after fully performing checking of the knife holder face and the knife.
- Gradually increase any set value from the small amount while checking the set value.



#### <Display of panel>

- a. Knife holder No. when pattern setting is unacceptable :
- 1 30

Knife adjustment of eyelet + parallel section

2 2 20

Knife adjustment of parallel section only

- b. Knife holder No. when pattern setting is acceptable:
- 0 [.0] 30

Knife adjustment of eyelet + parallel section

2 **2.0 2.0** 

Knife adjustment of parallel section only

#### (1) Adjusting the knife pressing amount

- 1) Pressing ADJUST key , turn ON the power to the machine.
- 2) State of the knife to be adjusted is displayed in 2digit LED and the pressing amount set is displayed in 4-digit LED .
- Press READY key to light up the sewing LED. (At this time, feed base, looper bracket and cloth cutting knife perform origin retrieval.)
- 4) Display of 2-digit LED ② is changed over by pressing PATTERN key ③ and the state of the knife to be adjusted (eyelet + parallel section or parallel section)

(When display of 2-digit LED **②** is "1.": Eyelet + parallel section

When display of 2-digit LED ② is "2.": Parallel section only)

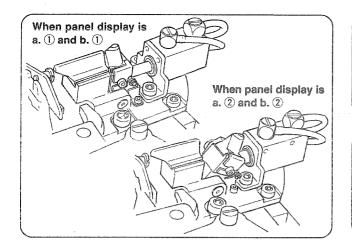
- <Refer to display of panel a. ① and ② .>
- 5) The pressing amount can be set with RIGHT 
  key or RIGHT key o. (The setting range is 
  −100 to 300. The more the number is, the higher the cloth cutting knife pressure becomes.)
- 6) Lower the presser with the presser switch and press the start switch to actuate the knife.

The pressing amount can be set again using RIGHT key for RIGHT key for with the presser raised.

- 7) Perform the adjustment of knife for "eyelet + parallel section" or "parallel section only".
- 8) After completion of the setting, press ADJUST key to complete the knife adjustment mode and to change to the sewing mode.

10 kinds of the knife pressing amounts can be set to the pattern data with memory switch No. 40. (Refer to the Instruction Manual for MEB-3200, P.48 (8).)

At this time, the display of panel is as shown in b.  $\bigcirc$  and  $\bigcirc$ .





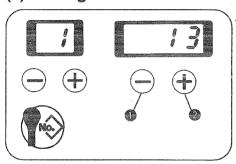
The set value is stored in memory when the knife is actuated by the start switch or ADJUST key is pressed. When turning OFF the power without performing either operation, the set value is not stored in memory.



Set the knife pressing amount as small as possible in order to protect the knife and the knife holder, and maintain the durability. If the pressing amount is excessively large, malfunction of the drive motor or breakage of the knife will be caused.

## 9. SETTING THE PATTERN DATA

#### (1) Setting the knife No.





No.	a	×	b
13	2.9	×	4.4
16	2.7	×	5.1

13 or 16 ... Eyelet

- Set the knife No. of the same form as that of the knife mounted on the sewing machine and determine the multicutting operation.
- 2) Set the knife No. with RIGHT key or RIGHT key or RIGHT

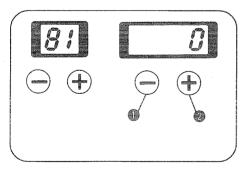
In case of the multicutting device, set 13 or 16.

[When performing the decorative buttonhole sewing, set "Plural times selection: data No. 83" to "1" and change the respective sewing data without changing the knife No. to perform the sewing.]



In case of setting knife Nos. 0 to 6, the knife operates only once.

## (2) Cut length compensation



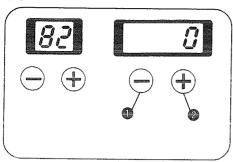
Length

Length

- Cut length in terms of the sewing length can be shortened.
- 2) Set the cut length with RIGHT key or RIGHT key or RIGHT

The length can be set in increments of 1 mm up to 0 (cut length - knife holder length).

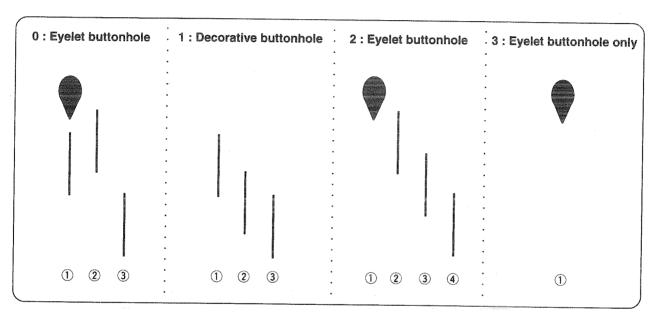
#### (3) Plural times selection

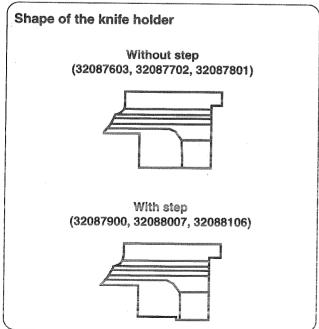


- 1) Set the operation pattern of the cloth cutting knife.
- 2) The pattern can be set with RIGHT  $\bigcirc$  key  $\bigcirc$  or RIGHT  $\biguplus$  key  $\bigcirc$  .

When using knife holder without step: 0 or 1 When using knife holder with step: 1, 2 or 3

[In case of using the knife holder with step, the knife operation may be more than the case of using the knife holder without step at the time of the same cutting length.]

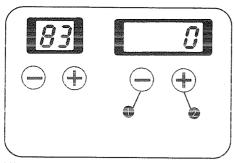


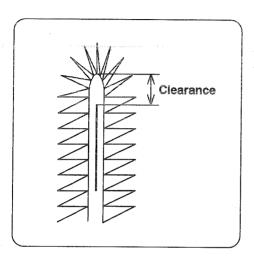




In case of using the knife holder with step, be careful of the thickness of material. (In case of thick material, not only the eyelet buttonhole but also the straight portion may be cut.)

## (4) Decorative buttonhole offset





- 1) Clearance from the top of the stitches of decorative buttonhole to the cutting position can be set.
- 2) Set the clearance with RIGHT key or RIGHT key •.

The clearance can be set in increments of 1 mm up to 0 (cut length - knife holder length - cut length compensation value).

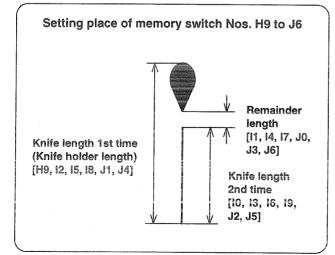
It is effective only when the data No. 82 is "1".

## 10. MEMORY SWITCH

- 1) Start the memory switch. (READY key + Power ON)
- 2) Set the memory switch Nos. H9 to J6 in accordance with the knife holder length and knife No. as listed in the table below. (Standard value at the time of knife holder length = 18 mm)



It is effective only when knife Nos. 11 to 16 are selected.



Knife	Memory	Knife holder (Part No.)			
No.	switch No.	32087801	32087702	32087603	
		32088106	32088007	32087900	
	H9, I2, I5, I8, J1, J4	18	26	32	
	10, 13, 16, 19, J2, J5	8	16	22	
.11	11	6	6	6	
12	.  4	5	5	5	
13	17	5	5	5	
14	JO	5	5	5	
15	J3	4	4	4	
16	J6	4	4	4	

No.	Function	Description	Standard value	Setting range	Unit
18	Plural times knife 14, knife length 1st time	1st time knife length of knife No. 14	18	10 to 38	mm
19	Plural times knife 14, knife length 2nd time	2nd time knife length of knife No. 14	8	5 to 38	mm
J0	Plural times knife 14, remainder cut amount	Remainder cut length between eyelet and parallel section of knife No. 14	5	0 to 20	mm
J1	Plural times knife 15, knife length 1st time	1st time knife length of knife No. 15	18	10 to 38	mm
J2	Plural times knife 15, knife length 2nd time	2nd time knife length of knife No. 15	8	5 to 38	mm
J3	Plural times knife 15, remainder cut amount	Remainder cut length between eyelet and parallel section of knife No. 15	4	0 to 20	mm
J4	Plural times knife 16, knife length 1st time	1st time knife length of knife No. 16	18	10 to 38	mm
J5	Plural times knife 16, knife length 2nd time	2nd time knife length of knife No. 16	.8	5 to 38	mm
J6	Plural times knife 16, remainder cut amount	Remainder cut length between eyelet and parallel section of knife No. 16	4	0 to 20	mm
LO	Plural times knife, parallel section knife adjustment value 0	Plural times knife, knife adjustment value of parallel section 0 (Knife holder No. 0)	20	- 100 to 300	Pulse
L1	Plural times knife, parallel section knife adjustment value 1	Plural times knife, knife adjustment value of parallel section 1 (Knife holder No. 1)	0	- 100 to 300	Pulse
L2	Plural times knife, parallel section knife adjustment value 2	Plural times knife, knife adjustment value of parallel section 2 (Knife holder No. 2)	0	- 100 to 300	Pulse
L3	Plural times knife, parallel section knife adjustment value 3	Plural times knife, knife adjustment value of parallel section 3 (Knife holder No. 3)	0	- 100 to 300	Pulse
L4	Plural times knife, parallel section knife adjustment value 4	Plural times knife, knife adjustment value of parallel section 4 (Knife holder No. 4)	0	- 100 to 300	Pulse
L5	Plural times knife, parallel section knife adjustment value 5	Plural times knife, knife adjustment value of parallel section 5 (Knife holder No. 5)	0	- 100 to 300	Pulse
L6	Plural times knife, parallel section knife adjustment value 6	Plural times knife, knife adjustment value of parallel section 6 (Knife holder No. 6)	0	- 100 to 300	Pulse
L7	Plural times knife, parallel section knife adjustment value 7	Plural times knife, knife adjustment value of parallel section 7 (Knife holder No. 7)	0	- 100 to 300	Pulse
L8	Plural times knife, parallel section knife adjustment value 8	Plural times knife, knife adjustment value of parallel section 8 (Knife holder No. 8)	0	- 100 to 300	Pulse
L9	Plural times knife, parallel section knife adjustment value 9	Plural times knife, knife adjustment value of parallel section 9 (Knife holder No. 9)	0	- 100 to 300	Pulse

Note) Memory switch Nos. 40 to 50 and L0 to L9 are set in "8. ADJUSTING THE CLOTH CUTTING KNIFE PRESSURE" (P.14).