OPERATION MANUAL

## Paper Folder EP-45F

Contents

1.Safety Instructions

Danger：Stands for immediate danger threatening the life and health of persons and loss of property. Disregarding these instructions may cause severe damage to health and even serious injuries.

Caution：Stands for an endangering situation that may occur. Disregarding these instructions may lead to slight injures or damage to property.

|	
Danger	Make sure that the machine is electrically grounded. This prevents an electric shock when there is a leak of electricity.
	Use the machine at 110 –120VAC, 220 –240VAC with a frequency of 50Hz to 60Hz.
	Do not place any object on this machine. A fire may start or electricity may leak if water or a foreign object enters inside the machine.
	Handle the power cord with care. A fire may start or an electric shock may be caused if the cord is damaged, broken, or processed, if a heavy object is placed on the cord, or if the cord is bent forcibly.
	Do not remove the cover of this machine. Otherwise, an electric shock or injury may be caused.
	Do not remodel this machine. Otherwise, a fire may break out or an electric shock may be caused.
	If the machine is used when it is in an abnormal condition, such as generating heat, emitting smoke, and giving out a strange smell, a fire may break out or an electric shock may be caused. Turn off the power switch immediately and then pull the Power plug out of the electric outlet. Afterward, consult with your dealer.
	If thunder approaches, pull the power cord out of the electric outlet to prevent a fire or breakdown caused by the falling of a thunderbolt.
Caution	Do not let hairs, a necktie, or necklace hang above the drive of the machine. Doing so may cause an injury.
	Do not put the machine on an unstable place such as a shaky stand and a slant floor. Doing so may cause the machine to drop or fall down, causing an injury.
	Do not put the machine in a moist or dusty place. Doing so may start a fire or cause an electric shock.
	Be sure to pull the power plug out of the electric outlet first when moving this machine. Otherwise, the cord may be damaged, causing a fire or an electric shock.
	Be sure to pull the power plug out of the electric outlet for safety purposes when this machine is not used for consecutive holidays or for other reasons.

2. Accessories

Make sure that the following accessories are included in the package after opening it. Contact your dealer immediately if there are missing accessories.
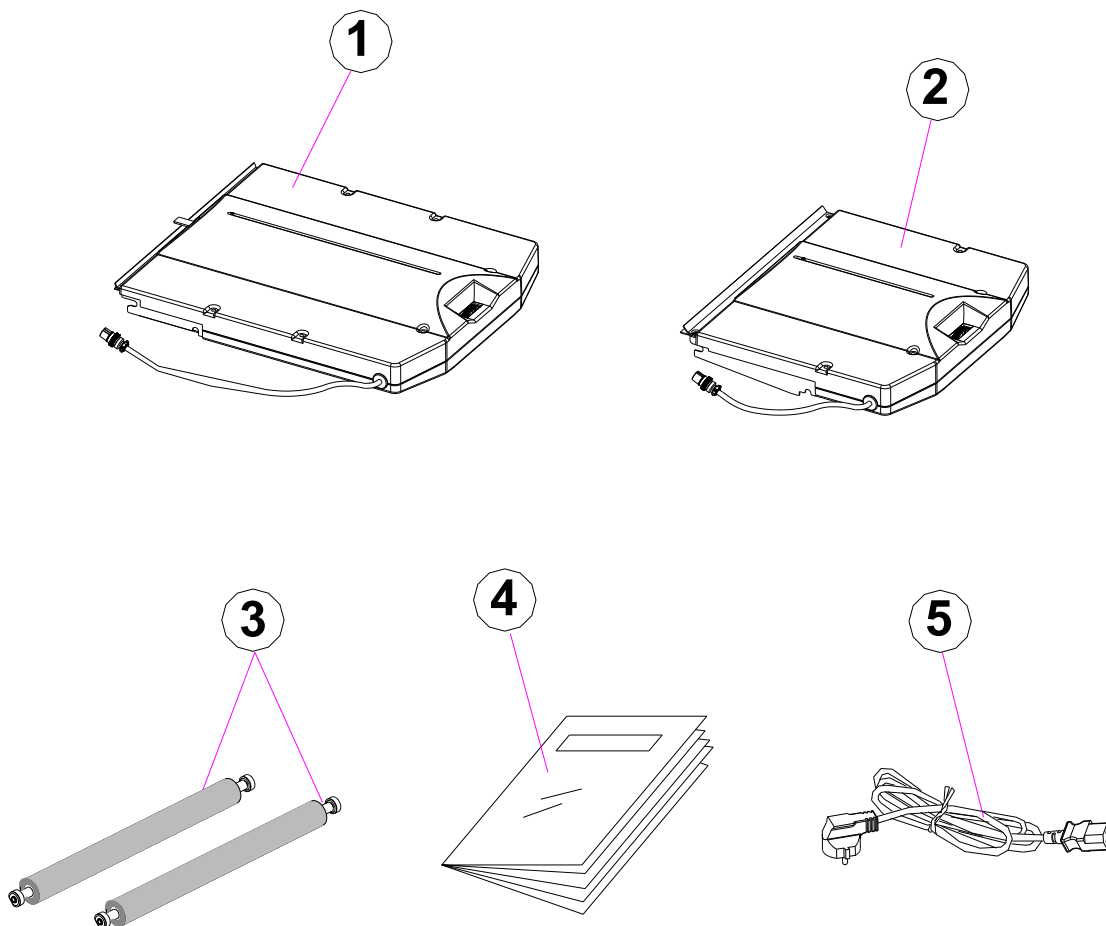
Number	Accessories	Quantity
①	Table A	1
②	Table B	1
③	Roller	2
④	Operation Manual	1
⑤	Power cord	1

3. Part Name
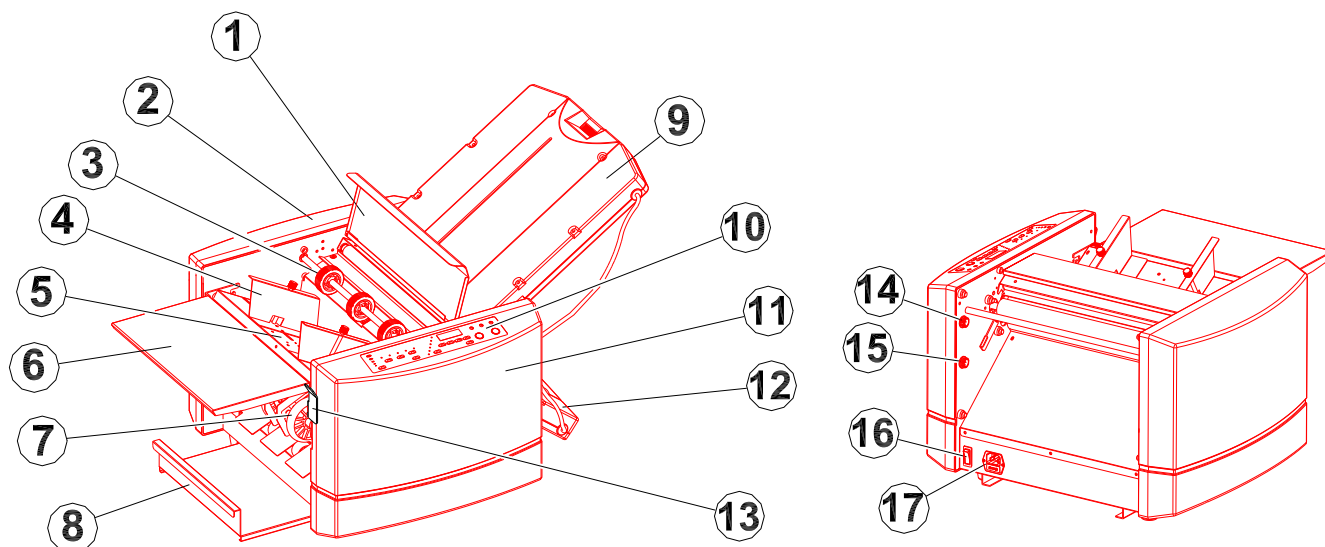
	Part Name			Part Name
1	Roller cover	10		Control panel
2	Left side cover	11		Right side cover
3	Paper feed roller	12		Table B
4	Paper guide	13		Paper feed table lever
5	Feed table	14		Table A socket
6	Auxiliary feed table	15		Table B socket
7	Paper ejection roller	16		Power switch
8	Paper stacking table	17		Inlet
9	Table A			

4. Designation and Functions of Control Panel
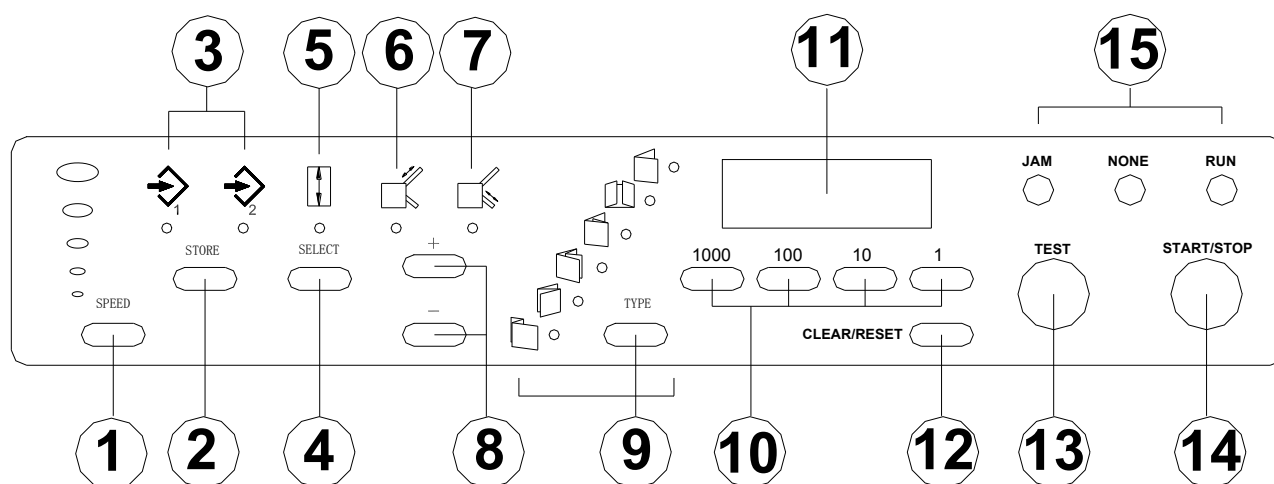
No.	Designation/Indication	Function
1	Speed adjustment key	Used for adjusting the speed.
2	Store key	Select Memory 1/2 stored folding position and the folding position after adjustment is stored.
3	Memory 1/2 lamp	Two special folding types are stored.
4	Select key	Used for selecting paper length, the feed position of table A and B, indicating of the counter when the lights are off.
5	Paper length input mode lamp	It is on when paper length is input; If non-standard-size paper, press CLEAR/RESET, input correct paper length.
6	Table A stopper move mode lamp	It lights when the position of stopper of Table A can be adjusted.
7	Table B stopper move mode lamp	It lights when the position of stopper of Table B can be adjusted.
8	+/ −key	Used for adjusting the position of the stopper of Table A and B,
9	Fold type key	Six folding types & six types of paper can be selected and stored.
10	Numerical key1	Used for inputting the reduced number for subtraction counting and the length of non- standard-size paper
11	Counter	Shows the number of sheets, the position of the stopper pin of Table A and B, and paper size.
12	Clear/Reset key	Clears counter indication and resets error. When the Paper length lamp is on, press this key, can input non-standard-size paper
13	Test key	Test fold one sheet (stopper of Table A and B move to the position)
14	Start/Stop key	Starts and stops the machine
15	Statues lamp	It lights when paper stock runs short, or indicates the location when paper feed trouble occurs.

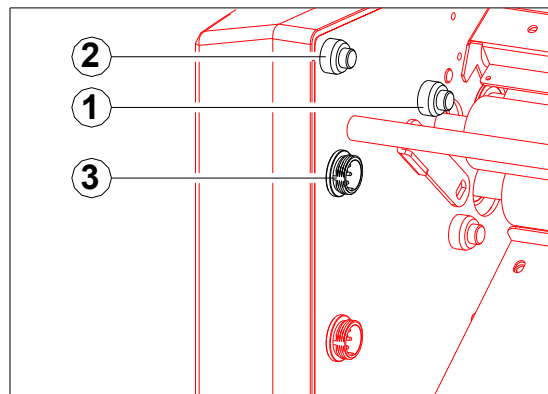# 5. Preparation

5-1. Install the roller

1	2
	Roller-A / Roller-B
3	4
Roller-A / Roller-B	Roller-B
5	6
Roller-B	

⚠

Left Bearing **Right**   **Left** B **Right**

A

Bearing
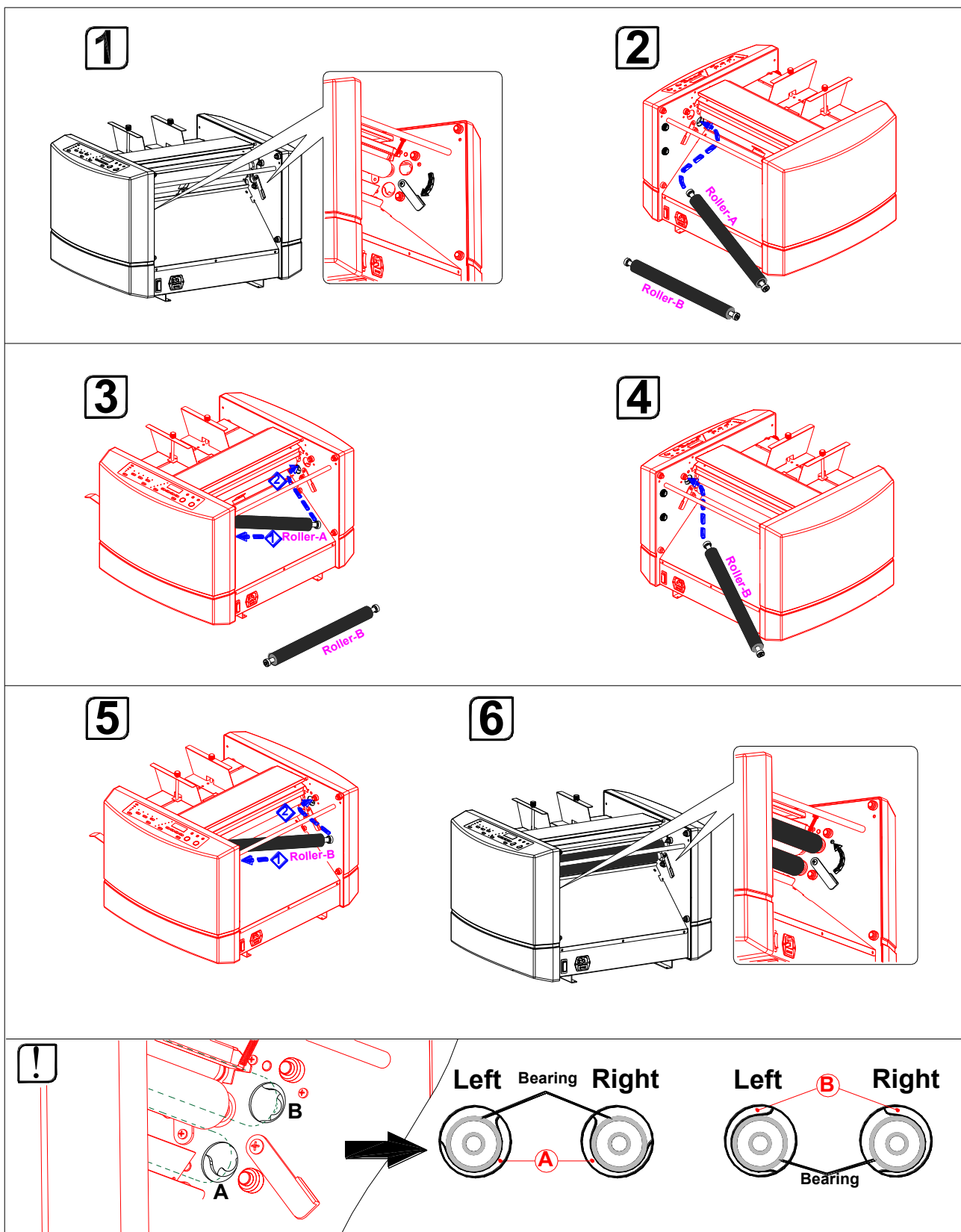
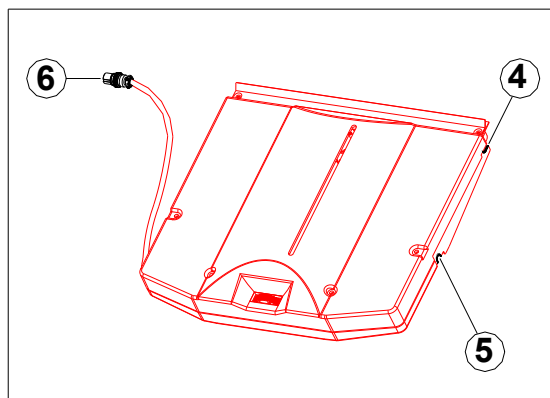## 5-2.Install Table A and B, Preparation before start the machine
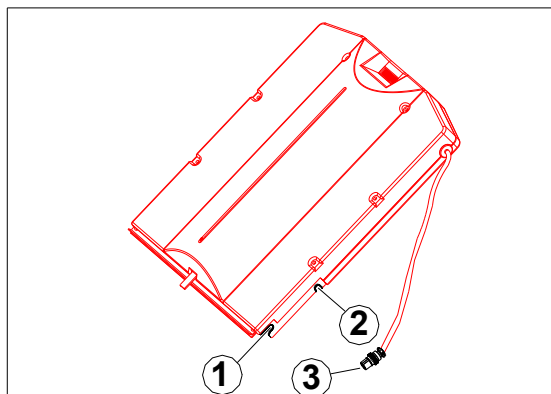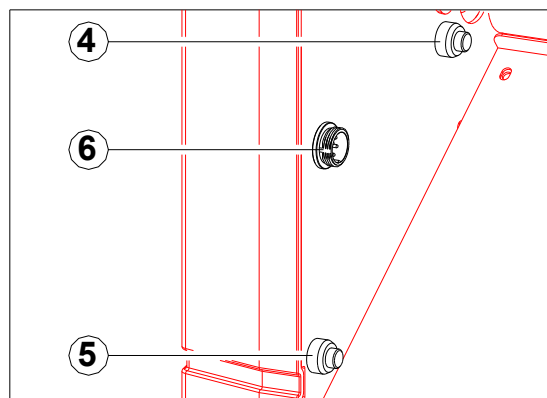

5-2-1. Position of Table A's notch and connector

5-2-2. Insert the front notched part of Table A into the stud (1) of the machine and drop its rear notched part on the stud (2). Insert the plug into the connector (3)
Caution:
The connector has its direction.
Insertion by force may cause trouble.

5-2-3. Position of Table B's notch and connector

5-2-4. Insert the front notched part of Table 2 into the stud (4) of the machine and drop its rear notched part on the and drop its rear notched part on the connector (6).
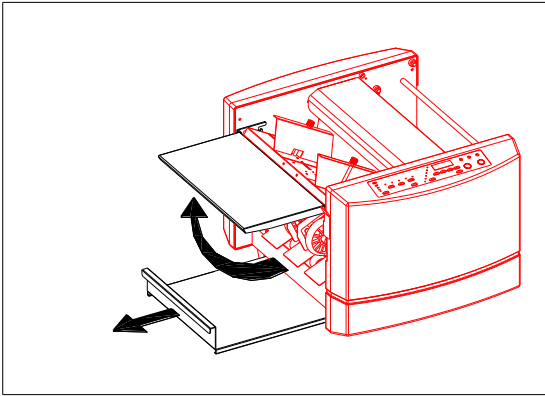
5-2-5. Pulling the paper stacking table
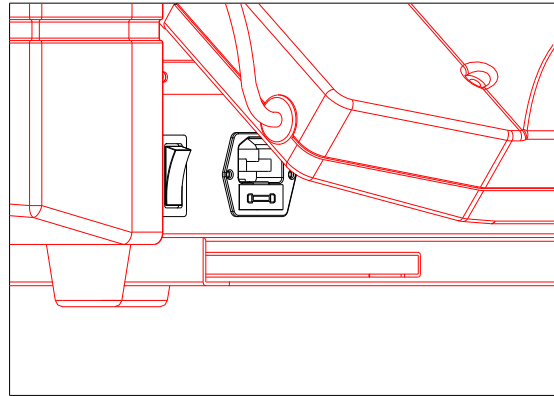
5-2-6. Insert the power cord into the inlet

out and set it while lifting the auxiliary table.
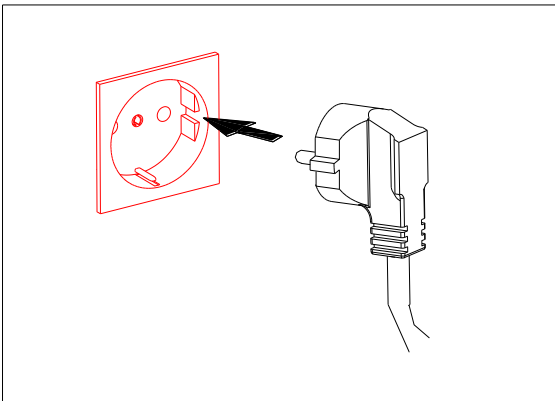
5-2-7.**Caution:**

Be sure to undo before use.

Insert the power cord into the outlet.

When the power switch is on, the stoppers

of Table A and B move to the origin.

6. Indication of the Counter

6-1. **Addition Counter**

When the three lamps are off, the number indicates the counter. Press start/stop key after choosing the fold type, it counts automatically the folded paper.

Press the Clear/Reset key and reset the number at zero (0)
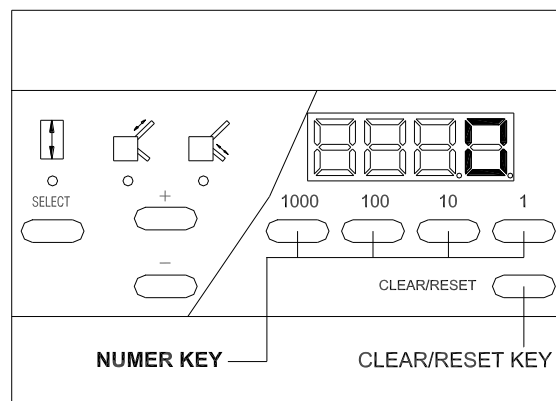
6-2. **Subtraction Counter**

When the three lamps are off, the number indicates the counter. Input the desired number using the Numerical keys.(40 is input in this case)

Subtraction Mode Lamp will light. Press start/stop key after choosing the fold type. The number on the counter decrease by one each time a sheet of paper is folded. When the number is finished, the counter will return to the desired number again.
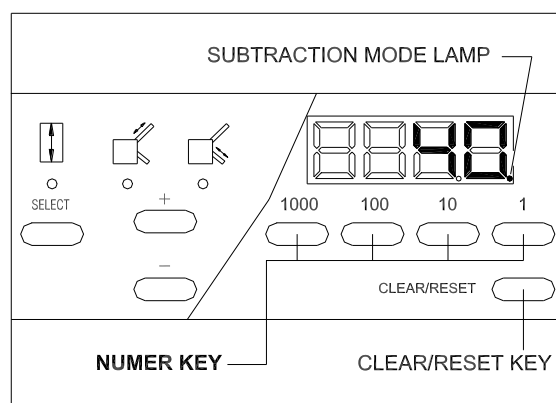
6-3. **Input non-standard-size paper length**

Press the Select key, Paper length input mode lamp is on, press Clear/Reset key. Input the paper length using the Numerical keys (300mm is input in this case, micro meter can be input after decimal point). Press store key, and store under 1 or 2 memory indication.
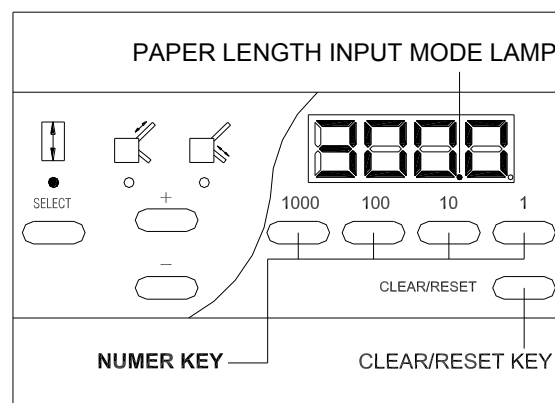
7.How to Use

7-1. Standard Folding of Standard-size Paper

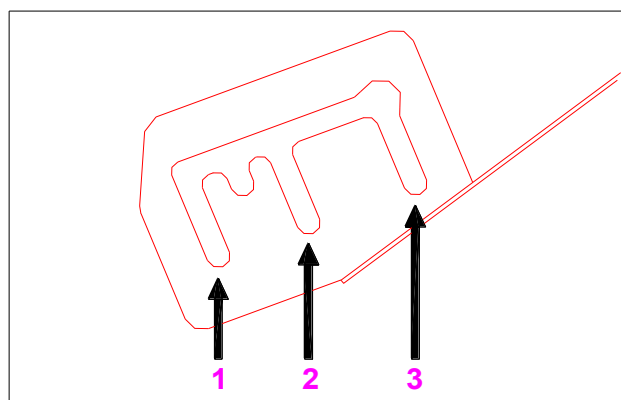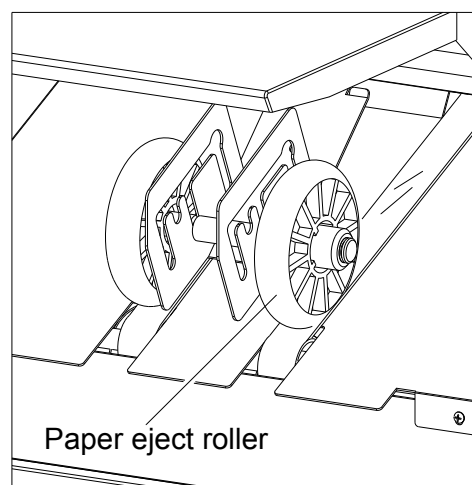### 7-1-1. **Set the standard-size paper**

Set the standard-size paper. Loosen the paper guide. Set screw and set the paper guide to fit the width of the paper.

Stack the paper on the paper feed table with its printed side facing up (its printed side down in case of fold-out) after neatly arranging it. Make the paper guide closely contact the paper, and tighten the setscrew. Lower the paper feed table lever to raise the table,

Paper guide set screw

Paper feed table

Paper feed table lever
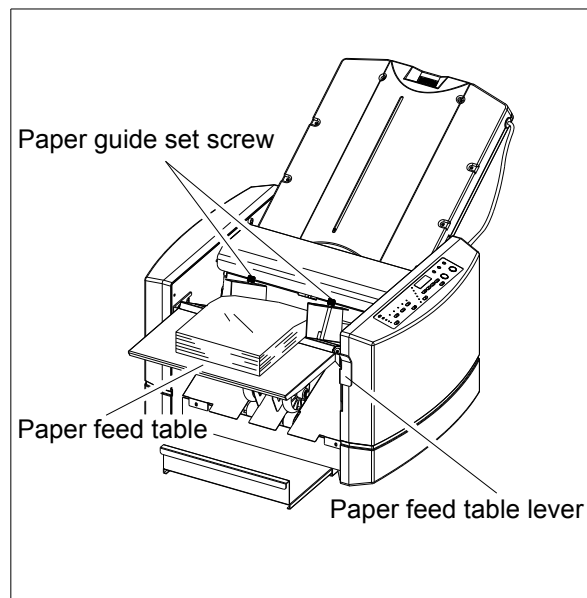
7-1-2. **Setting the paper ejection roller**

Move the paper ejection roller to the position that fits the size of paper being used. If the roller doesn't run smoothly, change the roller position.

Paper eject roller

Change the roller position to fit the paper size

	1	**2**	**3**
Standard-size paper	A3	A4/B4	B5/A5/B6
Non-standard-size paper	Setting the designated position according to the paper length		

10.

7-1-3. **Selecting of folding type**

One of the six folding types (Single, Gate, Letter, Zigzag, Double, Parallel Fold-out) can be selected. Press the desired folding type key.

7-1-4. **Test folding**

Before start folding, press Test key, Table A/B move to the position of designated fold type, one sheet will be folded. Check if the paper has been folded correctly. (In case of correcting slanting folding, refer to Adjustment on Chapter 9)

TYPE KEY　　　　　**TEST KEY**
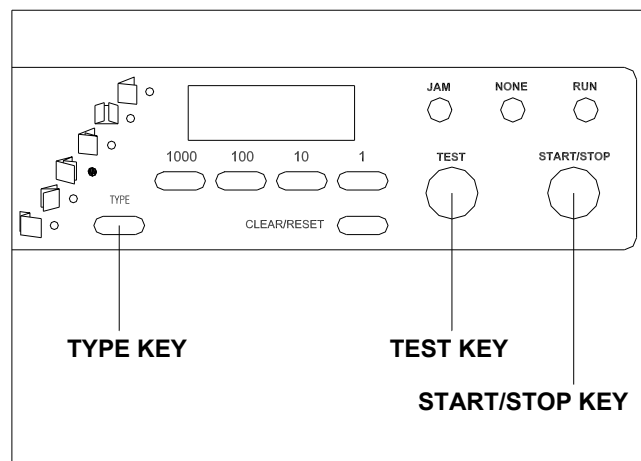
START/STOP KEY

7-1-5. **Continuous folding**

Note：If the Table A or B has been adjusted, press Test key before continuous folding, or the adjustment will not be accepted, Table A / B will return to origin before the adjustment.

Press the Start/Stop key, the machine will continuously fold the paper, and the counter is in addition counting. When the Start/Stop key is pressed while the machine is in operation, the machine w ill stop the operation.

If only required number of sheets need to be folded, please refer to chapter 6 Subtraction Counter.

7-2. **Standard Folding of Non-standard-size Paper**

⊠(mm)

SELECT KEY

START/STOP KEY
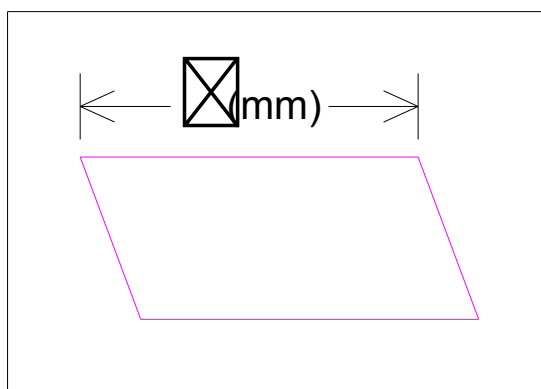
7-2-1. **Measure the paper length**
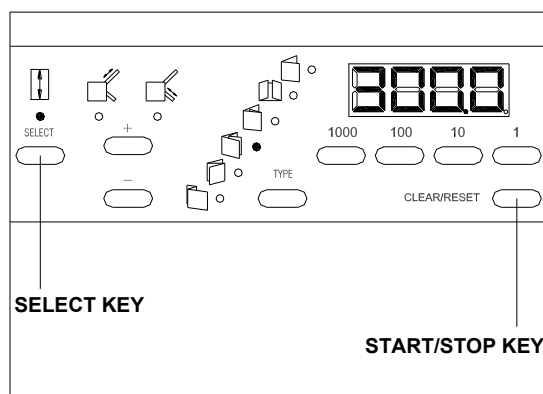
7-2-2. **Input the paper length**

Press the Select key and select the Paper Length Input Mode. Press Clear/Reset key. Input paper length by using numerical key

Note: Input length number should be bigger than B6, smaller than A3，otherwise can'␣t work.

7-2-3. **Store the paper length**

After input the paper length, press store key, choose store at 1 or 2. (press store key and release memory lamp will shift light between 1 and 2; hold pressing store key until "bee" sound, means paper length stored) When paper length is stored, machine will adjust 6 fold types according to paper length.

Choose one fold type; Press Test key to check if the fold is correct. (In case of correcting slanting folding, refer to Adjustment on Chapter 9)
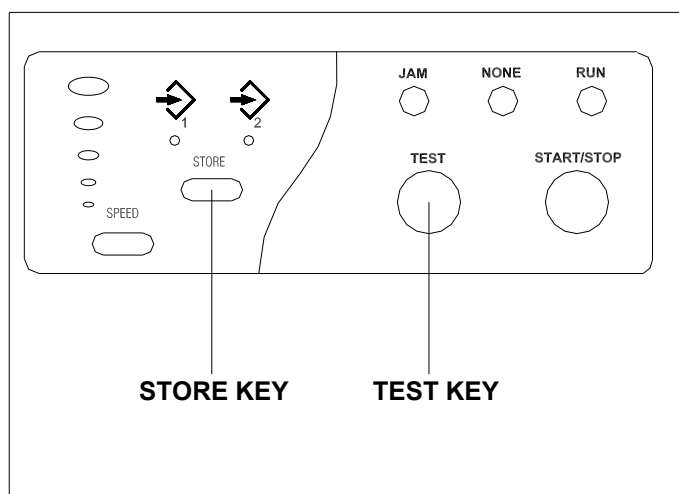
Note：　The position of the table A and table B stopper in relation to the measurement value L.

Example：In the case of performing the Double Parallel fold using sheets of paper 300mm in length:

Table A=300 x (1/2)=150 mm

Table B=300 x (1/4)=75 mm

Fold type	Table A	Table B
SINGLE	Original position "0"	1/2
GATE	1/4	1/2
LETTER	1/3	1/3
DOUBLE PARALLEL	1/2	1/4
ZIGZAG	2/3	1/3
FOLD-OUT	3/4	1/4

12.

8. Cross Folding

Cross folding can be used if, for example, the sheet of A3-size paper folded using the double parallel folding method is still too large to be enclosed in envelope.

Note:

The maximum weight of paper that can be used for cross folding is 105g/m2.

This requirement, however, varies according to the following conditions:

Paper type; Paper size; Whether grains run lengthways or sideways; Temperature and relative humidity; Printing condition

The folding position may be displaced to a greater extent than when the paper is folded using a regular fold method, or a corner of the folded paper may be folded inside as indicated in the figure.

These, however, do not mean that the machine has broken down.

Note：

(1) Adjust the paper feed roller position, so the three rollers feed paper together.

(2) Press the crease hard using the hand. Do not stack too many sheets of paper on the paper feed table.

13.
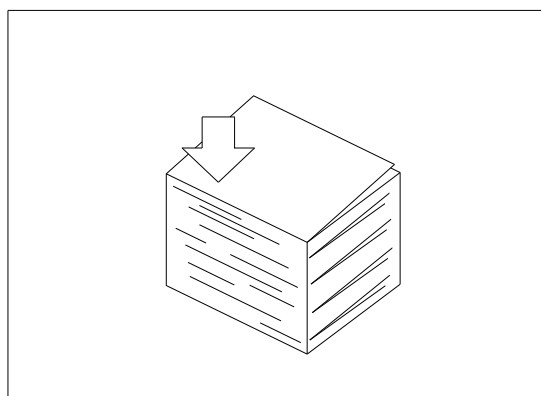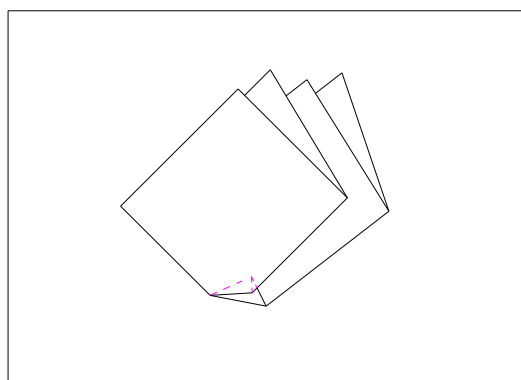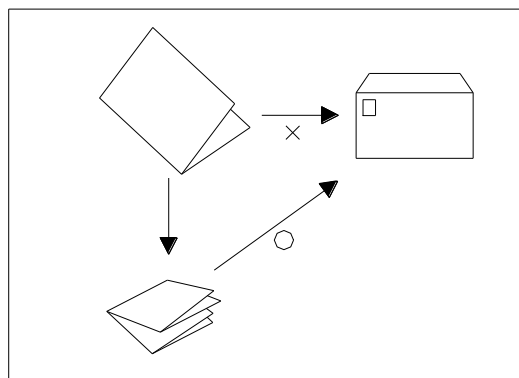
9. Adjustment

9-1. **Slant Adjustment**

If the folding position is slanted because the edges of the paper are slanted or for other reasons, it can be adjusted using the slant adjustment knob.
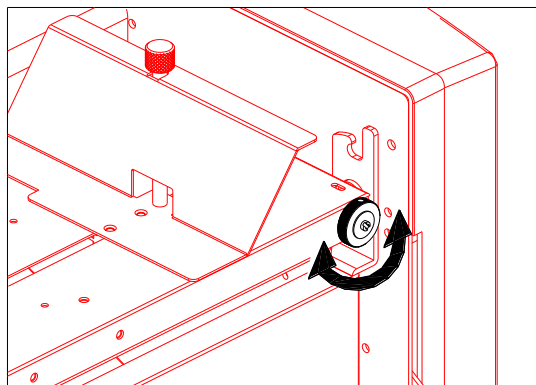
After testing paper fold, check the folded paper. If the paper is like shown in the right photo (lower paper is to the right), adjust the knob clockwise.
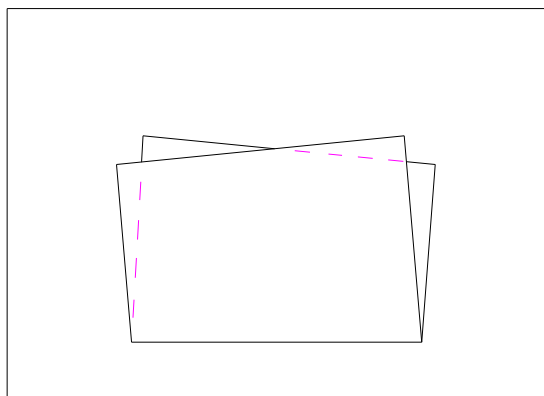
9-2．Table Stopper Adjustment

After moving the stopper by stopper fine adjustment knob, make sure press Test key before press Start/Stop key. Otherwise, adjustment will not be accepted.

Note：If press Start/Stop key, after adjusting the stopper, stopper will return to origin to fold.

FINE ADJUSTMENT KNOB
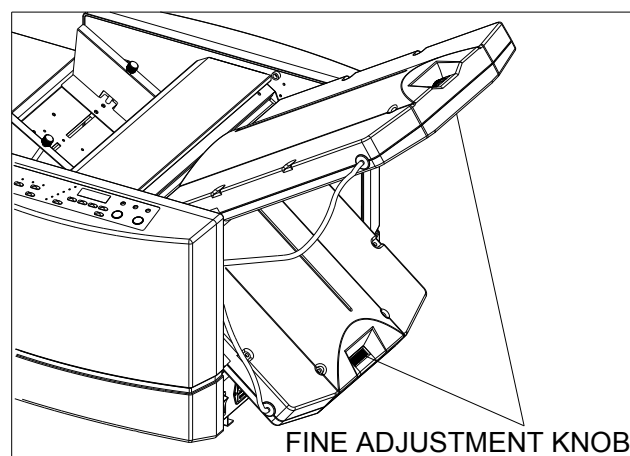
When the stopper is moved largely, it will be convenient to use the +/－key.

(A). Press the Select key and select the Table A Stopper Move Mode. Press the +/- key and move the stopper to the desired position.
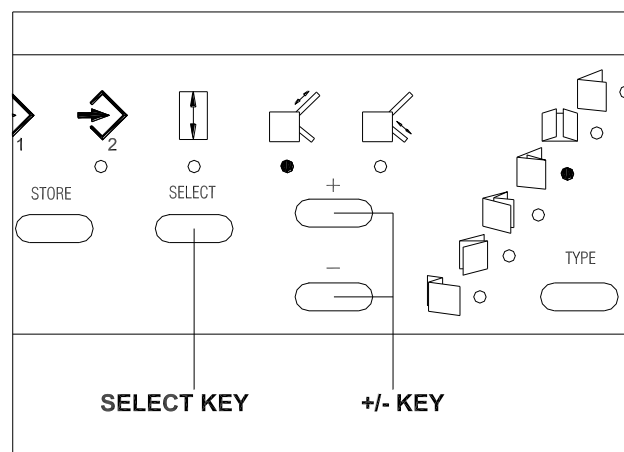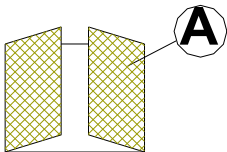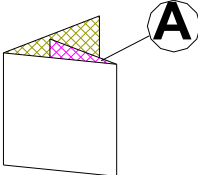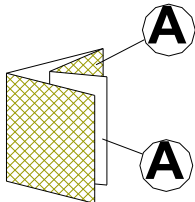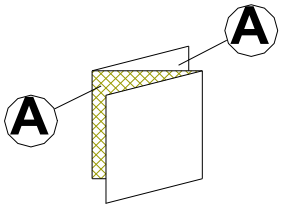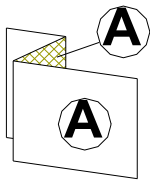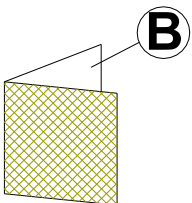

SELECT KEY   +/- KEY

(B). Press the Select key and select the Table B Stopper Move Mode. Press the +/- key and move the stopper to the desired position.

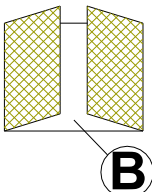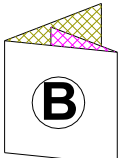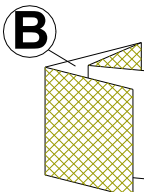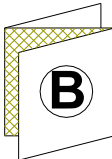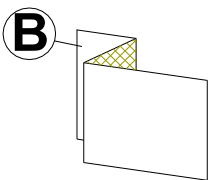**Note**：To store the stopper position, after adjusting stopper by using stopper fine adjustment knob or +/- key, please refer to chapter 10 Storage

.

SELECT KEY   +/- KEY

15.
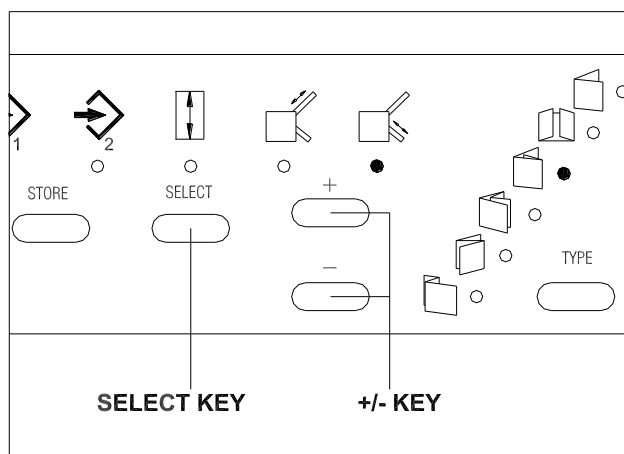
9-3. **Fine Adjustment for Table A**

Fold type		Plane A	Direction to turn the Table A fine adjustment knob
Single Folding	Plane A at "0" position		
Gate Folding		Long	
		Short	
Letter Folding		Long	
		Short	
Double parallel Folding		Long	
		Short	
Zigzag Folding		Long	
		Short	
Fold-out Folding		Long	
		Short	

9-4. **Fine Adjustment for Table B**

Fold type		Plane B	Direction to turn the Table B fine adjustment knob
Single folding		Long	
		Short	
Gate folding		Long	
		Short	
Letter folding		Long	
		Short	
Double parallel folding		Long	
		Short	
Zigzag folding		Long	
		Short	
Fold-out folding		Long	
		Short	

10.Storage

10-1.**Standard-size paper fold storage**

After adjusting the standard paper (A3,B4,A4,B5,A5,B6), it would be stored into fold type key. One fold type key can store 6 kinds of standard-size paper. (Maximum storage: 6 x 6=36)

What can be stored is the folding speed, the positions of the Table A and B.

Prepare for the fold type to be stored:

Choose standard-size paper, choose fold type, (in this case, A4, Letter folding are selected) Adjust the Table A and B position, (refer to Chapter 9 Adjustment), adjust fold speed.

After all adjustment are set, hold press the Select key, until "bee" sound. The lamp of the fold type you chose will flash. Select the same paper, same fold type next time, this lamp will flash.
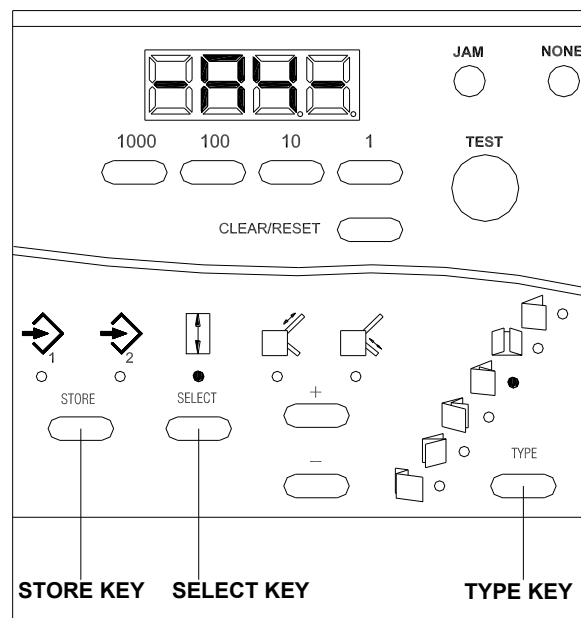
10-2. **Non-Standard-size paper fold storage**

Measure non-standard-size paper length, press Select key to Paper length input mode, press Clear/Reset key. Input paper length using numerical keys,

(Note: number should be bigger than B6, smaller than A3，otherwise can't work Non-standard-size paper length storage (Refer to Chapter 7, 7-2))

After inputting paper length, press Store key, select 1or 2 to be stored. (Press Store key, and release, store lamp will light shiftly between 1 and 2; Hold press Store key until the "bee" sound, means paper length stored)   When paper length is stored, machine will adjust 6 fold types according to the length. Select one fold type, press Test key to check if fold is correct. (If fold incorrect or slating, refer to chapter 9 Adjustment)

(Note： For non-standard-size paper, to store adjustment of table A's stopper position, hold press Store key until sound. Same for Table B, hold press Store key until "bee" sound)to store.

Example： Paper length has been store; Store lamp 1 is on; Adjust fold speed; Select one fold type; Press Select Key to choose Table A stopper move mode lamp, use +/-key to adjust and press Store key to store. Same for Table B stopper move mode lamp, use +/-key to adjust and press Store key to store. Next time, choose same paper same fold type.

18.

11. Cancellation of storage

11-1. Cancel single storage

Recover the folding storage set by the manufacturer by Clear/Reset key.

Select the key in which the storage needs to be cancelled, keep pressing Clear/Reset key until "bee" sound, and rel immediately.
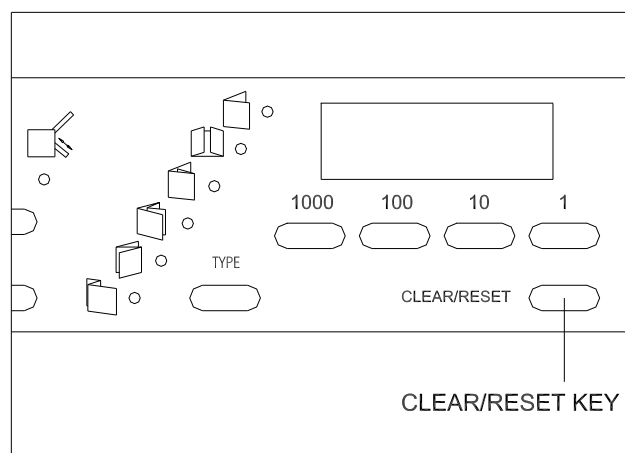
11-2. Cancel all storage

Recover folding storage set by the manufacturer by cancel all storage.

Keep pressing Clear/Reset key, do not release the key at first beep; Release the key until the second beep. All stored information is canceled, machine return to manufacturer's original set.
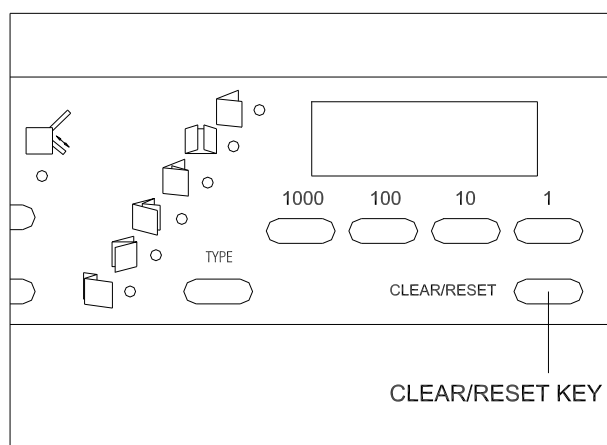
12.Check Lamp

It lights indicating machine's situation

|	Situation	Solution
JAM	Paper jam at table A or B	Remove jammed paper
	Paper jam on ejection roller or too much paper on stacker	Remove jammed paper or change ejection roller position (Refer to **7-2-1** position of roller)
NONE	No paper on feed table	Put table on feed table
	Paper table not raised	Pull down paper feed table lever
	Roller cover is open	Close the cover
	Table A and B do not return or connect	Make sure the plug is correct insert to machine. Refer to **5-2** Installation of TableA/B
RUN	Machine is running	

13.Speed Control

If fold is incorrect, change the speed accordingly.

※If crease or fold unevenly, lower the speed.
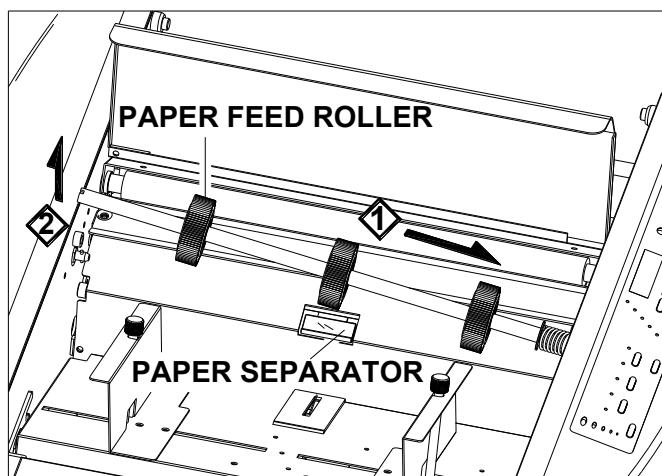
※If big noise occurs, lower the speed.

※If thick paper feed improperly, increase, increase the speed.
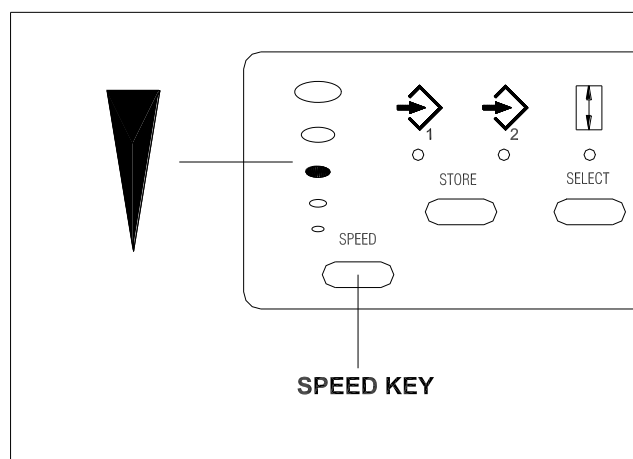
Note：If the fold speed changes at correct fold position, it maybe needs to adjust stopper position.
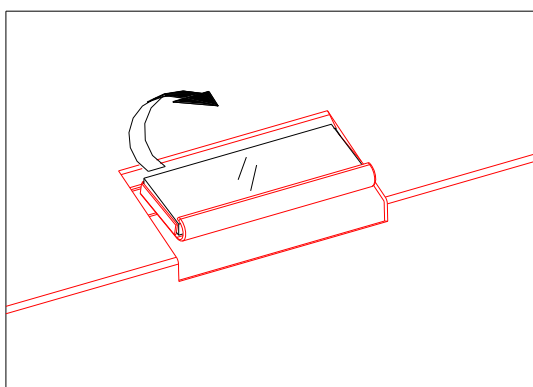
Refer to 9-2 Table stopper adjustment.

14.Change paper feed roller and rubber pad

Open Roller cover, push the roller to right side,

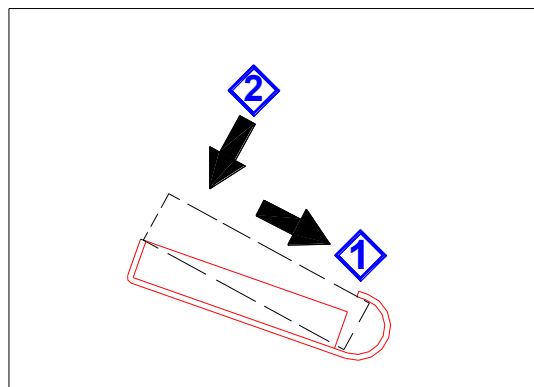pull the other side of the roller to remove.

※ Change roller Rubber pad

Remove rubber pad   Install rubber pad

Raise the back side to remove pad   Install the pad as to the photo above

Make sure paper feed roller and roller pad are properly installed and placed.