



# **8603A Automatic Digital Creasing Machine**

## **Operation Manual**

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# Chapter I Product Introduction

## 1.1 Overview

8603A is an ultra-high cost-effective automatic digital creasing machine with suction feeder.

The product is exquisite and beautiful, with membrane keyboard input, LCD display, friendly operation interface, and easy operation software system, which can be operated immediately without professional training. At the same time, a maintenance interface is designed specifically for dealer engineers to provide a fast and convenient maintenance channel for after sale services. The readable chip built-in writing machine number is more convenient for market management and after-sale tracking service.

The design of the machine fully considers the various possibilities of creasing processing in the industry, and is suitable for paper with a width of 13", a length of 35.4", and a thickness of 120-350g. At the same time, the hardware structure of the machine reserves the functions of quick and easy adjustment of creasing depth and skew adjustment for users.

Thank you very much for purchasing our products. If you encounter any problems during the operation, please contact your dealer in time. It is strictly forbidden to operate the machine without reading this operation manual carefully. Please store this operating manual in a suitable place so that you can consult it when needed.

## 1.2 Machine parameters

Paper weight / thickness for creasing	100g-350gsm/0-0.014" (0-0.35mm)
Paper weight / thickness for perforating	128g-200g/0-0.008"(0-0.2mm)
Paper feeding format (w * l)	8.27"×11.7"-13"×35.43"
Creasing speed (A4 paper)	2600 sheets / hour
Minimum creasing distance	0.04"(1.0mm)
The minimum distance of the first creasing	0.2" (5mm)
Creasing accuracy	±0.012" (±0.3mm)
Number of creasing per sheet	0 to 32 times
Counting function	Positive and negative counting function
Work group storage	16 groups
Skew adjustment	±0.08" (2mm)

Creasing depth adjustment	Infinitely adjustable
Paper feed method	Blowing suction feeds on the left side
Paper feed capacity	2.36" (60mm)
Air volume adjust	Infinitely adjustable
Paper separation adjust	Infinitely adjustable
Horizontal creasing tool	0.04"(1.0mm)
Horizontal perforating tool	12TPI
Power supply	110V/60HZ
Machine weight	143 lbs (net weight)

Note: This model is under continuous upgrade, the information and parameters in this manual may be changed without notifying the user when updated.

# Chapter II Safety

## 2.1 Environment

Temperature: 10 °C to 35 °C

Humidity: 30% to 70%

Altitude: below 1000m

There is no flammable, corrosive gas or oil mist around.

## 2.2 Notes



Be sure to read this manual thoroughly before operation.



Make sure that the power supply voltage and frequency are consistent with the requirements in this manual.



Make sure that all safety covers are closed, otherwise the related switches are disconnected and the machine cannot run.



Before moving the machine, be sure to contact your local dealer.



Before cleaning the machine, be sure to disconnect all power supply.



When not using the machine for a long time, be sure to unplug the power cord.



Do not install the machine in unstable places.



Be careful when installing the longitudinal cutter.



Do not operate the machine with wet hands, especially when plugging or unplugging the power cord.



Operators should not wear long hair, wear loose clothing, or touch internal parts.



Do not place any container with any liquid on the surface of the machine.



Do not place any small items on the machine, especially on the paper feed table.



Do not modify or disassemble the machine without authorization, unless it is

an engineer certified by our company.



Do not touch any moving parts.



The power cannot be cut off suddenly while the machine is running.



Do not place any heavy objects on the surface of the machine.

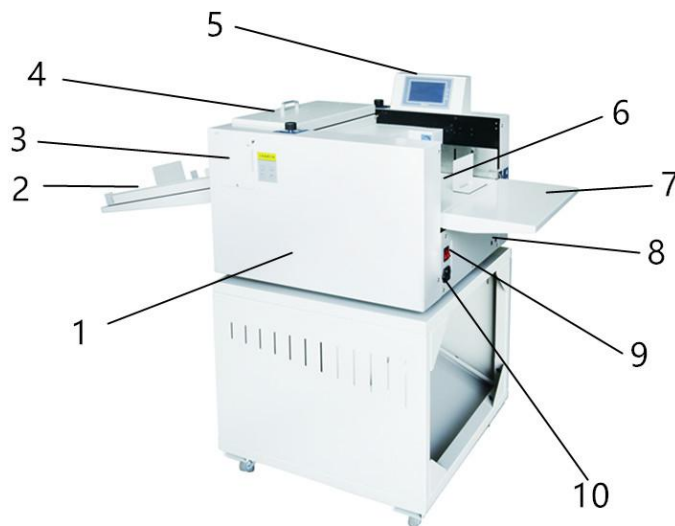


Do not allow any metal or combustible objects to enter the machine, otherwise there is a danger of fire or electric shock. If this happens, be sure to turn off the power first, unplug the power cord, and then contact the technology engineer.

Note: If the machine has an unknown abnormal situation. Please turn off the power immediately, unplug the power cord, and then contact the technician engineer.

## Chapter III Main Components

### 3.1 Picture 1 of creasing machine



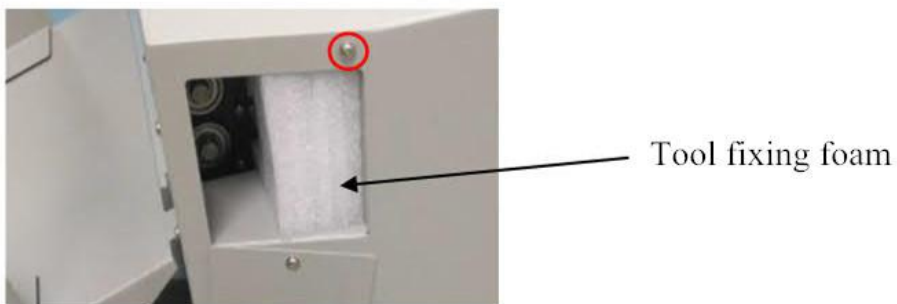
Number	Part Name	Description
1	8603A machine body	Creasing & feeder
2	Receiver tray	Collect paper that has been creased or perforated
3	Tool change window	Open the tool change cover to replace the creasing knife or perforating knife
4	Upper cover	Open the upper cover to adjust the creasing depth
5	Display screen	For editing work group programs
6	Paper feed table	Place the paper during work, and slowly raise the table during operation
7	Paper feed table extension	Plate to support long paper
8	Tool storage port	Can be placed in this storage port when the creasing knife or perforating knife is temporarily disabled
9	Power switch	Machine main power switch
10	Power cord socket	Machine power input

## Chapter IV Machine Installation

### 4.1 Remove the packing fixture

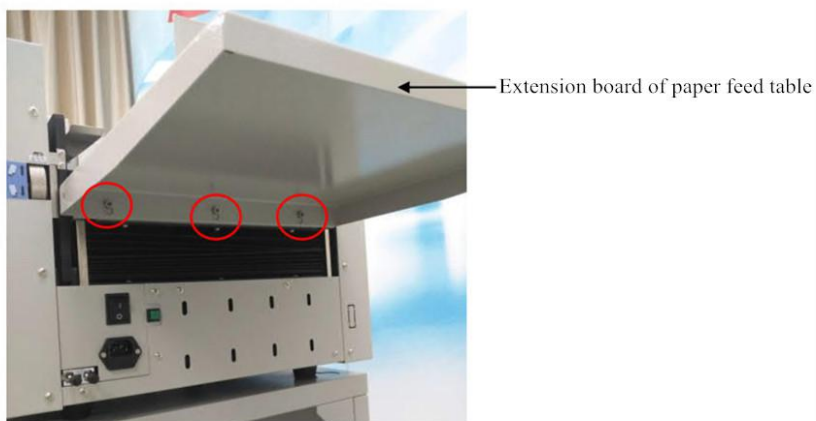


Unpack the machine and put it on the cabinet, and then remove the positioning beam and fixing plate, and then lock the screws as shown in the arrow.



As shown in the figure above, loosen the screws fixing the window cover of the tool changer in the red circle and turn the cover counterclockwise to remove the tool fixing foam pointed by the arrow in the figure above.

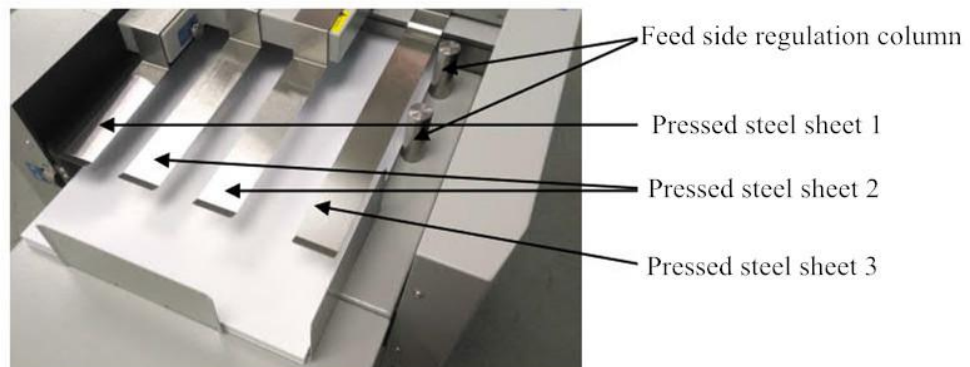
### 4.2 Installation of extension board of paper feed table





As shown in the picture above, unpack the paper feeder extension board, hang it on the fixing screw in the red circle, and lock the screw.

### 4.3 Placement of paper pressure steel sheet and paper feed side regulation column



As shown in the figure above, place the paper pressing steel sheet 1 on the casing above the upper limit component and the distance between the black paper feed side plate is about 2mm; 2 paper pressing steel sheets 2 are evenly distributed on the casing above the suction assembly ; Pressing steel sheet 3 According to the width of the large paper used, hang in the chute of the upper guide of the paper feed

### 4.4 Power connector and switch

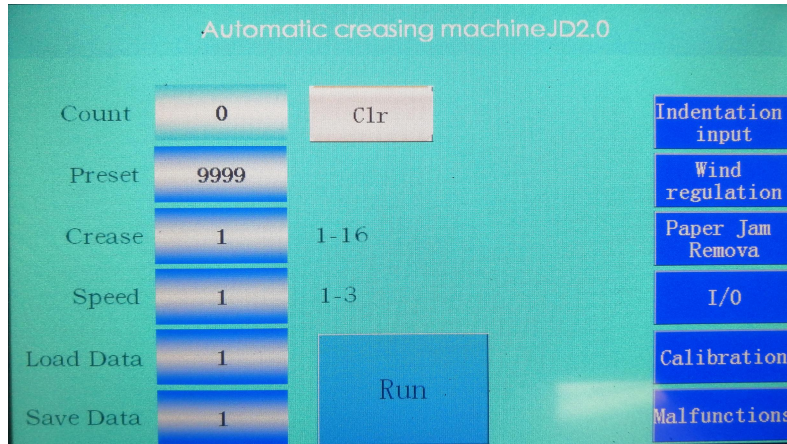
This product is suitable for power supply 110V / 60HZ.

Note: It is forbidden to operate the machine with wet hands, especially the power switch.

# Chapter V Operation

## 5.1 Display

### 5.1.1 Main interface

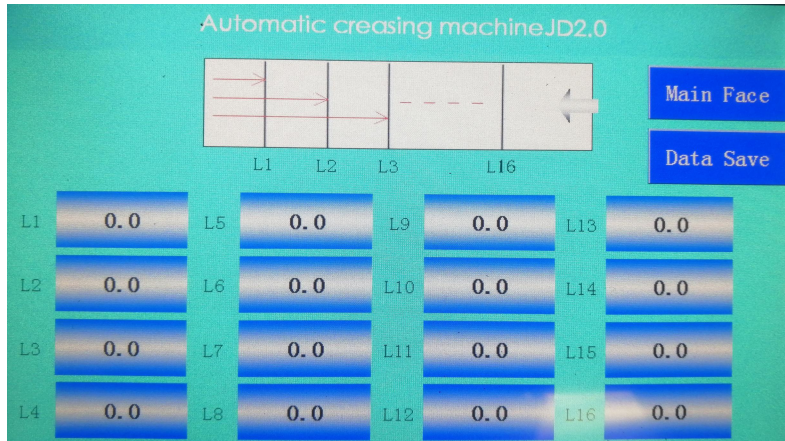


(Picture 1)

Count	Calculate the number of creasing papers.
Preset	After reaching the preset number, the machine stops working.
Crease	The number of creasing.
Speed	A total of 3 grades, 1 grade is the slowest, 3 grade the fastest.
Load Data	The number of the program in the database
Save Data	The number of programs set in the database (up to 16 groups)
Indentation input	Set the creasing position.
Wind regulation	Adjust the wind force according to the paper thickness
Paper Jam Remove	When a paper jam occurs, you can use the jog function of forward and backward to lower the paper table.
I/O	When a problem occurs, you can troubleshoot.
Calibration	Calibrate the creasing accuracy.
Malfunctions	When a fault occurs, the alarm screen is displayed.

### 5.1.2 Set the position of the creasing line.

1. At the "Number of creasing", enter the number of creasing required;
2. Click on "Creasing Input" and the following picture is displayed;



(Picture 2)

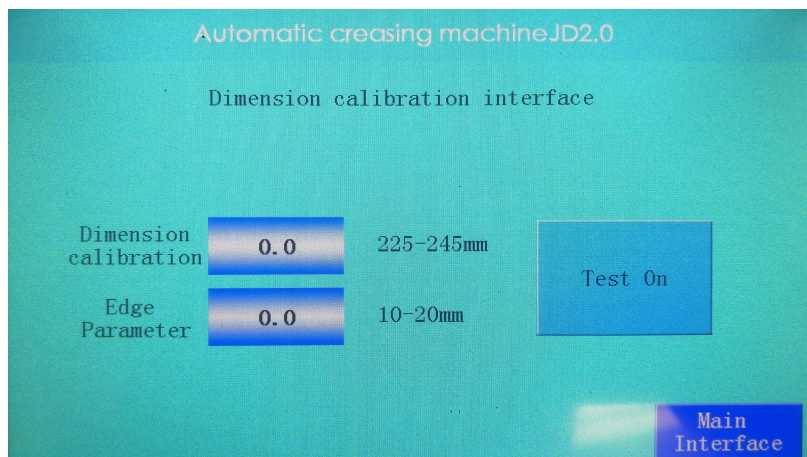
3. Enter the data of the creasing position, click "Data Save", and then return to the main interface.

### 5.1.3 Program setting

16 groups of programs can be set.

After the creasing position is set, it can be stored in the database as a set of data. Such data can be stored in a total of 16 groups.

### 5.1.4 Dimensional calibration



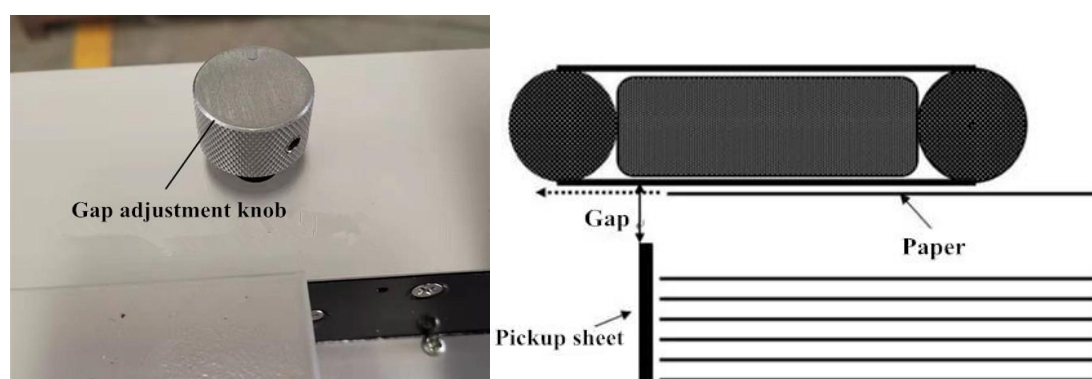
1. Calibration of the position between the creasing lines: first click "Test Size Start", the machine automatically feeds a piece of paper, presses out two marks, measures the actual distance between the two marks, and fills in the "calibration size".

2. Calibration of the first creasing mark position: for example, the position of the first creasing mark is set to 100mm, and the actual pressed data is 101mm, then the value of "knife distance" is reduced by 1mm; if the actual pressed data is 99mm, Then increase the "knife distance" value by 1mm.

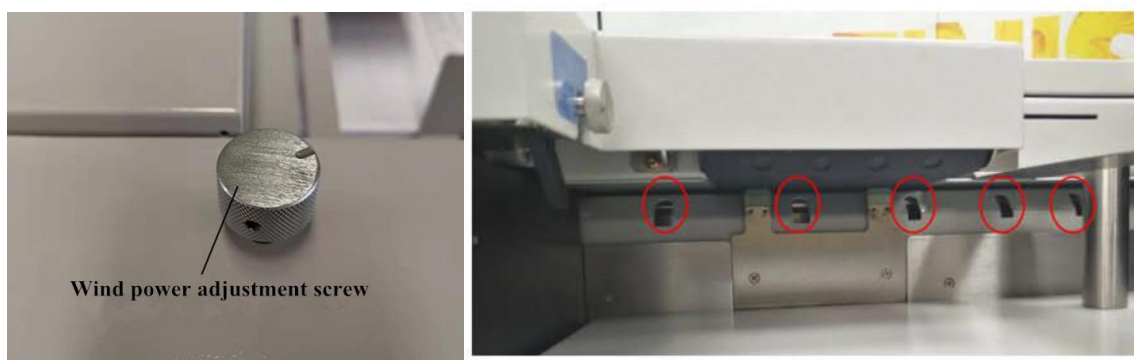
## 5.2 Hardware settings

### 5.2.1 Gap adjustment of the pickup separator

As shown in the figure, turning the knob clockwise to decreases the gap, and turning the knob counterclockwise to increases the gap. When there are double sheets insert, please turn the knob clockwise to make the gap smaller to prevent double sheets; when the paper cannot pass, please turn the knob counterclockwise to make the gap larger.



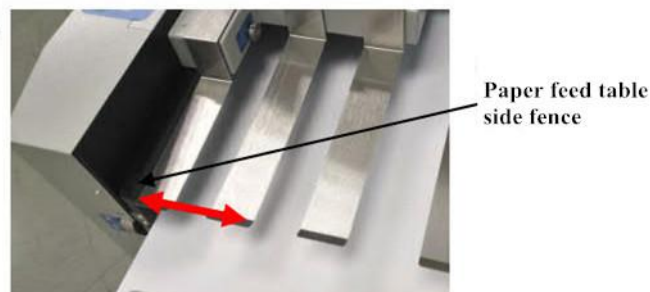
### 5.2.2 Wind power adjustment



As shown in the figure, turning the knob clockwise decreases the wind power, and turning the knob counterclockwise increases the wind power, turning the knob changes the size of the blow hole in the red circle as in the figure above to achieve the wind power. When using thick paper and large-format paper, bigger the wind to ensure that the paper can be scattered. When using thin paper and small-format paper, smaller the wind to ensure that the paper can be fed smoothly.



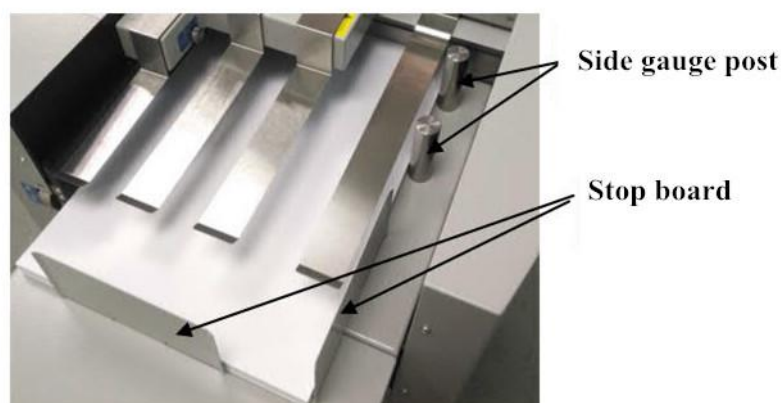
### 5.2.3 Creasing skew adjustment



If the user finds that the marks pressed by the paper are skewed (not perpendicular to the side of the paper), they need to adjust the side fence of the paper feed table in order to change the feed angle and obtain a satisfactory indentation angle. The paper feed side gauge column and paper feed table side fence are used to regulate the angle of paper feeding. When the knob is turned down, the paper feed table side fence moves to the left (the key side moves), otherwise, the paper feed table side fence moves to the right shift. The skew of the creasing can be compensated by adjusting the side fence of the paper feed table.

Note: In general, as long as the paper is cut at a right angle, the baffle does not need to be adjusted.

### 5.2.4 Load paper



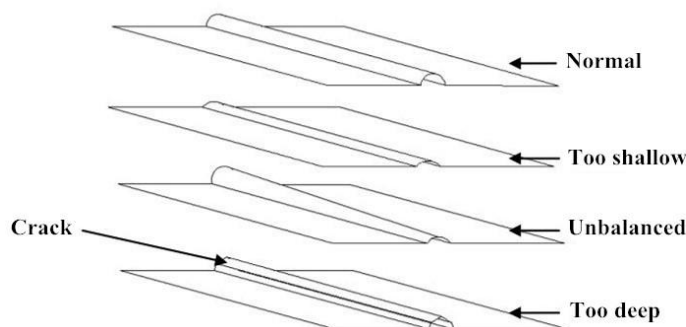
Jogger the paper on the paper feed table before placing it (the purpose is to remove static electricity and remove paper dust) and make sure the papers are neat, four corners are right angles, the two side posts are placed in the front half of the paper and close to the side of the paper, the paper stopper is placed at the tail of the paper as

shown to prevent the paper from retreating, and the other stopper is placed on the side about 0.5mm from the edge of the paper to guide the blowing wind direction. The paper pressure steel sheet is evenly distributed above the paper as shown in the figure above and presses the paper to smoothly feeding.

Note: Good or bad paper placement directly affects the consistent effect of creasing. In addition, the horizontal short-edge feeding will also affect the consistent effect of creasing. It is recommended that users feed the paper against the side fence of the paper feed table with the longitudinal long edge.

### 5.2.5 Creasing depth adjustment

The depth of the creasing directly affects the quality of the processing, which mainly depends on the gap between the upper and lower knife dies. The depth of the creasing is also related to the thickness of the paper. If the gap is too large, the creasing mark may be unclear, but if the gap is too small, it may cause paper cracking, may also cause the device to mistakenly believe that it has entered a double-sheet creasing motor failure. When the depth on both sides is unbalanced, it also needs to be adjusted.



Adjust depth:

Open the upper cover as shown in the figure below, you can see that the 3 hexagon socket screws pointed by the arrows are affixed with adjustment marks next to them. The user can fine-tune the depth by rotating the screws with the hexagon socket wrench. At the same time, reduce the depth of the creasing by turning the 3 screws clockwise, otherwise to add the depth.



5.2.6

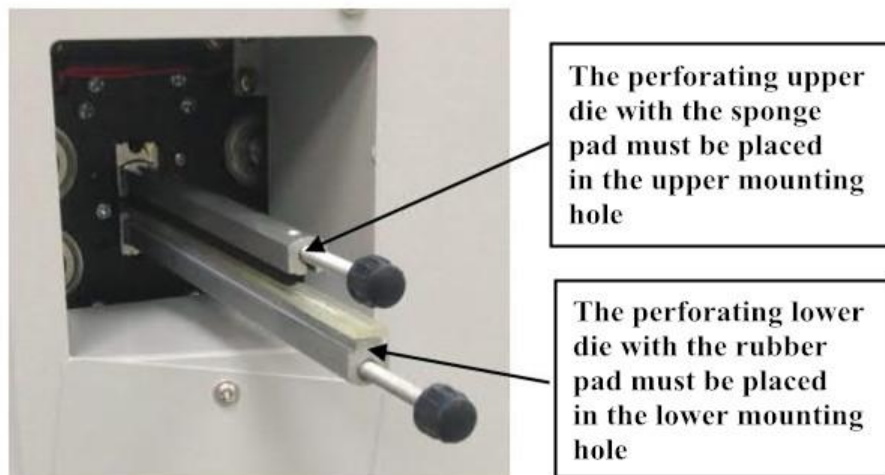
Replace

transverse tool

Horizontal creasing knife installation:



Horizontal perforating knife installation:



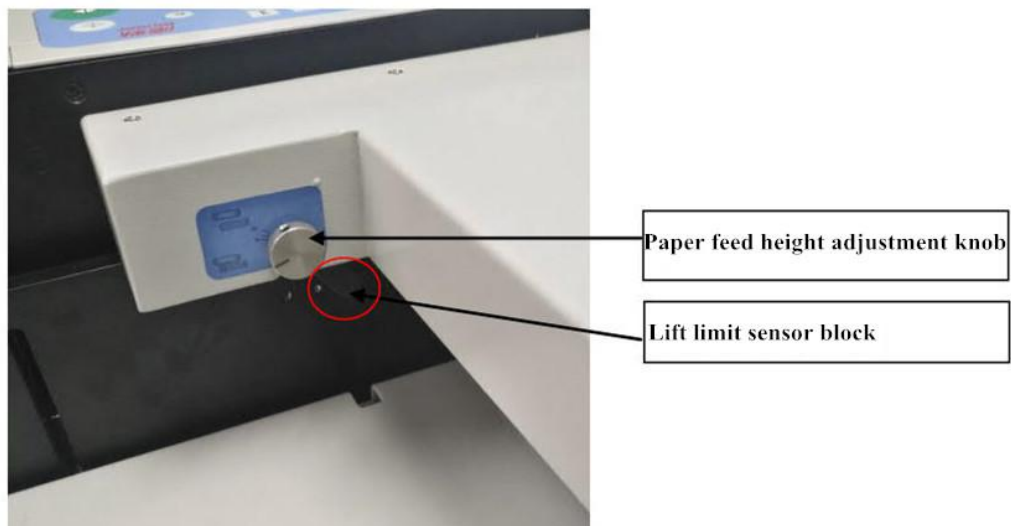
Note: After changing the creasing knife to a horizontal perforating line knife, you need to adjust the depth, and then slowly increase it to the appropriate depth.

Idle transverse tool placement:



As shown in the picture above, the temporarily unused transverse cutters can be placed in the idle transverse cutter placement holes in the red circle.

### 5.2.7 Upper limit height adjustment of paper feed table



As shown in the figure: In the automatic mode, counterclockwise rotates the knob, the paper feed table will be higher, clockwise rotate the knob, the paper feed table will be lower. When the paper cannot be blown, the height of the paper supply table can be appropriately lowered to increase the amount of blown paper. The reason is the paper does not blow, which will cause the paper to be fed not smoothly.



## Chapter VI FAQ

### 6.1 Paper jam

Phenomenon 1: The paper is part coming out but part is accumulated between the knife and the paper feed roller.



The reasons for the above phenomena are:

1. The creasing depth is adjusted too deep. Refer to part 5.2.5 for creasing depth adjustment.
2. Appears after replacing the perforating knife with a new pad. After we replaced the rubber pad on the horizontal virtual knife, the direct crimping will cause the blade to embed the paper into the rubber pad, thus causing the above phenomenon. Therefore, after replacing the new rubber pad, you can use a thick paper to set the creasing line at the tail and press it several times to make the rubber pad work normally when there is a knife edge.
3. The height of the sponge pads on both sides of the horizontal dotted blade is lower than that of the perforating blade, resulting in the paper not separating in time.

Phenomenon 2: The paper is all accumulated between the knife and the paper feed rubber roller as shown in figure ①②.



The reasons for the above phenomena are:

1. The curvature of the paper is too large and it will hit the upper knife mold or the lower knife mold, so the paper needs to be leveled.
2. The depth of the creasing is adjusted too deep, causing the gap between the upper and lower die of the creasing knife or perforating knife to be too small, causing the paper not to come out. Therefore, the depth of the creasing needs to be lightened. For the adjustment of the creasing depth, see part 5.2.5.

If the above does not solve the problem, please contact the professional technician of the local dealer.

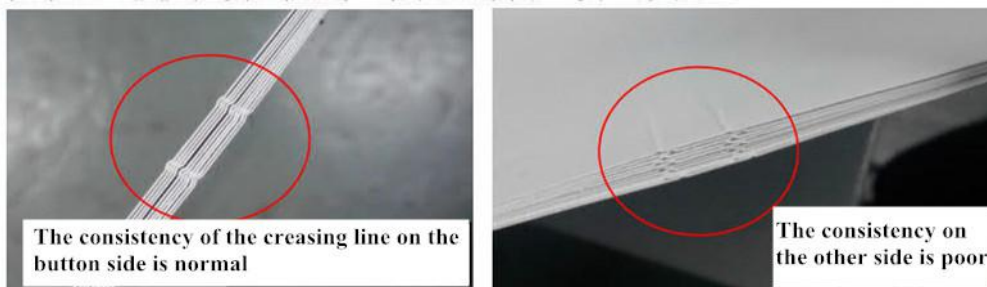
## 6.2 Double or multiple sheet insert

The cause may be: the gap between the pickup separator and the paper feed belt is too large, and the air blower is too small to blow off the paper. The adjustment procedure is detailed in part 5.2.2.

## 6.3 Creasing is not accurate

### 6.3.1 Poor consistency of creasing marks

Phenomenon 1: The consistency of the creasing line on the button side is normal, and the consistency on the other side is poor.



The reason:

1. The paper-feeding side regulation post is not close to the side of the paper.
2. If the wind power is adjusted too much, the paper will be shaken and the feed will be unstable. When thin paper is used, the wind power should be reduced.
3. A stack of paper is not cut straight, causing the narrower paper to not be fed.
4. The paper pressure steel sheet does not flatten the paper, resulting in uneven paper feed.

Phenomenon 2: The edge of the pressed line is not consistent on both sides of the paper

The reason:

1. Dust accumulation on the paper feed sensor, caused by debris. Clean the sensor.
2. If the pressure is adjusted too deep, the paper fails to leave the creasing knife or perforating blade in time after the line is pressed. Lighten the depth of the creasing, refer to part 5.2.5.

3. When the new perforating rubber pad is replaced, the paper is embedded in the rubber pad and the steps are lost. Therefore, after replacing the new rubber pad, you can use a thick paper to set the creasing line at the tail and press it several times to make the rubber pad work normally when there is a knife edge.
4. The aging of the perforating blade and rubber pad causes the paper to penetrate into the rubber pad and cause steps to be lost during paper feeding. Replace with new blade, perforating rubber pad.
5. The height of the sponge on both sides of the horizontal perforating blade is lower than the blade, resulting in the paper not separating in time.

If the above does not solve the problem, please contact the professional technician of the local dealer.

## Chapter VII Maintenance

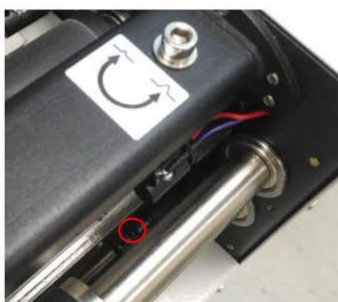
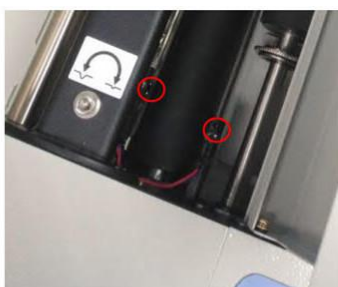
Maintenance is very important for the machine. The necessary maintenance can extend the service life of the machine and improve the working efficiency of the machine. When the machine is used for a long time, paper dust will accumulate between the mechanical parts, which will adversely affect the use of the machine. Therefore, the operator should regularly clean the paper dust inside the machine, for example, every 10,000 sheets produced to do one maintenance. At the same time, we must pay attention to the working environment of the machine to ensure that the environment is dry and clean, and there is no direct light.

Cleaning of dust accumulation of paper feed roller and sensor:

1. Unplug the power cord of the machine first.
2. Turn the paper feed roller in the figure below and clean it with a damp cloth.



3. Regularly use a pressured air gun to blow off the dust on the sensor in the red circle as shown in the figure.



Note: If the error still be reported after air gun is blown, use a cotton swab to clean the dust.