

## **AP500 Heavy Duty High Speed Punching Machine Manual**



**Company Name: Qingdao H.Y Corporation**

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**Post code:** 266108

## 1、 Introduction:

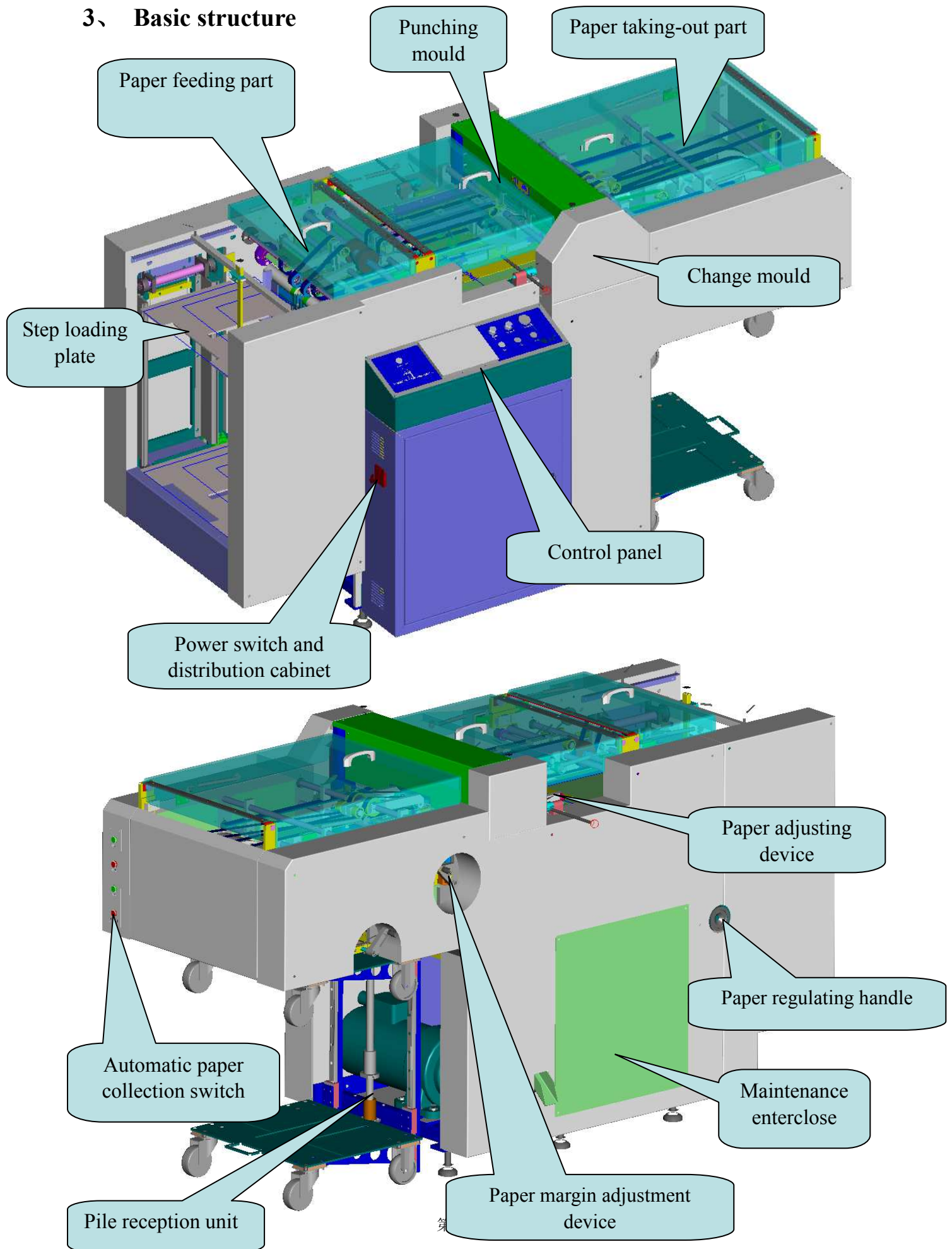
AP500 punching machine is specially used for punching papers of table and wall calendars, notebooks, exercise books etc.

The paper feed table moves up each cycle driven by a stepping motor which accurately controls the amount of sheets fed into the machine. The amount of sheets is adjusted using a touch screen. The paper is taken into the punching die by conveyers and then be aligned from three sides at the same time ready for punching. After punched, the paper is taken into the paper collector in order automatically. Both the paper size and paper margin can be adjusted. Various punching dies can be offered to punch different holes.

## 2、 Technical Data:

Max. paper size (LxW)	500x420mm
Min. paper size (LxW)	140x103mm
Max. Punching thickness	2mm
Max. pile height	600mm
Paper specifications	55-300g/m <sup>2</sup>
Max. cycle speed	120strokes/minute
Power supply	AC380V/3ph /50Hz/ 3kw
Dimensions (LxWxH)	2300×1050×1400mm
Net weight	1050KG
Optional	Cardboard punching system up to 2mm

### 3、 Basic structure



## 4、Key features:

- 1、Punching dies can be changed in under 1 minute
- 2、Paper margins changing and setting automatically.
- 3、Once the paper size and weight has been chosen on the color touch screen, the system will automatically suggest the correct punching speed and thickness for the best production results.
- 4、Computer diagnostic system replaces manual diagnosis; Operation instruction shows on machine computer display.
- 5、Production efficiency is 4 times faster than manual punching; Punch a variety of hole patterns. In an 8 hour shift, the machine can punch up to 1 million sheets of 80g paper.

### 4.1 Die and margin adjustment

1. Loose the hand wheel and to make the paper-stopper invalid (rotate anti-clockwise).

2 Press the button “zero”, open the clamber, replace the die needed and close the clamber

3 Rotate the wheel to the margin that needed, and then fasten the wheel

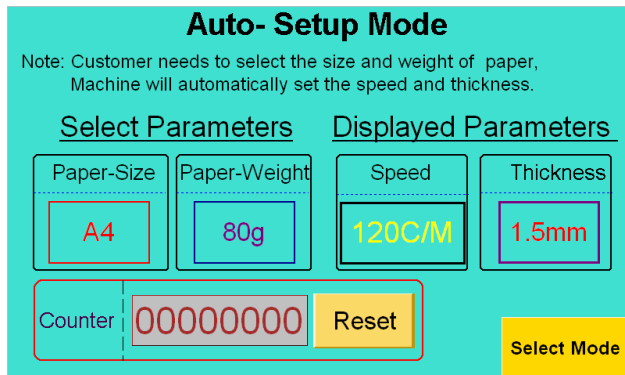
4 Close the gate, fasten the screw, check the status of the sensor.

Margin MM	Scale
5	0
4.5	5
4	10
3.5	15
3	20
2.5	25
2	30

Bottom place button

## 4.2

- Touch “Auto setup mode” to enter into the screen below, user can choose the paper size and paper gram, it will show the corresponding max punching speed and max punching thickness automatically.



**Auto- Setup Mode**

Note: Customer needs to select the size and weight of paper, Machine will automatically set the speed and thickness.

Select Parameters		Displayed Parameters	
Paper-Size	Paper-Weight	Speed	Thickness
A4	80g	120C/M	1.5mm

Counter

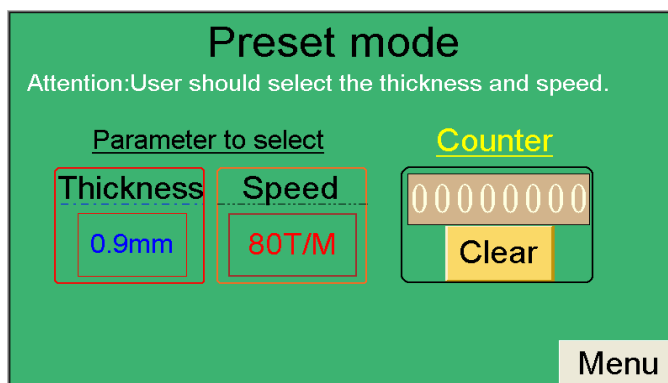
00000000

Reset

Select Mode

- Touch “manual set up mode” to enter into the screen below, user can choose the punching speed and punching thickness according to the demand.

(when the running speed is 120times/min, the paper standard to approve the machine is 80gsm offset paper. )



**Preset mode**

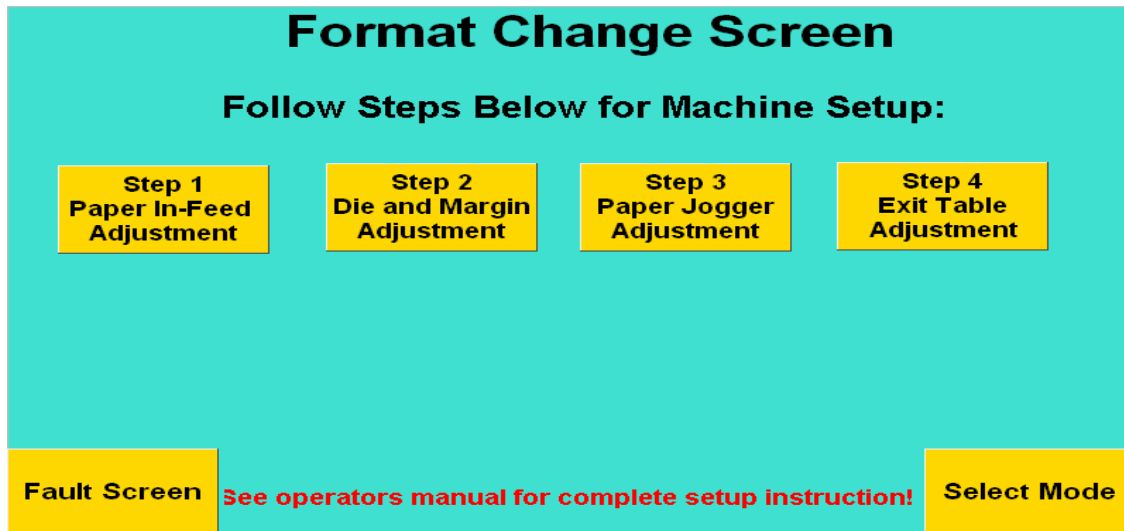
Attention:User should select the thickness and speed.

Parameter to select		Counter
Thickness	Speed	00000000
0.9mm	80T/M	Clear

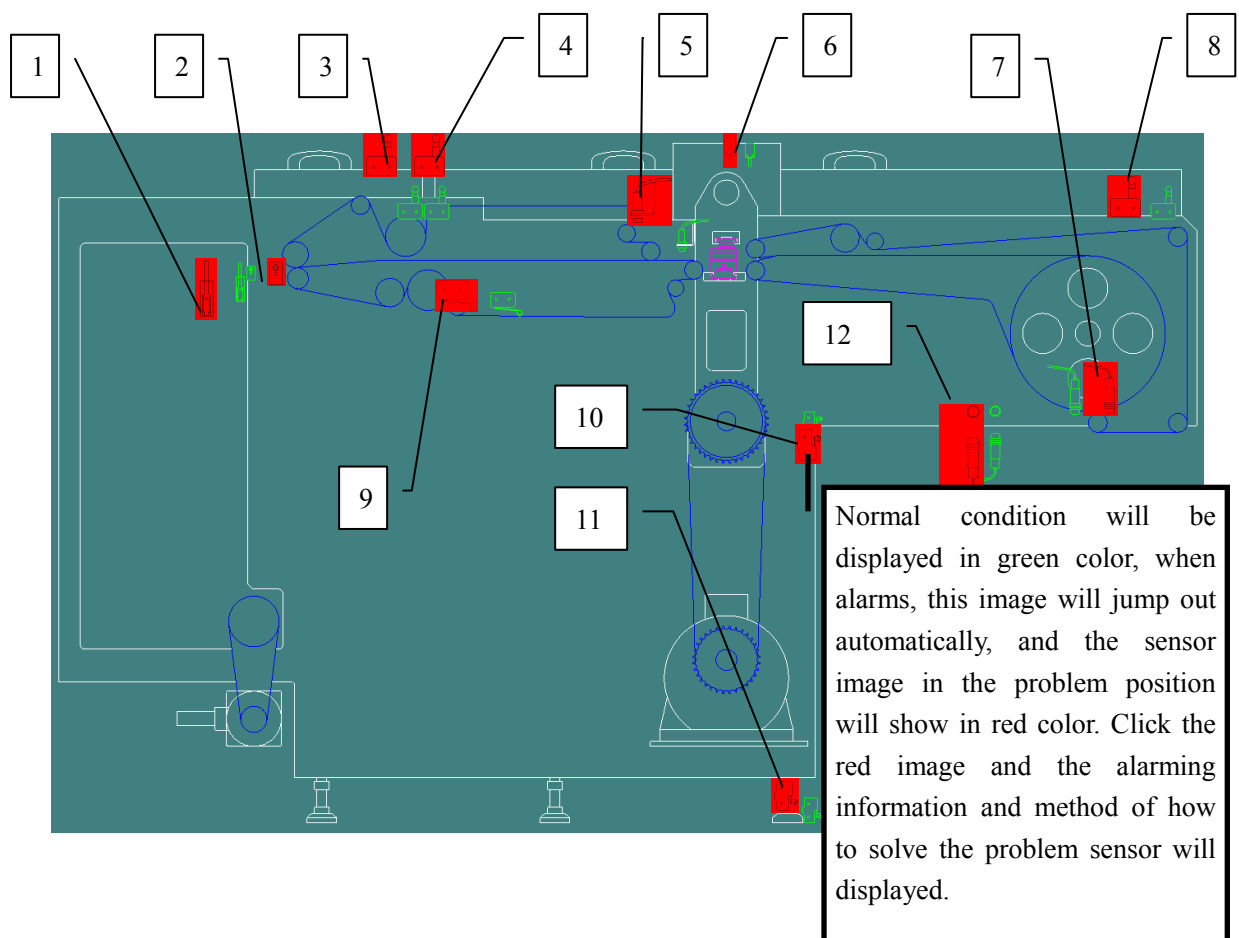
Menu

### 4.3 Computer diagnostic system and operation guidance

- Touch “Change paper” to enter into the screen below, Put the aluminum board and paper on the lifting chain and then we can start adjusting.



- Trouble: Abnormal alarm, the following images display in the touch screen



● **The function of sensors and solving method**

No.	Position	Function	Solution
1	Paper lift limited	Micro switch, check whether the paper is finished	Paper finished, reload paper.
2	Paper lift limited	Optoelectronic signal, stop motor when lifting paper by manual.	-----
3	Front cover	Micro switch, check whether the front cover opened.	Close the front cover to start machine.
4	Middle cover	Micro switch, check whether the middle cover opened.	Close the middle cover to start the machine.
5	Paper jam detection	Paper jam detection, check whether paper jammed before the mould	Paper jammed before the mould, take out paper and restart the machine
6	Mould cover	Approach switch, check whether the mould door is open.	Close the mould door and start the machine.
7	Paper dropped detection	Optoelectronic signal, paper collection motor come down automatically signal.	Photoelectric signal is interfered ,check and solve the problem, restart machine.
8	Back cover	Micro switch, check whether the back cover is open.	close the door and restart machine.
9	Thickness detection	Micro switch, check whether the paper thickness is over the max limit.	The paper is too thick, take it out and restart.
10	Paper collection upper limit	Micro switch, check whether the paper collection motor reached the top position.	The paper collection motor reached the top position
11	Paper collection lower limit	Micro switch, check whether the paper collection motor reached the bottom position.	The paper collection motor reached the bottom position
12	Paper jogger detection	Optoelectronic switch, check whether paper is jammed.	Paper jammed in the middle of aluminum wheel

## 5、Communication information:

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