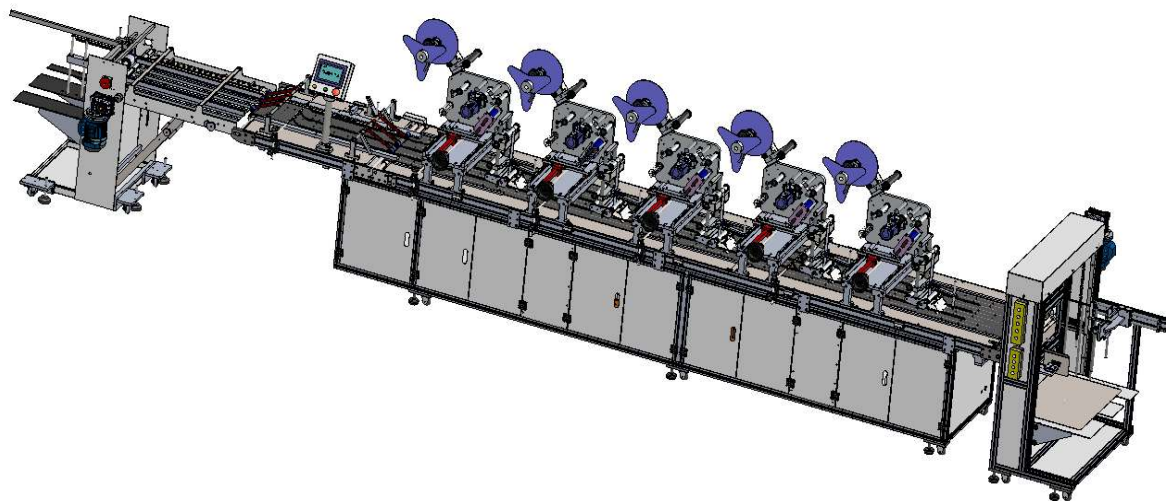


# Machine Manual



Name: Fully Automatic card labeling machine  
(five Labeling heads)

**Model: YCT-55D**

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## Declares

### I. GENERAL MATTERS

- 1 . Labeling machine is non-standard equipment, its operation requires a professional technology, otherwise, would directly affect the efficient and normal use of equipment, operation of this labeling machine must By the operator to perform.
  - 2 . Operation of the equipment, in accordance with the instructions in the instructions, or under the guidance of our technicians.
  - 3 . This technical manual is dedicated to the YCT-55D Labeling Machine (hereinafter referred to as the labeling machine);
- II Permissions: This device is developed and manufactured by the company and retains the following rights:
- 1 . To ensure the advancement and applicability of the product technology, we can upgrade the body parts, electronic control components and software, also include the structure, specifications and brand of the parts used, but do not promise to change and upgrade the products that have been delivered free of charge.
  - 2 . We have the right to safeguard the integrity of the equipment, not in the company technician guidance, users may not privately to the equipment of the mechanical structure or electrical control procedures to modify, otherwise, the damage caused by the modification party is responsible.
  - 3 . On the basis of this equipment, to increase the spray code or other functions, we provide the configuration of technical guidance, but do not need to be responsible for supporting equipment.
  - 4 . This equipment and the use of the Manual of intellectual Property rights are owned by the company, if there is plagiarism, shall bear the legal responsibility.

### III. Security Notes

- 1 . Dangerous! Be sure to use the grounding wire to prevent electric shock.
- 2 . Dangerous! Be sure to ensure that the voltage is not overloaded.
- 3 . Alert! Part of the electric box, the wiring part needs to be operated under the guidance of electrician or professional.

4 . Alert! Rotating parts need special attention to prevent compression injury.

#### **Iv. Operational Authority**

The ensures that only trained and authorized people operate, lay out, and maintain the device.

The allows only qualified professionals and device engineers to complete the layout.

operating the machine requires that:

-operator should be qualified after the professional training of the manufacturer.

-The operator must have the basic knowledge of the abnormal in the process of repairing or handling the operation of the equipment.

--During the use of the equipment, please work as required.

v. Operating environment: do not use in the following environments:

where the temperature changes fiercely.

where humidity is too high to produce dew.

where the vibration or impact is very strong

places with more dust

where water, oil, and chemicals splash.

where explosive, inflammable and dangerous goods are available.

#### **VI running-in period**

This labeling machine is customized according to customer products, not standard products, and operators have D experience requirements, need to have one months or so running-in period. During The running-in period, the equipment operation cannot reach the technical parameter, and it needs to be reflected To The factory in time to obtain technical support.

#### **II . Product Introduction**

First, the basic use:

This labeling machine is specially designed with specificity and is suitable for product side stickers / double and round bottle circumference labeling;

Second, technical parameters:

Labeling precision:  $\pm 1$ mm, the adjustment level obviously affects the labeling accuracy.

label speed: 0-90 Sheets/minutes / (base on label sizes).

applicable products: bottles supplied by customer.

applicable Label: The volume label provided by the customer.

Machine Size: 8170\*1400\*1770mm (long x Width x height)

Applicable power: 220V 50hz .

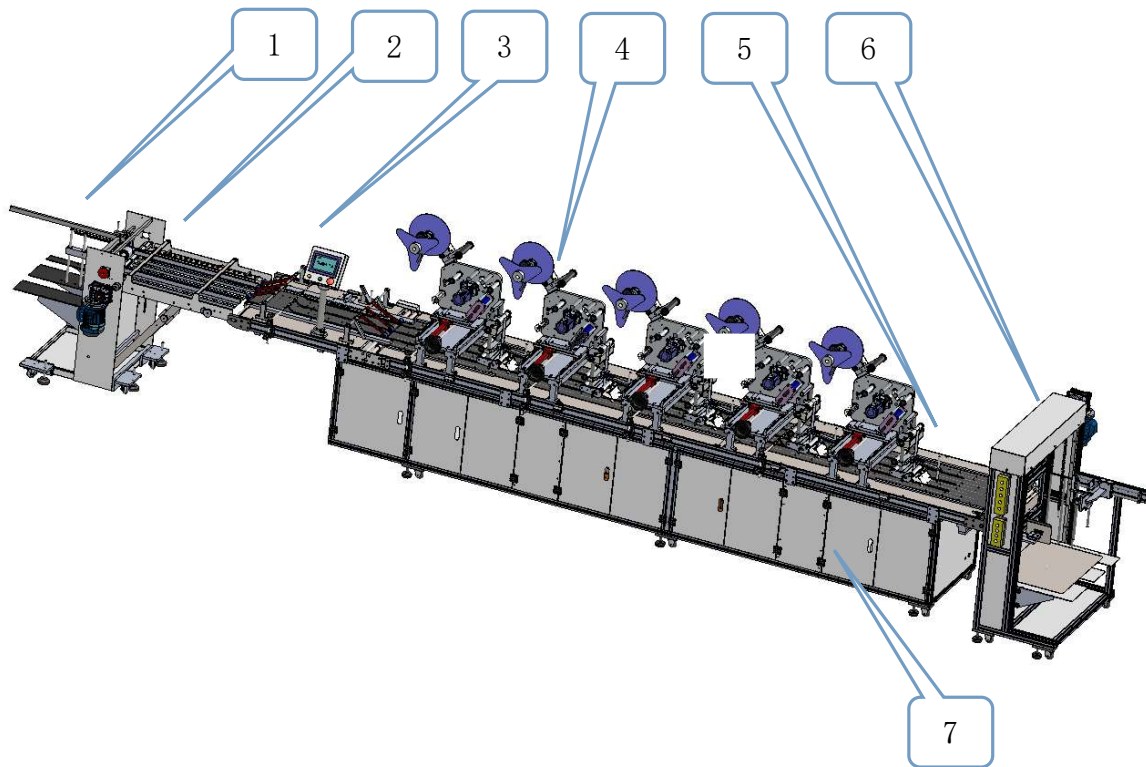
Machine Weight: 1000Kg .

Three, labeling process analysis: automatic separation of materials → separate spacing → product guide → conveying → product testing → labeling → labeling → automatic receipt of materials.

- 1 . The separation mechanism will separate the products evenly to the conveyor belt.
- 2 . Guide Transmission of the Product guide, to ensure that the product in the direction of uniform width.
- 3 . Products in the conveyor belt, the automatic labeling mechanism to the right movement.
- 4 . Into the detection location, the electric eye detects the product, the object signal feedback to the PLC.
- 5 . The traction motor rotates, sends out the label, pastes to the product and is covered snaps.
- 6 . Tagged products are transported to the receiving station.
- 7 . The receiving platform automatically collects the products and collates them neatly.

### III Institutions Section

1, Total View: The mechanical structure of the labeling machine and the functions of each part are shown as follows.



1 ) split platform: Evenly separate stacked products into conveyor belts.

2 ) Guide Conveyor: to guide the products in the direction of the product to ensure the width of the position.

3 ) Man-machine Interface: man-machine conversation window, carry out various parameter adjustment.

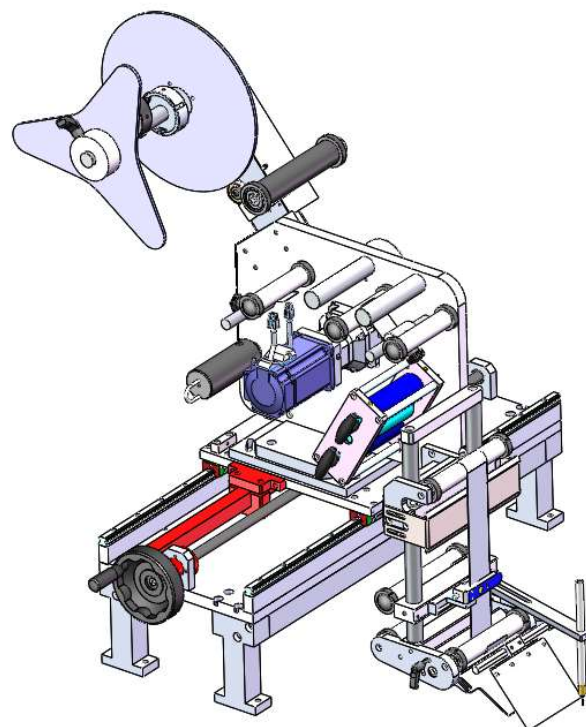
4 ) header adjustment mechanism: labeling the core components, the implementation of labeling function.

5 ) Labeling Conveyor: The product will be transported to the labeling location, labeling, delivery to the receiving station.

6 ) Automatic receipt mechanism: The products are collected neatly into a stack.

7 ) control Electric Box: Labeling Machine Electrical control center, arrangement of various controllers and PLC .

## Second, the part view



1 . Label Header

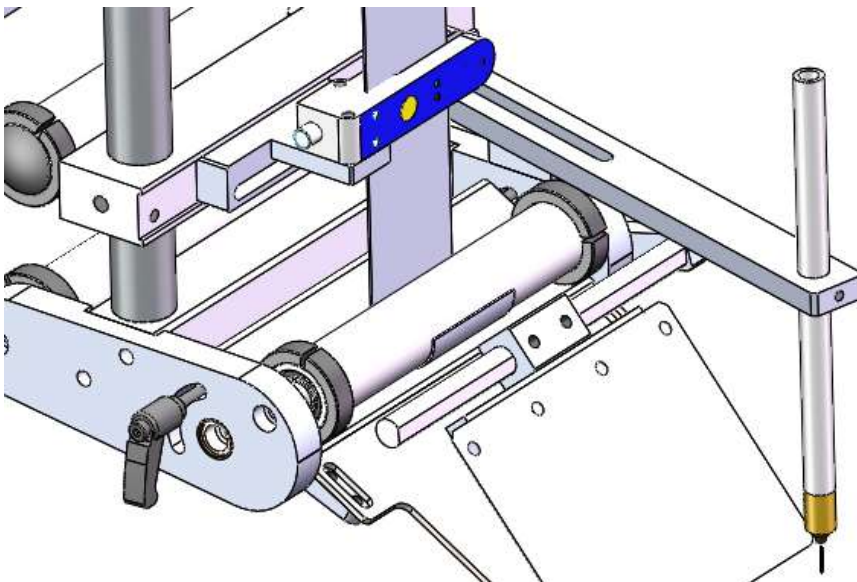
1 ) Feeding mechanism: for placing the volume label;

2 ) Brake: Used to brake the label to prevent the label from loosening, keep the band tension;

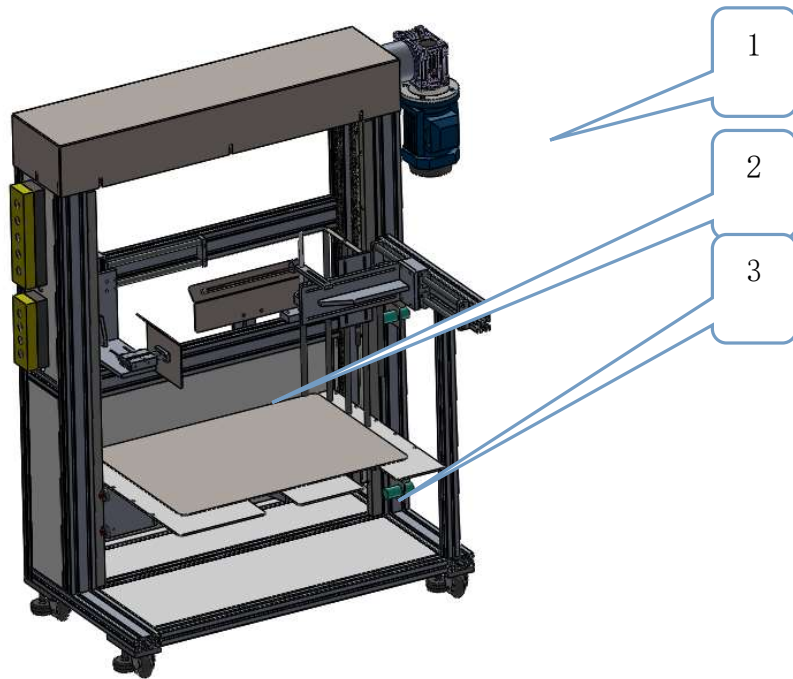
- 3 ) Roller: Bypass label to ensure label tension;
- 4 ) Traction mechanism: Traction label with backing paper, to provide stripping power;
- 5 ) Electric Eye rack: Install the electric eye, mobile electric eyes;
- 6 ) stripping mechanism: stripping label;
- 7 ) Receiving mechanism: Recycle label backing sheet;
- 8 ) before and after the adjustment mechanism: adjust the header before and after the position.

## 2. Object sensor

The electric sensor: reflective optical fiber, by transmitting the beam, using the object reflected by the measured light to determine the product in place.





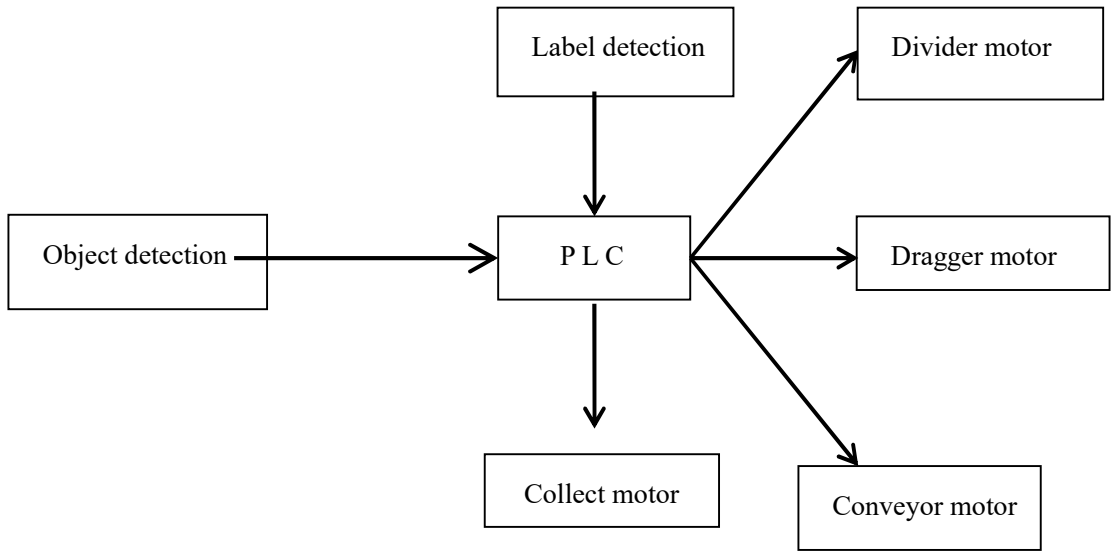


### 3 . Receiving Station

- 1 ) Lift motor: drive lift up or down;
- 2 ) Material cylinder: The product of the labeling finished tidy;
- 3 ) Lifting table: used to undertake products to collect products to a certain height;

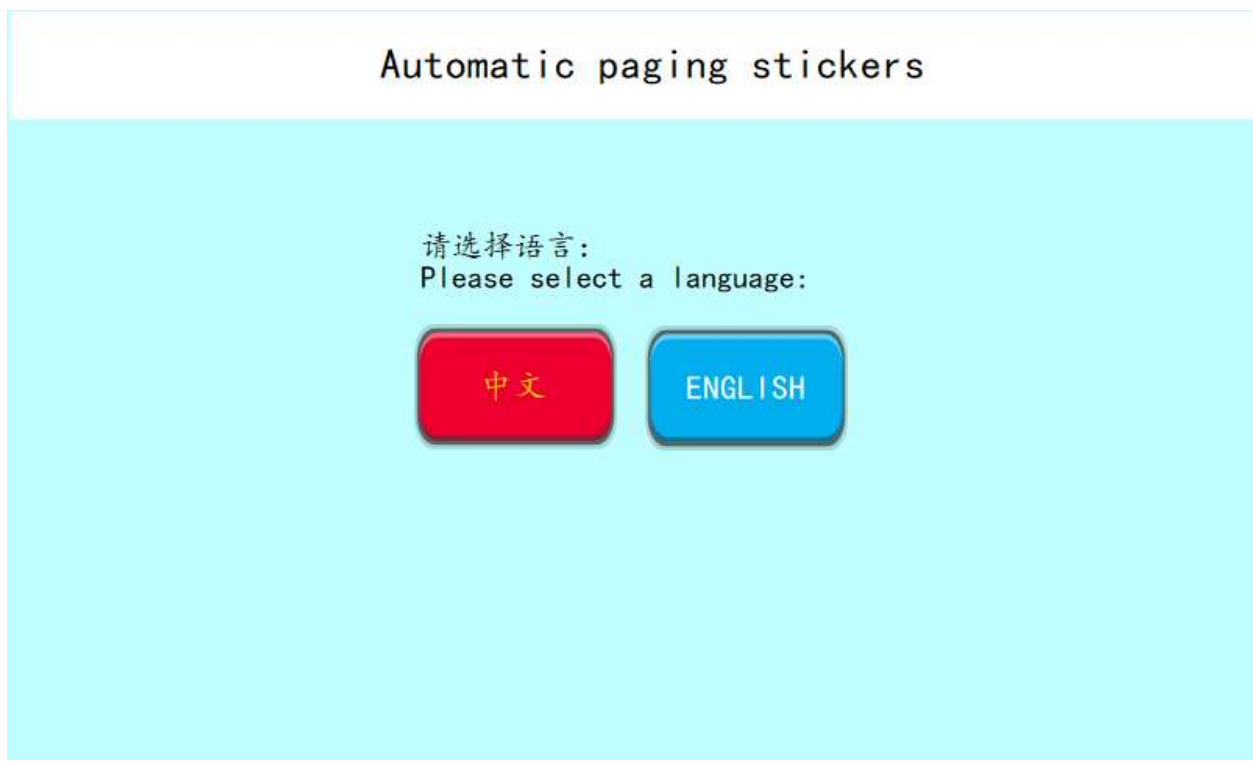
### Part Fourth Electrical Part

First, the principle of electronic control: through product detection, labeling testing, labeling detection of three types of signal input, after PLC after processing, the output is traction motor, control signal, respectively, control the expansion of the cylinder and traction motor rotation, so as to complete the product labeling action.



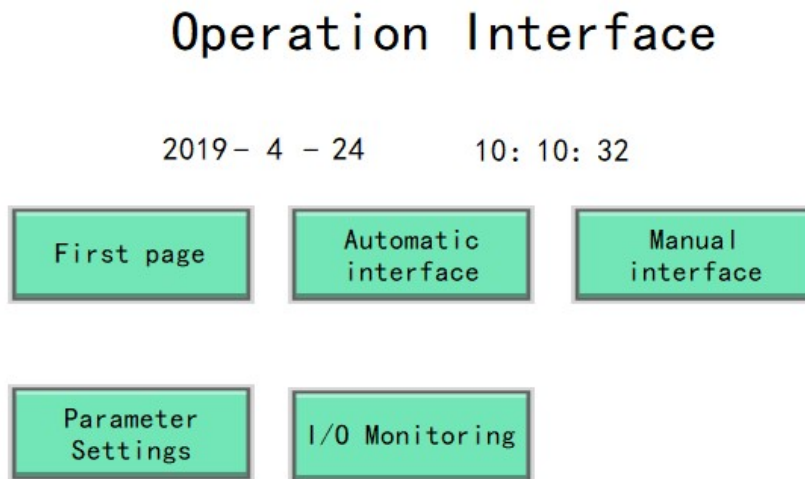
## Second, Touch screen control interface

1 . Start Page: Start labeling Machine The touch screen first enters the page.



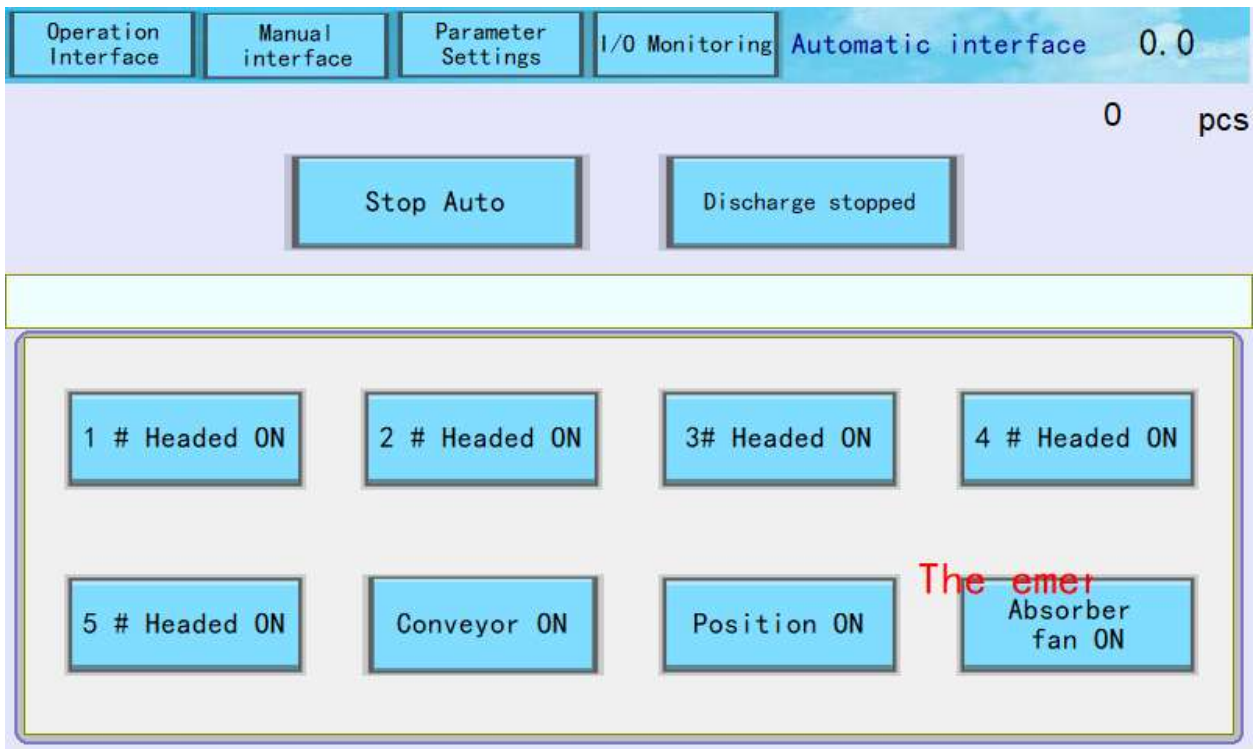
Choose a language on the interface Enter the operating interface,

## 2. Operator Interface



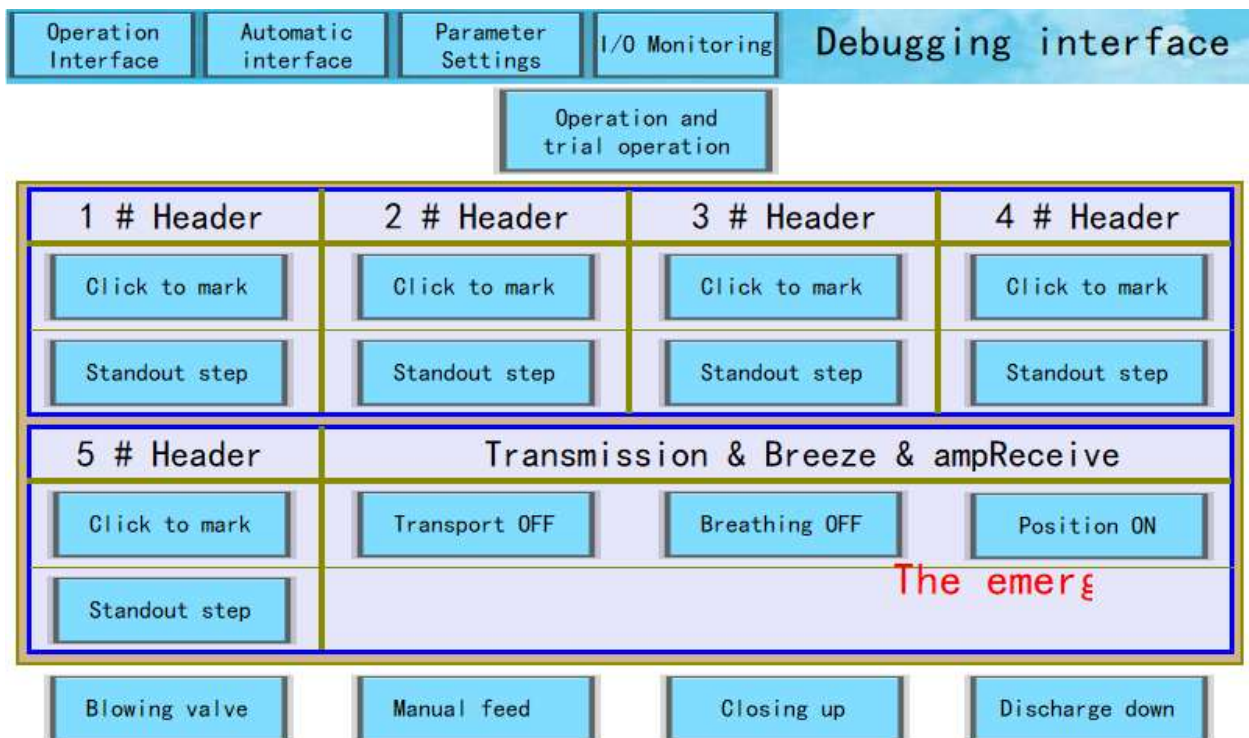
- ★ First page: Press the button to return to the first page;
- ★ Automatic interface: Press the button to enter the automatic interface;
- ★ Manual Interface: Press the button to enter the manual interface;
- ★ Debug Interface: Click into the Debug interface;
- ★ Parameter settings: Click to enter the parameter setting interface;
- ★ I/o monitoring: Click into the Monitor interface;
- ★ Factory Login: Press the button to enter the permissions, password, and so on.

### 3. Auto Interface



- ★ 1# Header On / off: Auto mode, turn on or off A few headers;
- ★ 2# Header On / off: Auto mode, turn on or off 2# headers;
- ★ 3# Header On / off: Auto mode, turn on or off 3# header;
- ★ 4# Header On / off: Auto mode, turn on or off 4# header;
- ★ 5# Header On / off: Auto mode, turn on or off 5# header;
- ★ Label Conveyor Open / off: Automatic mode, turn on or off the labeling conveyor;
- ★ Pull Rule / off: Automatic mode, turn on or off the guide conveyor;
- ★ Suction Open: Auto mode, turn on or off A few suction fan;

### 3. Adjust Interface:



- ★ Debug Run / stop: Start or stop debugging run mode;
- ★ Point Moving OUT Standard: Under the condition of commissioning and running, control the traction motor to start or stop;
- ★ Step out of the standard: Under the state of commissioning, press the button out of a label;
- ★ Label Delivery off/on : Control The labeling of the conveyor motor to start or stop under the condition of commissioning and operation;
- ★ Drag Transfer off/on : Control the conduction motor to start or stop in the commissioning state;
- ★ Suction off/on : On or off under debug run A suction fan;
- ★ Pull Regulation Start: Optional function, specific to the real object;

- ★ Blowing valve: Under the condition of commissioning, click to turn on or off the charging function;
- ★ The receiving material rises: under the debugging operation condition, presses the material receiving motor to begin to rise;
- ★ Material Drop: Under the condition of commissioning, the receiving motor starts to descend;
- ★ Dou Cylinder: Under the condition of commissioning operation, press the Dou cylinder action once;

#### 4. Parameter Settings interface:

Automatic interface	Parameter Settings	1 # Header parameter setting	Select Formula	formula 1	CALL	Call
Scalar amount		0 pcs	spacing	0.0 MM	Call	
Traction speed	0.0 m/min	Label position 7	0.0 mm	Label position 13	0.0 mm	
Speed up and down time	0 ms	Label position 8	0.0 mm	Label position 14	0.0 mm	
Label position 1	0.0 mm	Label position 9	0.0 mm	Label position 15	0.0 mm	
Label position 2	0.0 mm	Label position 10	0.0 mm	Label position 16	0.0 mm	
Label position 3	0.0 mm	Label position 11	0.0 mm	Label position 17	0.0 mm	
Label position 4	0.0 mm	Label position 12	0.0 mm	Label position 18	0.0 mm	
Label position 5	0.0 mm	Product Signal Filtering	0 ms			
Label position 6	0.0 mm	Traction delay stops	0 ms			

## Formula Operation Method:

★ Save formula: Enter the value you want to save in the input box; 3. Click the Save button.

★ Set Scalar: Set the number of labels on the same product.

★ Mark Speed: The speed of the label stripping;

★ Acceleration and deceleration time: traction motor from the lowest (highest) speed to the stable speed (stop) the time required;

★ Superscript 1 out of place: sets the position of the first label to be marked, used for fine-tuning, and other label methods are consistent;

★ Stop Mark DELAY: The signal is detected by the calibration sensor, and the time of delay is stopped.

★ Object Filtration: The signal detected in the set time is invalid.

Above is #1 header parameter setting description for the header, 2 to 5#

The header is consistent with this setting method.

## 5 , Monitoring page:

Automatic interface

Manual interface

I/O monitor screen(input)

A of encoder X00 <input type="radio"/>	5 # Header gauge X0C <input type="radio"/>	Discharge down X18 <input type="radio"/>
B of encoder X01 <input type="radio"/>	3 # Headers X0D <input type="radio"/>	Delivery servo alarm X19 <input type="radio"/>
A of encoder X02 <input type="radio"/>	4 # Headers X0E <input type="radio"/>	1 # Servo alarm X1A <input type="radio"/>
B of encoder X03 <input type="radio"/>	5# Headers X0F <input type="radio"/>	2 # Servo alarm X1B <input type="radio"/>
A of encoder X04 <input type="radio"/>	standby X10 <input type="radio"/>	3 # Servo alarm X1C <input type="radio"/>
B of encoder X05 <input type="radio"/>	standby X11 <input type="radio"/>	4 # Servo alarm X1D <input type="radio"/>
1 # Headers X06 <input type="radio"/>	Manual feed X12 <input type="radio"/>	5 # Servo alarm X1E <input type="radio"/>
2 # Headers X07 <input type="radio"/>	Ceiling limit X13 <input type="radio"/>	emergency button X1F <input type="radio"/>
1 # Header gauge X08 <input type="radio"/>	Lower limit X14 <input type="radio"/>	
2 # Header gauge X09 <input type="radio"/>	Recharge sensors X15 <input type="radio"/>	
3 # Header gauge X0A <input type="radio"/>	Automatic / manual recharging X16 <input type="radio"/>	
4 # Header gauge X0B <input type="radio"/>	Receive up X17 <input type="radio"/>	

next page

return

I / O monitor screen(output)

1#HeaderPUL-Y00 <input type="radio"/>	Conveyor motor enable Y0C <input type="radio"/>	Positioning motor Y1A <input type="radio"/>
1#HeaderDIR-Y01 <input type="radio"/>	Receive up Y0D <input type="radio"/>	Blowing valve Y1B <input type="radio"/>
2#HeaderPUL-Y02 <input type="radio"/>	Discharge down Y10 <input type="radio"/>	standby Y1C <input type="radio"/>
2#HeaderDIR-Y03 <input type="radio"/>	standby Y11 <input type="radio"/>	Full material signal Y1D <input type="radio"/>
3#HeaderPUL-Y04 <input type="radio"/>	Absorber fan Y12 <input type="radio"/>	
3#HeaderDIR-Y05 <input type="radio"/>	Monolithic cylinder Y13 <input type="radio"/>	
4#HeaderPUL-Y06 <input type="radio"/>	Operation light for recharging Y14 <input type="radio"/>	
4#HeaderDIR-Y07 <input type="radio"/>	1 # Headed collection Y15 <input type="radio"/>	
5#HeaderPUL-Y08 <input type="radio"/>	2 # Headed collection Y16 <input type="radio"/>	
5#HeaderDIR-Y09 <input type="radio"/>	1 # Headed collection Y17 <input type="radio"/>	
Conveying motor PUL-Y0A <input type="radio"/>	4 # Headed collection Y18 <input type="radio"/>	
Conveying motor DIR-Y0B <input type="radio"/>	5 # Headed collection Y19 <input type="radio"/>	



## Part Fifth Adjustment Section

First, mechanical adjustment:

5.1.1 . Guidance mechanism: guidance mechanism adjustment, according to the size of the product, moving the guide bar before and after, to ensure that the product in the delivery process does not run, adjust to the product to pass smoothly, both sides offset not more than 0.5mm advisable.

5.1.2 . The labeling organization: The marking mechanism adjusts, adjusts the positioning and the marking cylinder spacing, the upper and lower position, guarantees the product to be positioned in the suitable position when the cylinder stops the marking, the marking cylinder upper and lower height position is suitable.

5.1.3 . Labeling head: Each adjustment, you need to loosen the corresponding locking screws, after adjusting, locking screws. The handwheel can be adjusted from top to bottom and up and down, and the adjusting mechanism can be adjusted horizontally to realize the adjustment of the labeling position.

5.1.4 . Stripping the standard board: stripping plate adjustment, loosen the label board connection mechanism 7 word handle, stripping plate can swing a certain angle, matching product needs. In different thickness,

material label, it is possible to adjust the angle to achieve the smooth stripping of the label.

Second, electric eye adjustment:

This device configuration 2 The set of electric eyes , respectively, is a set of measuring eye and a set of electric eye, according to product testing and labeling needs to adjust.

5.2.1 . Position adjustment: through the electric eye Rack, can is adjusted before and after, high-low position to adapt and different. The adjustment method refers to the mechanical mechanism Introduction section.

5.2.2 . Electric Eye Setting: This labeling standard is configured for the labor easy to test groove type electric eye, can choose other models of the electric eye, can also be matched with the electric eye.

Used to detect the label (here only for illustration purposes, does not represent the configuration of this machine).

The following image is Italian Tiffany Sr21-ir Magic Eye . They are commonly used to detect labels.

Here's how to adjust:



### 5.2.1 Italy Sr21-ir Electric Eye adjustment:

is a slot-type photoelectric sensor, through the intensity of the light through the identification of a label, applicable to the substrate material and label material different labels.

Detection principle, channel type electric eye one side emits beam, the other side carries on the reception, when has the label, receives the light quantity to change, by setting the critical value, carries on to have without the label the discrimination.

#### Set method

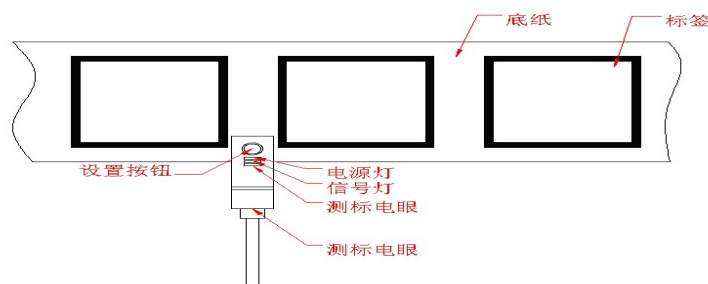
- 1) when Ready When the lamp is on, put the label in the center of the eye, pull back and forth the label, such as the output signal changes, the electric eye in the working state, you can use directly.
- 2) Short Press the Automatic setting button, the green light and the yellow light, the electric eye captures the medium signal, cannot move the label at this time, until the green light flashes fast.
- 3) when the green light shines, put the second medium into the eye center.
- 4) Short Press AUTO SET The green light goes out, the eye begins to capture the second medium signal, at which point the label cannot be moved until the green light continues to light.
- 5) move the label back and forth, in the two pieces of media decomposition place, the output signal light, electric eye set up.

6) READY The continues to light, which means that the eye is available for switching between two media.

One

When the yellow signal is illuminated steady or often out of the case, you need to reset the electric eye.

1) The Magic eye setting method is as follows



4, Pass labels through the Magic Eye's U the slot, as shown in the following illustration.

5, Place the label in the eye's slot, and press and hold the adjustment button continuously 3 seconds or so, you can see the magic eye of the yellow light flashing, and then release the button, there is no label (only the label of the bottom paper) in the electric eye slot, short press adjustment button (press down immediately after release), at this point, the setting is complete.

6, The label in the electric eye slot pull, you can see the label of the place yellow lights out, at the label and the interval between the label, the yellow signal light.

5.2.2 The Electric Eye : (Here for illustration only, not on behalf of the customer's purchased model configuration)

5.2.2.1fx-501 Series Electric Eye wiring method: The electric eye must ensure proper installation to use, " In "Even black lines," Out even Silver lines, as shown in the following illustration:



5.2.2.2 The principle of measuring the electric eye detection: The electric eye of a substance is a that identifies an object according to light reflection. The electric eye emits light to the object, the object will reflect a certain amount of light back to the eyes, when the object reflects the amount of light reached the set value, the Magic eye signal changes, signal to the control system.

5.2.2.3 status switch: Press Mode/cancel key, green light in l/d , CUST , PRO switch between files to indicate a different working state.

" L/D" is the lifting signal State;

2, CUST for teaching status;

3, PRO to adjust the state;

#### 5.2.2.4 The Magic eye setting

Before setting up the amplifier, if it is to the radio eye, first the phase of the electric eyes alignment, to obtain the maximum amount of light cast.

a . In the absence of products on the premise of the work station, open the eye amplifier transparent cover, press the "SET" key, display green "l-ch", the Digital display box displays a red value, this value is the current amount of light, "L/D", "CUST", "PRO" on Flashing the following illustration 1667 ,



Then press "-" to display as bellow photo shows



The following are displayed after the Flash



As indicated above, red Word 1633 The is the current amount of light, the green Word is the threshold (quite sensitive) when the red quantity is less than the green value, the amplifier has a signal output (determines in I/d In what mode)

when the above steps are finished, if the effect is not ideal, manually adjust the sensitivity and press " + The "Green numerical value increases, the sensitivity is enhanced, the "-" value decreases, and the sensitivity becomes smaller.

To resize a L/D mode

L/D mode, which is to determine when the amount of light is over or below the threshold to signal output or no signal output .

The adjustment method is as follows:

D Mode Settings

D mode, is the amount of light input is less than the threshold of the signal output. The equivalent of a regular signal

1 , press MODE , L/D light on, press + Display d-on Press SET finish setting, press MODE exit to normal, complete setup

#### L Mode Settings

L In the mode, the amount of light is greater than the threshold. The equivalent of a regular closed signal

1 , press MODE , l/d light on, press-show l-on Press SET Press MODE to exit to normal and complete the setup.

## Part Sixth Operations Section

First, mechanical operation: mechanical operation in the case of connected power supply, the first in the manual state of the relevant action and adjustment.

1 . Conveyor: Adjust the transport mechanism to ensure the smooth delivery of products to the labeling location, and smoothly sent out, in the transport agencies on both sides of the placing of the products to be labeled on the micro-adjustment, specific methods of operation, please refer to the "fifth part" The same method is applied to the transfer adjustment of the labeling site and the receiving part in the relevant section of the adjustment section.

2 . Labeling position adjustment: will be affixed to the products placed under the stripping plate, up and down, before and after, adjust the labeling head, to ensure that the label peel off the location of the positioning of the labeling, adjustment-oriented agencies, to ensure that the label affixed to the designated location of the product.

### **Third, electrical operation**

Turn on the power → Open two emergency stop switch, start labeling machine → Man-machine interface set → start labeling.



Installing



Placing label roll



Winding label



Jog debugging

Observe the status of the electric sensor



No pass



Electric sensor adjustment

Pass



Automatic operation once



Observe the length of strip



Too long or too short

It is preferable to extend about 1 mm

Adjust the electric sensor frame up and down



Adjust the label's position on the product

Try to label



Finish



## Seventh Maintenance

- 1 . Installation and use of the equipment environment: the requirements for room temperature, not suitable for high-temperature humid acid and alkaline environment to use, so as to avoid the impact of equipment life, efficiency and precision.
- 2 . Keep clean: After using the equipment, such as friction drum, electrical box cleaning. can use alcohol or commercial neutral cleaning solution for cleaning maintenance.
- 3 . Cleaning needs attention.
  - a) do not use cleaning tools that have damage to the mechanical surface.
  - b) do not use corrosive plastic appliances.
  - c) do not use acidic solution.
- 4 . Regular inspection and maintenance: The machine should be inspected periodically in order to maintain the normal operation of the machine, including but not limited to the following:

Clean up discarded scraps of paper and debris.

  - d) The removes the residue from the drum and edge.
  - e) A lens that uses a soft brush or cloth to clean the sensor.
  - f) The periodically replaces the fuse, which uses AC power and uses a fuse to prevent overload.

g) antirust, use antirust oil spray various stainless steel and iron parts, gently rub with soft cloth, recommended to use Oh, -40 antirust oil.

## **Part Eighth Common solutions**

1. Bottom paper break: bottom paper broken with the quality of the label, the label traction in the way of scratching the bottom of the paper, the label adhesion of these three factors are closely related.

a . Check whether the backing sheet is cut, such as cutting the base paper, you need to replace the quality of the base paper. Recommend the use of Glassine, and label suppliers The depth of the die-cutting, can not damage the paper.

b . Check whether there is scratch in the label bypass, eliminate the scratching factor.

C . If the label adhesion, the label is easy to tear. Control the next sheet of the length of the label, to ensure that the product can not adhere to the labels.

2 . Labeling deviation exceeding the precision requirements: label deviation and mark away bias, and the direction of the product delivery direction is not parallel, traction wheel skid, product positioning detection is not allowed, the label did not follow the labeling roller affixed to the

product, product error Several factors, check the above several factors, Further targeted resolution.

The Mark takes away the bias, relaxes the traction mechanism, pulls the label back and forth, and lets it automatically go. After the label is gone, clamp both sides of the limit ring, guide the label.

- h) The band trend is not parallel to the product delivery direction, and can be paralleled by adjusting the tilt of the labeling head.
- i) Traction wheel skidding, traction wheel wear, traction wheel locking screws loose, two reasons can be tightened traction wheel locking screws.
- j) product error, product manufacturing process, margin error will cause labeling deviation, only the control of good product quality can be resolved.

3 , Continuous outbound: The continuous out of order and out of the mark is not fully related to the electric eye detection sensitivity, adjust the sensitivity, adjust the method please refer to the previous Electric eye adjustment section.

If the adjustment of the Electric Eye is still unable to resolve, it may be the label beyond the scope of the use of electric eyes, or electric eye damage, need to consult the manufacturer.

- k) Another reason for the label to take away biased, the electric eye did not detect the labels, before and after adjusting the electric eye to the detection location.

#### 4 , Bottom paper slack on the stripping plate

Substrate slack is associated with low traction speed, traction mechanism slippage, and if the traction speed is too low, the traction speed can be solved.

- l) If the traction mechanism slips, tighten the locking screws of the traction roller to the backing sheet without slipping.
- m) In addition, note that the drive belt behind the receiving shaft is broken.

### Service Commitment

Million Chi company in line with the principle of customer first , to provide customers with satisfactory pre-sales and after-sales service .

1, pre-sales to provide professional technical advices , Guide the reasonable selection for customers;

2, the provision of labeling machine use training services , Guide customers to correct use and maintenance of labeling machine;

3, provide technical support services , Guide customers to solve the relevant matching labeling machine services;

4, Warranty 1 year, provide maintenance services.