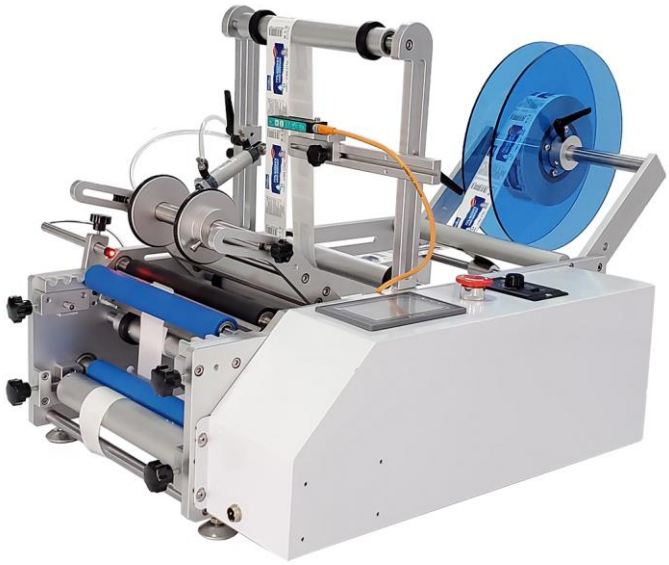
Operating Instructions



Name: semi - automatic round bottle labeling machine

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Chapter 1 Statement

One. Conventional matters

1, the labeling machine with a single label labeling and two labels labeling function, you can choose automatic labeling and manual labeling switch. Refer to the operating section for details.

2, labeling machine belongs to the standard models of equipment, its operation requires a certain level of technology. Operation level, affecting the efficient use of equipment.

3, the operation time, please follow the instructions book to operate, or under the guidance of our company's technician.

4, the technical manual dedicated to the FK603 high-profile semi-automatic round bottle labeling machine + coding machine (hereinafter referred to as labeling machine). Its purpose is to ensure professional use and adjustment of the equipment.

Two. the manufacturers authority

reserves the following rights:

1, the organization parts, electronic control components and software changes to upgrade, including the components used in the specifications and brands to maintain the advanced technology products, but not committed to the previous delivery of products for free changes.

2, I have the Secretary for the integrity of the equipment to protect the authority, the lack of guidance of the manufacturers technician under the circumstances, shall not be unauthorized mechanical structure of the equipment or electrical components to be modified, such as damage caused by the provisions of the damage by the modified party.

3, on the basis of the equipment, increase the inkjet printer or other features, I provide the Secretary for the configuration of technical guidance, but not responsible for supporting the equipment.

4, Division I of the equipment and the operating instructions with intellectual property rights, if copied, to bear legal responsibility.

Third: security matters

1, dangerous! Be sure to use the ground wire to prevent electric shock.

2, dangerous! Be sure to ensure that the voltage is not overloaded.

3, vigilance! Part of the electric box, the line part of the need to operate under the guidance

of electricians.

4, vigilance! Rotate parts need special attention to prevent crushing.

Four. the operation authority

• Ensure that only trained and qualified people operate, deploy and maintain the equipment.

• Only qualified persons, professionals, and equipment engineers are allowed to complete the layout.

The operating machine needs to ensure that:

- the operation of the individual to be able to work independently and safely;

- the operation of the individual to repair their own operations in the process of the smaller errors;

- at least two people are required to guide the use of the equipment;

Five. the operating environment

Please do not use in the following environments:

• places where temperature changes are intense

• Where the humidity is too high to produce dew

• where vibration or shock is very strong

• More dusty places

• Where water, oil, chemicals are splashed

• Where there are explosive, flammable dangerous goods

Six, run-in period

The labeling machine is a standard product, and the technical requirements of the operator, need to have a week or so of the run-in period. During the running period, the operation of the equipment, the technical parameters of the situation, the need to promptly reflect to the manufacturers to obtain technical support. The problem in the adjustment process can basically get information from this manual book.

Chapter 2 Product Introduction

First, the basic purpose:

Can be used for a variety of cylindrical object labeling, such as xylitol, cosmetics round bottles, etc., with the whole circle / half circle labeling, it can labeling front and back side labeling function; can be equipped with ribbon coding machine, inkjet printer, paste At the same time print the production batch number and other information.

Second, the scope of application:

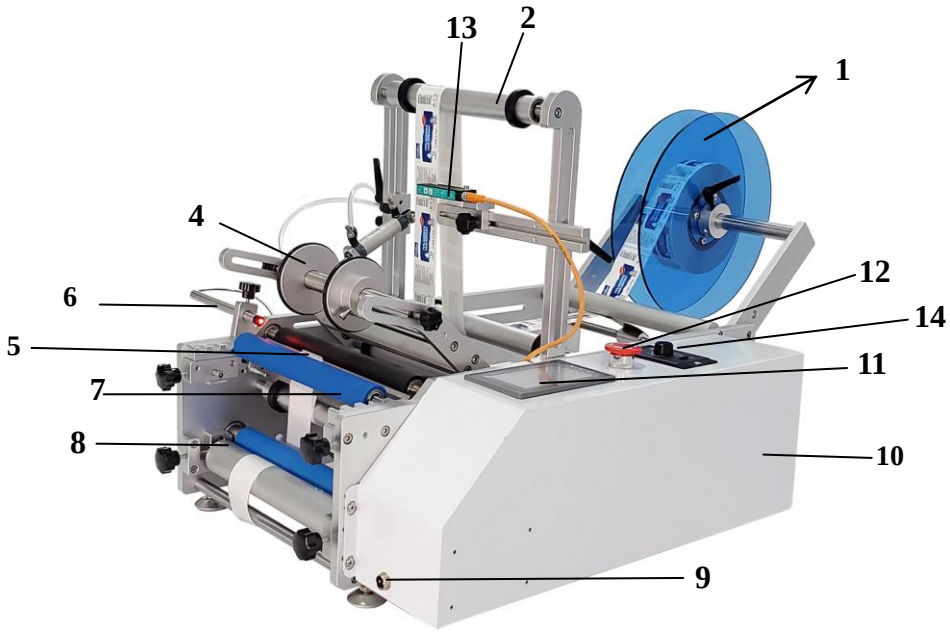
* Applicable labels: stickers labels, stickers film, electronic monitoring code, bar code;
* Applicable products: requirements in the circular, conical surface attached to the label of the product;
* Application industry: widely used in food, medicine, cosmetic, electronics, hardware, plastics and other industries;
* Application examples: oral liquid round bottle labeling, Xinli bottle labeling, xylitol labeling, shampoo bottle labeling, small taper cosmetic bottle labeling and so on.

Third, the technical parameters:

* Labeling accuracy: ± 0.5mm (without product, label error);
* Labeling speed: 15 to 35 pieces / min (theoretical value, related to product, label size and operating level);
* Applicable product size: ¢ 10mm ~ ¢ 150mm;
* Applicable label size: Length: 20mm ~ 300mm Width: 20mm ~ 230mm;
* Machine size: 950mm × 560mm × 550mm (length × width × height);
* Applicable power: 220V \ 50HZ;
* Machine weight: about 34Kg

Chapter 3 Institutional Part

First, the machine view



1, material plate: used for placing labels.

2, drum: used for label bypass, ensure label tension, and the rationality of force when labels are stripped.

3, the gauge eye holder: used to install the measuring electric eye, and the electric eye can be moved up and down.

4, the top mechanism: used for pressure bottles, to ensure the effect of marking, can be adjusted through the label on the left side of the knob to tighten the degree of tightness.

5, stripper plate: used for stripping labels, generally debugged before the factory, special circumstances can also be adjusted.

6, positioning device: the use of the left top position, to ensure that the label on the bottle position, can be adjusted, left and right.

7, support bar: can be placed in different cards to adapt to different specifications of bottle labeling.

8, the traction mechanism: by pulling the bottom paper, stripping labels, its tightness can be adjusted by screws.

9. Foot connection interface

10, control electric box: labeling machine electrical control center, arrange all kinds of control and PLC.

11, touch screen: man-machine dialogue window, to adjust various parameters.

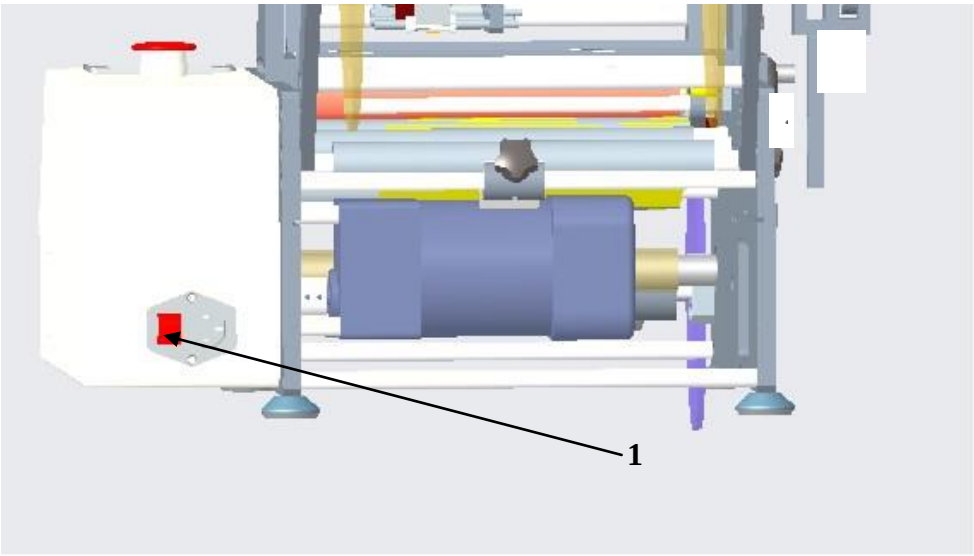
12, emergency stop switch: emergency shutdown.

13. The electric eye of the mark: it is used to detect each standard interval.

14. Speed control button: used to regulate the speed of motor.

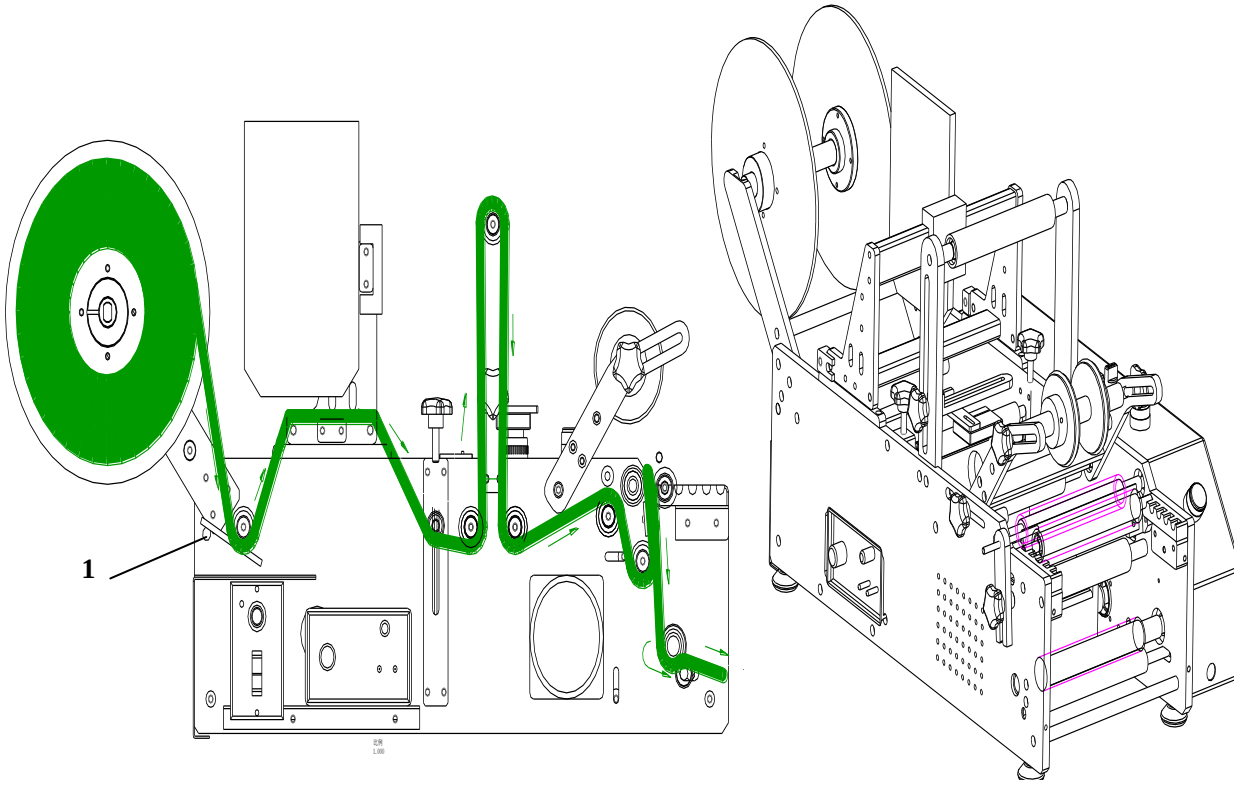
Local view

2、Control panel: (location sticker and automatic induction belong to customer selection function, and need to add relevant sensors to achieve).



1Power switch

Second, around the label map

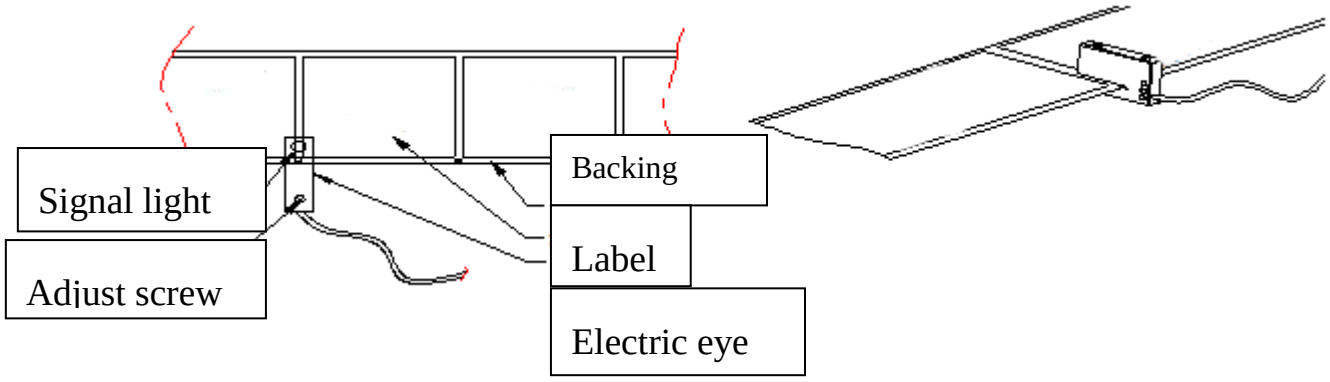


1, in accordance with the above directions, the labels are passed around the traction mechanism. The five star knobs which are tightly locked by the traction mechanism are loosened first and locked through the labels.

2, when the label is traced, note that the label should not be skewed. Then press and move the 1 switch in manual mode to let the label go straight.

3, after completing the above two steps, press the label "tight shrapnel" slightly (above 1) to maintain the tension of the tape.

Third. label sensor installment



Be careful：

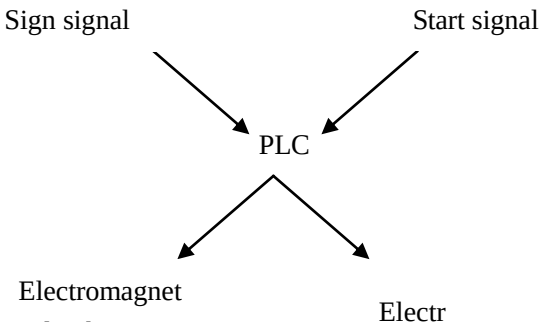
The A. label must be noticed when it is electrically operated. It must pass through the groove sensing position and try not to rely on both sides of the electric eye. It is installed as shown in the figure above.

B. when the bottom of the label passes through the traction mechanism, the outer five star handle must be tightened.

C. should tighten the shrapnel under the discharge mechanism to ensure the tightened state of the labels during the movement process, which is beneficial to the correct identification of the labels by the electric eye.

Chapter 4 Controlling System

First, the labeling machine part



1, the principle description

The labeling machine takes PLC as the core, receives two signals of starting and measuring marks, and outputs the signals of electromagnetic clutch and motor.

2, action decomposition

2.1 the foot switch is closed, the motor rotates, drives the roller to rotate, and indirectly drives the work piece to rotate. At this time the electromagnetic clutch is loosened and the traction shaft is still.

2.2 after the work piece is rotated, PLC starts the "delay labeling" program. While the work piece continues to rotate, the clutch is closed, the traction mechanism rotates, and the label is stripped.

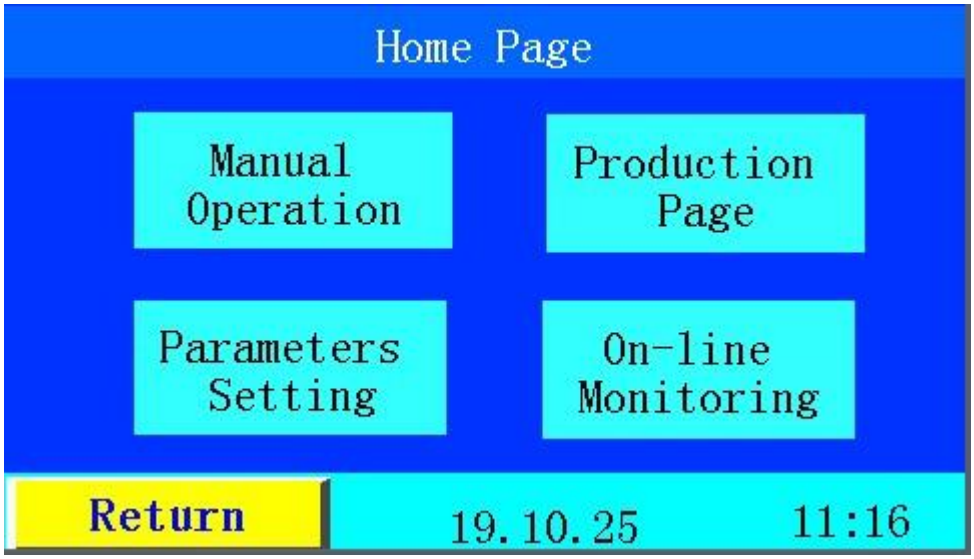
In the state of a single standard, the 2.3.1 detects the label signal, the signal is fed back to the PLC, the clutch is loosened, and the time delay of the motor is stopped to complete a labeling process.

2.3.2 in the double standard state, the mark eye detects the first label signal, the signal is fed back to the PLC, the clutch loosens and the motor continues to rotate. According to the delay set by the point moving 2, the clutch is closed, the second labels are stripped, the electric eye detects second label letter numbers, the motor delay stops and complete a post. The standard process.

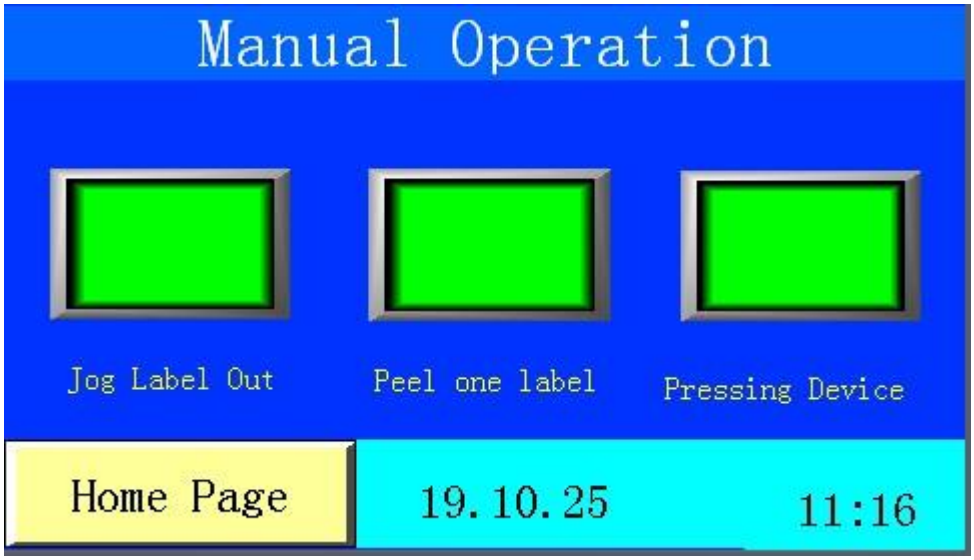
Third, man-machine interface operation

2.1 Boot interface: click on the screen to enter the main screen.

2.2 main screen: from this screen come into the device for a variety of operations and setting;



2.3 Manual operation

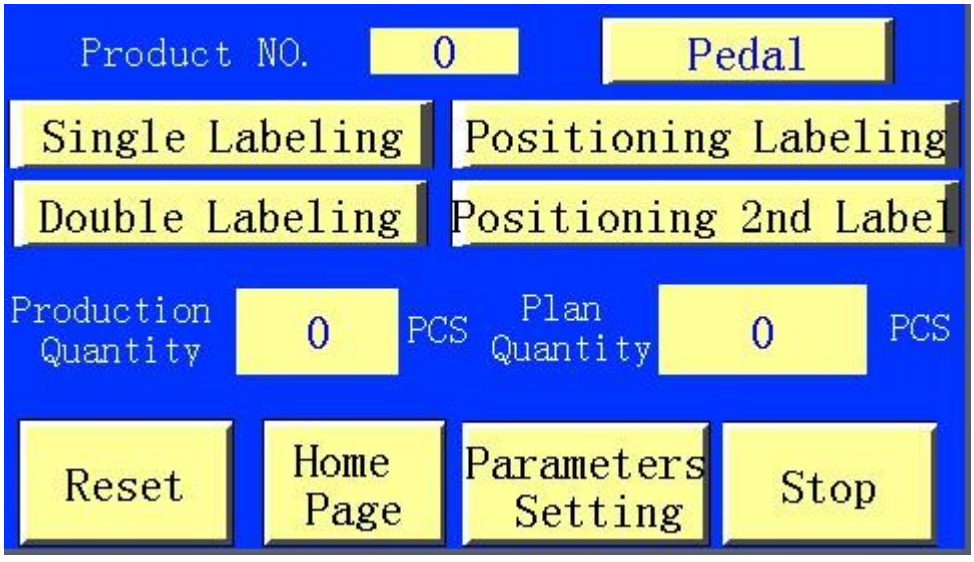


2.1 Come out label by hand to click: by hand click the button, it will come out label, if the hand release stop, there will be not come out label.

2. one piece label come out: if click this button, it will come out a complete label, used to adjust the label when the label stretched out the length of the stripping plate;

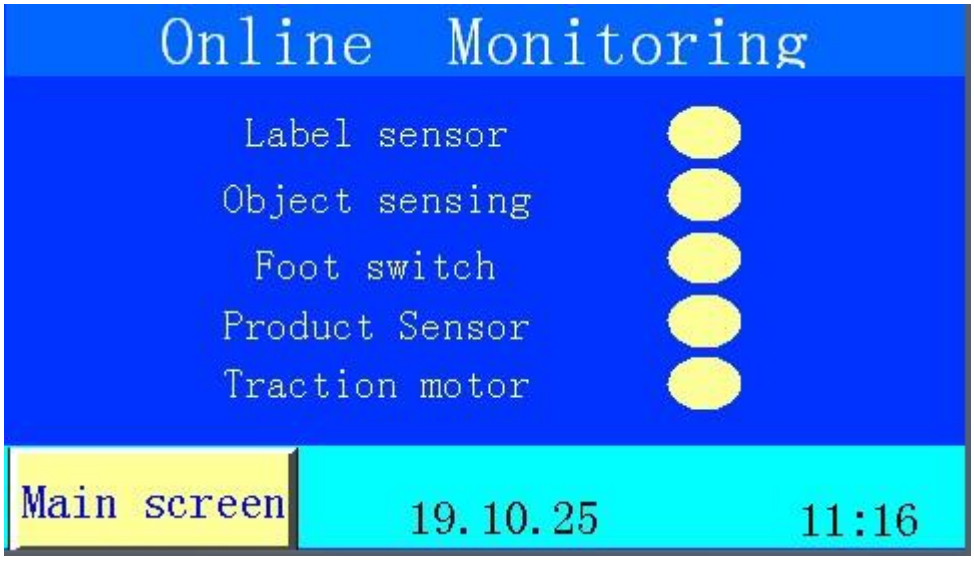
3. Press the production top: click this button, the cylinder down, then press the production for labeling, if click this button again, the cylinder back to the original position;

2.4 production screen: you can monitor the signal status, select a variety of labeling;

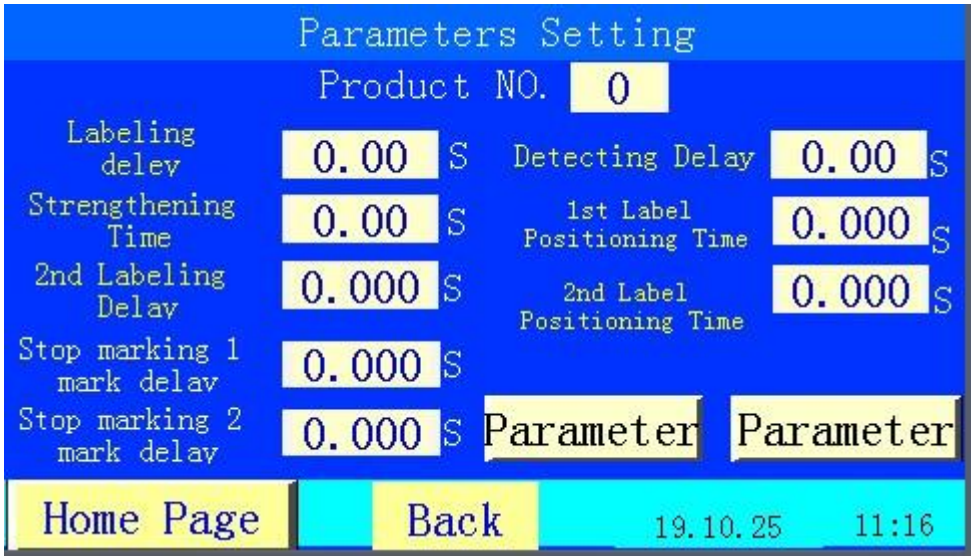


- **Foot switch start:** press it, it can choose manual labeling, press it again, become automatic labeling.
- **Single label:** Single label labeling production mode, after the start it, it will labeling one piece label, then automatic stop.
- **Double labels:** double labels are labeling production mode, after finished the first label of labeling, it will be labeling the second piece label by delay the time of setting. the equipment to complete a labeling cycle;
- **Positioning a single label:** positioning single label labeling mode; after the start of the device driven by the product is turned, positioning electric eye sensor positioning position to the target after the labeling, complete a standard stop;
- **Positioning double labels:** positioning double labeling mode; after the start of the device driven by the product rotation, positioning the electric eye sensor to the positioning right position and then labeling the product, after a piece of label for paste, then setting delay the length of time for the second piece label of labeling. when complete it, the device of labeling process was stop.
- **Count clear:** the current number can be cleared to zero;
- **Plan number:** it can setting how many piece production will be produce. When the output reaches
- the number of equipment automatically prompted to produce enough;

2.5 Online monitoring screen: you can monitor the current working status of each signal;



2.6 Parameter setting screen: Set various parameters when the device is working



Labelling delay: refers to the time when the equipment is induced to delay the marking time after labeling products.

Label delay: refers to the length of time when the label action is completed.

Double Mark 2 standard delay: when the double label production mode is applied, when the equipment labels the labeled product, the time interval between the 2 bid intervals and the adjustment is 1The spacing between the label and the 2 label;

Starting delay: when the test object starts automatically, when the labeling product is put to the sensing area of the test object, the device will start the labeling action after the device is passed through the area.

Positioning 1 time delay: when locating the sticker status, when the sensor detects the position of the positioning labeling base position after the product is induced by the eye to the product, the sticker product is sticker after setting here, and the position of the sticker is adjusted by adjusting the position of the labeling.

Location 2 time delay: when the first label is completed, the second label is again out of the time interval when the first label is completed, which is used to adjust the distance between the 1 label and the 2 label.

Parameter preservation: save the data of the current labeling product, so that it can be called later.

Parameter call: select the product number that has been saved and transfer it directly.

Current product: NO. refers to product number, which can set, save and invoke product parameters.

Chapter 5 The Setting of Electric Eye

Electric Eye Adjustment

This machine is equipped with 2 electric eyes: product detect sensor and label sensor, you can adjust them according to your product and labeling requirement.

2.1 Position Adjustment

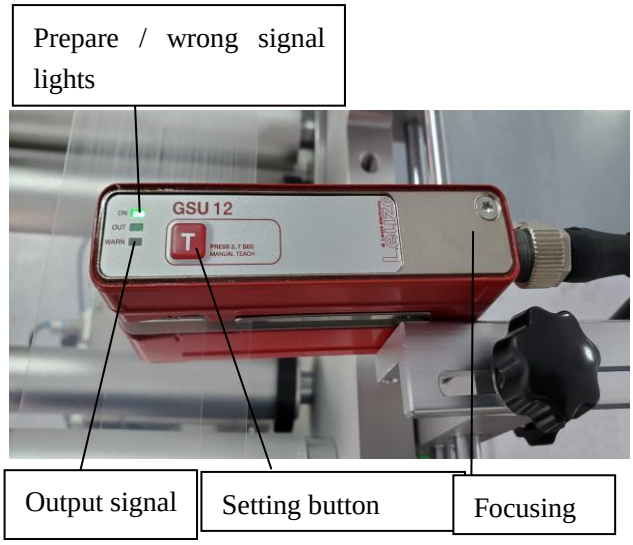
You can adjust them by adjusting the electric eye frame, we have talked about this in the mechanical configuration part.

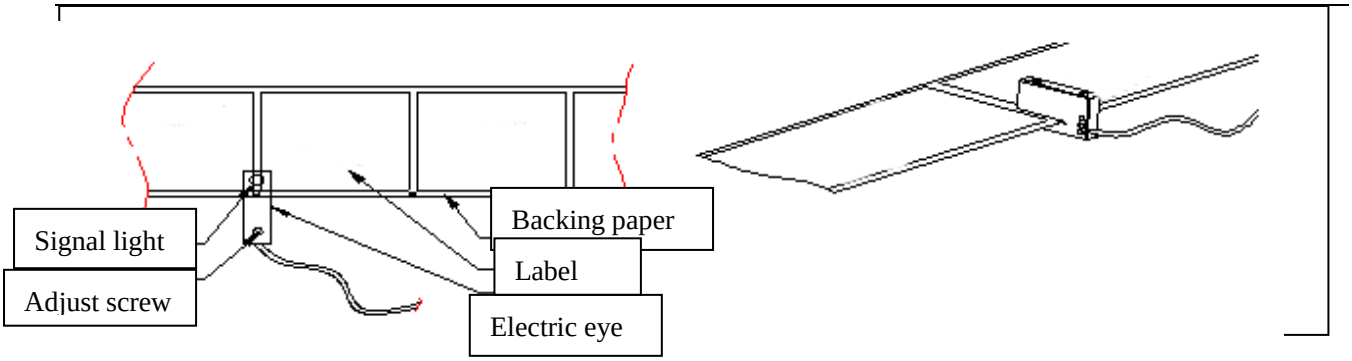
2.2 The Setting of Electric Eye

The standard configuration of this machine is MTS-2 slot-shaped electric eye，other kinds of electric eye are optional.

1.Product Detect Sensor:（just for instruction use, not means the it being the sensor of your machine）







1.1Adjustment Method of America Hypsen Brand label Sensor：

1.1.1 Work principle：light penetrability, the light penetrability of the label is different from the gap between two label, suitable for paper label or the label has certain thickness.

1.1.2 About the signal lights and the adjustment button:

Red signal lamp: power light;

Yellow signal light：status light（it lights up when output signal）;

Adjustment Button: used for setting detect parameters of different labels;

1.1.3 Setting Method:

Firstly, the label is passed through the eye as shown in the following illustration: if the label is pulled, the yellow signal lights up in the gap between the label and the label, then it can be used directly without resetting. When the yellow light is always on or off, it is necessary to reset the electric eye. The settings are as follows: Firstly, put the label through the U-shaped slot of the electric eye as shown in the figure, and place the label in the slot of the electric eye. At the same time, press the adjustment buttons "+" and "-" for 1 second, you can see the red signal light flashing, then loosen the button, place the place without label (only the base paper of the label) in the slot, and press and hold the adjustment buttons "+",at the same time. 1 second, then

release the button, at this time, the setup is complete. Pull the label in the eyegroove, you can see the yellow signal lights go out where the label is. At the gap between the label and the label, the yellow signal lights up

1.2 Adjustment Method of Germany Leuze Brand label Sensor

1.2.1 Work principle: the intensity of light, one side of the sensor launch light and the other side receives, the intensity of the received light changes when the label and the label gaps alternately appears, suitable for the label that made of different material from the backing paper.

1.2.2 Setting Method:

(1)To move the label sensor to detect the labels.

(2)Long time to press “T” button until the green light and yellow light twinkle at the same time.

(3)release the screw of fixed label sensor frame,label sensor moves to have labels bottom paper,to move the label sensor two or three times between the gap of two labels.

(4)Locking screw,press the “T” button again.

2. testing object sensor: (for illustrative purposes only, does not represent the model configuration purchased by the customer)

1.1 testing object sensor is correctly connected:

The sensor must ensure proper installation before use, as shown in the figure below.

1.2 Principle of electric eye detection: The measuring electric eye discriminates the object according to the amount of light reflection. The electric eye emits light to the object, and

the object reflects a certain amount of light back to the electric eye. When the amount of light reflected by the object reaches a set value, the electric eye signal changes and a signal is sent to the control system.

1.3 State switching: Press the “PRESET” button and the red light switches between “L/D” files to indicate different working status.

1.4 Electric eye setting:

1.4.1 Open the transparent cover of the electric eye amplifier without the product on the station. Press the “+” key to adjust the red number. The red value cannot exceed the green value, as shown below.

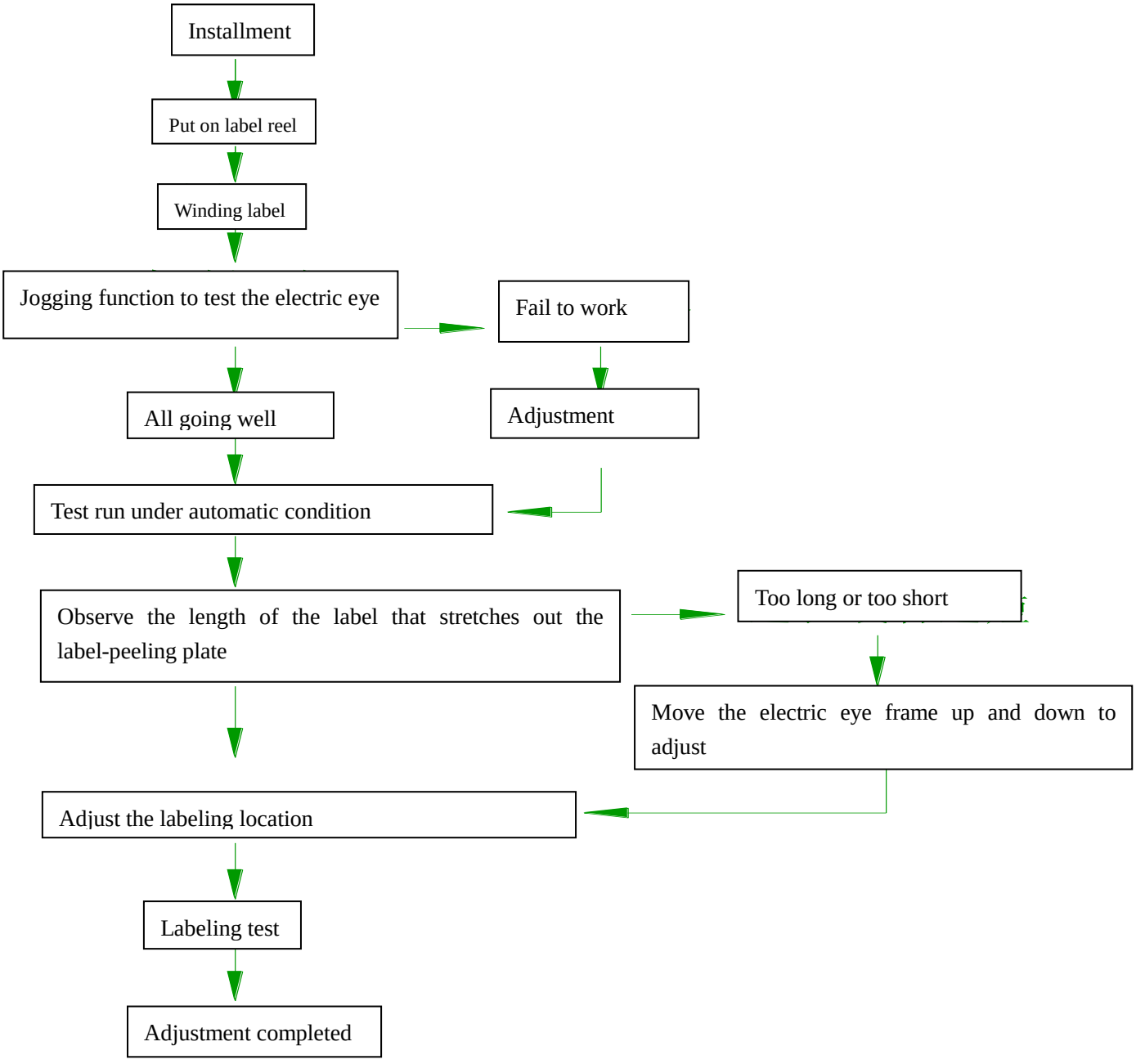
1.4.2 Then place the product on the labeling station, close the left positioning rod, observe the position, and adjust the position of the positioning rod to achieve the position adjustment of the label on the product.

1.4.3 Close the transparent cover and set the end.

1.4.4 When the product is placed in the labeling station, the measuring object detects the signal and feeds it back to the PLC. After the PLC issues the instruction, the relevant parts of the labeling machine start working.



Chapter 6 Operation



1.Installment

Please refer to the packing list to install machine; you can put it into use directly if it is packed as a whole.

2.Put on label reel

2.1 loose the handle on the label tray, put on the label reel and lock the label tray.(notice that do not lock it too tight, it's suitable when you can pull the label out by hand).

3.Winding label

Please winding label according to the method we talked before.

4.Adjustment

Under jogging condition, observe the electric eye, the red signal (output signal)light up in the intervals between every two labels. If the electric eye fails to work, please adjust the electric eye according to the method we talked before.

5.Test Run：

Under automatic run condition, press the foot switch, observe label on the labeling-peeling plate.

6.Label Position Adjustment

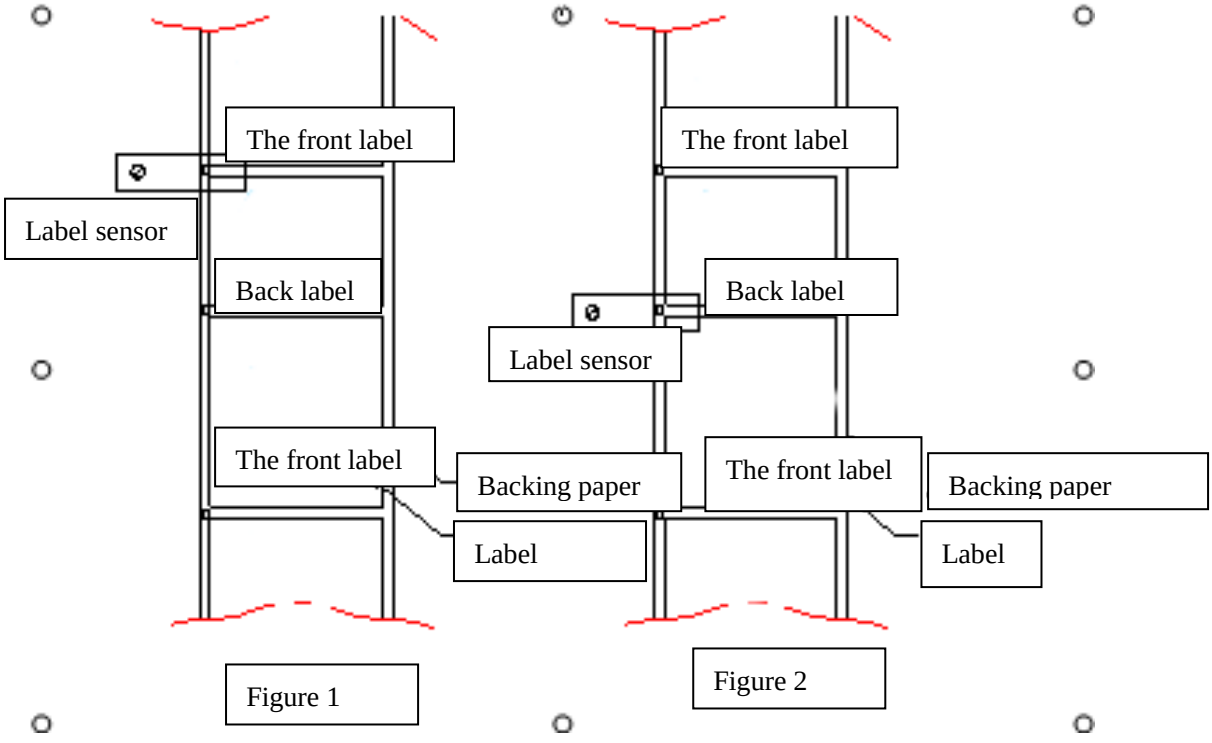
6.1 control the length of the peeled label that stretches out of the label-peeling plate, it should be 0mm-2mm(if it is too long, two labels would stick to a product; while it is too short, the label has not be completely peeled but the product has already passed.)

6.2 adjust the electric eye frame, make sure that the label sensor stop at the intervals. Switch to automatic condition, press the foot switch, observe the length of peeled label.

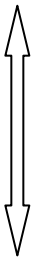
-Move the label sensor up, then the sensor would detect label in advance, and the length of the peeled label that stretches out of the label-peeling plate shorten;

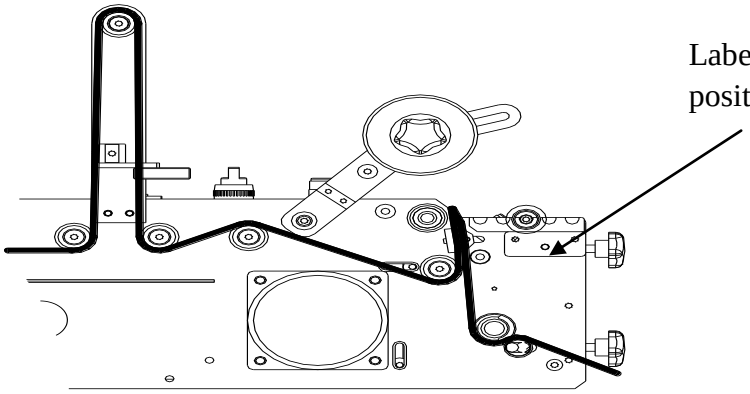
-Move the label down, delay the detection, thus lengthen the peeled label that stretches out of the label-peeling plate.

6.3 Under double-labeled condition，pay attention to the location of the electric eye, if the front label comes out first, then the label sensor must stop at the front labels, as shown in figure 1; if the back label comes out first, then the label sensor must stop at the back labels, as shown in figure 2. Then use “jog label out” function to adjust the distance between the front and the back labels.



The electric eye holder moves up and down

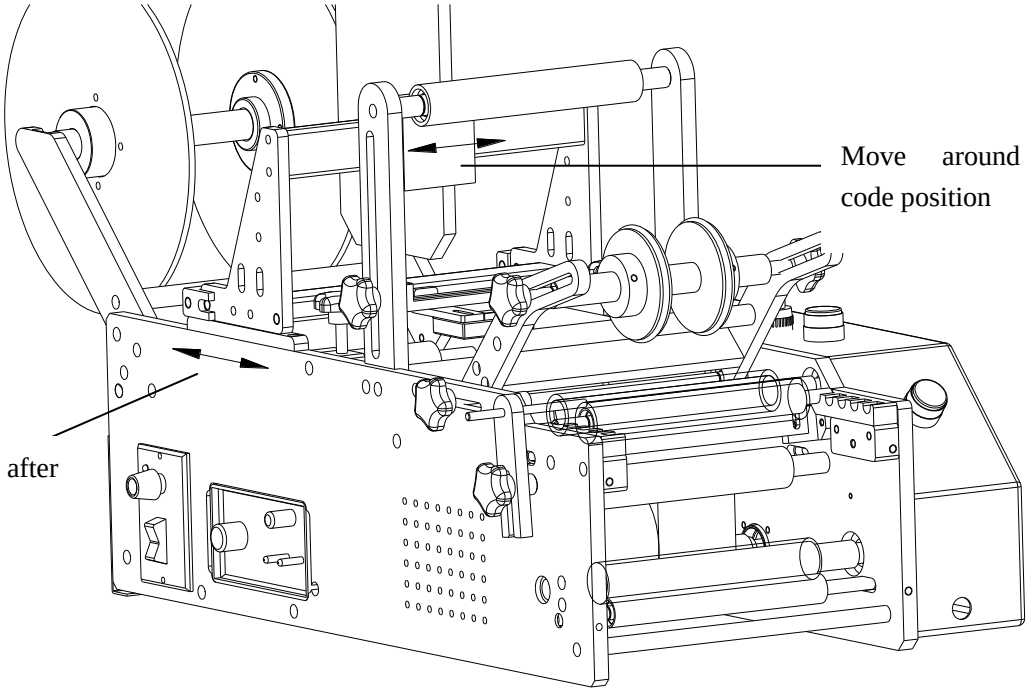




7.Trial paste

Put the product on the labeling station, observe the position of the label on the workpiece, adjust the label to the workpiece by moving the positioning bar on the left side.

The location of the machine (when selecting the model of the code printer, the position of the code is adjusted after the test is posted. Please refer to Appendix 1 for details of the code.）



According to the above steps, the labeling machine can be adjusted and the normal labeling can be carried out.

8. shutdown

When the label is finished, turn off the power supply in time. If you don't use it for a long time, pull out the power outlet.

Second, pay attention to matters

1. correction band

After the 1.1 label is finished, switch to the manual state, please confirm that the power is connected, the governor is in the open state, and then press the "point move" switch, let the traction pull the base paper forward about 0.5 meters, the purpose is to let the paper free correction.

1.2. When the bottom paper is automatically corrected, we can adjust the limit rings on all rollers and move the limit rings to the sides of the paper. When you change the label in the future, put the label directly in the limit ring. When replacing labels with different widths, the limit rings are usually moved on the right side, and the other side is the datum plane. Generally speaking, it is recommended not to move.

Chapter 7 Product Maintenance

1.Maintain and Clean

1.1This machine is powered by AC power, so it needs replace the fuse for overload protection .

1.2 Please use alcohol to clean the machine; and use commercial neutral cleaning fluid to clean the electric box.

Matters need attention：

Do not use cleaning tool that would damage the surface of the machine.

Do not use corrosive plastic utensils；

Do not use acid soluble liquid.

2. Routine Maintenance

Regular inspection is necessary ,especially the following parts:

1.The conveyor belts speed and accuracy (after extended periods of use)

2.Clean up waste paper scraps and pieces.

3.Remove oil residue from the rollers and the machine edges.

4.Clean the sensor lens with a soft brush or cloth.

3.Surface Maintenance

This machine have chrome plating processed, equipped with antirust function. However, you still need to pay attention to rust in the placing processes, using anti-trust oil to spray the stainless steel and iron parts from time to time.

Chapter 8 Usual Fault Treatment

1.Labeling Unsteadiness

1.1 Tighten the label-pressing device .

1.2 Tighten the traction device, do not screw so tight that backing paper wrinkles.

1.3 Control the product quality, remove the labeling error caused by product.

1.4 The product should be paralleled to the label.

1.5.The product should rotating smoothly and do not touch the label-peeling plate. If the product is too light to stay, use the coping device to fix the product.

1.6 (1)Under double-labeled condition, the product keeps rotating because you didn't set the second labeling delay, so the machine waiting for the signal for the second labeling.

（2）If the machine stops after single labeled, reset the label sensor ,or click twice to jog the second label out and click twice to jog the first label out.

2. L**abeling deviation**

Maybe the label-pressing device is too tight, loose it slightly.

Label correction is needed before automatic operation.

3.Bubbles and Wrinkles

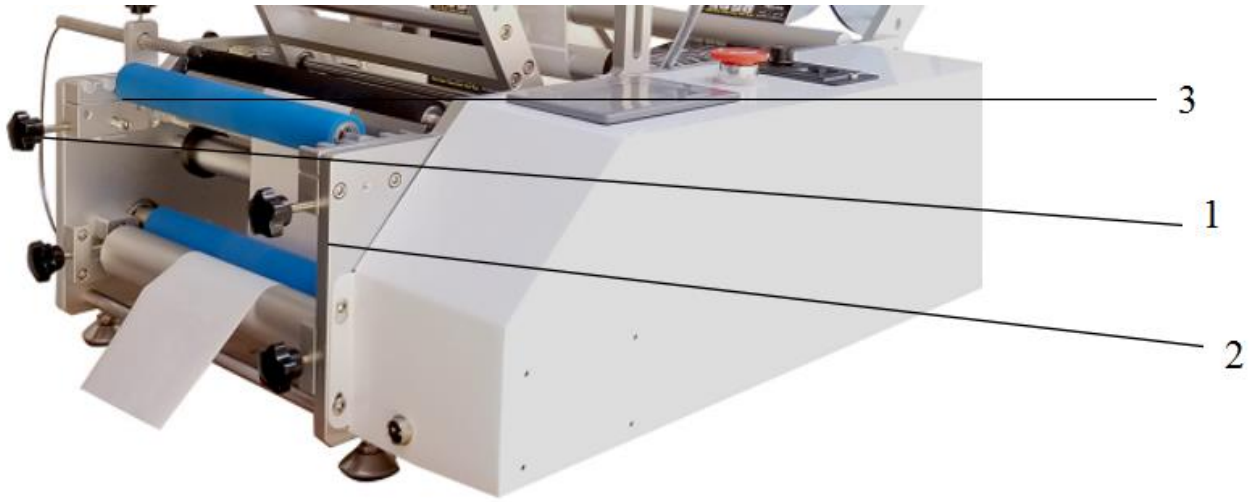
3.1 Slow the labeling speed so that the label-covering device can strengthen the labels.

3.2 It appears if the label is transparent or too soft.

3.3 Balance the strength of the label-covering device.

3.4 If the bubbles appear in the beginning, maybe the label is too soft so it curls after being peeled, heighten the label-peeling plate to stay close to the product.

3.5 If the head and tail of the label are not align, adjust the Supporting rod to let the product goes perpendicular with the label.



If the label move to another direction when labeling, lift the supporting seat on the left of the supporting rod.

4. The machine won't work

4.1 Check the electric wire.

4.2 Check the fuse wire.

4.3 Maybe the wire interface loose in the electric box.

5.Backing Paper Breaking

-Influence Factors: the quality of the backing paper; the friction in the traction process; label adhesion.

Step 1:Check the backing paper, if it is broken or of poor quality, then you should contact your label provider to change the backing paper. It is recommended to use glassine bottom paper.

Step 2:Check if there any part scratch the label in the traction process and remove them.

Step 3:Check if the label stick to each other, or it will be broken easily. Adjust the automatic high speed length to make sure the label would not attach to the labeled product.

6.Labels come out incessantly at a time

It relates to the sensibility of the label sensor, please adjust the sensor according to the steps we talked before. If the problem still exists, maybe the electric eye is not applicable to the label or the electric eye has broken, please contact us in this condition.

Another cause may be the label bypasses the label sensor so the sensor cannot detect the label, please make sure the label goes through the slot of the sensor.

Service Commitment

We are based on the principle of customer first, dedicated to provide thorough pre-sales and after-sales service.

1.Professional technical consultation service

2.Professional training service.

3.Responsible for providing technical support.

4.One year warranty, provide maintenance services.

Thank you for using our machine，if there is any dissatisfaction with equipment quality, performance, service and so on, welcome to put forward valuable suggestions!