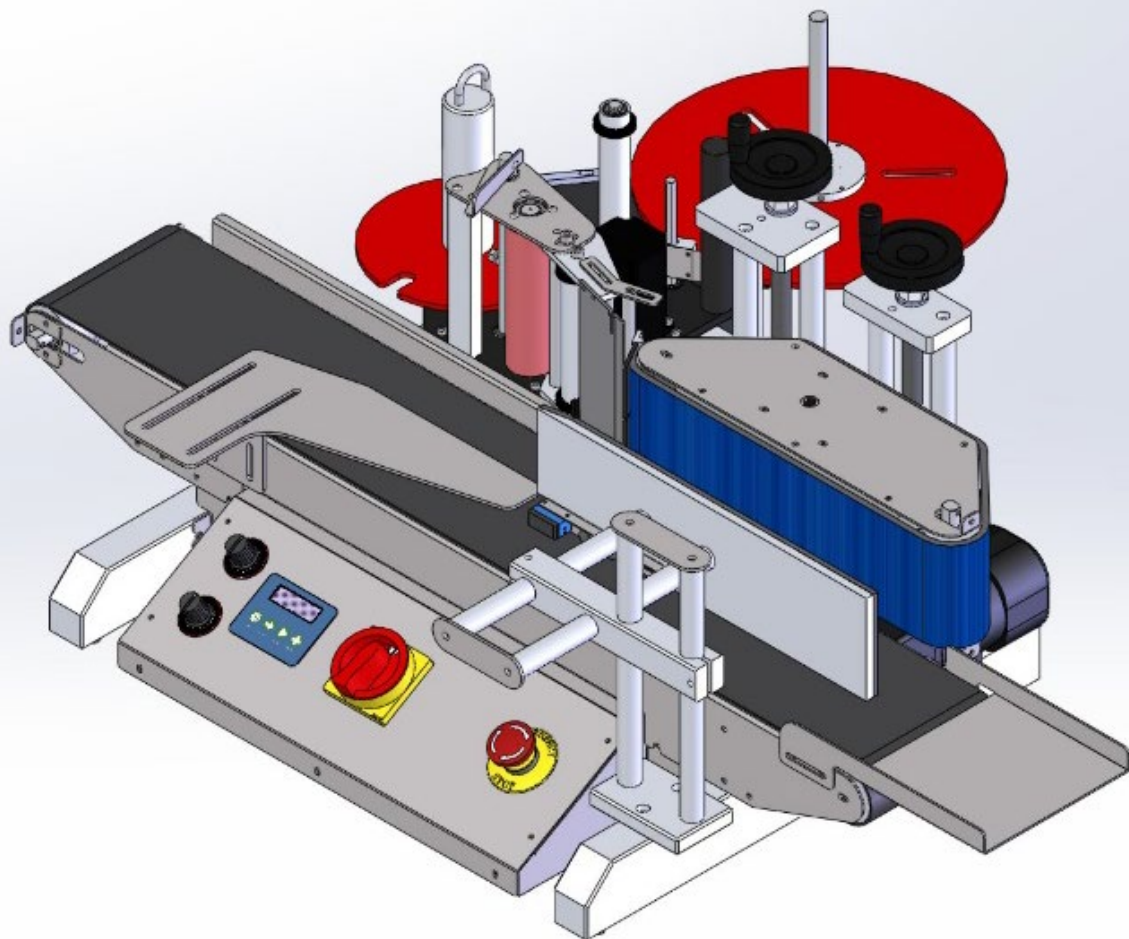


# USER MANUAL

## Tabletop Round Bottle Labeler



# NLR1000

Edition 2 08/2017

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# 1 SAFETY INSTRUCTION

This manual is designed for operators who are not acquainted with the machine, so please follow the instructions to operate and adjust the machine step by step. If you cannot thoroughly understand some of the instructions, please ask experienced technicians for help or contact us. Thank you!

**Note: Please read this user manual in detail before taking any action to operate the machine!**



- This machine is driven by 110 or 220 VAC. The voltage should fit for the power standard of the machine and should always stay within the security limit.



- Only engineering technicians are allowed to make adjustment of the machine, but any adjustment is forbidden while the machine is running. Failure to follow this warning may expose the operator to danger.



- Do not place the machine near high temperature or inflammables. The places where are not stable or where the machine will be crashed easily are also not suitable to place the machine.
- To prevent from getting electric shocks, the machine cannot be placed in a humid environment.
- Do not attempt to remove/replace parts or to use the machine for any other purpose other than what is recommended by us.
- Do not randomly apply lubricants to any part of the machine.

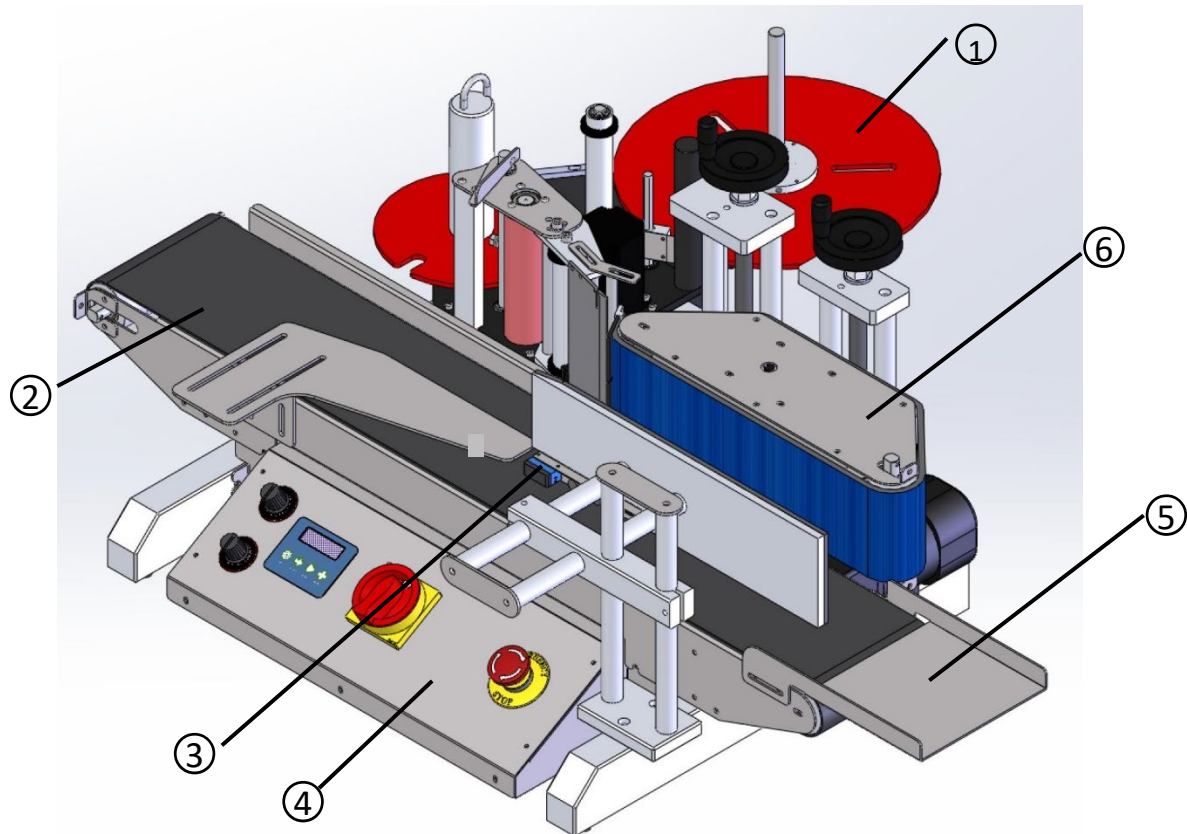
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## **Notice of Equipment Improvements & Document Revisions**

We continually devote to developing and researching for new items and reserves the right to change or terminate the production specifications and features which are presented in this manual without notice and without taking any responsibilities. We have also strived to provide all the needed information in this guide, but if there is any error, we reserve the right to correct for the next revisions.

## 2 PRODUCT DESCRIPTION

### 2.1 COMPONENTS



① Label Applicator

④ Control Box

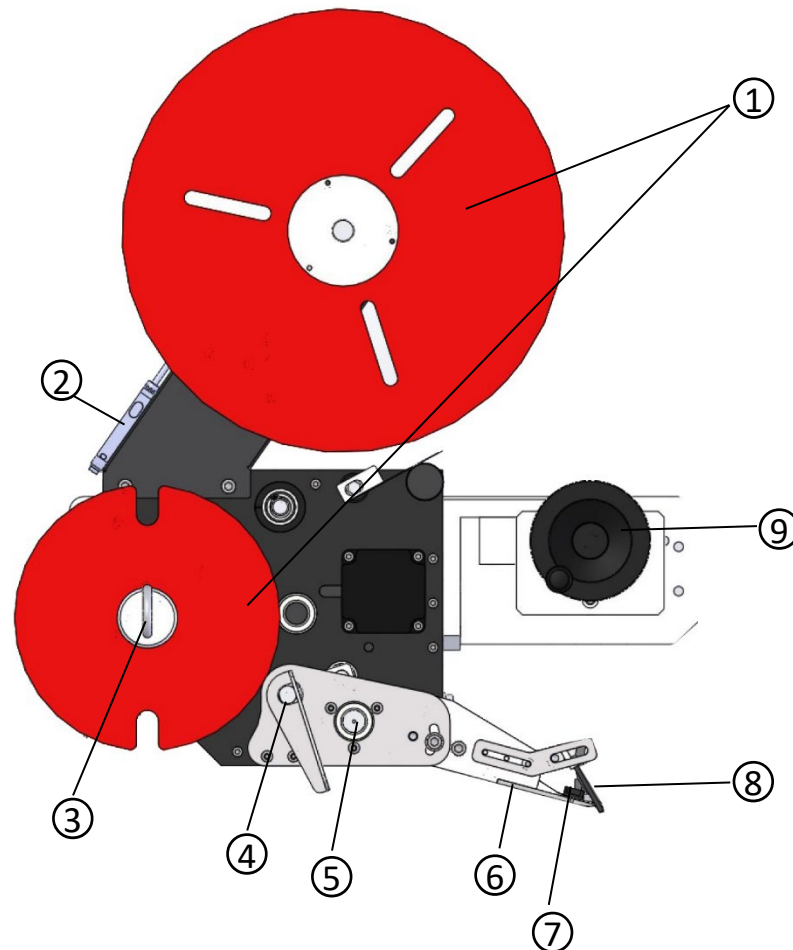
② Conveyor Belt

⑤ Rotary Flattening Set

③ Start Sensor

⑥ Collected Tray

## 2.2 LABEL APPLICATOR



① Spool Disc

② Amplifier

③ Waste Paper Holder

④ Knurled Drive Roller

⑤ Driving Shaft

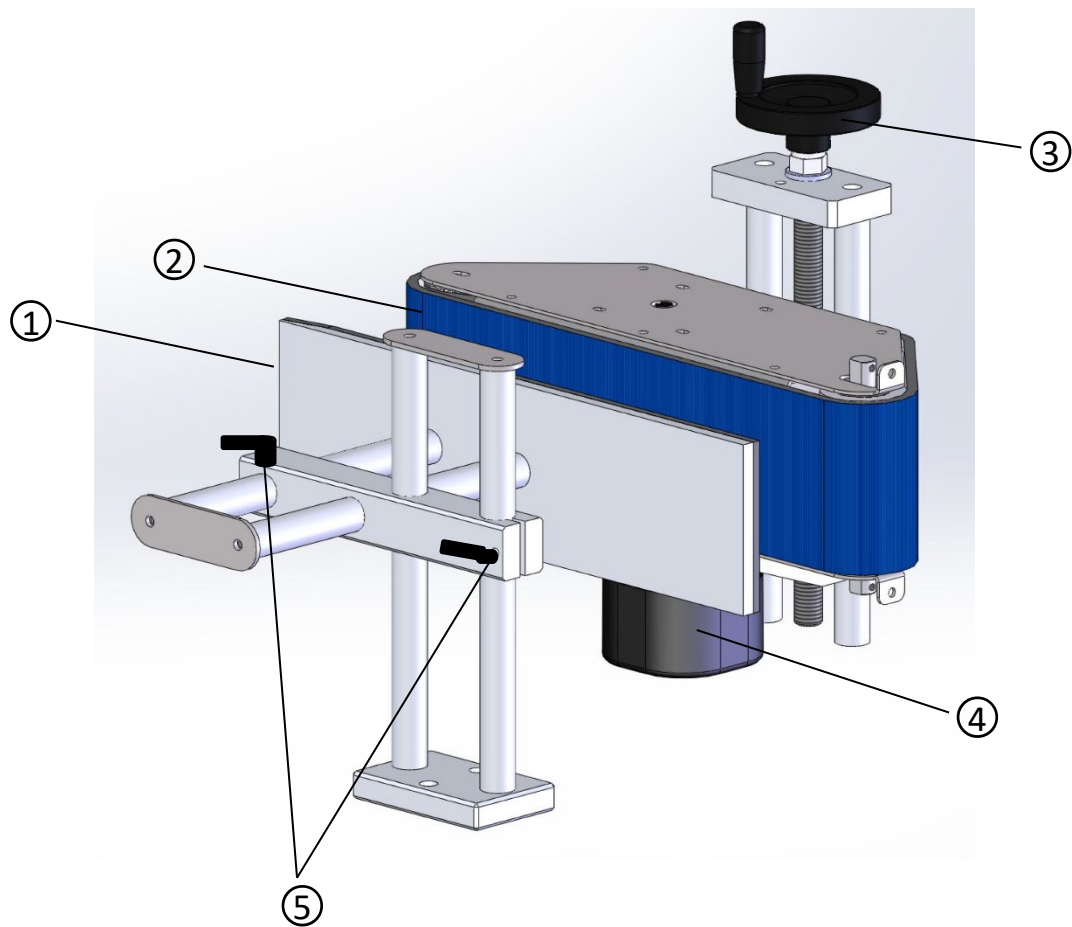
⑥ Peel Plate

⑦ Label Sensor

⑧ Press Plate

⑨ Adjuster

## 2.3 ROTARY FLATTENING SET



① Rotary Sponge

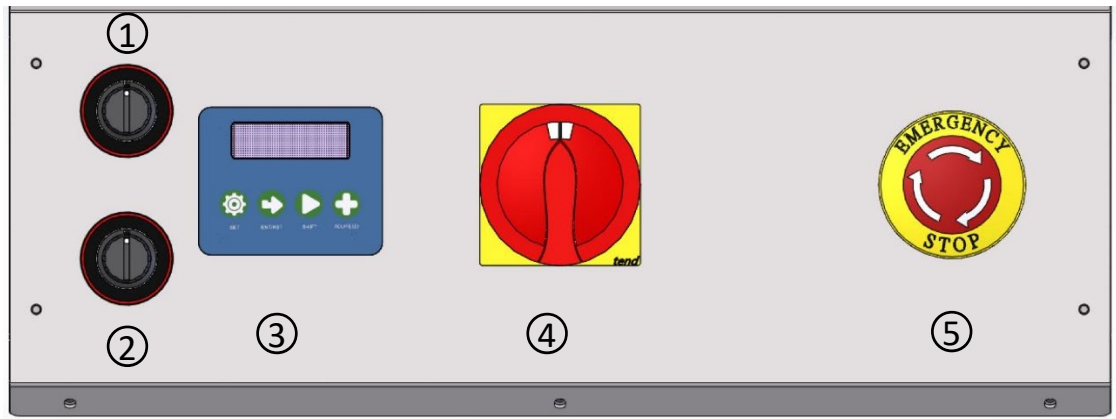
④ Adjuster

② Rotary Belt

⑤ Handle

③ Adjuster

## 2.4 CONTROL BOX



① Rotate Speed Knob

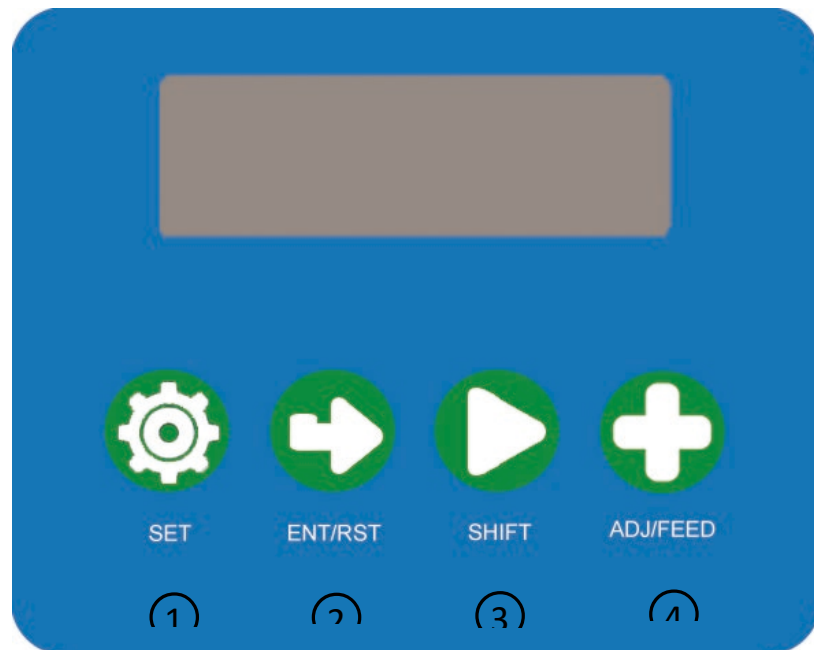
④ Power Switch

② Conveyor Speed Knob

⑤ Emergency Stop Button

③ Control Panel

## 2.5 CONTROL PANEL



### 1 SET

Press this button to enter parameter setting page.

PS.: Must press this button to turn off the dispensing before any adjustment

### 2 ENT/RST

- Parameter choosing: press the button to choose parameter you want to set.
- Parameter entering: after setting, you need to push this button for sure to enter
- Zero the count: press the button for 5 seconds, the label counter will become zero.

### 3 SHIFT

Press this button to shift the flashing cursor.

### 4 ADJ/FEED

- Value adjusting : Press this button to adjust the parameters.
- Label dispensing test : To test label dispensing, press the button for 3-4 seconds, the label will be dispensed once.

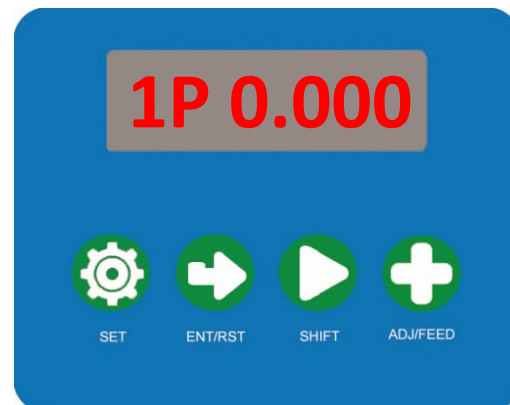


## 2.6 PARAMETER SETTING

### 1P = Delay Time

It represents the time of delaying starting the labeler. The large the parameter is, the longer the delay time will be. (This parameter we always set is 0 that means the labeler will work immediately after detecting product.)

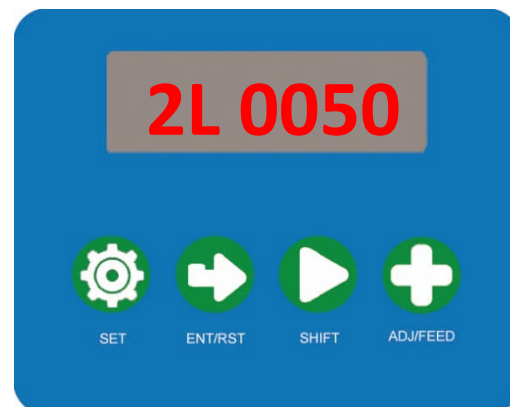
P.S It is not real time.



### 2L = Dispensing Length

It reflect the length of the labels which are dispensed from the front end of the dispenser. (If the length of label is longer than 70mm, we always set 2L from value 650; otherwise we set from 0.)

P.S It is not real length.

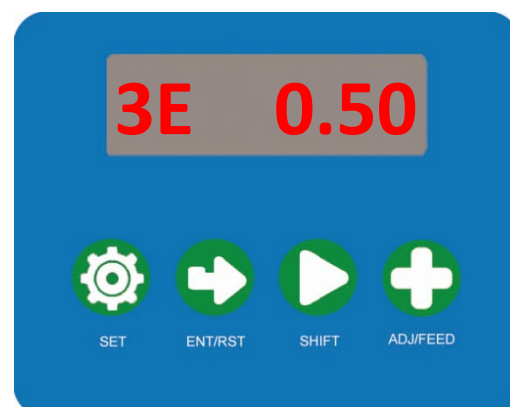


### 3E = Labeling Speed

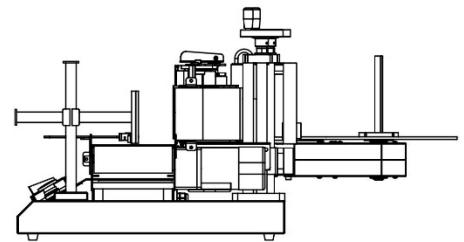
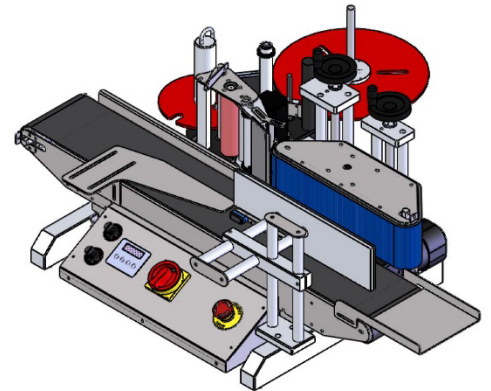
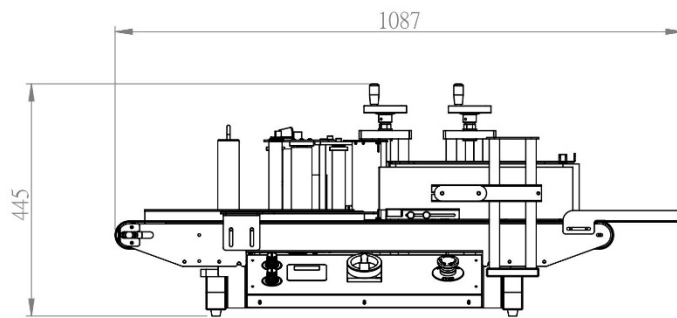
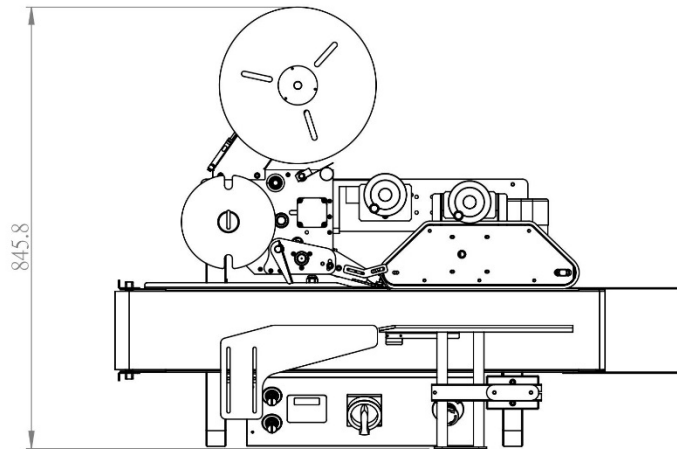
It represents the speed of labeling. It means the speed of the labels moving forward.

If you find crumple labeling, please decrease the value you set. If you find dragged labeling, please increase the value you set.

P.S : 1.It is not real speed. 2. Please adjusting value by +/-0.1.



## 2.7 THREE VIEW DRAWING



## 2.8 TECHNICAL SPECIFICATION

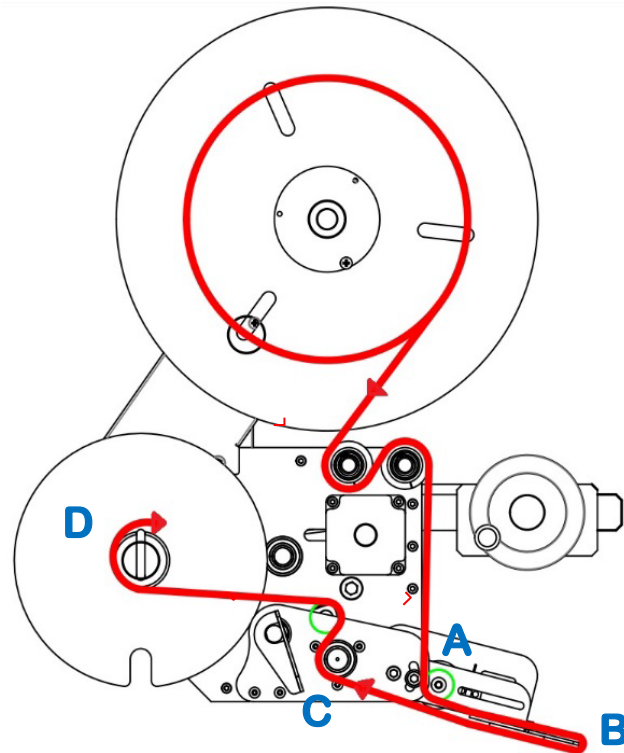
Model		NLR-1000
Labeling Speed	10 meters/min	
Labeling Accuracy	$\pm 1$ mm	
Bottle Dimension	( Dia. ) 16-90mm ; ( H ) 30-160mm	
Label Dimension	( L ) 10-300mm ; ( W ) 10-100mm	
Label Roll Diameter	( Inner Dia. ) 75mm ; ( Outer Dia. ) 300mm	
Driven Motor	Stepper Motor	
Power Requirement	110 or 220 VAC; 50/60 Hz; Single phase	
Dimension	(L) 1087mm × (W) 846mm × (H) 445mm	

## 3 BEFORE OPERATION

### 3.1 LABEL THREADING

The accuracy of labeling is determined by whether the label threading is correct or not. Be sure the label threading is not curving or loosened.

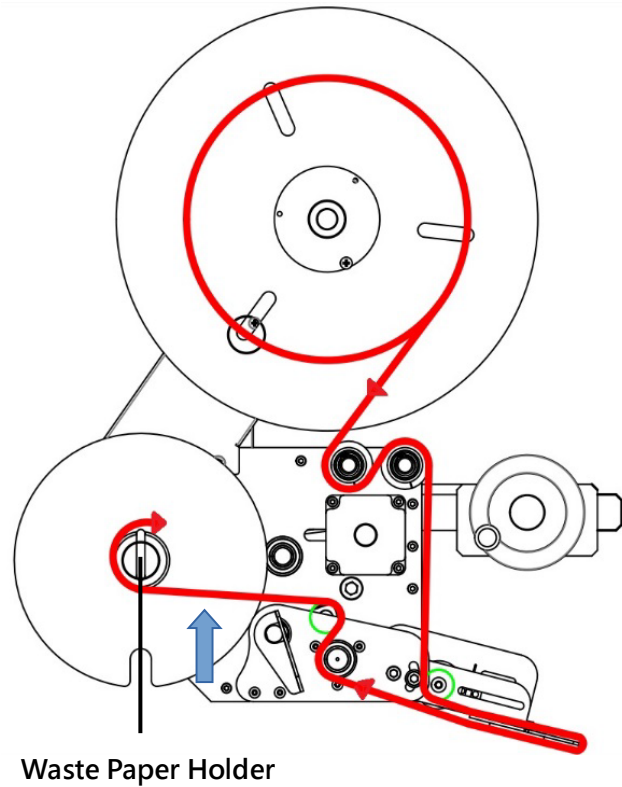
Do it as below:



Steps :

1. While threading to **A**, make sure the label paper through fillister of **label sensor**.
2. While threading to **B**, make sure throughout the **press plate** and **peel plate**.
3. While threading to **C** and **D**, open the **knurled drive roller** first to thread the label paper and then coil the label paper clockwise onto the **shaft** and put back the **waste paper holder**. Remember to close the **knurled drive roller** after finishing threading.

## 3.2 LABEL ROLL REPLACEMENT

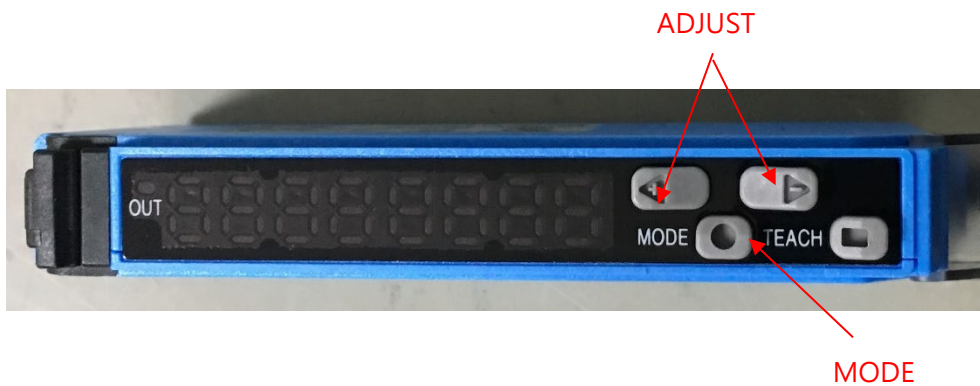


### Steps:

1. When you need to replace the label roll or it runs out of labels, tear the waste paper off (around the place where the blue arrow shows).
2. Pull out the **waste paper holder**.
3. Turn the whole waste paper roll clockwise and pull it upward at the same time, and then the whole paper roll can be pulled out at once.
4. Pull out the label follow the reverse direction of label threading. You can replace the new label roll or supply the label.
5. MA Follow the 3.1 label threading, complete the labor roll replacement.

### 3.3 LABEL SENSOR AND AMPLIFIER SETTING

#### 3.3.1 Amplifier



1. ADJUST      Adjust value
2. MODE      Switch model (un-recommended)

### 3.3.2 Amplifier setting procedure

#### Steps:

1. Watch the lowest value when backing paper is detected (Assume the value is A)
2. Watch the highest value when a label be detected (Assume the value is B)
3. Calculate the Amplifier setting value (Assume the value is C)

$$\text{Setting value(C)} = [\text{the lowest value of waste paper(A)} + \text{the highest value of label}] / 2$$

4. Press adjust button (▲ ▼ button) shortly, the value will increase or decrease.
5. Adjust value to setting value(C)
6. When the value access to setting value(C), loosen the adjust button. The value flash to indicate setting accomplished.

### 3.4 LABEL LENGTH SETTING

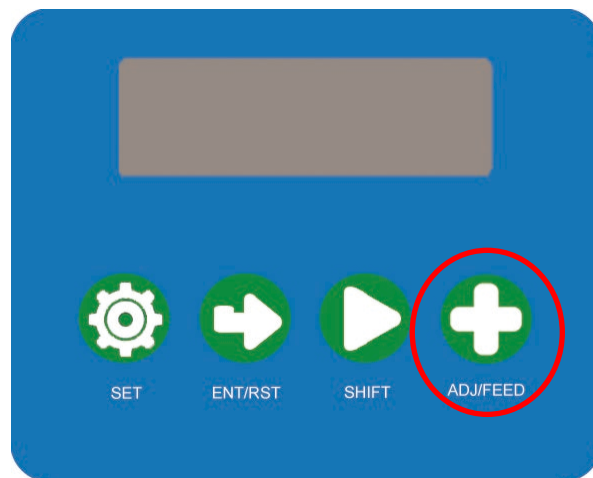
If the length of label within 70mm, increase the value from 650.  
If the length of label larger than 70mm, increase the value from 0.

Follow this page to adjust parameter:

P.6 2.5 Control Panel

P.7 2.6 Parameter setting

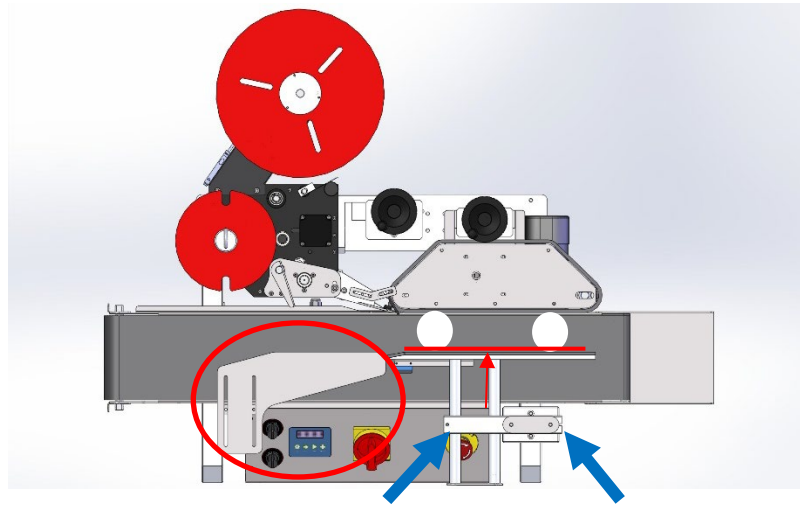
Press the ADJ/FEED button (red circle) 3-4 seconds to start dispensing the label to make sure the label in the accurate place.





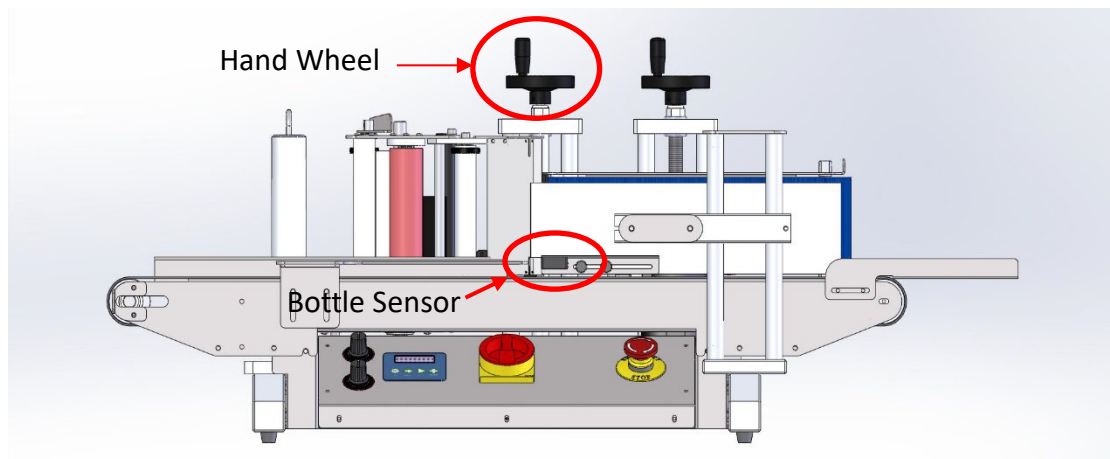
## 4 OPERATION

### Step 1.

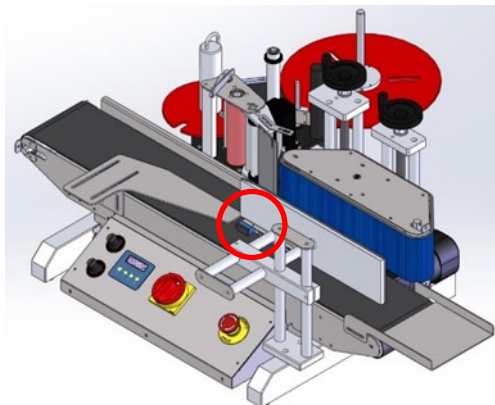


- Adjust the **width of the rotary flattening set** and **guide rail** according to the product's sizes.
- Put two products on the conveyor belt (as the two white dots shown in the picture), loosen the two handles (follow the blue arrows), push the plate toward the product to its proper width and height (follow the red arrow and the red line), then tighten the handles again.

## Step 2.



- Adjust the **height of the label applicator** by the **hand wheel** to its proper position.
- Adjust the **bottle sensor** to its proper position for higher precision.  
(If you want the labels to be dispensed **earlier** for labeling, move the sensor **leftward**; if you want the labels to be dispensed **later** for labeling, move the sensor **rightward**.)



1 : Make sure that bottle sensor is green light when the bottle doesn't pass by.

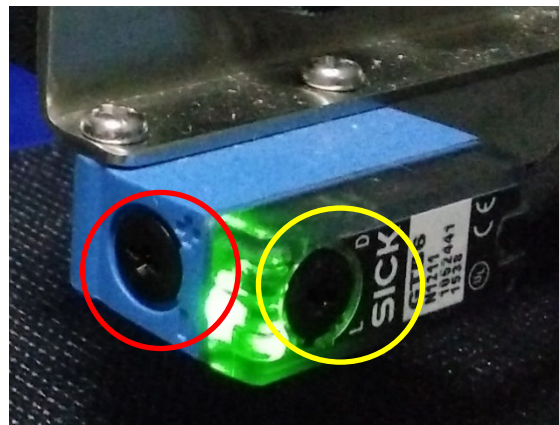


2 : Make sure that bottle sensor is green and red light in the same time when the sensor catch the bottle.



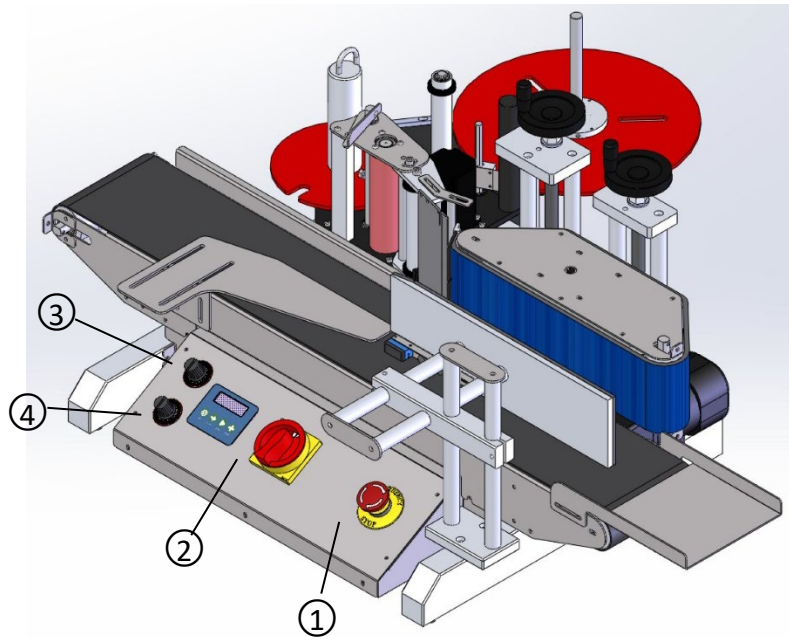
3 : If the sensor is only green light when sensor catch the bottle, adjust knob (red circle) clockwise to increase value.

4 : If the sensor is green and red light in the same time when sensor without catch the bottle, it means to sensitive, adjust knob counterclockwise to decrease value.



5 : Make sure the pointer (yellow circle) point to L

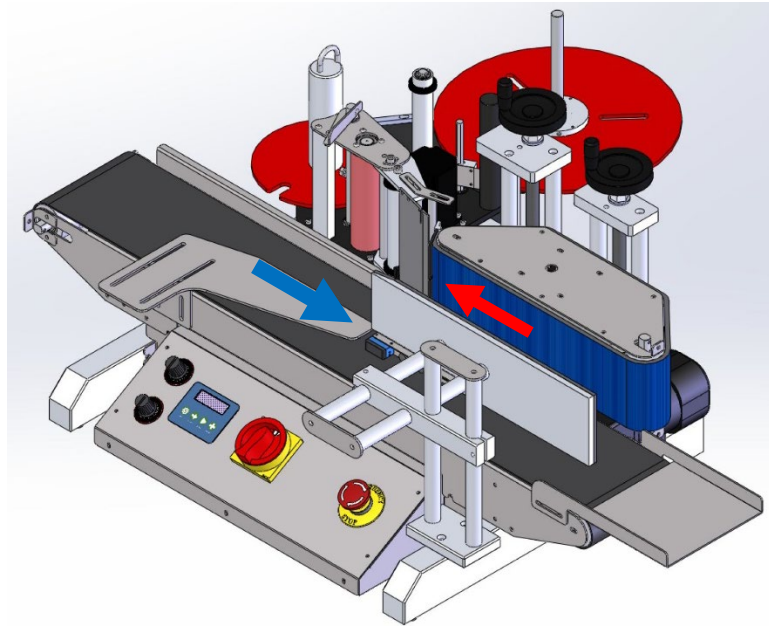
### Step 3.



- Twist the emergency stop button. (①)
- Turn the power ON (turn ② clockwise to be vertical as shown in the picture).
- Turn the rotate speed to its full capacity. (③)
- Turn conveyor speed to its full capacity. (④)

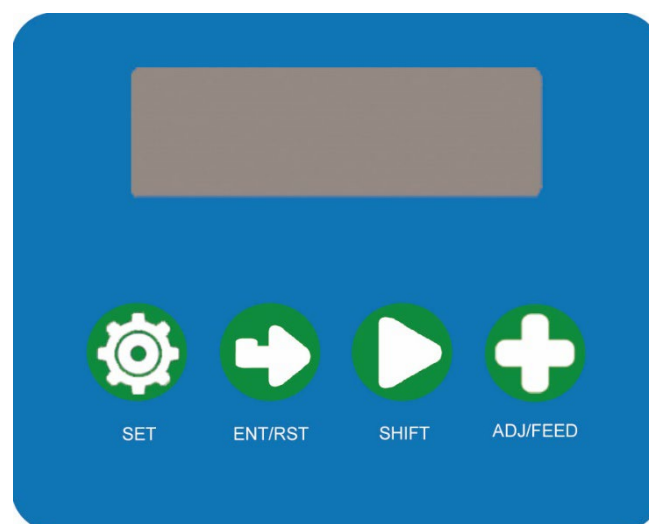
Maintain the speed of conveyor and rotate, watch the speed of bottle through rotate. If the speed of bottle is different between conveyor and rotate, adjust rotate or conveyor knob to achieve same speed. (The speed will influence the productivity.)

#### Step 4.



- Wave your hand in front of the the sensor (follow the blue arrow) **for several times** to test label dispensing until the dispensing length of every labels are equal (follow the red arrow).

#### Step 5



- Press SET to set parameters for your product
- Delay Start (1P): 1P represents the time of delaying starting the labeler.
- Length of Label Dispensing (2L): 2L represents the length of the label that is dispensed from the front end of the dispenser.
- Labeling Speed (3E): 3E represents the speed of labeling in forward motion.
- After you complete above steps, this labeler is ready for operation.

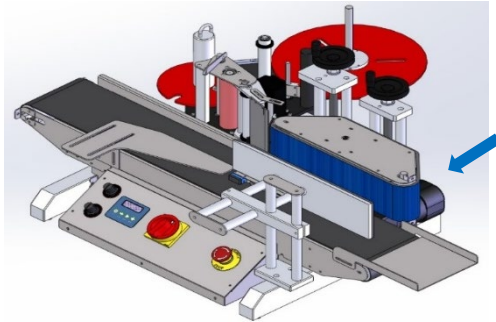
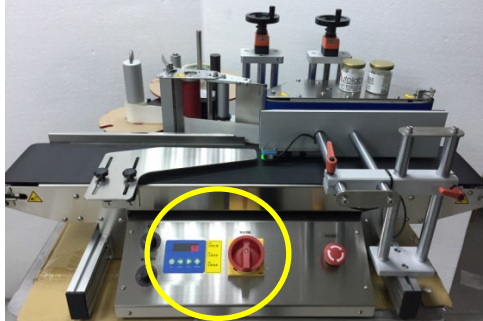
## 5 TROUBLESHOOTING

Trouble(s)	Possible Causes & Solutions
<b>Out of Power</b>	<ol style="list-style-type: none"> <li>1. Check if the power switch is <b>ON</b>. (switch to “ - ” )</li> <li>2. Check if the emergency button is <b>ON</b>.</li> <li>3. Check if the power supply cable is loose or broken.</li> <li>4. Check if the safety fuse blows. (Please follow appendix 2 to set up.)</li> </ol>
<b>No Reaction</b>	<ol style="list-style-type: none"> <li>1. Check wire to wire connector is connected firmly.</li> <li>2. Check if the every wire is connected firmly.</li> </ol> <p>Replace the motor if above steps without improve.</p>
<b>Failure to adjust speed</b>	<ol style="list-style-type: none"> <li>1. Change the rotate speed adjuster and conveyor adjuster to each other. If it works indicate that speed adjuster is fine.</li> <li>2. Variable Resistor is loosen or broken.</li> <li>3. Every cable is connected firmly.</li> </ol>
<b>Dispensing Continuously</b>	<ol style="list-style-type: none"> <li>1. Parameter 2L is set too large.</li> <li>2. Check if the label sensor works or not.</li> <li>3. Check if the start sensor is under D mode.</li> </ol>
<b>Failure in Dispensing</b>	<ol style="list-style-type: none"> <li>1. Check label sensor and amplifier is work.</li> <li>2. Check control panel is work.</li> <li>3. Check start sensor is work.</li> </ol>
<b>Crumple Labeling</b>	<ol style="list-style-type: none"> <li>1. Parameter 3E is set too high.</li> </ol>
<b>Inaccurate labeling</b>	<ol style="list-style-type: none"> <li>1. Product is not on the conveyor belt.</li> <li>2. Label paper threaded is curved or loose.</li> <li>3. Label applicator is not in the same horizon.</li> </ol>
<b>Lopsided Labeling</b>	<ol style="list-style-type: none"> <li>1. Loosen the screw</li> <li>2. Adjust label applicator angel</li> </ol>
<b>Control Panel Show “HELP”</b>	<ol style="list-style-type: none"> <li>1. Oring of label applicator is broken. (Please follow appendix 3 to replace oring.)</li> <li>2. The length of label set is wrong. (Please follow appendix 4 to set up.)</li> </ol>



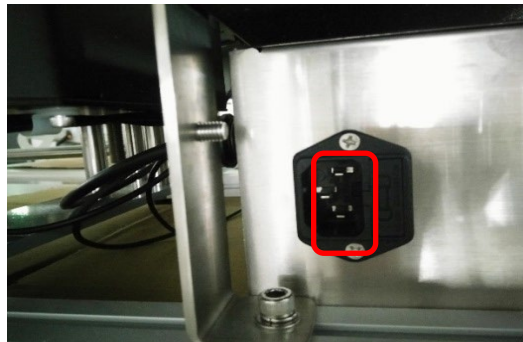
## 5.1 Out of Power

1. Check if the power supply cable is loose or broken, monitor (yellow circle) will light after connecting the cable line. (Socket is beside the rear or right side of machine.)

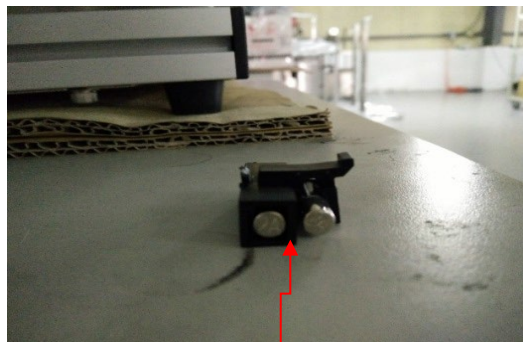


2. Check if the power switch is **ON**. (switch to “ - ”)
3. Check if the emergency button is **ON**.
4. Check if the safety fuse blows. (Please follow appendix 2 to set up.)

Safety fuse besides socket, pull out safety fuse (red mark) to replace.



Red pointer points to spare safety fuse.

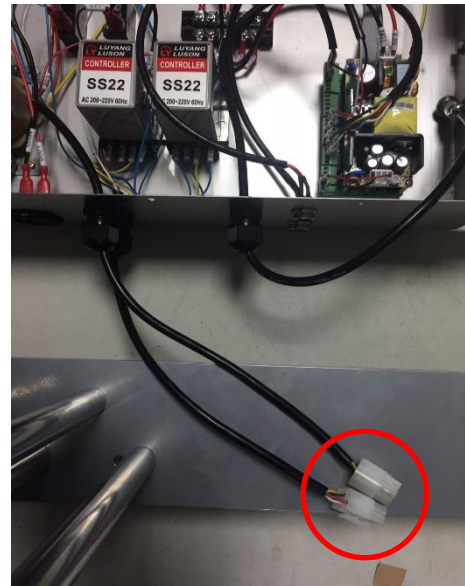


## 5.2 No Reaction

Check by following steps:

3. Check wire to wire connector is connected firmly (Red circle).
4. Check if the every wire is connected firmly.

Replace the motor if above steps without improve.

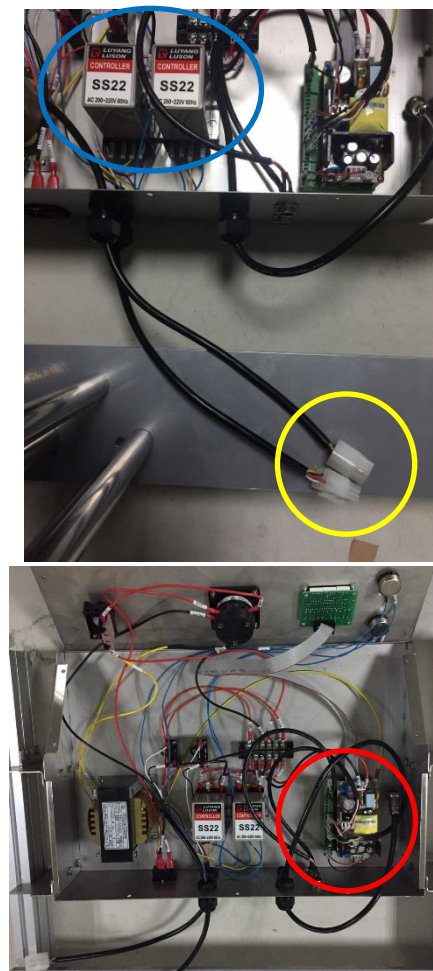


## 5.3 Failure to adjust speed

Check by following steps:

1. Change the rotate speed adjuster and conveyor adjuster (blue circle) to each other. If it works indicate that speed adjuster is fine.
2. Variable Resistor (red circle) is loosen or broken.
3. Every cable is connected firmly.

Replace the motor if above steps without improve.



## 5.4 Dispensing Continuously



- Parameter 2L is set too large. (Page 14 – 3.4)
- Check if the label sensor works or not. (Page 12 – 3.3)
- Check if the start sensor is under D mode. (Page 16 – 4.2)

## **5.5 Failure in Dispensing**

- Check label sensor and amplifier is work. (Page 12 – 3.3)
- Check control box is work. (Page 14 – 3.4)
- Check start sensor is work. (Page 16 – 4.2)

## **5.6 Crumple Labeling**

- Parameter 3E is set too high. (Page 7 -2.6)

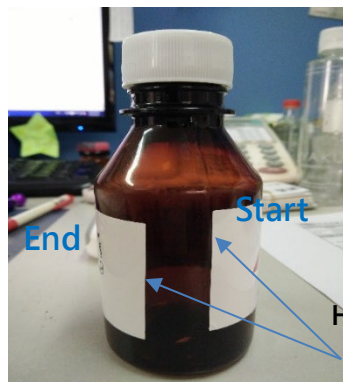
## **5.7 Inaccurate labeling**

- Product is not on the conveyor belt.
- Label paper threaded is curved or loose.
- Label applicator is not in the same horizon.

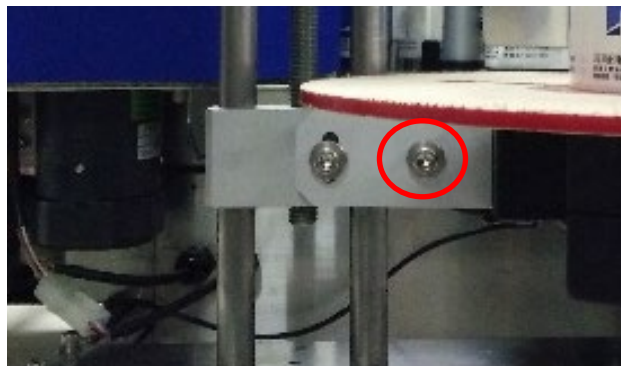
## **5.8 Control Panel Show “HELP”**

- Oring of label applicator is broken. (Please follow appendix 3 to replace oring.)
- The length of label set is wrong. (Please follow appendix 4 to set up.)

## 5.9 Lopsided Labeling



Loosen the screw to adjust label applicator angel



Adjust the label applicator upside slightly and lock the screw.

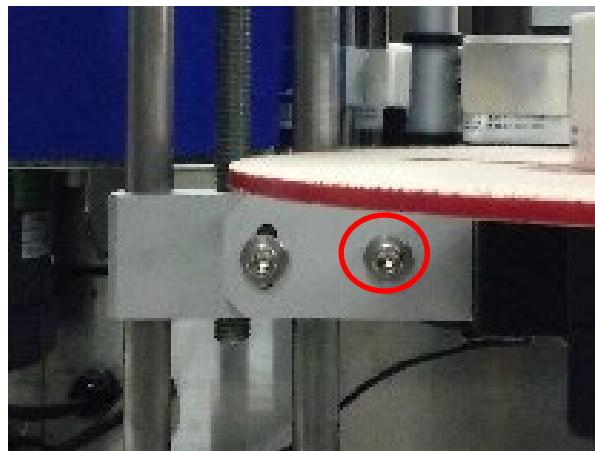




Lower start and higher end



Loosen the screw to adjust label applicator angel

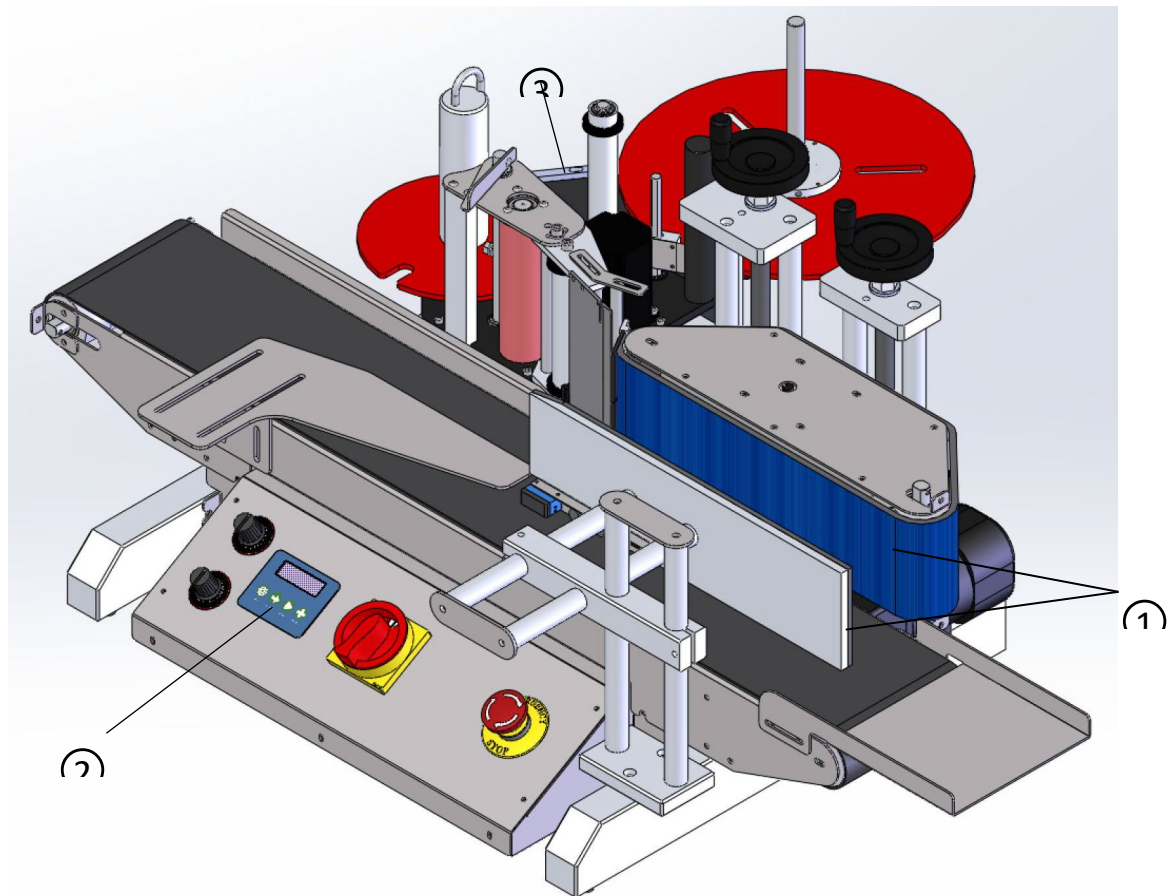


Adjust the label applicator upside slightly and lock the screw.



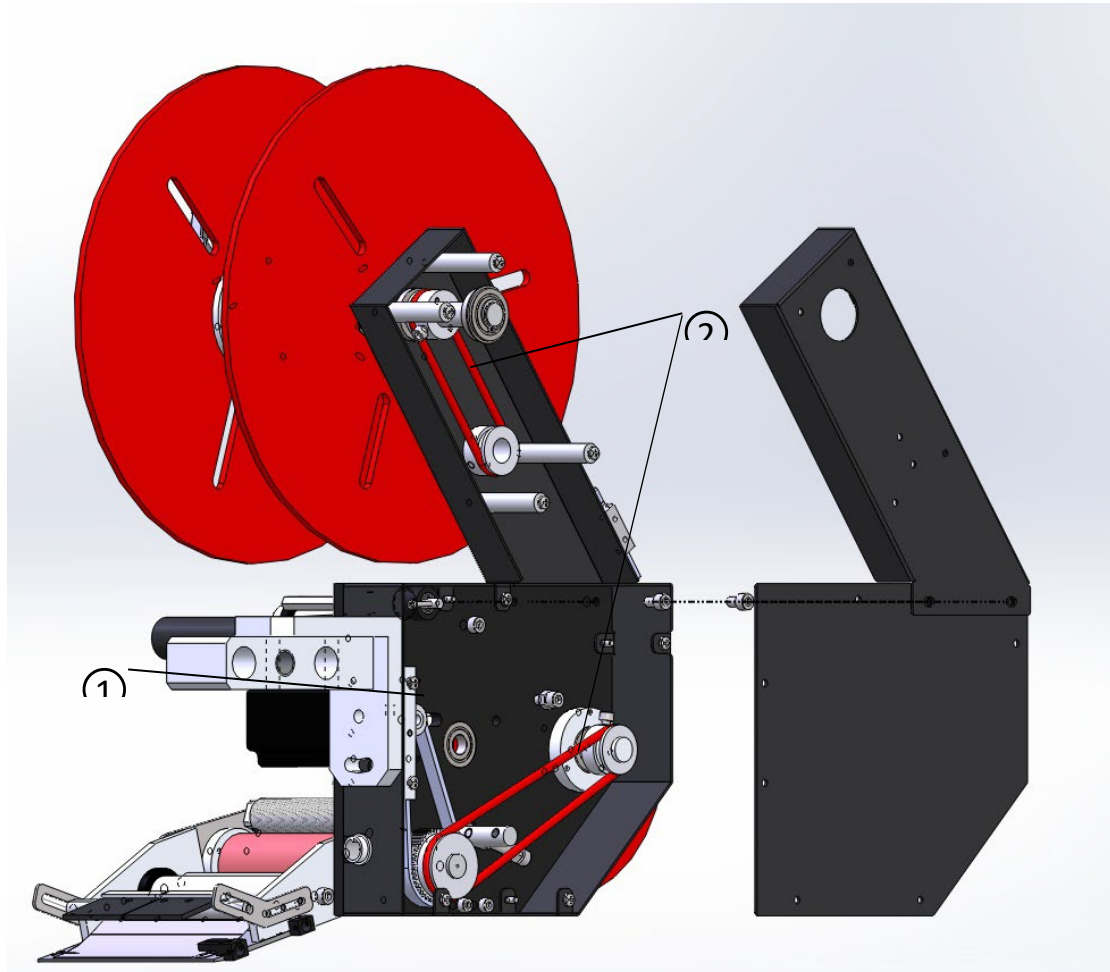
## 6 SPARE PARTS

### 6.1 MAIN MACHINERY



No.	Qty	Item
1	1	Wrap Belt for Rotary Flattening Set
2	1	PCB Board (BL1000)
3	1	Amplifier

## 6.2 LABEL APPLICATOR



No.	Qty	Item
1	1	Timing Belt
2	2	O-ring

## **7 CONTACT INFORMATION**

If you have any questions or you need to order some spare parts, please contact us through the contact information below:

**Tel:**               **+886-3-2181831**

**Fax:**               **+886-3-2181300**

**E-mail:**           **[neostarpack@gmail.com](mailto:neostarpack@gmail.com)**

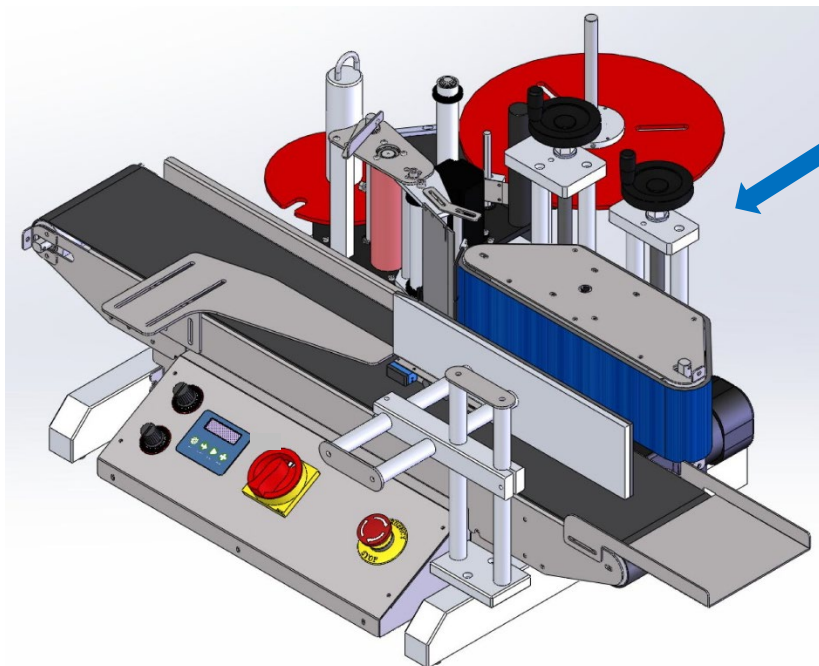
**Website:**       **[www.neostarpack.com](http://www.neostarpack.com)**



## Reference Table

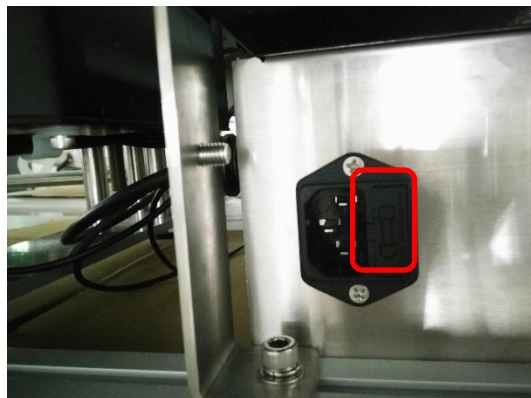
Handwheel-Label applicator heght	0000
Handwheel- Wrapping belt Height	0000
Handwheel- Wrapping plate width	0000
Handwheel- Wrapping plate height	9998
Spaing Speed	15
Rotate Speed	40
1 P- Labeling Position	0.001
2L- Label Length	750
3E- Labeling Speed	3.0
Amplifiler Value	6500

## APPENDIX 1 – FUSE

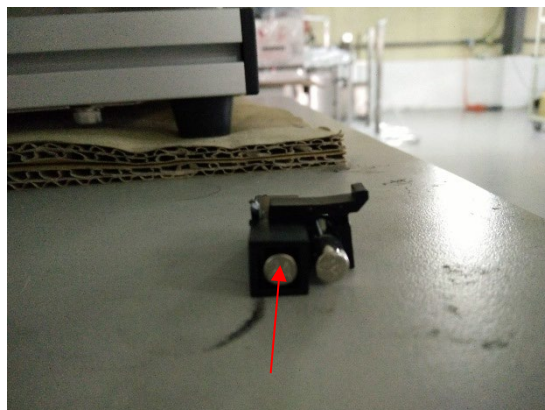


Socket is behind the machine.

The fuse we put next to the socket. Pull it out to check and replace the fuse.



The fuse (follow the arrow) is spare.





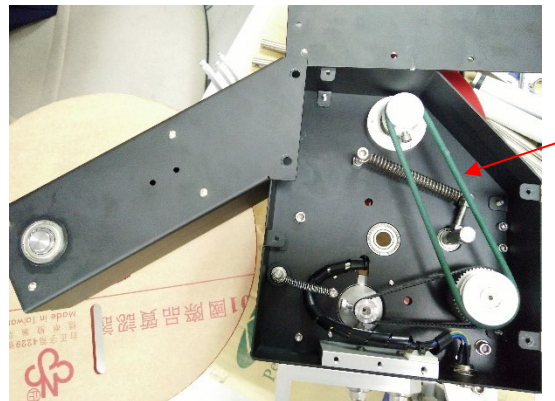
## APPENDIX 3 – ORING REPLACEMENT

Step1. Loose the 8 screws circled.



Step2. Open the back cover.

Step3. Take out and replace the oring.

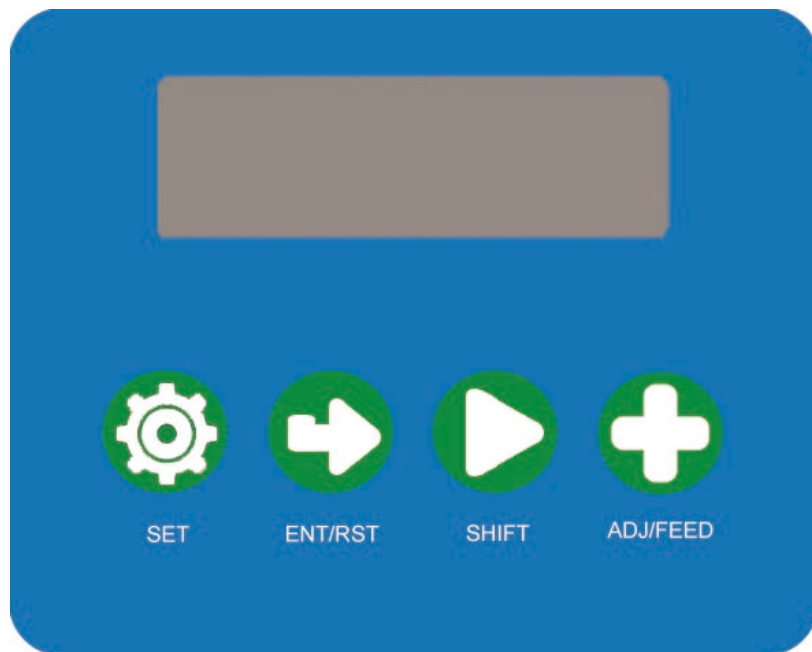


Step4. After replacing the oring, turn the driving shaft to check the oring can be rotated.

Step5. If the oring can be rotated, you can fit the cover back.



## APPENDIX 4 – LABEL LENGTH SETTING



When you change label roll from short label to long label, due to the setting of label length, label sensor can't detect long label properly, therefore, control panel will show "HELP."

Press ADJ/FEED button about 2 seconds to dispense 1 label and reset the label length.