Manuel Instruction

of 3 SERVO MOTORS for XINJE BRAND

Packing machine with 3 servo motors

The manual mainly introduces the use of 3 servo packing machines. Includes 3 servos for pusher feeding conveyor and 3 servos for belt conveyor. Among them, The 3 servos for pusher conveyor include functions such as fixed bag length, calibration of film color mark, empty-bag prevention, torque anti-cut, and photoelectric anti-cut. The 3 servos for belt conveyor include functions like unfixed bag length, fixed bag length, calibration of film color mark, torque anti-cut, and photoelectric anti-cut. The cutting point and product position can be adjusted on the touch screen, so it can make the packaging more simple, faster and stable.

1. Packing steps for pusher conveyor of 3 servos.
2. Packing steps for belt conveyor of 3 servos.
3. Detailed description of the parameters.
4. Common problems and analysis.
5. Methods of failures and alarms.

\

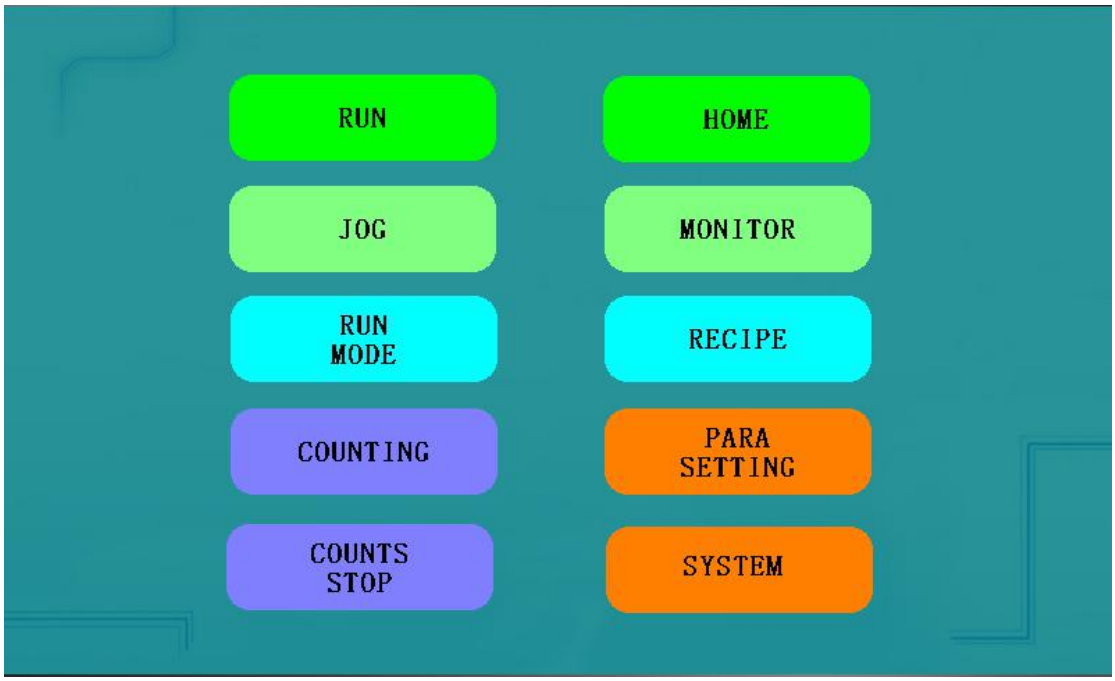
1. Packing steps for pusher conveyor of 3 servos.

Fader tail three-servo packaging machine can perform fixed-length, calibrated packaging, and can achieve fast and accurate material packaging. It has the function of anti-air bag, reduces the waste of packaging film, has the function of anti-cutting, reduces shrinkage and improves the loading and unloading efficiency of the bag. To improve the packaging products, you need to choose fixed length or calibration (color-coded bags), set the bag length, material length, and adjust the material position and cut point position after setting the necessary parameters. The operation steps are described in detail below.

I. Choose the tracking mode.

There are packing roller with color mark and packing roller without color mark.The packaging roller without color mark is used for fixed bag length packaging.But the pacakging roller with color mark with product logo and other informations of product and color mark, so for this kind of roller, it should be tracking the color marks to packaging.For the packaging rollor without color mark,you can choose the tracking mode of fixed bag length. For the packaging roller with color mark, you can choose the tracking mode of fixed color marks.

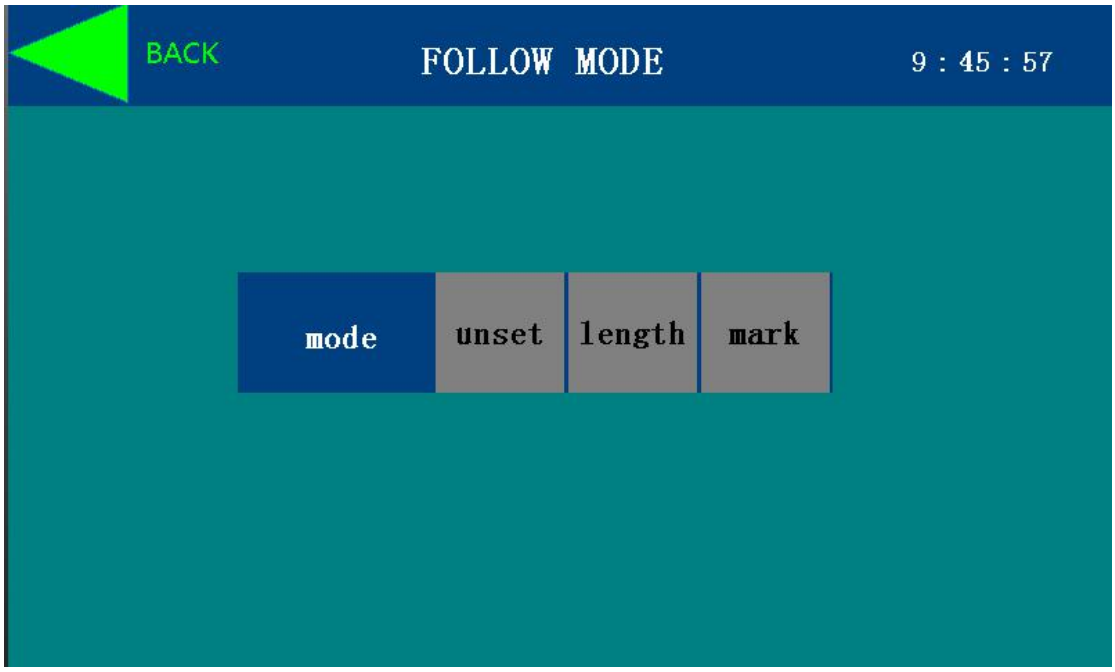
First , switch on the machine and choose the language.Then you can see below screen page:



(Main page for touch screen)

Click the RUN MODE in main page, then enter the page with fixed bag length mode& fixed color mark mode.In the RUN MODE , which type should you choose that depends on the packaging roller are with color mark or without color mark.If the packaging roller with color mark, then you should choose the (fixed bag) length mode.If the packaging roller without color mark, then you should choose the Follow (color) mark mode.After you choose the mode, the light will be

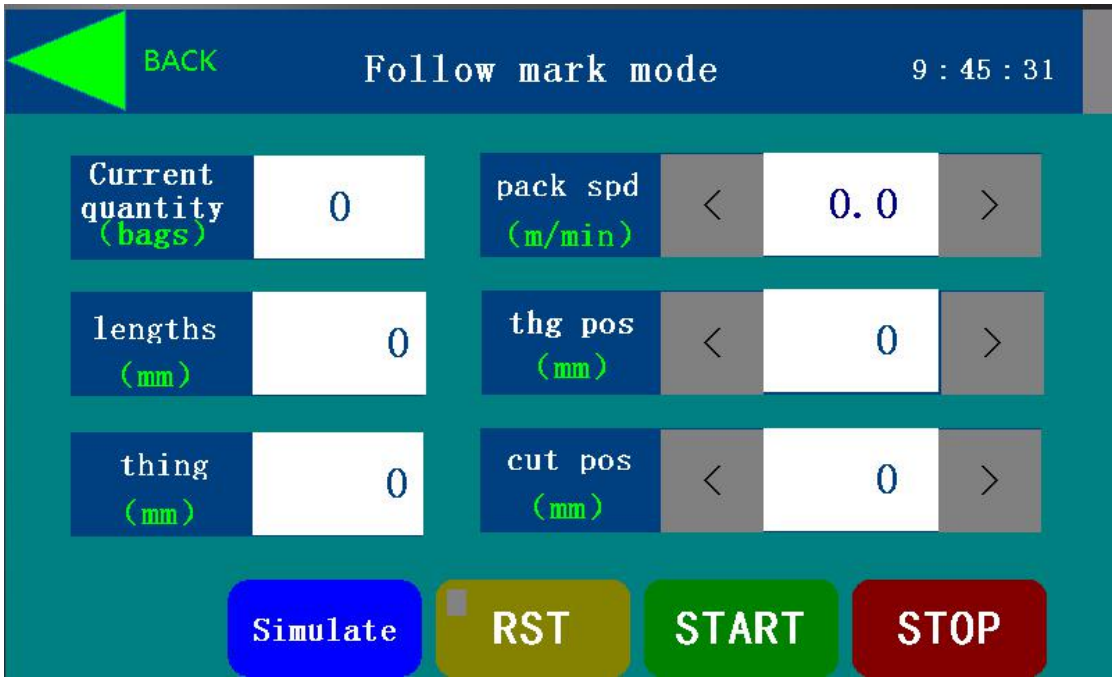
GREEN.



(Tracking mode for pusher conveyor)

After finish choose mode, click the BACK to return back to the main page.

II. Set bag length & Set product length.Click the RUN on the main page ,then it will be shows RUN page ,then set bag length and product length as actual situation on this page.Set the bag length first, then set product length sencondly.If you can't set product length more than Bag length minus 40 cm.You can click SIMULATE to testing the bag length.



(Run page for Follow mark mode)

III. Adjust the cutting positiong and product position

After set packing speed on Run page,please click RST to let the machine find original point.When you click RST, please check there is no product on feeding conveyor, otherwise it will be cut product at wrong position under RST mode.

Put 1 product on conveyor with pusher feeding ,press INCHING to testing the product position.If the machine under the Follow mark mode,please adjust the Thg Pos first and ensure the product at the middle of 2 color marks.The larger the value of the material position, the later the product is.The adjustment range is from negative bag length to positive bag length;You can adjust Cut Pos to confirm the bag cutting position to prevent to cut product.The larger the value of the Cut Pos , the later the cutting point is;The adjustment range is from negative bag length to positive bag length.

IV. Running the machine for packaging.

Press Start button, the film feeding、 knives sealing and start to packaging products.
Press Stop button to let machine stop packaging.

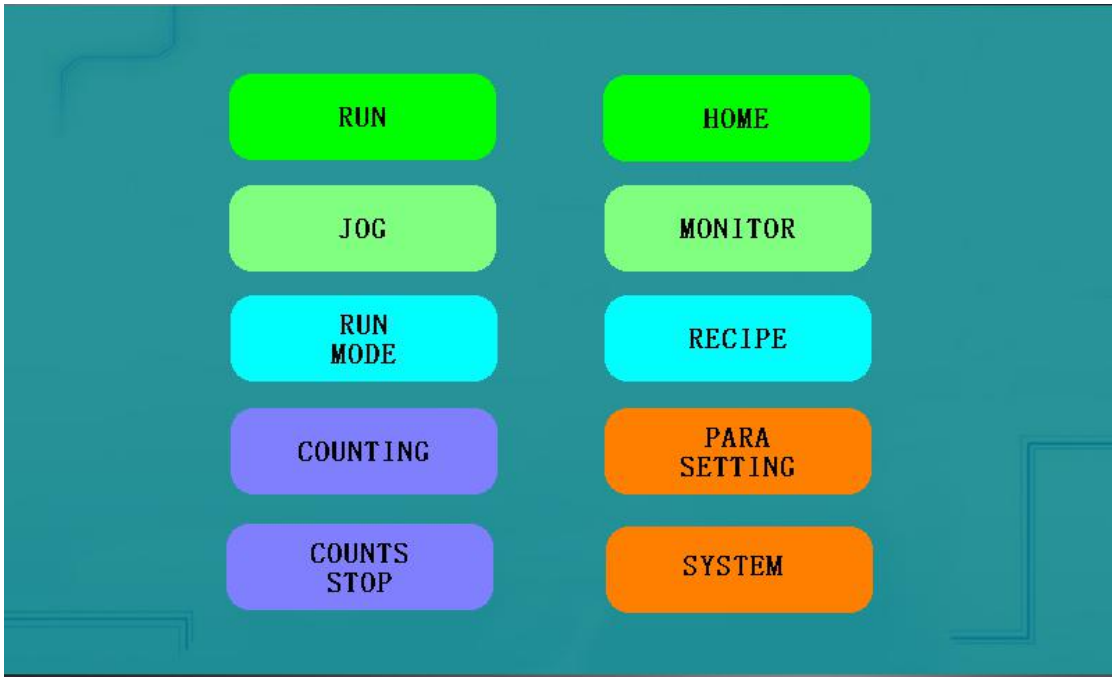
2. Packing steps for belt conveyor of 3 servos.

The belt feeding conveyor with 3 servo motors packing machine can perform as unfixed length, fixed length, and calibrated packaging. It can arbitrarily place materials without being limited by the length of the packaging material. It can realize multiple continuous packages and an-ti cut function. It can promote packing effectiveness and reduce the probability of downtime. Perfect alarm protection to prevent misoperation and other functions. Packaging products need to choose unfixed length, fixed length or calibration (color-coded bags).If you need to setting the bag length, material length.You must be adjust the material position and cut point position after setting the necessary parameters. The operation steps are described in detail below.

I. Choose the tracking mode.

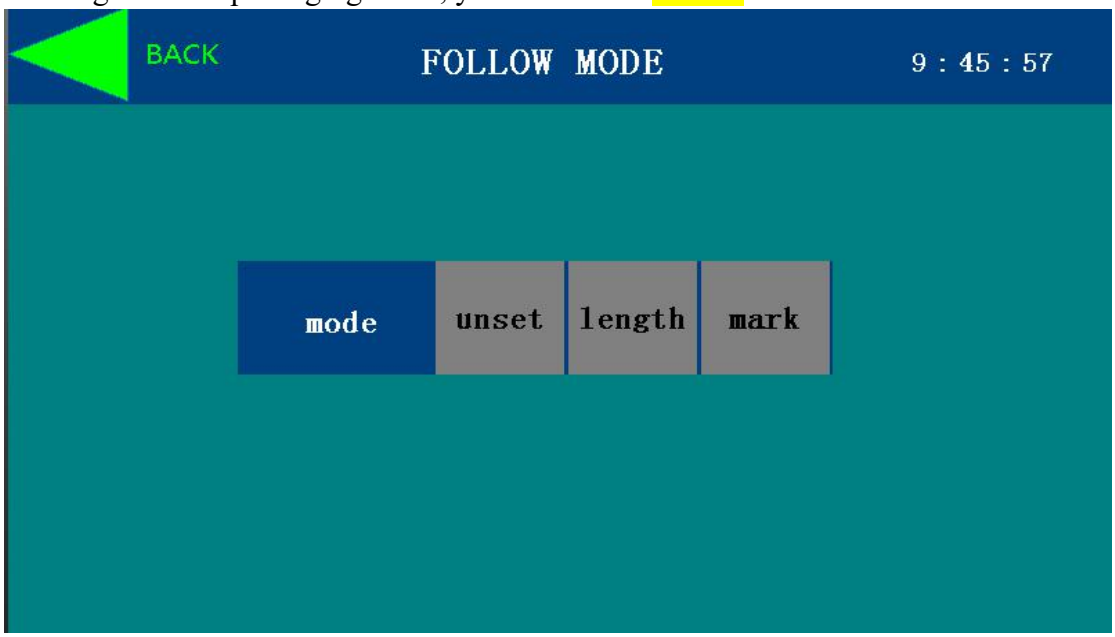
For packing mode, there are unfixed length, fixed length, and calibrated packaging.If you need to packaging different product length , you can choose unfixed product length tracking mode.There is a sensor can tracking product length automaticly , then the the bag length will be different.If you need to packaging product with same length, then you can choose fixed length packaging mode.

After the machine powered on , you can choose language and enter main page.



(Main page for belt feeding packing)

Choose the **FOLLOW MODE** as actual situation,then enter unset mode, fixed length mode and mark mode.If the product length are different ,you can Choose **unset,** if the product length are same, you can choose **length**.If there are tracking mark on packaging roller, you can choose **mark.**

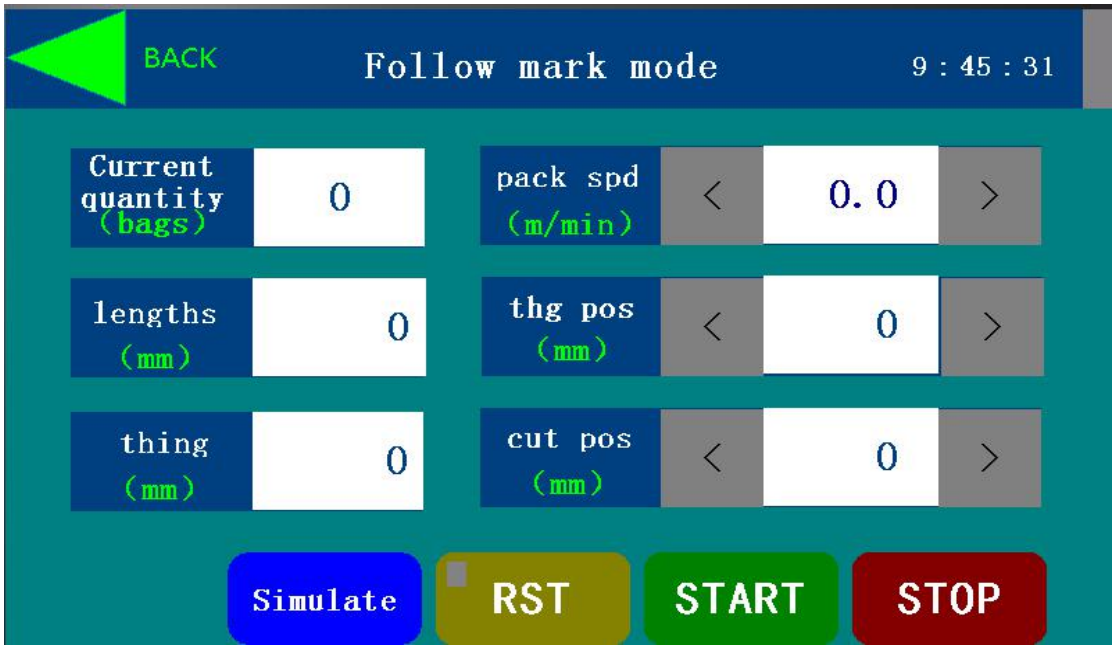


(Follow mode)

After choose the mode you need , you can press **' BACK'** then return back to main page.

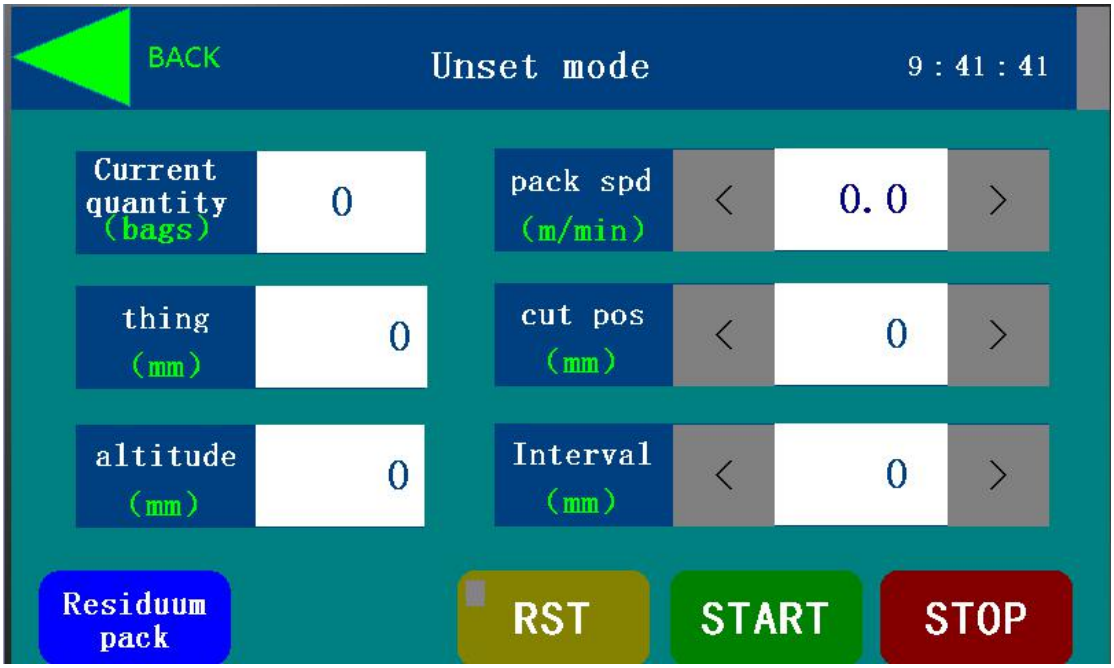
II. Set bag length & Set product length & Set product height.

Click ' **Run window** ', when you set FOLLOW MODE as 'Fixed length' or 'Mark' mode, you can reference the setting method from 'Pusher conveyor for 3 servos'.



(Follow mark mode of belt conveyor feeding)

If you choose the **‘ unset length mode**’, you need to set minimum product length and product height . The higher the product height, the longer the bag length will be.



(Unset mode of belt conveyor feeding)

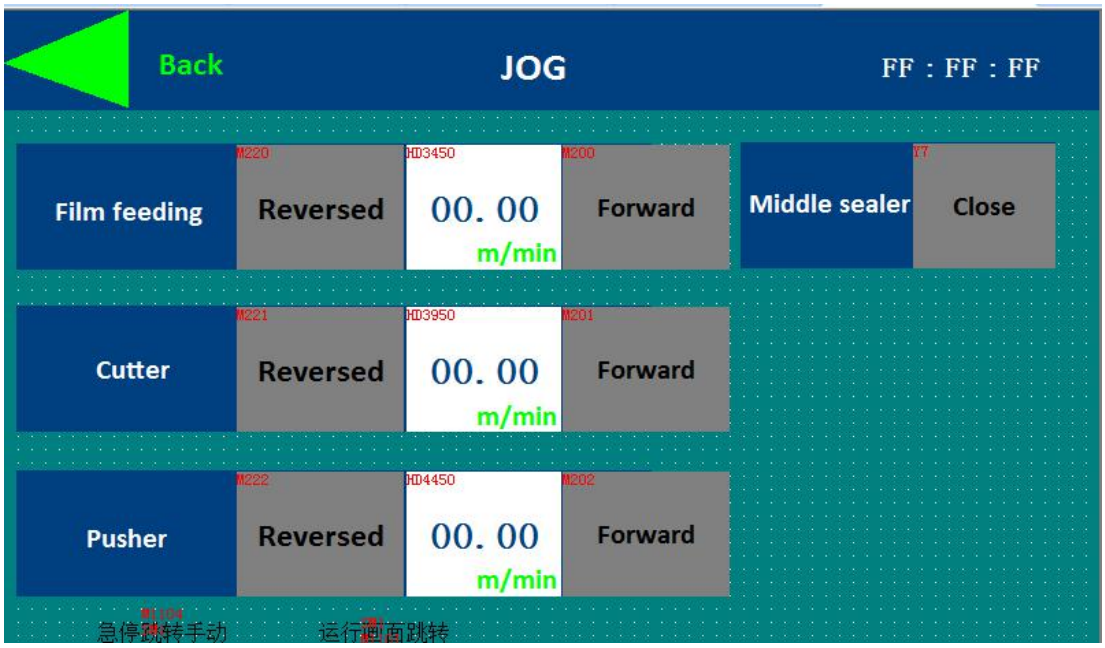
III. Adjust the cutting positiong and product position

After setting the packing speed on the **run window**, click the **‘ RST’** button to let the packaging machine find the original point . When resetting, make sure there is no product on belt conveyor, otherwise maybe the product will be cut.

Generally, **Interval** should be set as “0” under **unset mode** ,then you can adjust a little. The larger the product, the later the packaging film.**Cut pos**ition should be set as “0”,The larger the **Cut pos,**the later the packaging film.

Under **‘Mark mode’**, you should setting the feeding position of packing film.After you choose **‘Mark mode’**, enter **‘ Jog’ .**Then you can **Forward ‘Film feeding’.** It will be display the current position of **Film feeding .**When meet color mark, the parameter will be show as ‘0’.The position of film feeding is the postion of products will come in when you press **‘ INCHING’.** Entering the parameter when feeding film shows the parameter.

If the sealing knives will be cutting the products,you should adjust the cutting position.



(Jog interface of belt conveyor feeding)

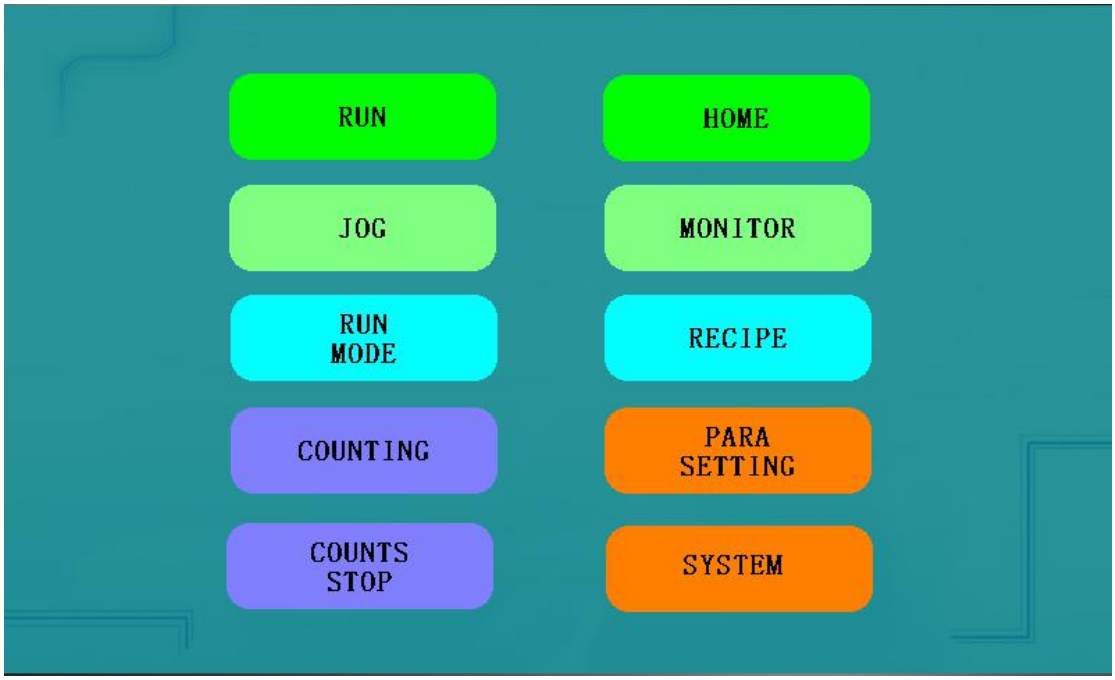
IV. Machine packaging.

Press 'Start' button, then put product on belt conveyor when machine running, there is a sensor will be detected products.Then speed of belt conveyor will be lower than before. When products reach the bag former, the position of film feeding and products position will be synchronized.Then sealing knives will be cutting right bag length from the sensor.

When there are some products in film position,you can always press **' INCHING'** to finished rest packaging(Under three mode : fixed length.unfixed length and mark mode).

3. Explanation of each interface

Main page: To choose different functions.



Run window: To set **Bag length** ,packing speed , to adjust the postion of sealing knives and position of product.(It depends on which mode you choose: Unset mode, Follow mark mode and Length mode, then the page will be different as your choose.)

Current quantity (bags): The total amount of packing products, if you packing 1 bag ,then parameter will be add 1 bag. Press**' Current quantity'** ,then there will be a **'Clear'** window. Press **'Yes'**, then the Current quantity parameter will be change as **'0'.**

Lengths: The bag length.

Thing: It means product length.You should set bag length first ,then you can set product length.And the product length can't more than 'bag length minus 40 cm'.

Pack spd :To set packing speed (the unit of packing speed with pusher feeding type is bags/min, the unit of packing speed with belt conveyor type is meter/min.)

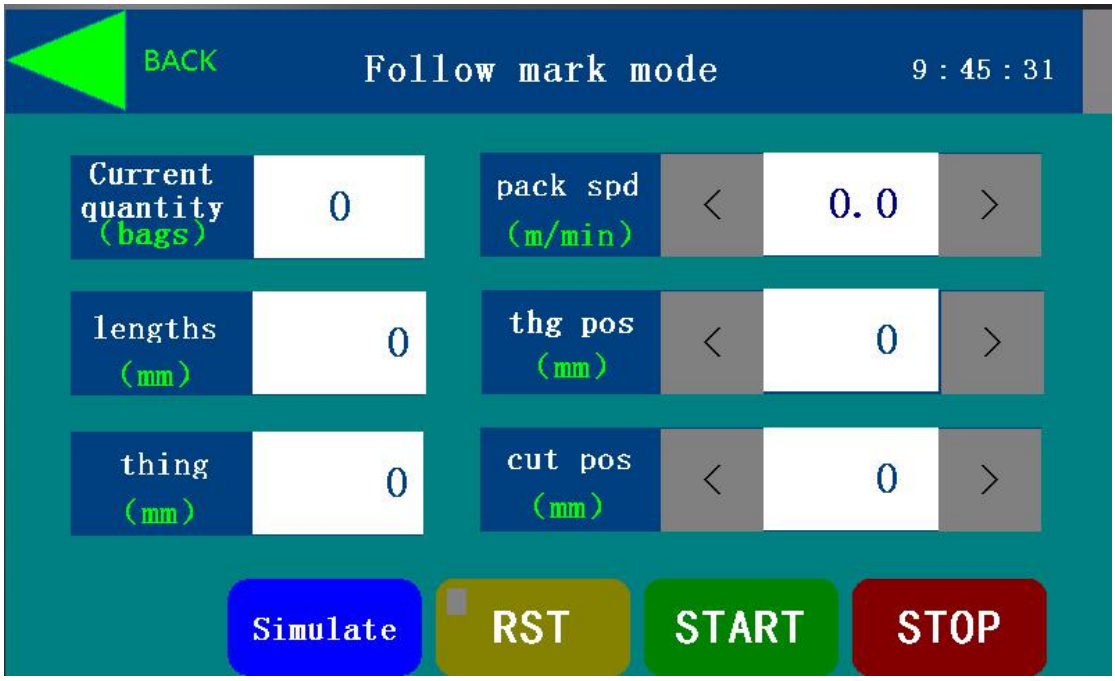
Cut pos : To set cutting position for packing film, the larger the value, the backer the cut position.the smaller the value, the frontal the cut position.

Thg pos: The position for product to packing film.The larger the value, the backer the product position.The smaller the value, the backer the product position.

RST: When the machine alarm and machine can't keep running, press' RST' to let machine find original point and keep running.In that case , please make sure there is no products on the belt conveyor ,otherwise the sealing knives will be cut products.

START: To start the machine running, The host speed will linearly accelerate to the set speed.

STOP: To stop the machine running,Host speed linearly drops to stop speed and then stops.If there is pusher feeding conveyor,After reaching the stop speed, it should be wait until the cutter reaches the stop angle position before stopping.



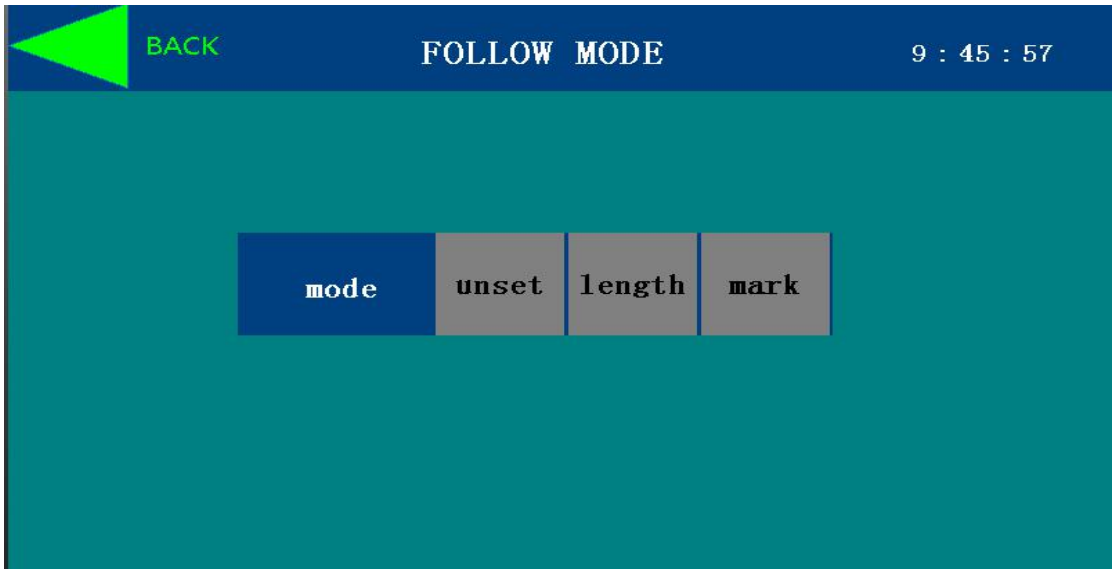
Jog: To independent control the Film feeding,sealing knives ,three axis of conveyor and mid-sealing part.

Forward: Axial forward motion (intermediate speed is the percentage of the rated speed of the current shaft).

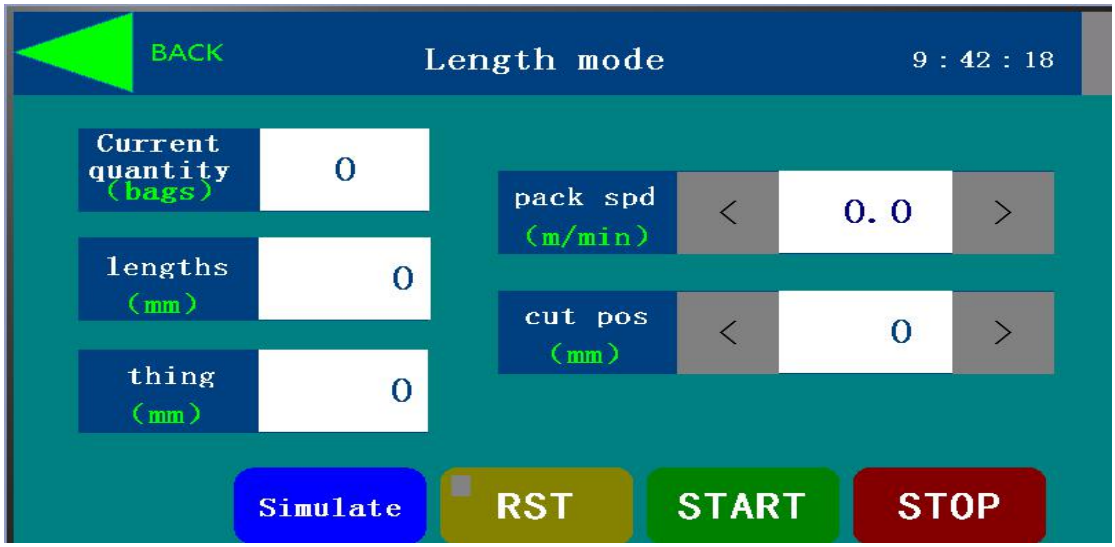
Reversed:Axial backward motion.

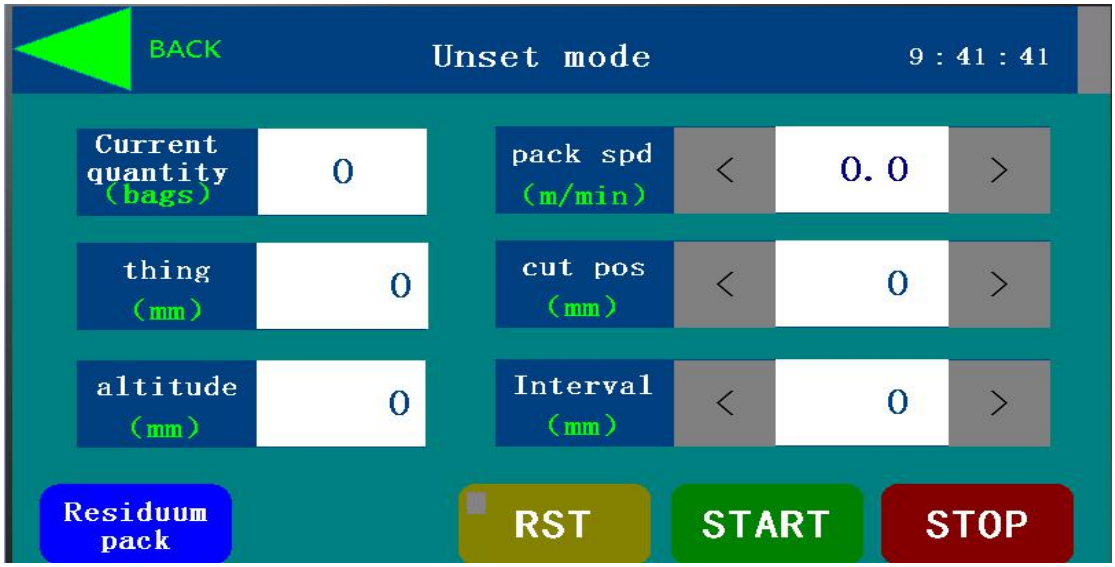
Middle sealer： Operate the mid sealing system manuely.

Run mode: Change different mode, like unfixed length, fixed length and mark mode.

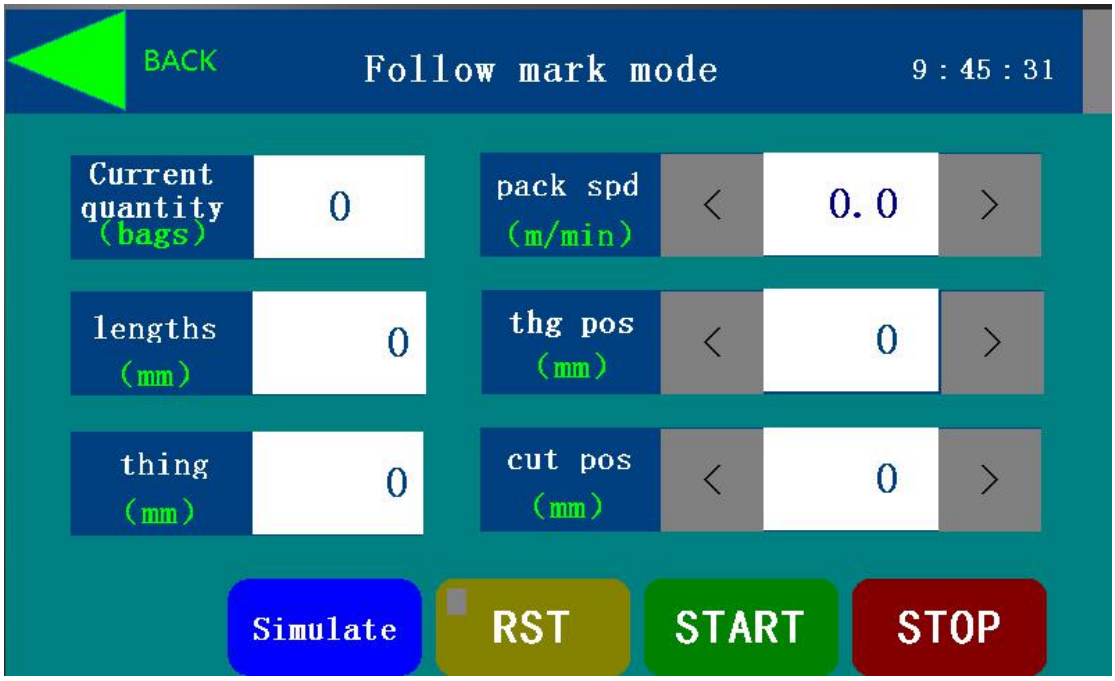


Length mode: It means your packaging film with fixed length ,and there is no color mark for the packaging film.

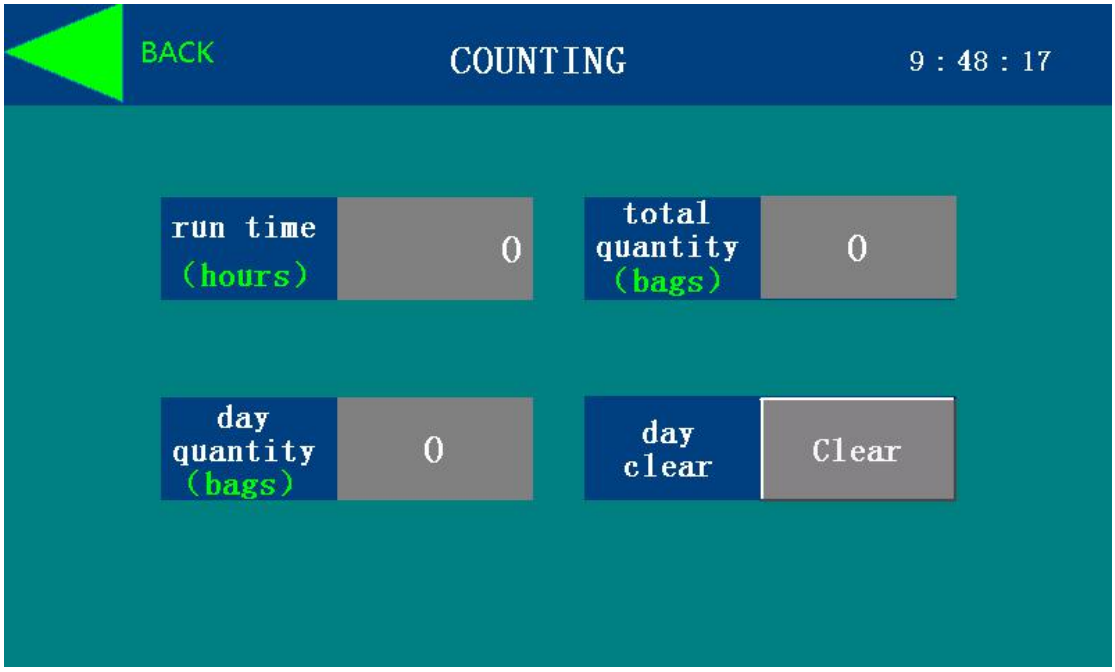




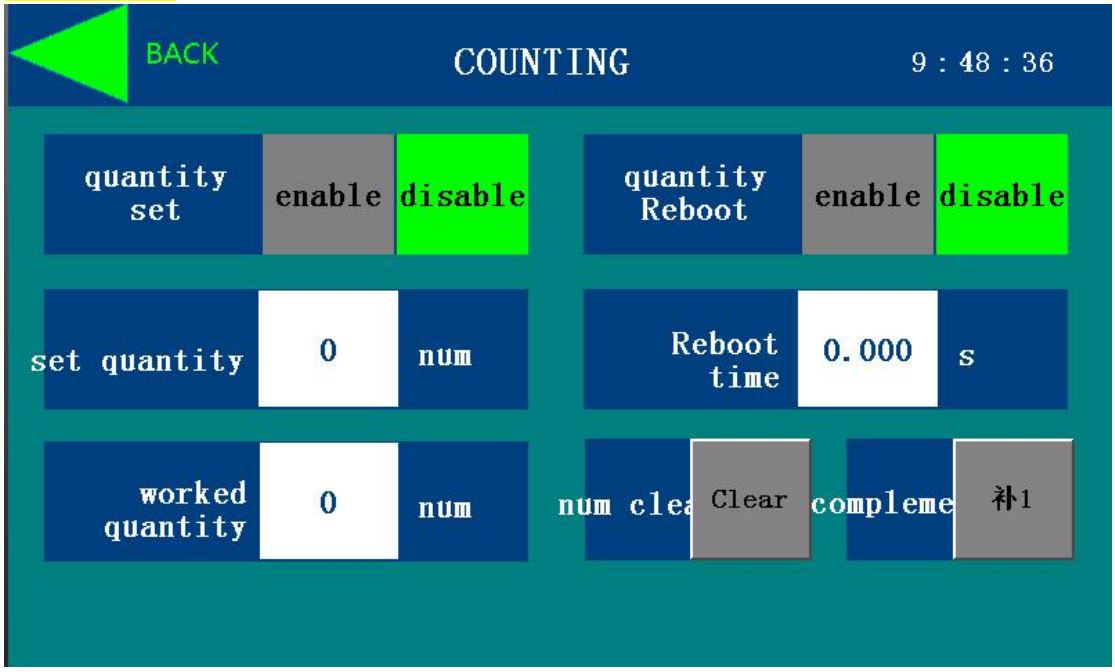
Follow mark mode: It means the packaging film with color mark, the position of sealing knives and position of product will be cutting as the color mark.



Counting: Count the running time, total output and shift output of the packaging machine.

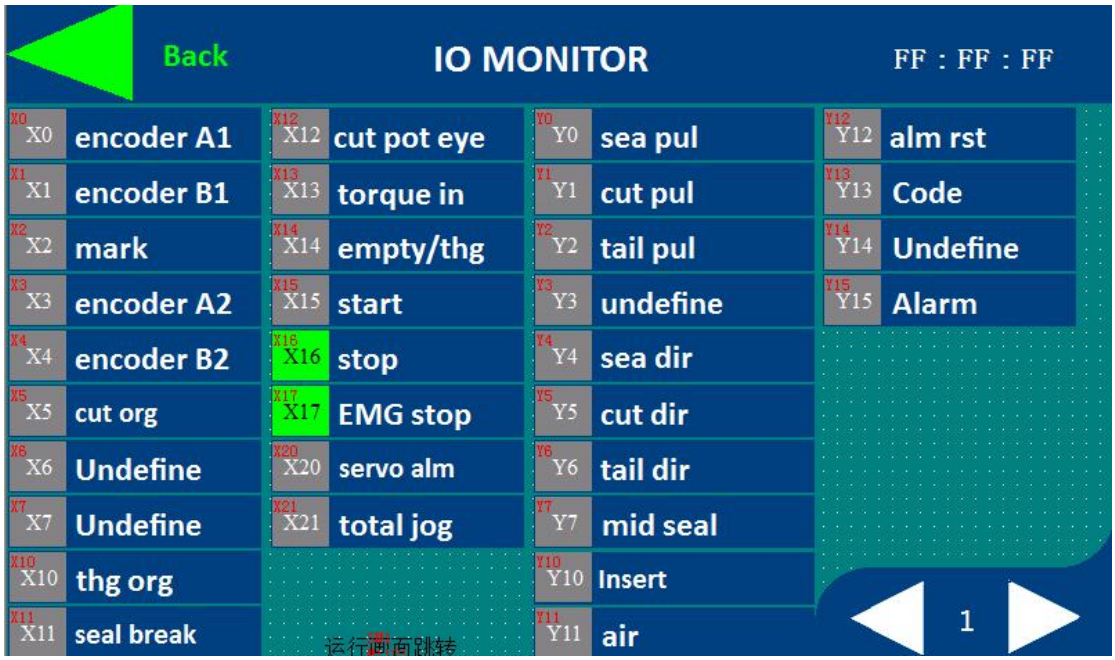


Counts Stop: Stop when the number of packaging bags reaches the set value.



Home:Return to the language selection screen after the machine is powered on.

Monitor:Monitoring IO points of electrical part, related parameters and status.
Monitoring the status of input and output points.



Recipe:Save and read packaging product information.

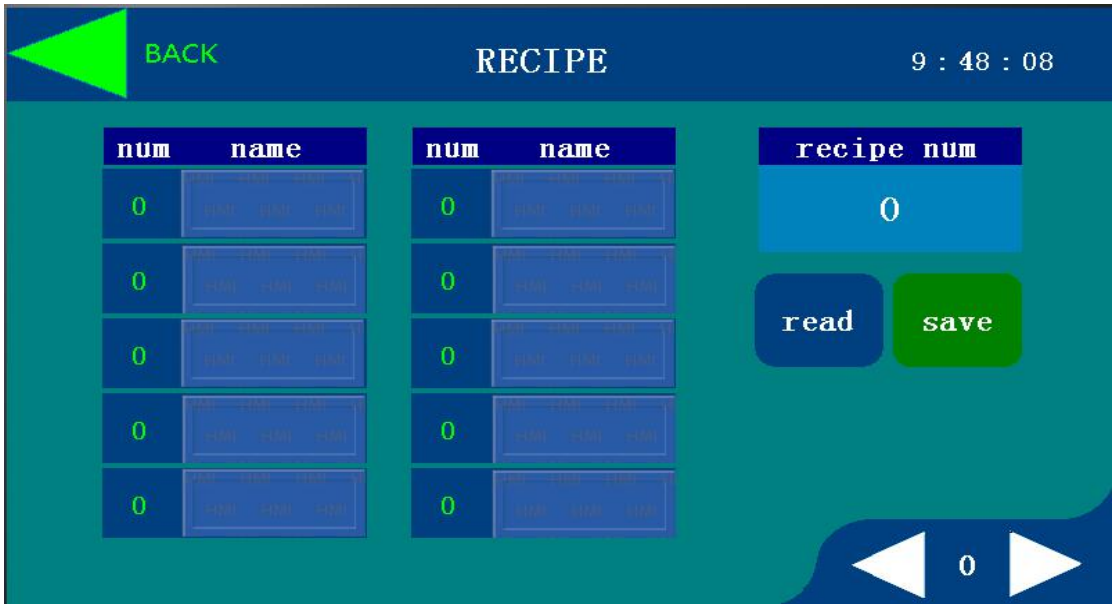
Num: The current number of recipe.

Name:The name of recipe saved.

Recipe num:Number of the recipe to be saved or read.

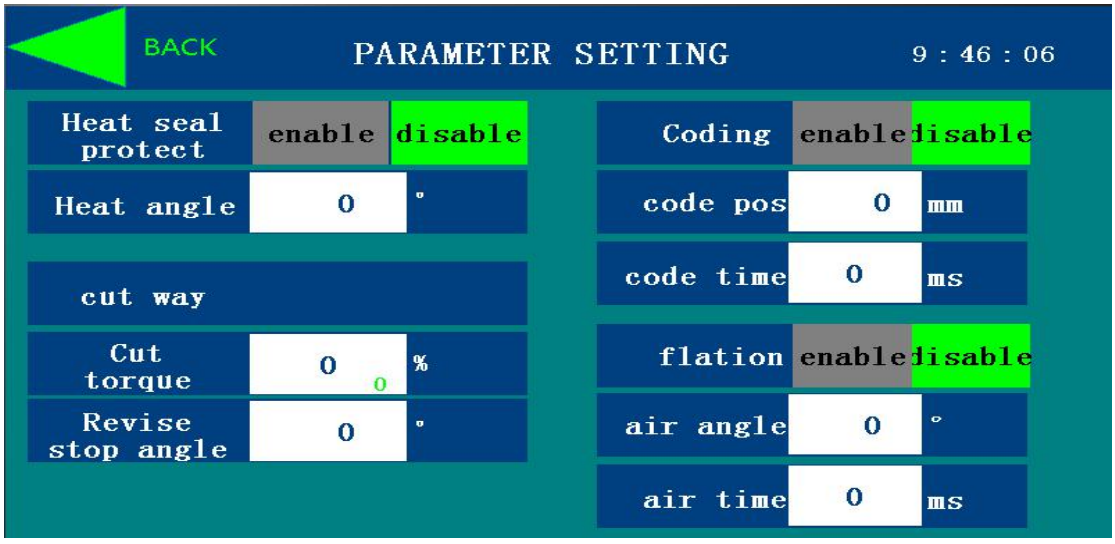
Save:Save the current tracking mode, bag length, product length, cut point position, and product position in the access recipe number. The saved name is 'tracking mode-bag length-product length', where 'L' represents the fixed length, M represents the calibration, and N Represents indefinite length, for example: L-300-260 represents fixed length mode, bag length is 300, and product length is 260.

Read:Read the recipe from the access recipe number.



Parameter setting:To set some related parameters about cut way etc.

Cut torque: The torque when sealing knives cutting bag length.The larger the value, the heavier when cutting.The smaller the value, maybe it will detected as sealing knives cut the products, then the sealing knives will reverse.



System : System parameter of machine, you should enter password, please don't change it in case you need it.You can ask password from seller.

4. Analysis of common problems.

Q1: How to adjust the cutting position?
A1: Adjust the cut pos of Run window.

Q2: How to adjust product position under Follow mark mode?
A2: Adjust the thg position of Run window.

Q3: Which situation shuold be 'RST'(reset)?
A3: When machine alarm, system shows the speeding fault, and you change different mode of unset length & fixed length and other conditions which can stop machine running.

Q4: When the setting bag length is different from the actual bag length, how to slove ?
A4: To do length correction.

Q5: Is there big fluctuation for cutting position under Follow mark mode, how to slove it ?
A5: Under the situation of make sure bag length is correct when fixed length mode, check if there are big difference the setting value for bag length.After choose Follow mark mode, you can press bag length measuring button in ' Run window'.

Q6: Why we set a short bag length ,it will be a fixed bag length?
A6: There is limited minimum bag length.If the bag length value you set shorter than minimum bag length, the minimum bag length depends on synchronized angle.

Q7: How about the general packing speed ?
A7: There will be different packing speed according to different bag length .You can enter 'Monitor' page to see the theoretical fastest speed. If you set the maximum packing speed larger than theoretical fastest speed, than it will be change as actual fastest speed.

Q8: How to finished packing for rest product in packing film ?
A8: Always press'INCHING' until finsh packing for rest products.

Q9: How to adjust the product position in packing film with belt feeding conveyor?

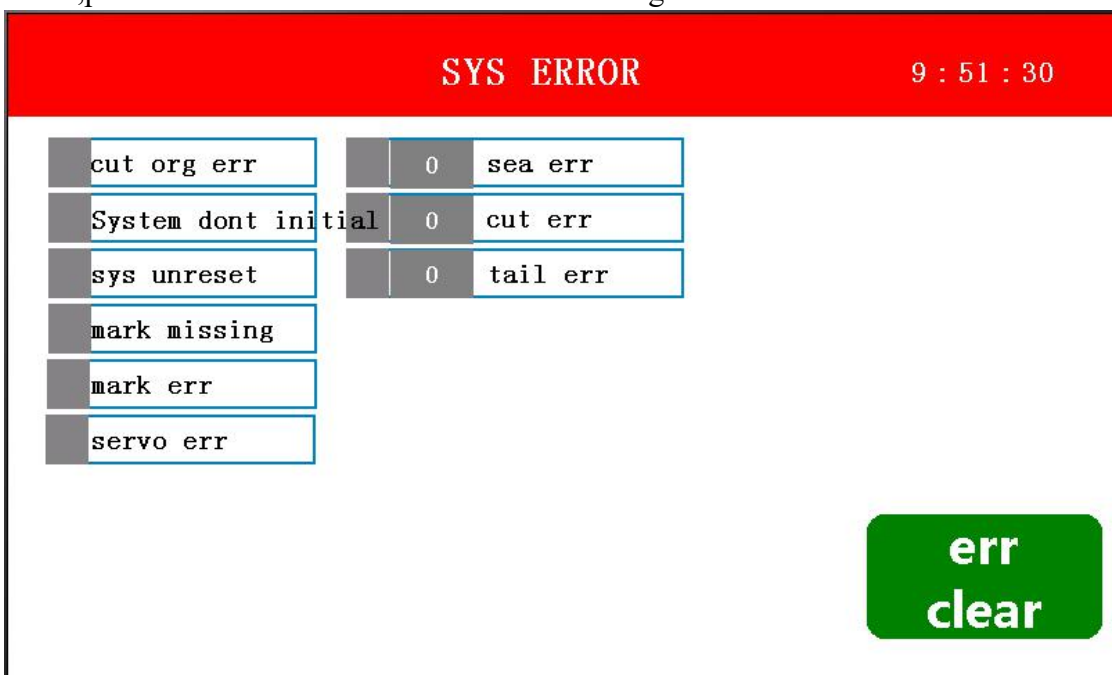
A9: Adjust the film feeding position before start the machine.Because when product read bag former , the film feeding will be follow at the same time.So the position of film feeding is the position when product head reach bag former.You can adjust the axis of feeding film by manuel under press‘INCHING’.The value of axis of feeding film is the current film feeding position. When you ‘INCHING’ to the suitable position, set the value in the ‘Film feeding’ .Then press’RST’ and restart the machine.

Q10: If the packing speed is slowly, but the value you set for packing speed is fast under the fixed length mode, unfixed length mode and follow mark mode with belt feeding conveyor ?

A10: To make sure the distance for every products between 30mm to 2*(product height + 40) mm, then there is no need make film feeding to wait and upgrade the packing effective.If the distance more close to (product height + 40)mm , the speed will be upgrade obviously.

5. Solution to alarm due to failure.

After alarm happening , please check the original point firstly.Then press ‘err clear’ .Then start machine running .If you click ‘err clear’ , but the machine still alarm,please click ‘RST’ and restart the machine again.



Alarm list for packing machine

Name of alarm	Reason for alram	Solutions
Servo for film feeding speeding	Counting error for axis of film feeding	Click'RST'
Servo for sealing knives speeding	Counting error for axis of sealing knives	Click'RST'
Servo for sealing knives speeding	Counting error for conveyor system	Click'RST'
Encoder of film feeding error	Stop counting for axis of film feeding	Check axis film feeding , if encoder offline or damage
Cutter original point error	The singnal for cutter original point was lost	Check if the switch of cutter original point damaged or not
Rest products original point error	The singnal for rest product original point was lost	Check if the switch of rest product original point damaged or not
Encoder of rest products original point error	Stop counting for encoder of rest products	Check if the switch of encoder of rest products damaged or not
System isn't reset	System wasn't reset to find original point when click 'start'	Click'RST',then click 'start.'
Color mark lost	Color mark was lost for packing materail	Check photocell detected the color mark or not
Disturbance and misalignment of color mark	Disturbance and printing misalignment of color mark of packing film	Check if there is mistake for printing color mark, check the photocell lighting not good
Encoder of film feeding is reversed	Encoder of film feeding axis is reversed for phrease AB	Change the phrase for AB of axis of film feeding
Reset but cutting the products	Sealing knives cut products when click 'RST'	Click' INCHING' to make product out by manuel operation
Undetecting color mark	No detecting color mark under click 'RST' when Follow mark mode	Check if photocell can detecting color mark or not
Always cutting products	Cutting products more than 3 times	Check if products blocked at sealing knives
Continuous photoelectric cut prevention	Detecting it will be cutting products more than 3 times	Check if products blocked at sealing knives
Encoder of rest product is reversed	Encoder of rest product is reversed for phrease AB	Change the phrase AB of encoder of rest product