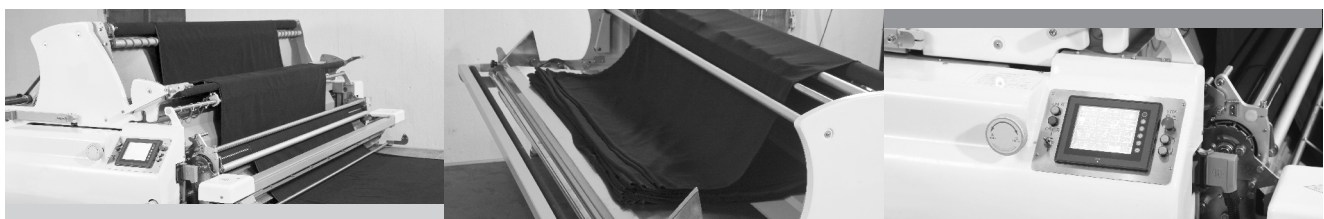


# K 机型

## 自动铺布机操作手册

the machine for K MODEL operation instruction



在操作机器前请详细阅读本手册

Read a handbook please detailedly before handling a machine

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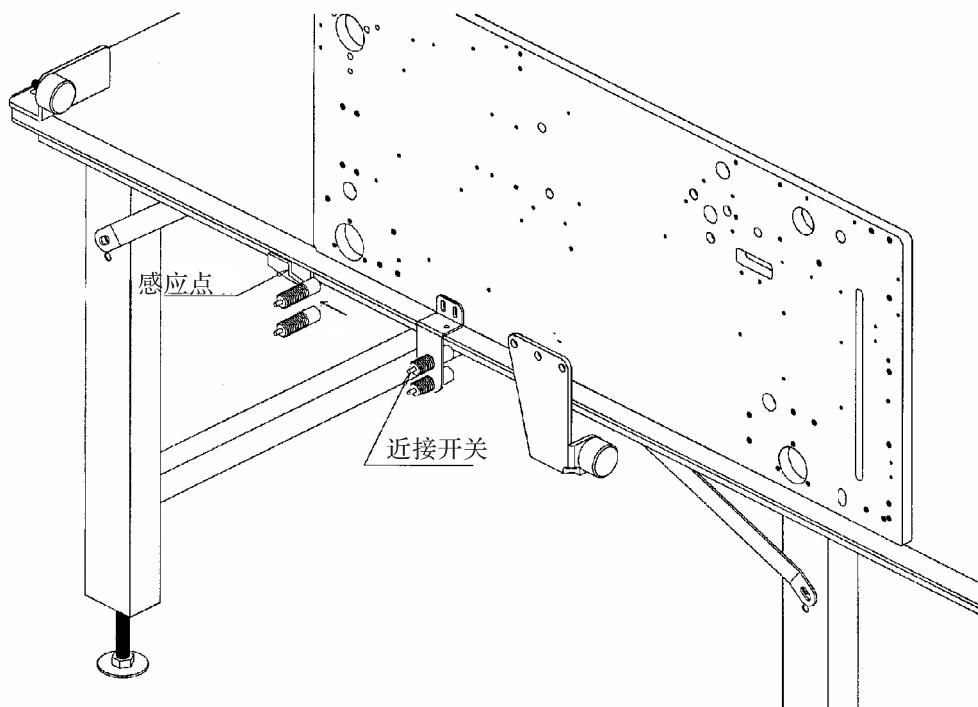
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## 操作前注意：




当近接开关左行通过感应点时，现在位置归0。

此为机器计算位置的基准点。

每一次近接开关左行通过感应点时，都会把现在位置归0。

当一部机器使用二条以上裁床时，由A床移至B床后，

第一个必要动作是：接上电源——送电——压一下  （放开煞车），

轻推机器由右向左（由前向后），使近接开关通过感应点。

机器才能确定自己的基准位置。

机器行进中突然断电，机器会在无力状态下滑行停止。

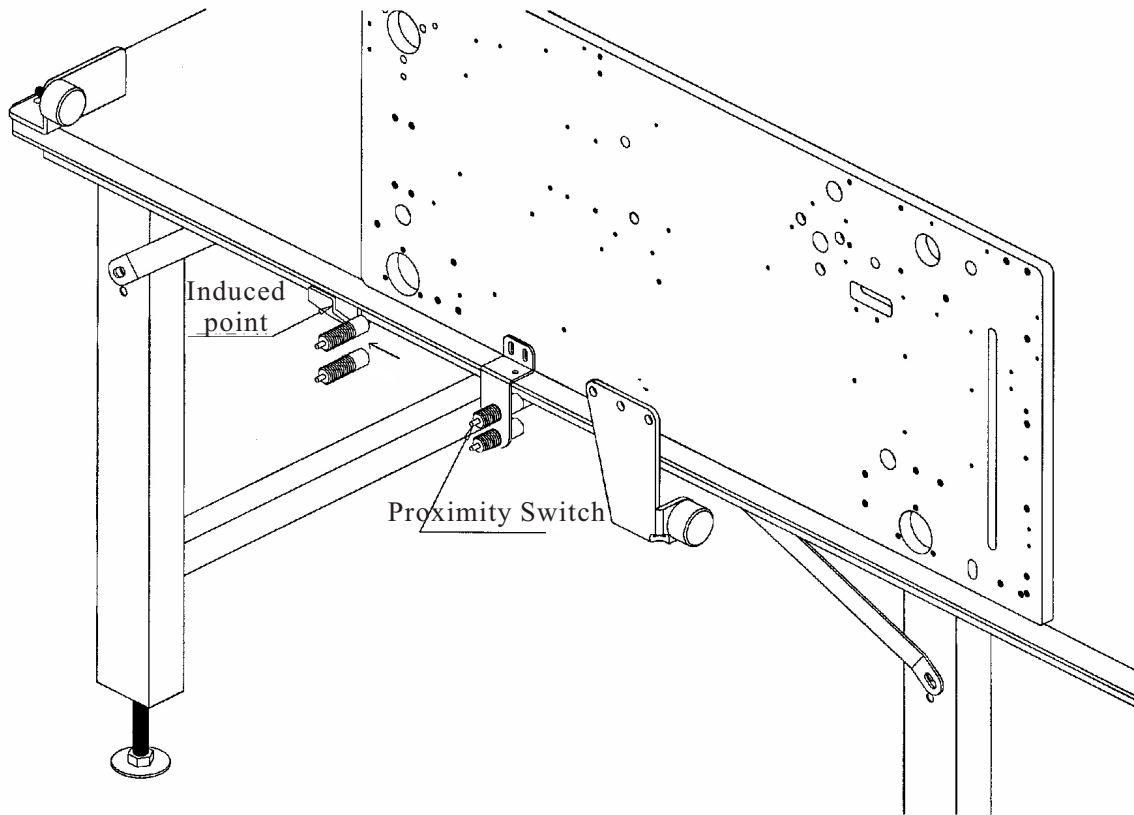
因此，基准位置会跑掉而不在原来的位置，碰到这种状况，再送电后，

必须以寸动方式让机器回到原位，重新执行一次——

接近开关，由右向左通过归零点，让机器重新确定自己基准位置。

注：上述二只近接开关中，一只为归“0”定位作用，一只为安全保护作用。只要其中任何一只开关有故障，机器即停止不动作。

## Pay Attention To Before Operation



When proximity switch goes to left and passes through induction point, the current position returns to 0. This is the benchmark point of machine calculating position.

Every time when proximity switch goes to left and passes through induction point, the current position will be returned to 0.

When a machine uses more than two cutting beds, after moving by bed A to B,

The first necessary action is: Connect power-power transmission-press it ☒ (release the brake),

Gently push the machine from the right to the left (from the front to the back) to make proximity switch pass through induction point.

Then the machine can determine its own benchmark position.

For sudden power failure during operation, the machine will stop sliding under the weak status.

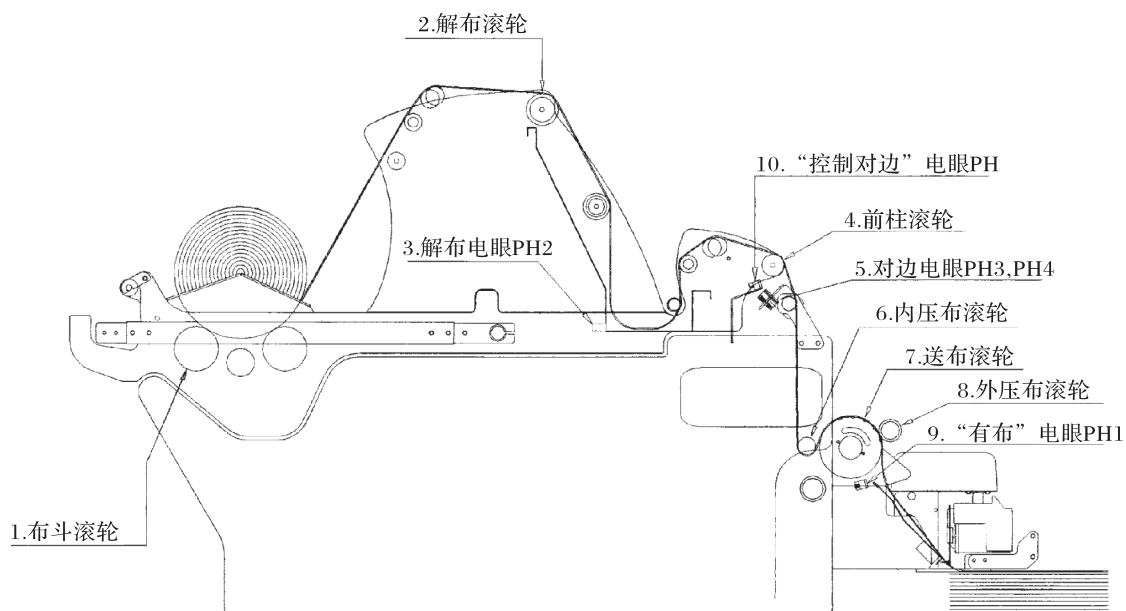
So, the benchmark position will run away and not in the original position, for this situation, after again power transmission,

Must let the machine return to original position by inch move way, and re-run again

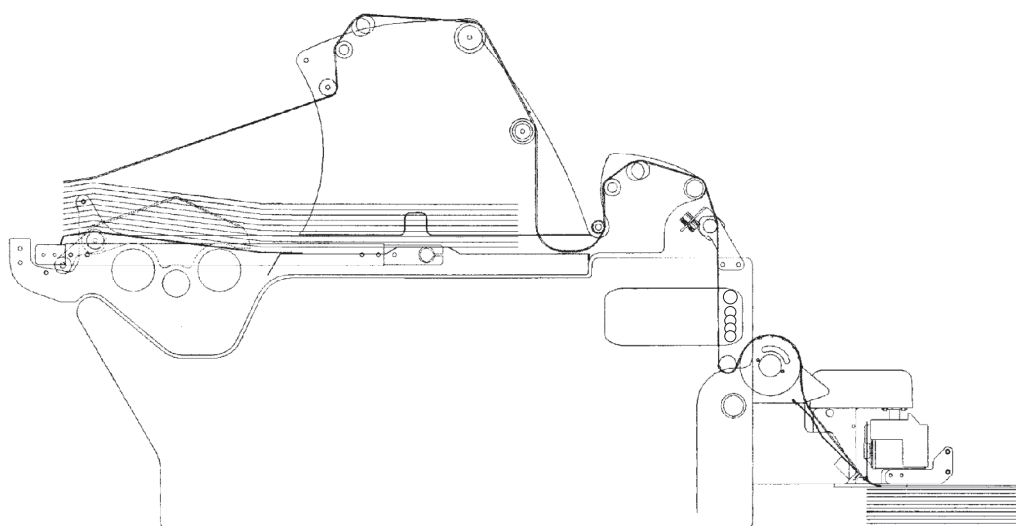
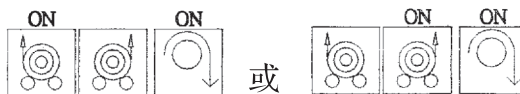
The proximity switch passes through return-to-zero point from the right to the left to let machine re-determine its own benchmark position.

Note: In above two proximity switches, one plays the roles of returning '0' and positioning, and another plays the role of security. The machine will stop and not act as long as any switch is faulty.

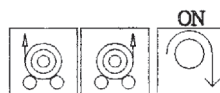
正常操作：



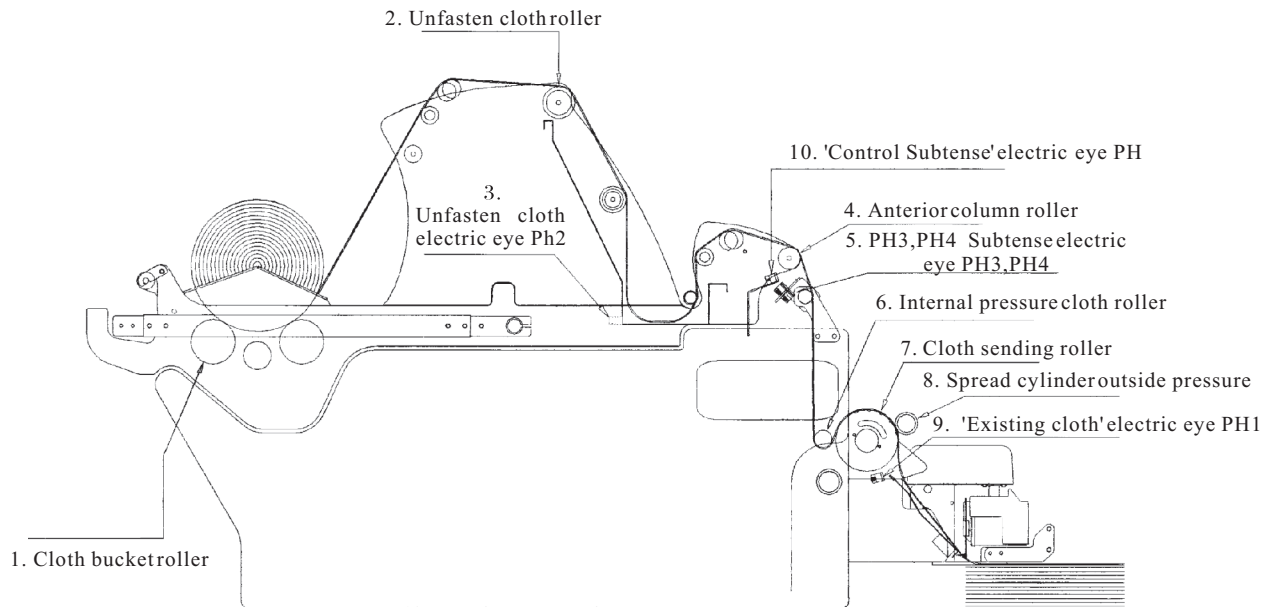
卷支布料：置放如上图。拉布时之必备按键：



折码布料：置放如上图。拉布时之必备按键：



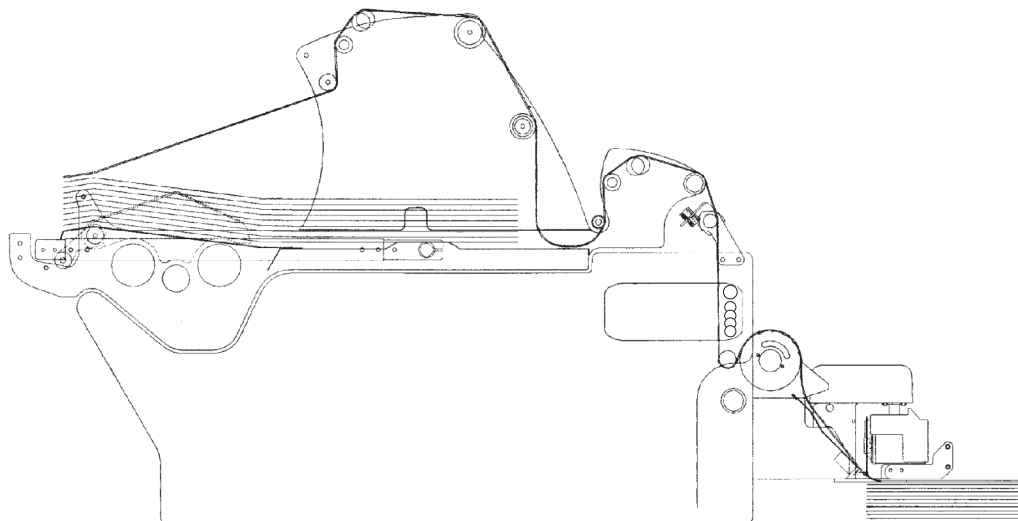
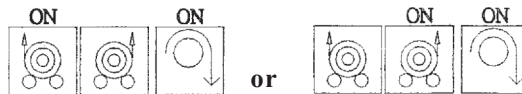
## Normal Operation:



## Rewinding Cloth:

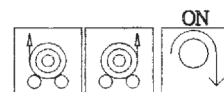
Place as the above figure.

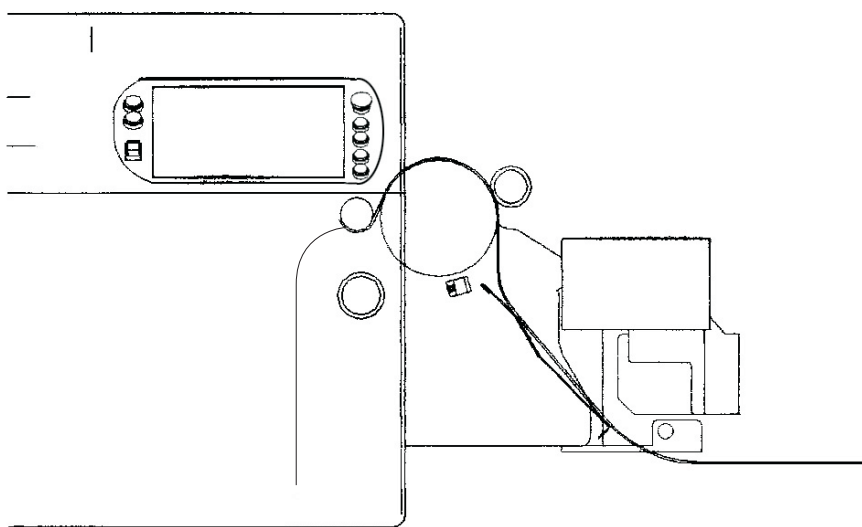
When spreading the necessary keys are:



## Folding yard cloth:

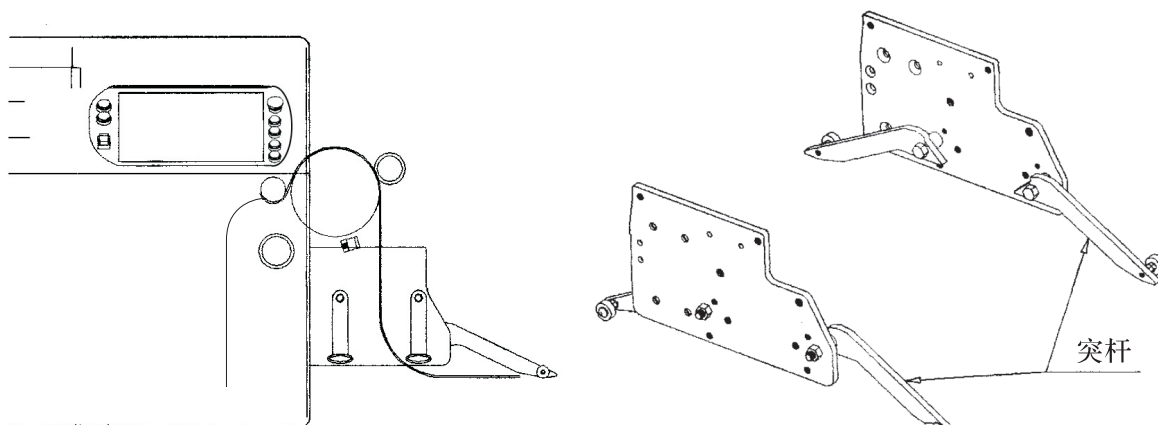
place as the above figure. When spreading the necessary keys are:





单拉

挂上切刀组，插上接头，拉布机自动进入 单拉 模式，不必再做其他设定。



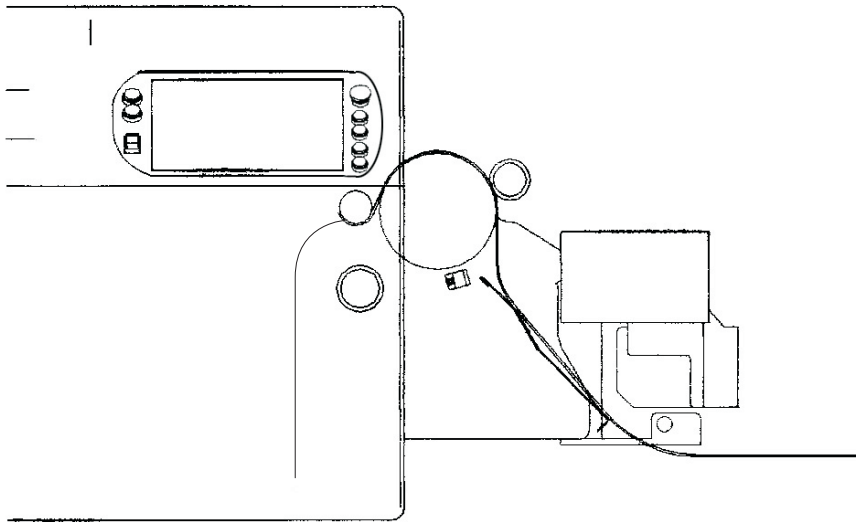
双拉

卸下切刀组，装上突杆，拉布机自动进入 双拉 模式。

双拉：需要用两端扫布器，尾端扫布器要往前推，用插稍固定在前方点。（尾端扫布器 单拉时不用，要往后拉到底，固定在后方点。）



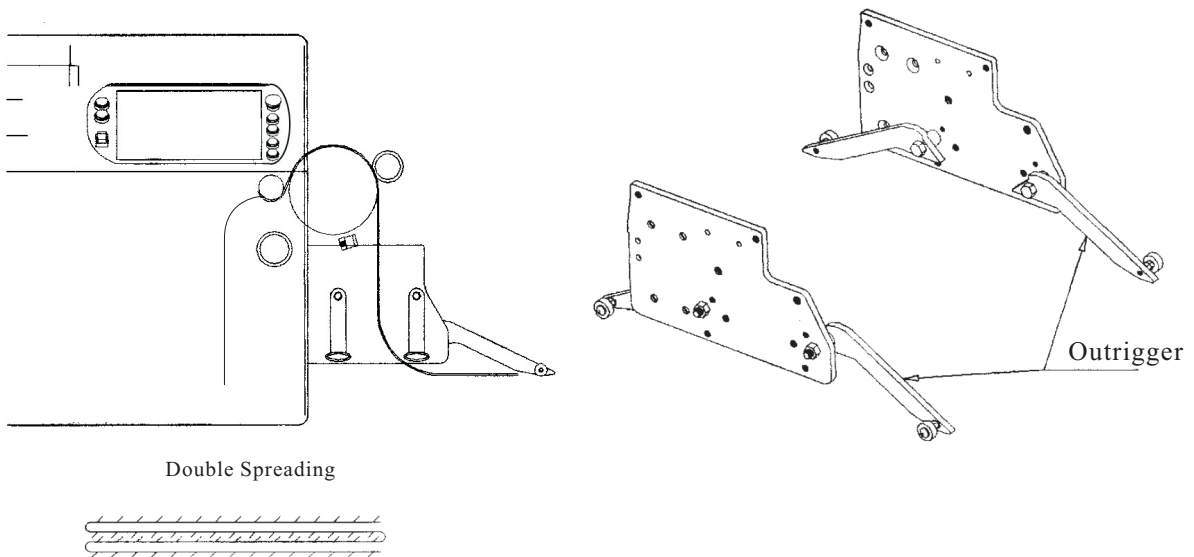
## Normal Operation:



Single Spreading

Hang up cutting group and plug connector, the spreader will automatically enter into Single Spreading mode, and don't have to do any other setting.

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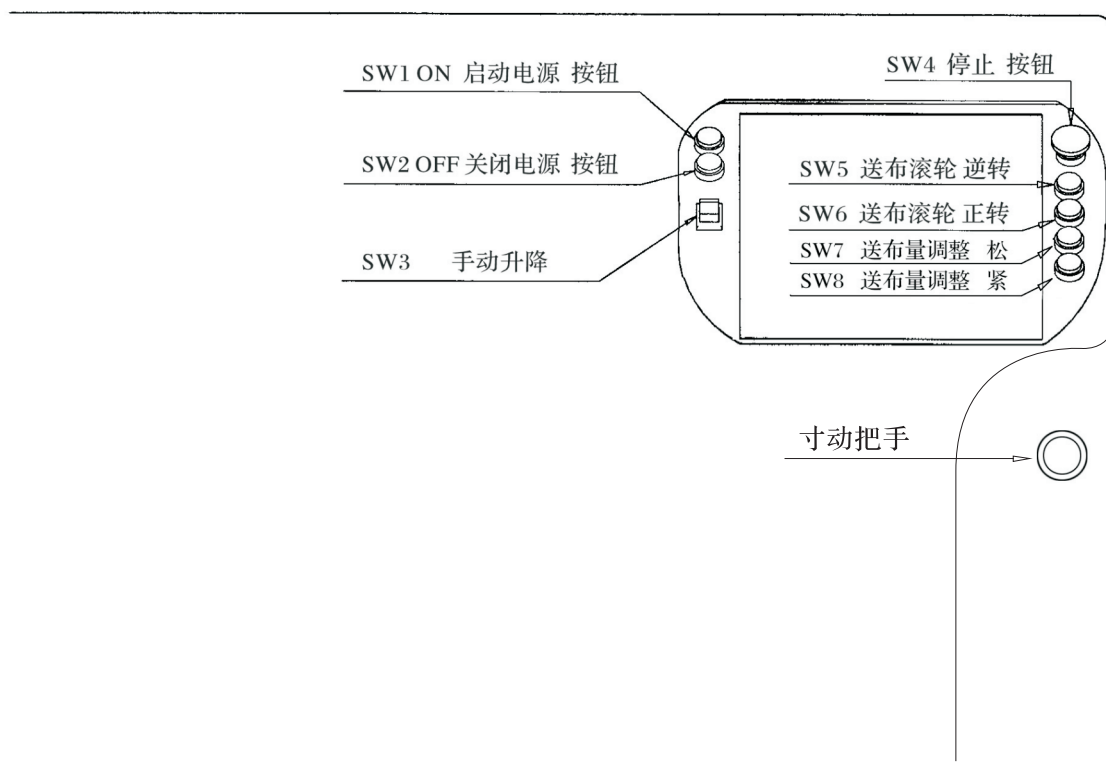


Double Spreading

Remove the cutting group and install the outrigger, the spreader will automatically enter into Double Spreading mode.

Double spreading: needs to use two-end pressure device, the back-end device should push forward and be fixed the front point with bolt. (For single spreading, not needs back-end device, when double spreading should pull to bottom and be fixed the back point.)

## 正常操作：



**SW1 「启动电源按钮」：**启动电源。

**SW2 「关闭电源按钮」：**断电关机。另机器静止经过5分钟会自动断电关机。

**SW3 「手动升降」：**往上扳——上升；往下扳——下降。

**SW4 「停止按钮」：**停止按钮。

另裁床两边设有停止钢索，拉动钢索功能同停止按钮。

（停止钢索为最常用之停止装置）

**SW5 「送布滚轮」：**手动逆转按钮。

**SW6 「送布滚轮」：**手动正转按钮。

送布滚轮在拉布中随着机器移动而转动。

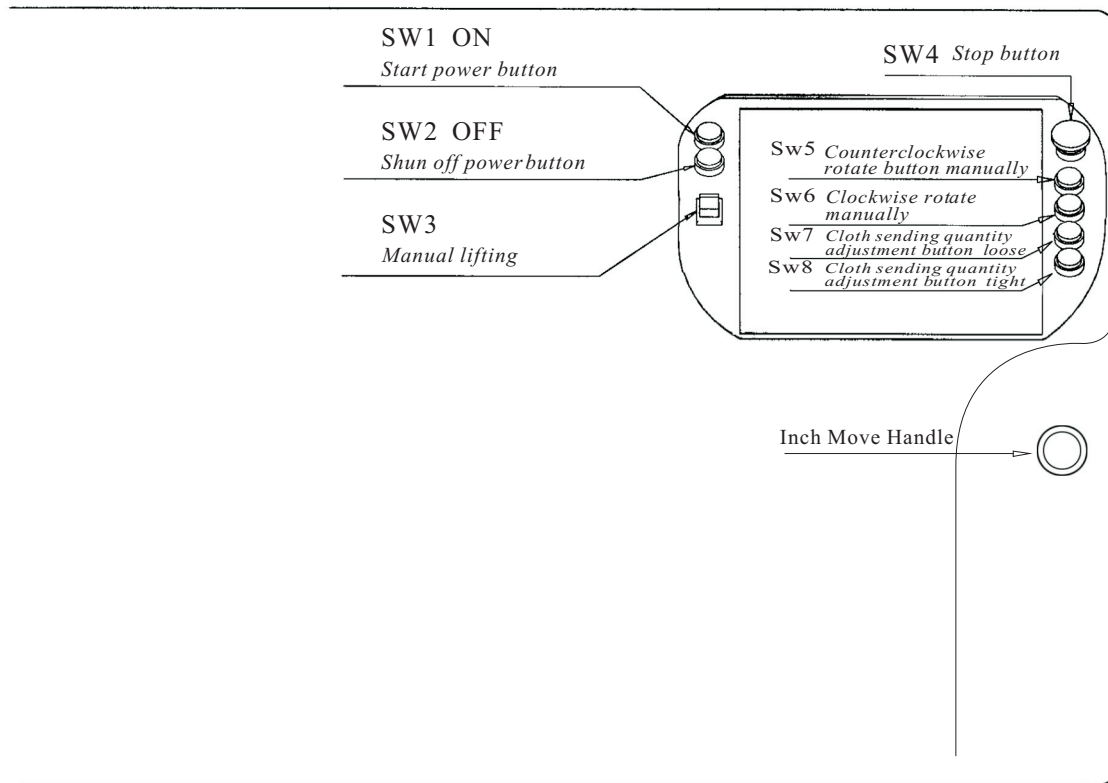
静止中需要转动送布滚轮时，用这两颗按钮。

**SW7 「送布量调整按钮 松」：**按压该按钮，铺布时布面将越来越松弛，此按钮只有在机器运行时起作用。

**SW8 「送布量调整按钮 紧」：**按压该按钮，铺布时布面将越来越紧绷，此按钮只有在机器运行时起作用。

**【寸动把手】：**“手动”移动机器用把手。顺时针转向右行（前行）；逆时针转动向左行（后退），并以转动角度的大小控制速度。

## Normal Operation:



**Sw1** 「Start power button」 : Star power.

**Sw2** 「Shun off power button」 : Power-off and shut down. Besides, at rest for 5 minutes, the machine will automatically power-off and shut down.

**Sw3** 「Manual lifting」 : Pull upwards-rise; Pull downwards-fall.

**Sw4** 「Stop button」 : Stop button.

Besides, two sides of cutting bed have set stop cables, pulling the cables is the same with pressing stop button.

(Stop cables are the most commonly used stop devices)

**Sw5** 「Cloth sending roller」 : Counterclockwise rotate button manually.

**Sw6** 「Cloth sending roller」 : Clockwise rotate manually.

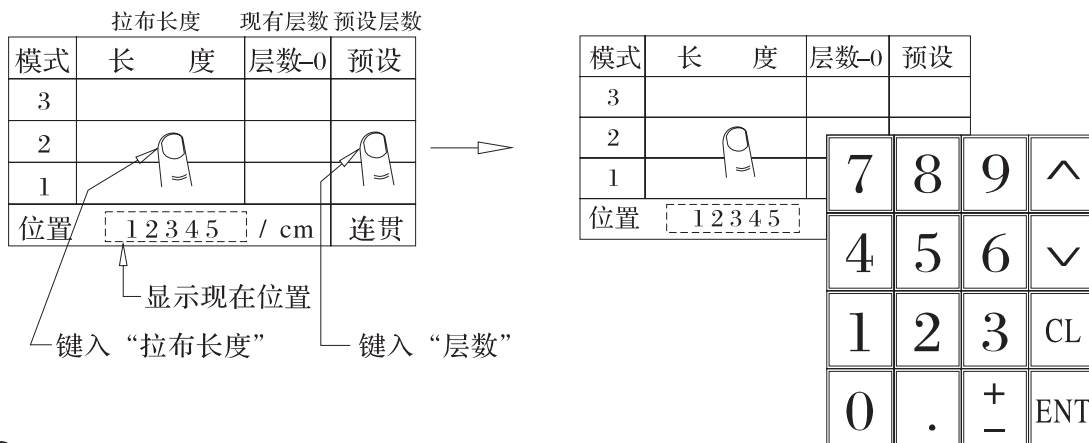
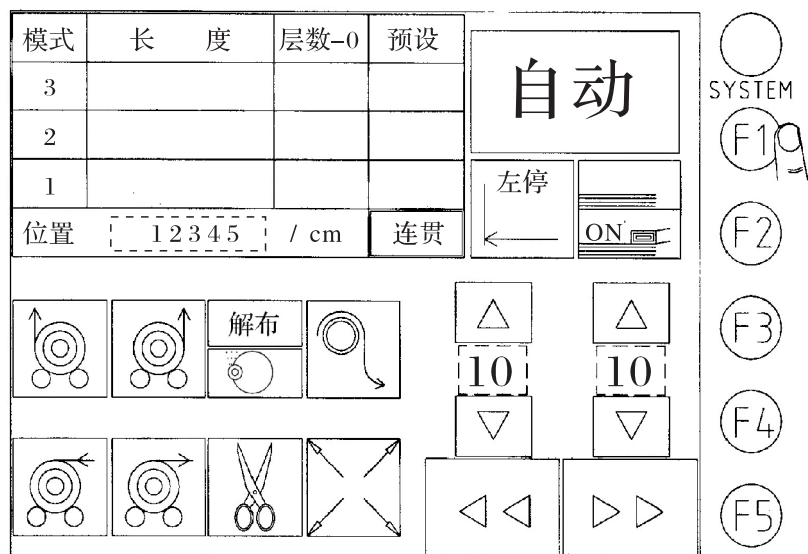
During spreading, the cloth sending roller will rotate with the machine's movement.

Under the static status, if need to rotate cloth sending roller, please use these two buttons.

**Sw7** 「Cloth sending quantity adjustment button loose」 : Press the button, when spreading, the cloth will be more and more loose, the button only plays role when the machine operates.

**Sw8** 「Cloth sending quantity adjustment button tight」 : Press the button, when spreading, the cloth will be more and more tight, the button only plays role when the machine operates.

**[Inch move handle]**: 'Manually' rotate machine's handle. Clockwise rotation for right movement, counter clockwise rotation for left movement, and control speed by rotation angle.

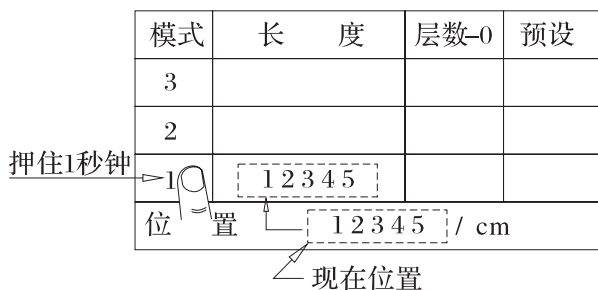


押一下，如右图出现数字键盘，键入所要数字后按 ENT

“拉布长度”单位：cm 1M=100cm 1inch=2.54cm

单一模式拉布：「层数」到达「预设」值时停机。

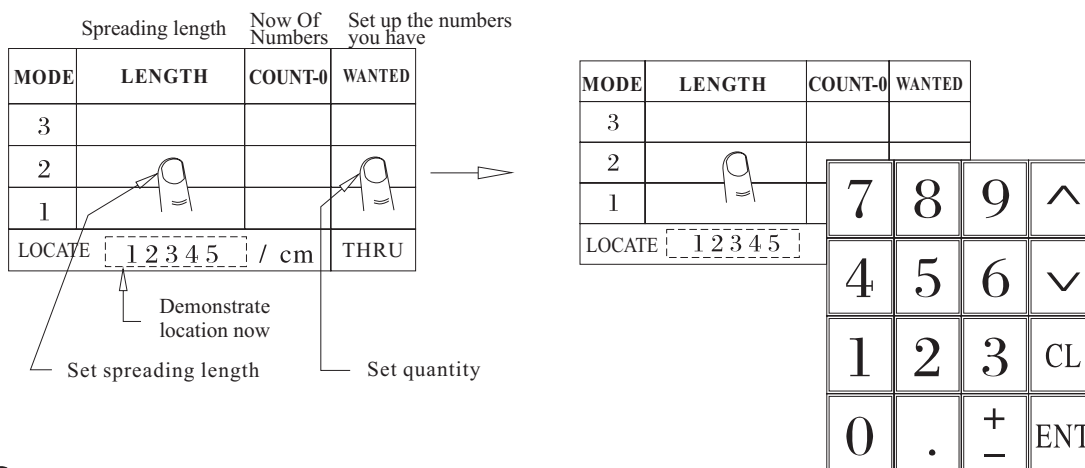
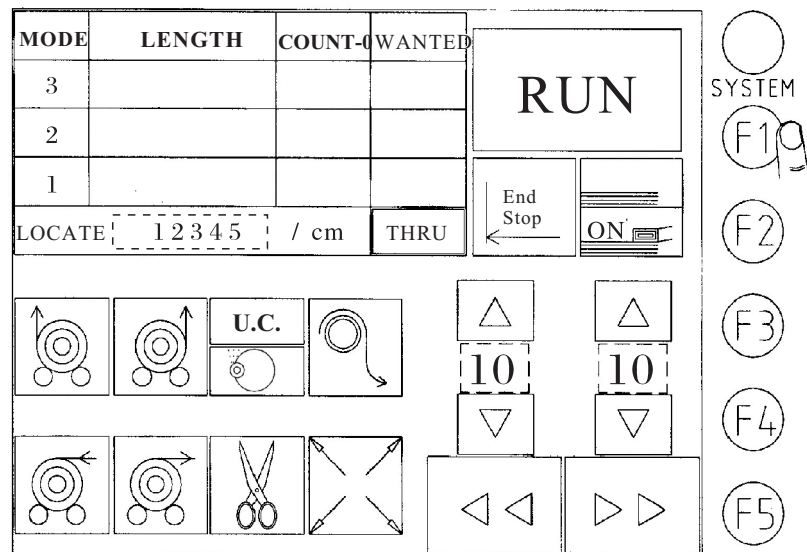
连贯模式拉布：所有「层数」到达所有「预设」值时停机。



教导模式：设拉布长度：在不知道确实的拉布长度时，将机器移到所要位置后，如图，压住模式格 1 1秒钟，现在位置值会被设入模式 1 的拉布长度内。

模式 2 和模式 3 可依此方法设入拉布长度。

## Normal Operation:

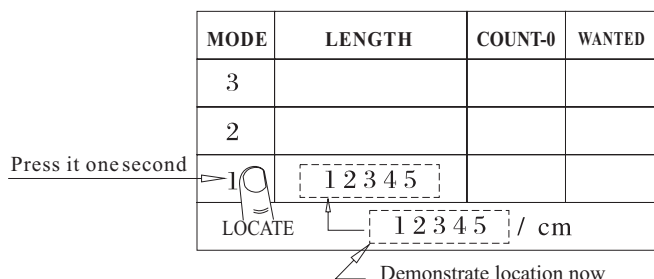


Press it and display digital keyboard as the right figure, input the desired figure and press ENT

「Spreading length」 Unit: cm 1M=100cm 1inch=2.54cm

**Single spreading mode:** When 「COUNT-0」 achieves 「WANTED」 value, the machine will stop.

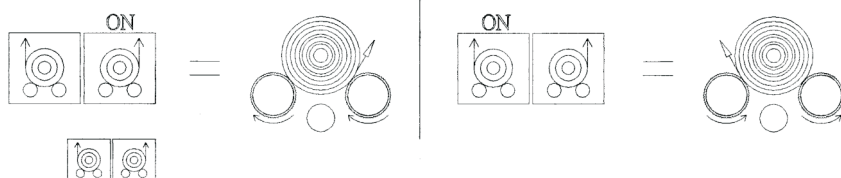
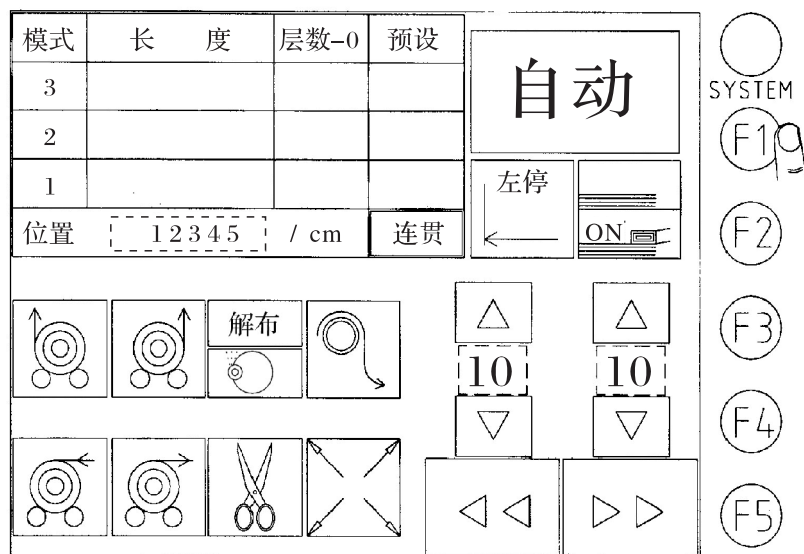
**Continuous spreading mode:** When all 「COUNT-0」 achieve 「WANTED」 value, the machine will stop.

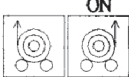
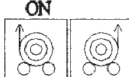



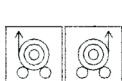
**Techning mode: Set spreading length:** when doesn't know the exact spreading length, press mode **1** for 1 second after moving the machine to the desired position, as shown in the figure, and now, the position value will be set in mode 1's spreading length.

Mode **2** and **3** can be set in spreading length according to this method.

## 正常操作：






卷支布料放置布斗内，由  或  控制出布方向。

匹布料用不到布斗，押一下方向键  →  把ON消去，使布斗不运转。



 → 送布状态，当机器移动时送布滚轮跟着转动把布料往下送出。

 → 不送布，机器虽有移动，布料不被送出。

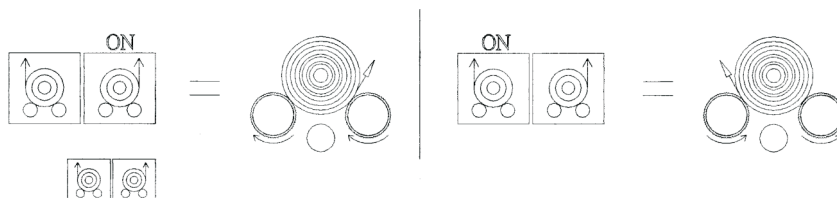
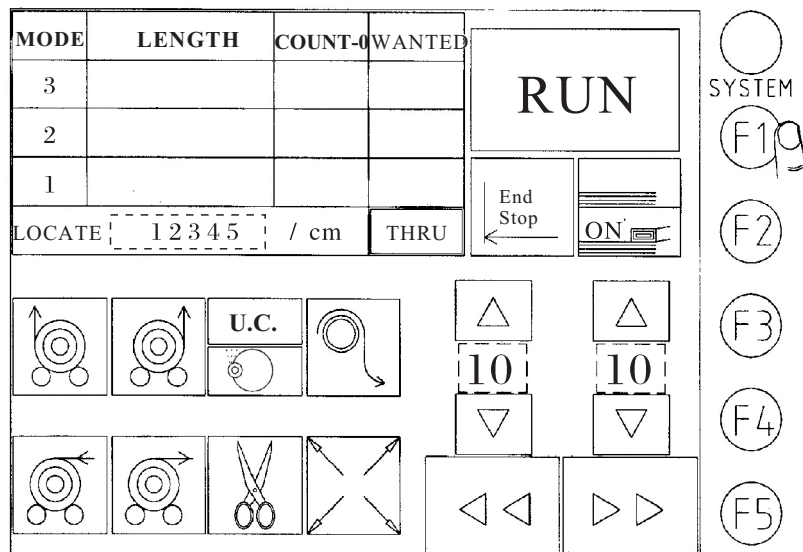
 押一下 →  押一下 → 

# 自 动

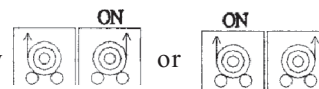
按此键，拉布机进入自动拉布状态。

当布料准备就绪后，确认方向正确，按此键进行拉布作业。

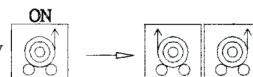
## Normal Operation:



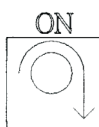
Rewinding cloths are placed into bucket and controls cloth direction by



The piece of cloth will not use bucket, press the direction key



and cancel ON to make bucket not operate.



**Cloth Sending Button**



→ Under the cloth sending status, when the machine moves, the cloth sending roller will send out cloth downwards by rotation.



→ Not sending cloth, though the machine moves, but the cloth will not be sent out.



Press it →



Press it →

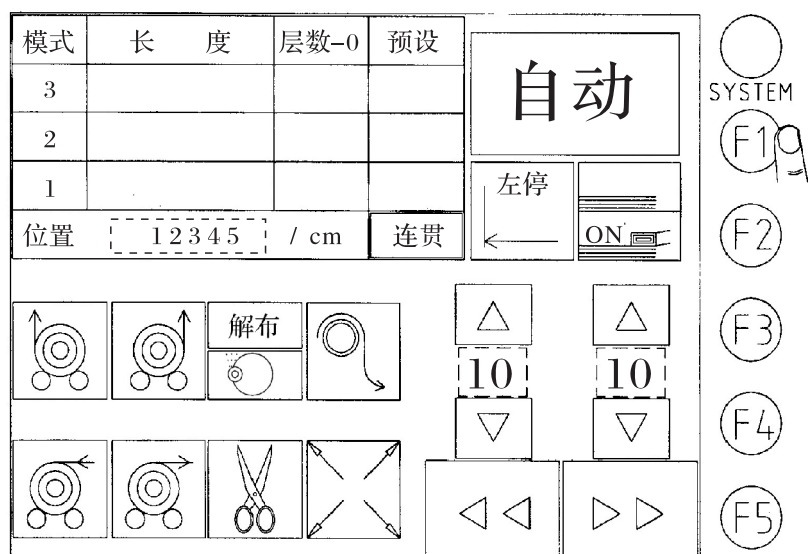


**RUN**

Press automatic key and the spreader will enter into automatic spreading status.

When the cloths are all set, confirm the direction be correct and then press the key to spread.

正常操作：



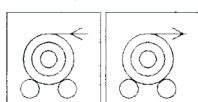
### 裁剪按钮1

当机器停止时，押一下 可进行一次裁断动作。

裁刀头如因紧急停止未停于定位时，押一下 可让裁刀头回到定位。

按此裁断按钮作手动裁断时，层数值不变。

### 回收 寸动



布斗滚轮“手动”键

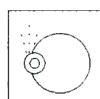
押住 时，布料低速卷回。押住 时，布料低速卷出。

解布

### 解布键

压一下 → 解布辊转动锁定。

压一下 → 解布辊停止锁定。



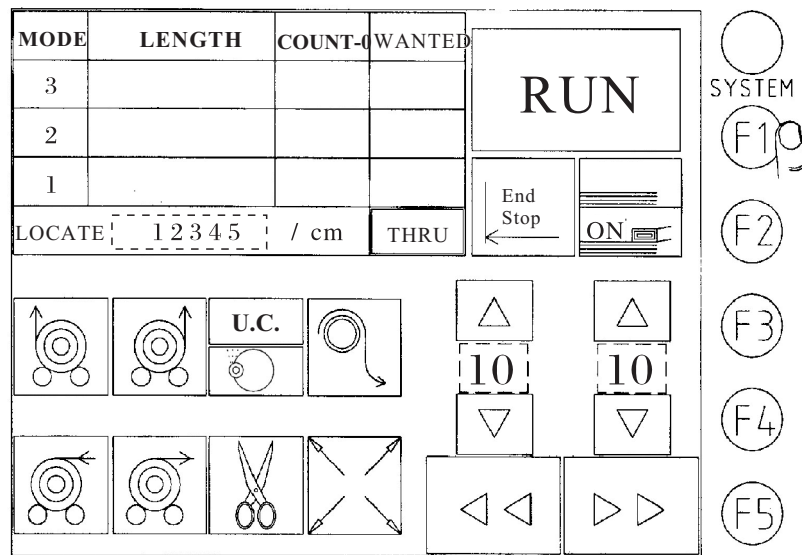
### 研磨键

押一下 → 刀片转动，再轻押磨石进行磨刀。

押一下 → 刀片停止转动。  
(磨石面通常会有积尘，卸下磨石平贴于砂纸上，可磨掉积尘)



## Normal Operation:



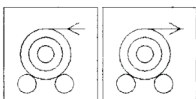
### CUTTING BUTTON

When the machine stops, press  to carry out cutting action for one time.



If the cutter head doesn't stop at fixed position due to emergency stop, press  to make the head return to fixed position.

When press the cutting button for manual cutting, the layer number value is unchanged.

### CALLBACK INCH MOVE



Cloth bucket roller 'Manual' key

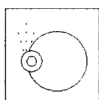
When press  the cloth will roll back with low speed. When press  the cloth will roll out with low speed.





Relieve lock-in key



Press  →  Unfasten cloth roller rotation lock  
Relieve lock-in

Press  →  Unfasten cloth roller stop lock  
Relieve lock-in



The key of Knife stone

Press  →  The blade rotates and then gently press millstone to sharpen.

Press  →  The blade stops rotate  
(The burrstone is able to have dust surficially generally, disboard a burrstone grinding dust off on arriving at sand paper)

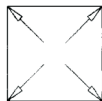
正常操作：



单拉前端压布时，提前减速





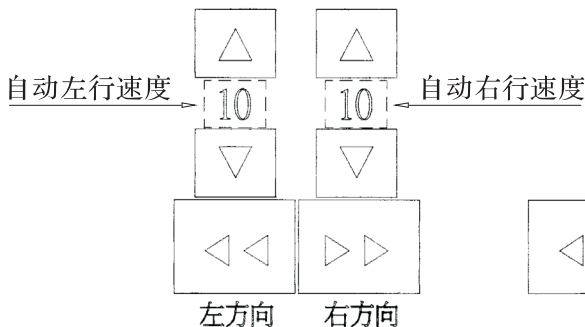
单拉前端无压布时，不提前减速



刹车解放键

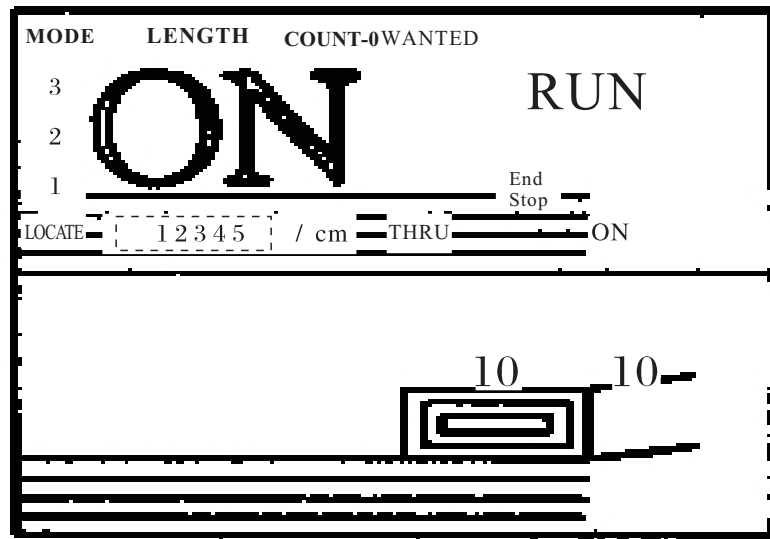
按一下  →  解放刹车，用手可轻推移动机器。

按一下  →  刹车锁住，要用大力才能推动机器。



1. 指示方向键：闪烁的一方代表机器要移动的方向，押 自动 时机器往该方向移动。
2. 变换方向键：按一下无闪烁键，可改变指示方向。
3. 恢复对边功能：机器由自动状态中停止后，会关闭对边功能，再进入自动状态中，会恢复对边功能。或押此任一键，也会恢复对边功能。

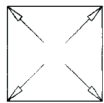
## Normal Operation:





When single spreading front-end and pressing cloth, slow down in advance





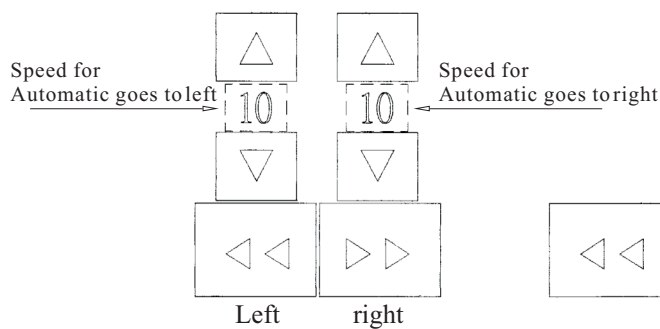
When single spreading front-end and not pressing cloth, don't slow down in advance



### Release Brake key

Press  →  Release brake, can gently push and move machine by hands

Press  →  Brake locks and need to big strength to push machine

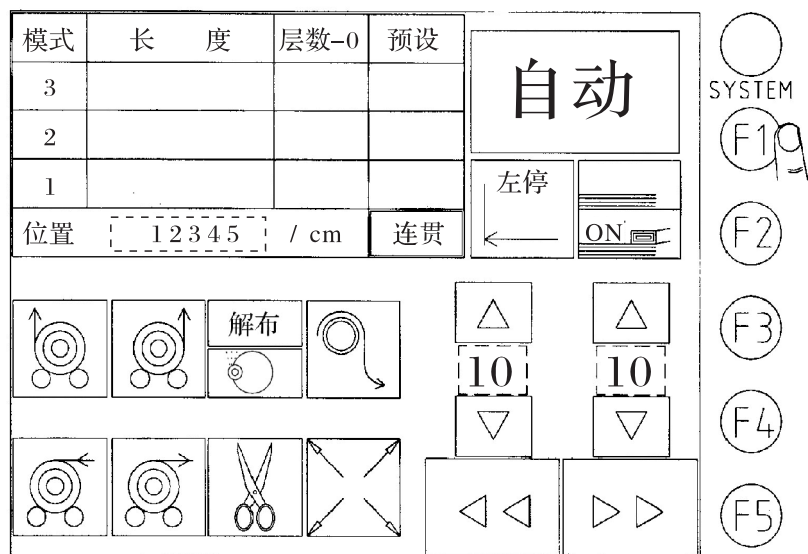


1. Key of indicating direction:
2. Key of changing direction
3. Recover Subtense electric Function

1. **Key of indicating direction:** The flashing place stands for the direction of machine moving to, when pressing RUN, the machine moves to this direction.
2. **Key of changing direction:** Press flashing-free key to change indication direction.
3. **Recover Subtense electric Function :** After the machine is hit by stoppage from voluntary state, may close *Subtense Electric Function*. Voluntary state of entrance is once again middle , is able to restore *Subtense Electric Function*.

Possibly press here anyone button, can't will be Subtense electric Function recovery.

正常操作：



模式	长 度	层数-0	预设
3			
2			
1			
位置	1 2 3 4 5 / cm	连贯	

1. 按住 层数-0 格
2. 按住 数字格

1. 按住 层数-0 格0.5秒，可让所有层数格归0。

2. 按住 数字格 0.5秒，可让该数字格归0。未使用模式的预设格请键入0。

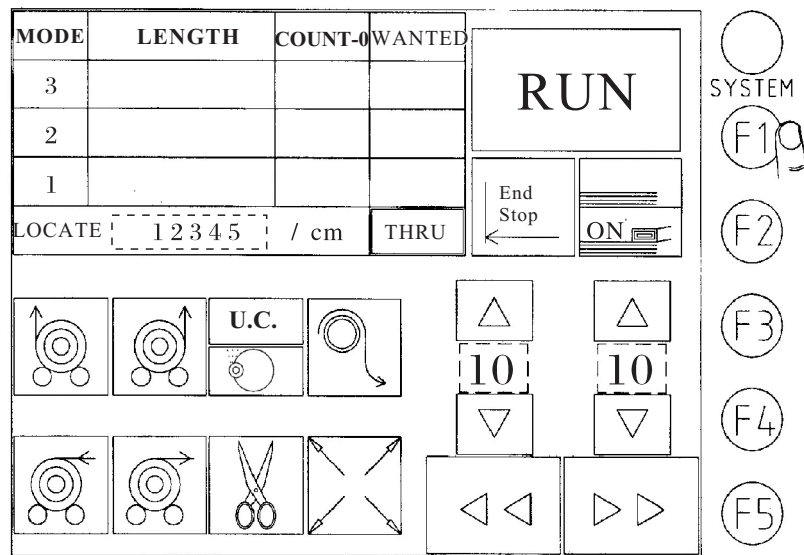
模式	长 度	层数-0	预设
3	0	0	0
2	0	0	0
1	780.5	0	210
位置	1 2 3 4 5 / cm	连贯	

单一模式拉布请使用1模式操作。  
拉布模式：拉布长度遇有长短码时，可预设第2-3种长度和层数。

预设	预设
20	20
20	20
30	30
连贯	连贯

开启连贯拉布功能，机器依模式123 顺序走完设有预设值的所有模式后停机。

## Normal Operation:



MODE	LENGTH	COUNT-0	WANTED
3			
2			
1			
LOCATE	1 2 3 4 5 / cm		THRU

1. Press layer number-0 grid **COUNT-0**

2. Press figure grid



1. Press **COUNT-0** grid for 0.5 second to let all layer number grids return to 0.



2. Press  for 0.5 second to let the grid return to 0. Please input 0 for unused mode default grids.

MODE	LENGTH	COUNT-0	WANTED
3	0	0	0
2	0	0	0
1	780.5	0	210
LOCATE	1 2 3 4 5 / cm		THRU

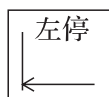
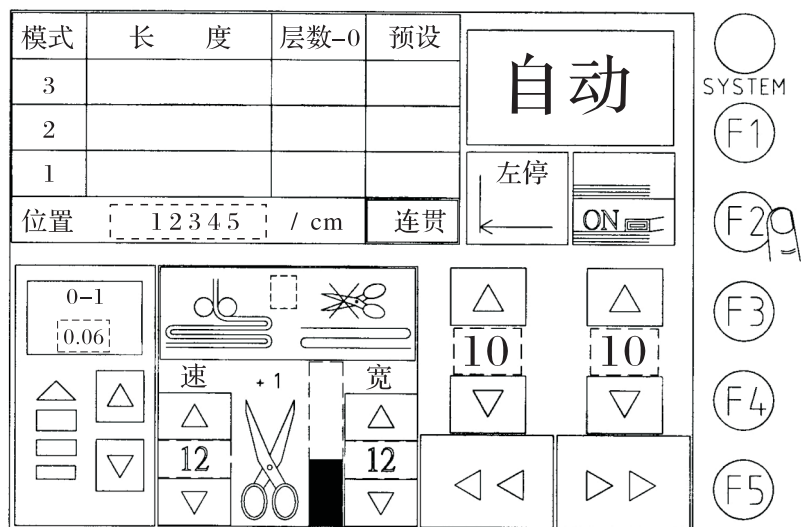
For single mode spreading, please use Mode 1.

Spreading mode: when spreading length has long and short yards, can preset Mode 2-3 length and layer number.

WANTED	WANTED
20	20
20	20
30	30
THRU	THRU

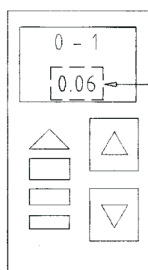
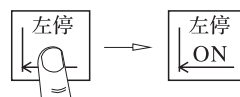
Start thru spreading functions, the machine will pass through all modes of having set preset value according to mode 123, then stop.

## 正常操作：



### 左端点停止键

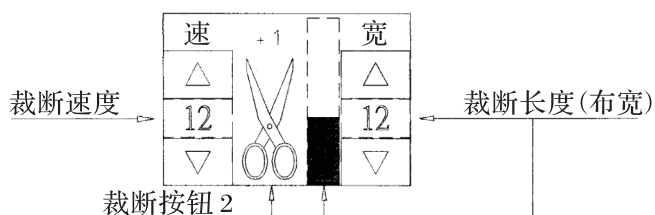
当你有需要在下一张布拉完时即停止作业，押一下机器会在拉完该张布后于左端点停止。



### 自动上升量设定值

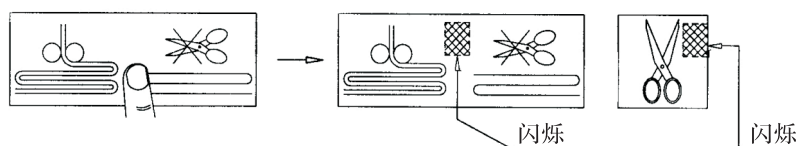
#### 自动上升量

因按布料之厚度，设定自动上升量使上升高度与布料堆叠之高度趋于一致。自动上升于自动拉布中切断完了时，自动上升一次。



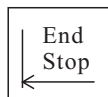
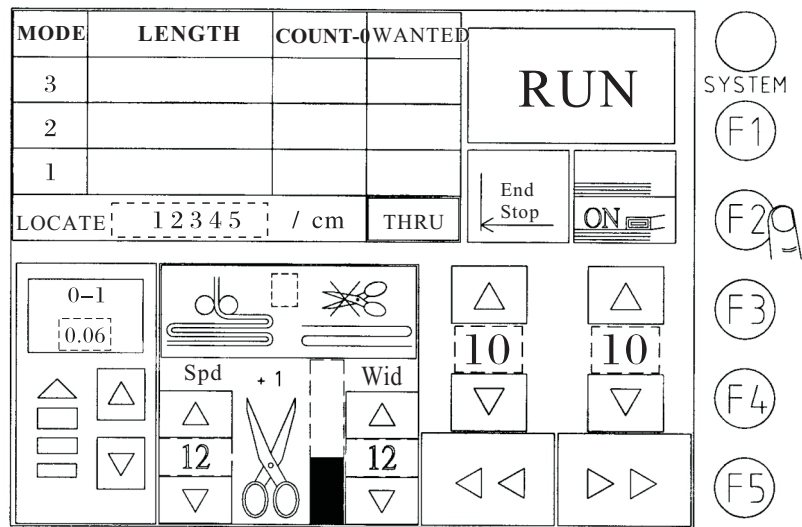
裁断按钮2：按此裁断按钮作手动裁断时会让层数值加1

因按布料性质与宽度，设定裁断速度与裁断长度使之良好配合。




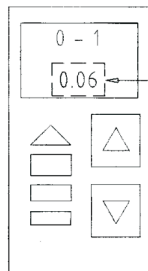
挂引切刀组不自动切断之双向拉布模式和圆筒布使用双滚轮装置之拉布模式。

## Normal Operation:



### Left-end Point Stop Key

If you need to stop operation when completing the next cloth, press  and the machine will stop at left-end point after completing this cloth.

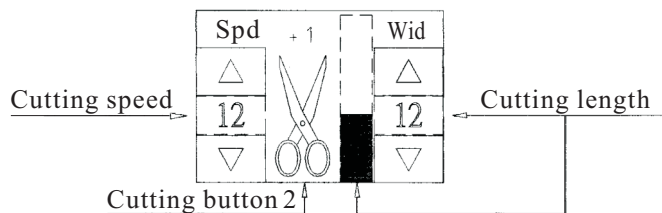


### Set Value Of Automatic Rising Quantity

Automatic rising quantity.

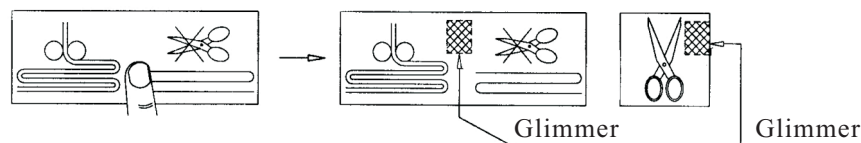
According to cloth thickness to set automatic rising quantity to make rising height is consistent with cloth stack height.

Automatic rising will automatically rise one time when completing cutting during automatic spreading.



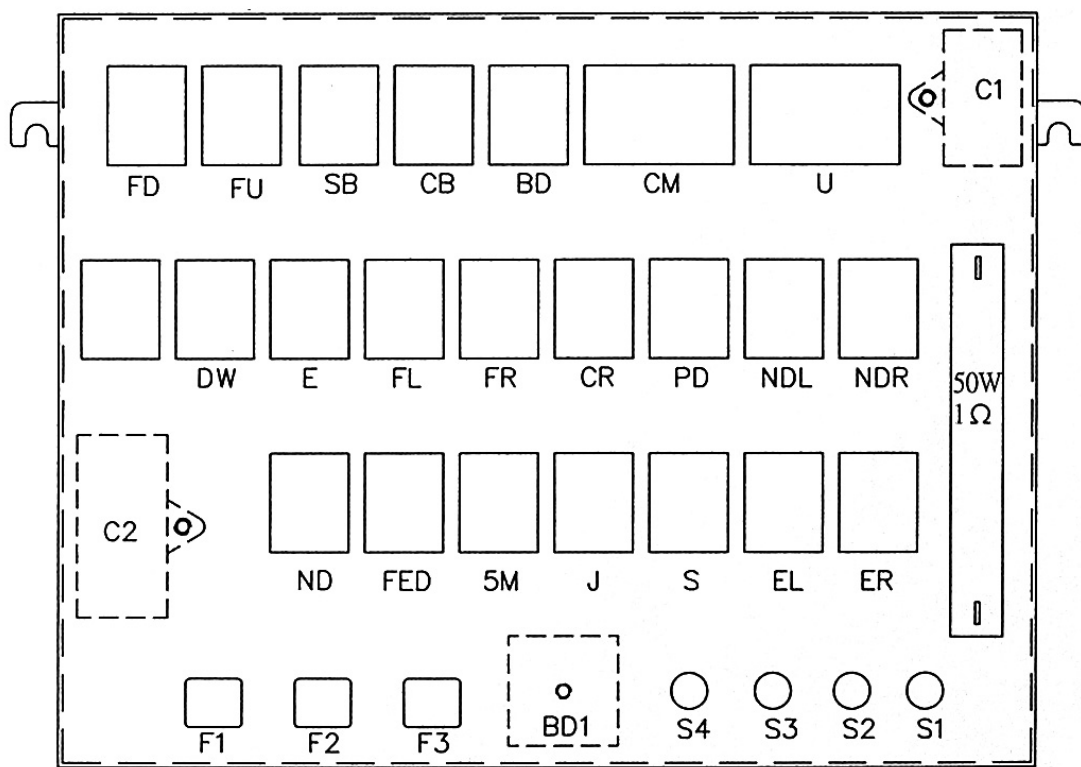
**Cutting button 2:** Press this button for manual cutting, the layer number will add 1.

According to cloth nature and width to set cutting speed and length to make them well cooperate with.



Double spreading mode of hanging cutter group not automatically cut, and spreading mode of cylinder cloth using double-roller device.

故障：



F1——圆刀马达 电路保护器

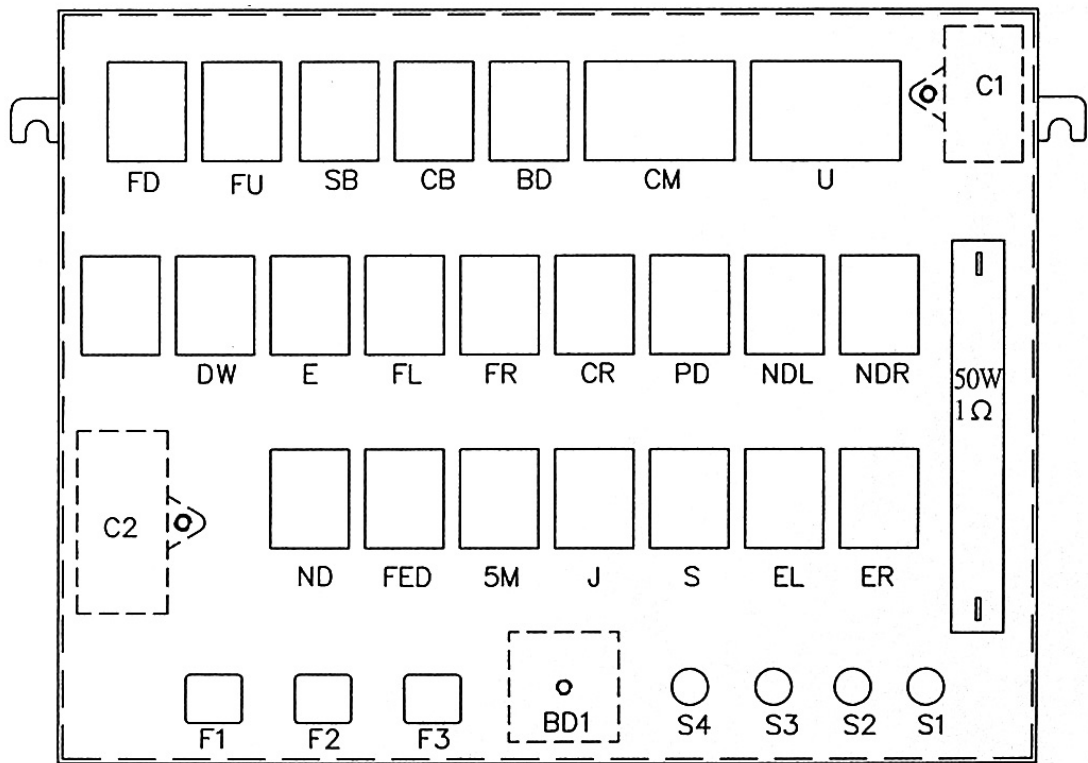
F2——DC24V 电路保护器

F3——对边马达 电路保护器

电路保护器于过电流时会跳脱，押回后再试用，如不再跳脱，则可安心继续操作。  
如一再跳脱，有可能短路，或电路保护器本身故障。



## Faults



F 1——**Round knife motor Circuit protector**

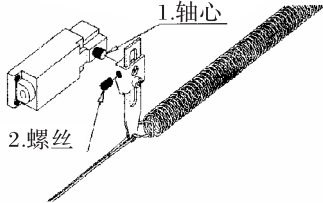
F 2——**DC24V Circuit protector**

F 3——**Opposite side motor Circuit protector**

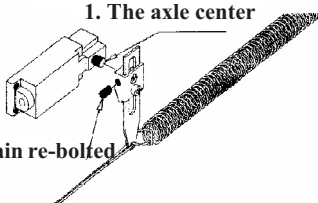
For overcurrent, the circuit protector will jump, after pressing back and again tries out, if not jump, can safely continue to operate.

If over and over again jump, maybe have a short circuit, or the circuit protector itself has faults.

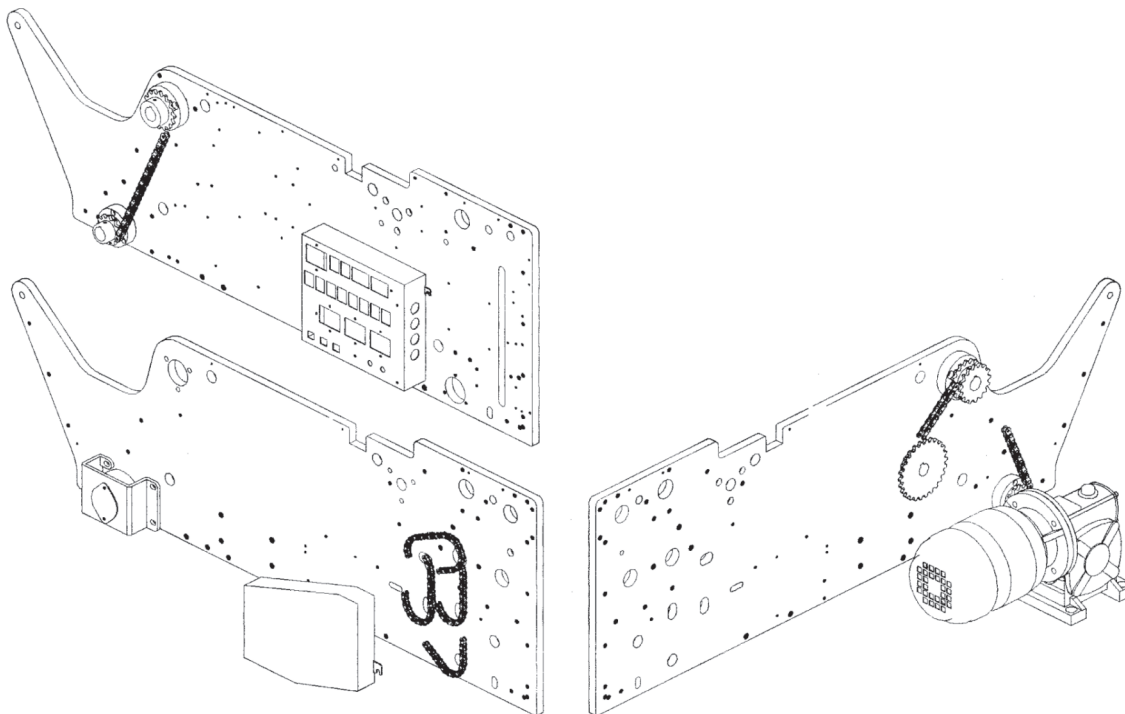
## 简易故障排除

状 况	原 因	对 策
裁断刀片不转动	1、电路保护F1跳脱 2、继电器CR接点烧毁 3、马达碳刷或转子磨损	1、押回再试，正常则继续使用。如一再跳脱，有可能短路，或电路保护器本身故障。 2、更换继电器 3、马达寿命约1.5-3年，建议整个马达更换。
对边布料台不动	1、电路保护器 F3 跳脱 2、继电器ER EL接点烧毁 3、对边马达故障	1、押回再试，正常则继续使用。如一再跳脱，有可能短路，或电路保护器本身故障。 2、更换继电器 3、此马达在未遭撞击情况下不易故障。
无法开启电源	1、电磁接触器（零件号码：P7/30778）内热电译跳脱 2、机器外电源断路	1、掀开电磁接触器外壳，押一下后归杆即可。 2、用电表循线测查。
押 <b>自动</b> 不能自动行走	OP继电器异常。 在送电中OP必处于ON（吸磁）状态， 押钢索 ↓ 让OP断电 ↓ 机器停止 ↓ OP持续断电=不能自动行走	OP电源经由紧急停止钢索端的限制开关而来， 1、检查有无布削包或台车之类压到钢索。 2、钢索端的限制开关角度偏差过大或故障。 3、参考P/14循线检查有无断线  限制开关角度偏差过大时放松 2.螺丝再重锁让 1.轴心再弹回原点。

## Simple trouble removal

Problem	Cause	Countermeasures
Cutter blade doesn't rotate	<ol style="list-style-type: none"> <li>1. Circuit protector F1 jumps</li> <li>2. Relay CR connection point is burned</li> <li>3. Motor carbon brush or rotor is worn</li> </ol>	<ol style="list-style-type: none"> <li>1. Press back and again try out, if normal, continue to use. If over and over again jump, maybe have a short circuit, Or the circuit protector itself has faults.</li> <li>2. Change relay</li> </ol>
Cloth table of opposite side doesn't operate	<ol style="list-style-type: none"> <li>1. Circuit protector F3 jumps</li> <li>2. Relay ER EL connection points are burned</li> <li>3. Opposite side motor is faulted</li> </ol>	<ol style="list-style-type: none"> <li>1. Press back and again try out, if normal, continue to use. If over and over again jump, maybe have a short circuit, or the circuit protector itself has faults.</li> <li>2. Change relay</li> <li>3. Under the situation of not been hit, the motor is difficult to fault.</li> </ol>
Can not start power	<ol style="list-style-type: none"> <li>1. Electromagnetic contactor (part No.: P7/30778) thermal overload relay jumps</li> <li>2. External power of machine opens circuit</li> </ol>	<ol style="list-style-type: none"> <li>1. Open electromagnetic contactor's peripheral, press and then return pole.</li> <li>2. Measure and check with ammeter following the circuit.</li> </ol>
Press <span style="border: 1px solid black; padding: 2px;">RUN</span> but can't toggle autorun	<p>During power transmission, OP must be in ON (magnetic absorption) state.</p> <p style="text-align: center;">             press cables              ↓              let OP interrupt              ↓              machine stops              ↓              OP continues to interrupt              and can not toggle autorun           </p>	<p>Countermeasures: OP power comes from limit switch of emergency stop cables end.</p> <div style="text-align: center;">  </div> <ol style="list-style-type: none"> <li>1. Check whether the cloth cutting package or trolley, etc. are press the cables.</li> <li>2. Angle deviation of cables end limit switch is too large or fault.</li> <li>3. Refer to P/14 to check whether has breakage following the circuit, loosen when the angle deviation of limit switch is too large. The screw of Figure 2 is again re-bolted. The axle center of Figure 1 is again jumped back to the origin.</li> </ol>

## 保养



### 基本保养：

#### 1. 链条：加油与调整松紧

链条加油以40#机油为宜，每2个月加油一次，注意不可过量，避免油污。

链条如果失油，容易磨损。

（上图示链条为必须加油之链条，其他链条请勿加油）

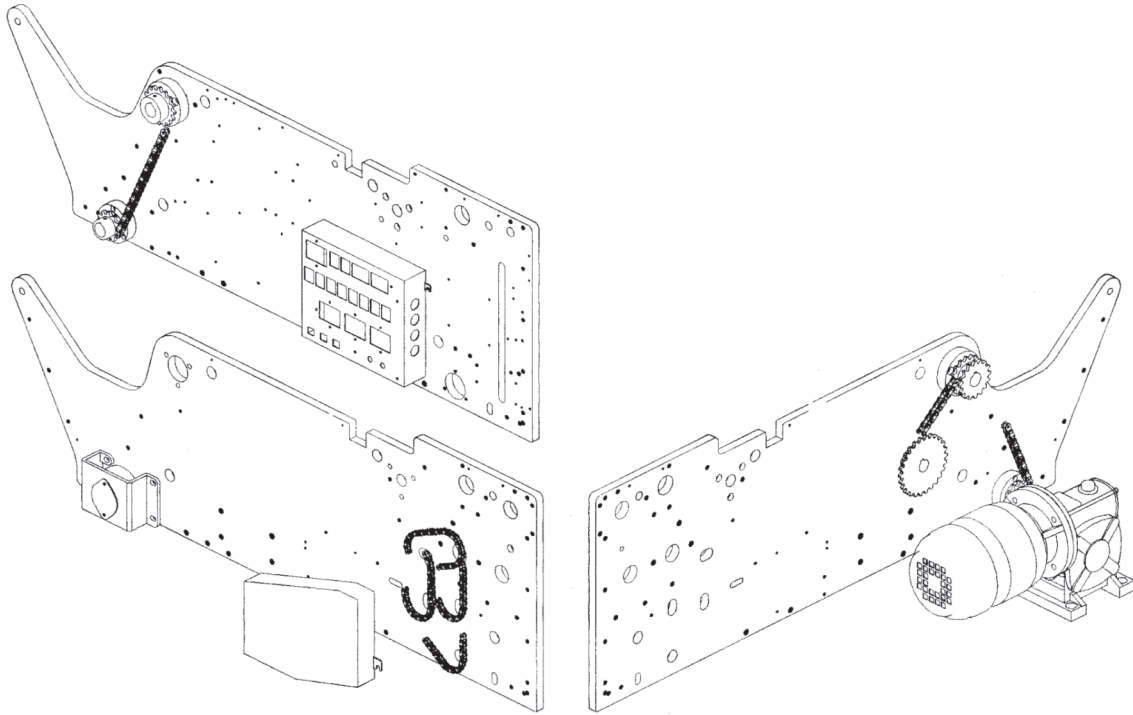
#### 2. 清除积尘

一个星期至少以风枪清洁一次，清洁是工作品质的第一步。

#### 3. 清除轮子表面污垢

轮子表面污垢多为积尘附着，积尘一多容易打滑，造成长度不准。

## Maintenance:



### Basic Maintenance

#### 1. Chain: Add Lubricant And Adjust Elasticity

For lubricant of chain, 40# machine oil is advisable, adding once every 2 months, note not excessive to avoid greasy dirt.

If lacking of oil, the chain is easy to wear.

(The above figure's chain is the chain must add oil, don't add for the other chains)

#### 2. Clean Dust

One week at least clean once with air gun and cleaning is the first step of high-quality work.

#### 3. Clean surface dirt of wheels

The surface dirt of wheels is attached dirt, more dirt easily causes slip to make length not accurate.