

## 前 言 Foreword

欢迎您使用本公司的特种缝纫机控制系统。

Thank you for using our Computerized Control System for Special Sewing Machine.

请您仔细阅读本操作手册，以确保正确的操作、使用特种缝纫机，请按照本手册内注明的方式进行操作，否则，如违规操作所造成损失本公司不承担责任。此外，请将本用户手册妥善保存在安全地点，以便随时查阅。若发生故障须由本公司指定的技术人员或专业人员进行维修。






It is appreciated that you do read this manual carefully in order to operate the machine correctly and effectively. If the user operates the machine contrary to regulations herein, thus cause loss to user or third party, we will not take responsibility. Besides, you should keep this manual for future use. For any fault or problem of machine, please ask the professionals or the technicians authorized by us for repair service

# 安全注意事项 Safety Matters for Attention





## 1. 安全操作的标志及含义 Signs & Definitions of Safety Marks

本使用说明书及产品所使用的安全标志是为了让您正确安全的使用产品，防止您及其他人受到伤害。标志的图案和含义如下：

This User's Manual and the Safety Marks printed on the products are to enable you to use this product correctly so as to be away from personal injury. The signs and definitions of Marks are shown in below:

 危险 Danger	如果忽视此标记而进行错误的操作，会导致人员的重伤或死亡。 The incorrect operation due to negligence will cause the serious personal injury or even death.
 注意 Caution	如果忽视此标记而进行错误的操作，会导致人员的受伤和设备的损坏。 The incorrect operation due to negligence will cause the personal injury and the damage of mechanism.
	该符号表示“应注意事项”。三角中的图案表示必须要注意的内容。（例如左边的图案表示：“当心受伤”） This kind of marks is “Matters for Attention”, and the figure inside the triangle is the content for attention. (Exp. The left figure is “Watch Your Hand!”)
	该符号表示“禁止” This kind of mark is “Forbidden”.
	该符号表示“必须”。圆圈中的图案表示必须要做的内容。（例如左边的图案表示“必须接地”） This kind of mark means “Must”. The figure in the circle is the contents that have to be done. (Exp. The left figure is “Ground!”)

## 2. 安全注意事项 Safety Matters for Attention

 危险 Danger	
	打开控制箱时，先关闭电源开关并将电源插头从插座上拔下后，等待至少5分钟后，再打开控制箱盖。触摸带有高电压的区域会造成人员受伤。 For opening the control box, please turn off the power and take away the plug from socket firstly, and then wait for at least 5 minutes before opening the control box. Touching the part with high voltage will cause the person injury.
 注意 Caution	
<b>使用环境 Usage Environment</b>	
	应避免在强电气干扰源（如高频焊机）的附近使用本缝纫机。强电气干扰源可能会影响缝纫机的正常操作。

	<p>Try not to use this sewing machine near the sources of strong disturbance like high-frequency welding machine.</p> <p>The source of strong disturbance will affect the normal operation of the sewing machine.</p>
	<p>电源电压的波动应该在额定电压的±20%以内的环境下使用。电压大幅度的波动会影响缝纫机的正常操作，需配备稳压器。</p> <p>The voltage fluctuation shall be within 20% of the rated voltage. The large fluctuation of voltage will affect the normal operations of sewing machine, Therefore a voltage regulator is needed in that situation.</p>
	<p>环境温度应在0℃~50℃的范围内使用。低温或高温会影响缝纫机的正常操作。</p> <p>Working temperature: 0℃~50℃.</p> <p>The operation of the sewing machine will be affected by environment with temperature beyond the above range.</p>
	<p>相对湿度应在5%~95%的范围内，并且设备内不会形成结露的环境下使用。干燥、潮湿或结露的环境会影响缝纫机的正确操作。</p> <p>Relative Humidity: 5%~95%(No dew inside the machine), or the operation of sewing machine will be affected.</p>
	<p>压缩空气的供气量应大于缝纫机所要求的总耗气量。压缩空气的供气量不足会导致缝纫机的动作不正常。</p> <p>The supply of compressed gas shall be over the consumption required by the sewing machine. The insufficient supply of compressed gas will lead to the abnormal action of sewing machine.</p>
	<p>万一发生雷电暴风雨时，关闭电源开关，并将电源插头从插座上拔下。雷电可能会影响缝纫机的正确操作。</p> <p>In case of thunder, lightning or storm, please turn off the power and pull plug out the socket. Because these will have influence on the operation of sewing machine.</p>
<b>安装Installation</b>	
	<p>请让受过培训的技术人员来安装缝纫机。</p> <p>Please ask the trained technicians to install the sewing machine.</p>
	<p>安装完成前，请不要连接电源。</p> <p>如果误按启动开关，缝纫机动作会导致受伤。</p> <p>Don't connect machine to power supply until the installation is finished.</p> <p>Otherwise the action of sewing machine may cause personal injury once the start switch is pressed at that situation by mistake.</p>
	<p>缝纫机头倒下或竖起时，请用双手操作。不要用力压缝纫机。</p> <p>如缝纫机失去平衡，缝纫机滑落到地上会造成受伤或机器损坏。</p> <p>When you tilt or erect the head of sewing machine, please use both of your hand in that operation. And never press the sewing machine with strength.</p> <p>If the sewing machine loses its balance, it will fall into floor thus causes the personal injury or mechanical damage.</p>

	<p>必须接地。 接驳地线不牢固，是造成触电或误动作的原因。 Grounding is a must. If the grounding cable is not fixed, it may cause the electric-shock and mis-operation of machine</p>
	<p>所有电缆应固定在离活动部件至少25mm以外处。另外，不要过度弯曲或用卡钉固定得过紧。会引起火灾或触电的危险。 The entire cables shall be fixed with a distance at 25mm away from the moving component at least. By the way, don't excessively bend or tightly fixed the cable with nails or clamps, or it may cause the fire or electric shock.</p>
	<p>请在机头上安装安全罩壳。 Please add security cover on the machine head.</p>
<p><b>缝纫Sewing</b></p>	
	<p>本缝纫机仅限于接受过安全操作培训的人员使用。 This sewing machine can only be used by the trained staff.</p>
	<p>本缝纫机不能用于除缝纫外的任何用途。 This sewing machine has no other usages but the sewing.</p>
	<p>使用缝纫机时必须戴上保护眼镜。 如果不戴保护眼镜，断针时机针折断部分可能会弹入眼睛造成伤害。 When operating the sewing machine, please remember to put on the glasses. Otherwise, the broken needle will cause the personal injury in case the needle is broken.</p>
	<p>发生下列情况时，请立即切断电源。否则误按下启动开关时，会导致受伤。 1.机针穿线时          2.更换机针时          3.缝纫机不使用或人离开缝纫机时 At following circumstances, please cut off the power at once so as to avoid the personal injury caused by the mis-operation of start switch: 1.Threading on needles; 2. Replacement of needles; 3. The sewing machine is left unused or beyond supervision</p>
	<p>缝纫过程中，不要触摸任何运动部件或将物件靠在运动部件上，因为这会导致人员受伤或缝纫机损坏。 At working, don't touch or lean anything on the moving components, because both of the above behaviors will cause the personal injury or the damage of the sewing machine.</p>
	<p>如果缝纫机操作中发生误动作，或听到异常的噪声或闻到异常的气味，应立即切断电源。然后请与购买商店或受过培训的技术人员联系。 During working, if the mis-operation happens or the abnormal noise or smell is found at the sewing machine, user shall cut off the power at once, and then contact the trained technicians or the supplier of that machine for solution.</p>
	<p>如果缝纫机出现故障，请与购买商店或受过培训的技术人员联系。 For any trouble, please contact the trained technicians or the supplier of that machine.</p>

<b>维护和检查Maintenance &amp; Inspection</b>	
	<p>只有经过训练的技术人员才能进行缝纫机的维修、保养和检查。 Only can the trained technicians perform the repair, maintenance and inspection of this sewing machine.</p>
	<p>与电气有关的维修、保养和检查请及时与电控厂家的专业人员进行联系。 For the repair, maintenance and inspection of the electrical component, please contact the professionals at the manufacturer of control system in time.</p>
	<p>发生下列情况时，请关闭电源并拔下电源插头。否则误按启动开关时，会导致受伤。 1. 检查、调整和维修                      2. 更换弯针、切刀等易损零部件 At following circumstances, please cut off the power and pull off the plug at once so as to avoid the personal injury caused by the mis-operation of start switch:. 1.Repair, adjustment and inspection    ; 2.Replacement of the component like curve needle, knife and so on</p>
	<p>在检查、调整和修理任何使用气动设备之前，请先断开气源，并等压力表指针下降到“0”为止。 Before the inspection, adjustment or repair of any gas-driven devices, user shall cut off the gas supply till the pressure indicator falls to 0.</p>
	<p>在必须接上电源开关和气源开关进行调整时，务必十分小心遵守所有的安全注意事项。 When adjusting the devices needing the power supply and gas supply, users can' t be too careful to follow the entire Safety Matters for Attention</p>
	<p>未经授权而对缝纫机进行改装而引起的缝纫机损坏不在保修范围内。 If the sewing machine damages due to the unauthorized modification, our company will not be responsible for it.</p>

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# 1概要说明General Information

## 1.1 技术参数表 Specifications of 1900B/1903B

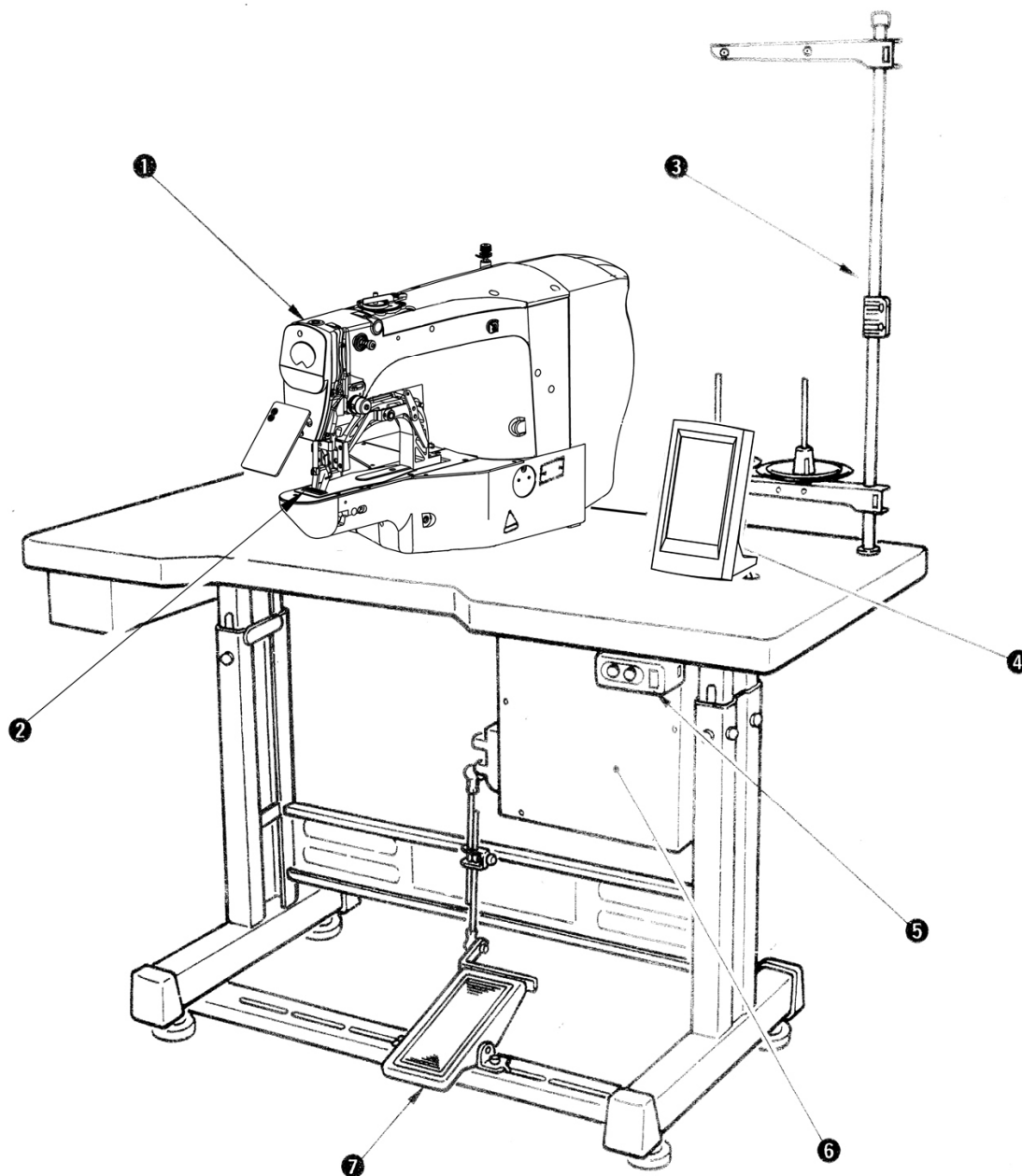
No.	<div style="text-align: center;">TYPE 项 目 机 型 ITEM</div>	<b>1900B</b>
1	用途 Purpose	套结 Bartacking / Button Lockstitch
2	缝制范围 Sewing Area	X(左右) 方向 40mm × Y(前后) 方向 30mm X(lateral) direction 40mm × Y(longitudinal) direction 30mm
3	最高缝纫速度 MAX. Sewing Speed	最高3000rpm (双倍旋梭是2700rpm) 3000rpm (when sewing pitches are less than 4.5mm in X-direction and 3.5mm Y-direction)
4	缝迹长度 Stitch Length	0.1mm – 10.0mm (0.1mm 单位) 0.1mm – 10.0mm (adjustable in 0.1mm step)
5	送布 Feed Motion of Work Clamp Foot	间接送布(脉冲马达2轴驱动方式) Intermittent Feed(2-draft drive by stepping motor)
6	针杆行程 Needle Bar Stroke	41.2mm
7	机针 Needle	DP × 5 #14 (DP×5 #11(F,M), (DP×17#21H))
8	抬压脚方式 Type of driving Work Clamp Foot	脉冲马达 Driven by pulse stepping motor
9	压脚上升量 Lift of Work Clamp Foot	标准13mm, 最大17mm 13mm (Standard), Max. 17mm
10	标准花样数 Total Number of Standard Patterns	100个 100
11	拨线方式 Wiper Type	脉冲马达抬压脚连动 To work together with Work Clamp Foot driven by Stepping Motor
12	面线张力 Needle ThreaTension	电子夹线器 Electrical Thread Tension Release
13	旋梭 Shuttle	半旋转标准旋梭或半旋转倍旋梭 Standard Semi-rotary Hook (oil wick lubrication)
14	加油方式 Lubricating Method	旋转部: 微量加油 Rotary Part: Lubricate with minimum amount
15	机油 LubricatingOil(Liquid)	缝纫机油 Ordinary Sewing Machine Lubricating Oil (Liquid)
16	润滑脂 Grease	缝纫机用润滑脂 Ordinary Sewing Machine Grease
17	数据记忆 Data Recording	Flash Memory

18	放大缩小功能 Enlarging/Reducing Facility	X方向、Y方向各自独立缩放20%~200% (1%单位) 20%~200%(1% step) in X direction and Y direction respectively
19	放大缩小方式 Enlarging/Reducing Method	线迹长度增减方式 By increasing/decreasing the stitch length
20	缝制速度限制 Max. Sewing Speed Limitation	400-3000rpm(100rpm单位) 400-3000rpm (100rpm step)
21	花样选择功能 Pattern Selection	花样号码指定方式(1-200) Specifying Pattern No. Type(1-200)
22	底线记数 Bobbin Thread Counter	上转/下转方式(0 - 9999) Up/Down Type (0 - 9999)
23	机械马达 Sewing Machine Motor	550W 小型AC伺服马达(直接驱动方式) 550W Compact AC Servomotor (Direct Drive)
24	外形尺寸 Dimensions	263mm×153mm×212mm
25	控制箱重量 Weight	10 Kg
26	消耗电力 Power Consumption	600W
27	使用温度范围 Operation Temperature Range	0°C - 50°C
28	使用湿度范围 Operation Humidity Range	5% - 95% (无结露) 5% - 95% (No Dew Condensation)
29	电源电压 Line Voltage	单相 AC 220V ± 10%; 50-60Hz Single Phrase AC 220V ± 10%; 50-60Hz

※最高缝制速度请根据缝制条件降低速度使用

※The highest sewing speed according to the sewing conditions reduce speed

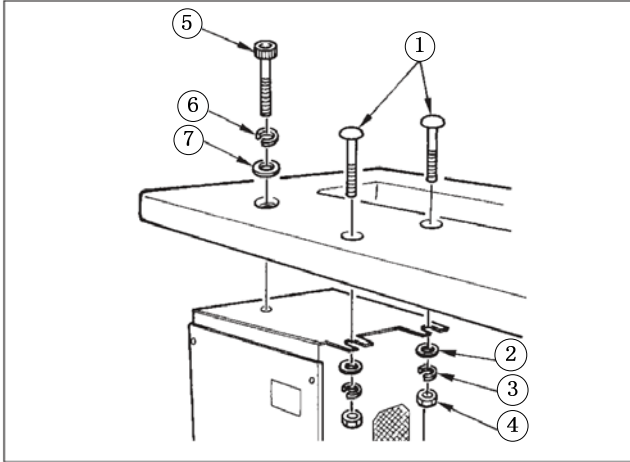
## 1.2 主机名称 Names of main unit



- |         |                 |
|---------|-----------------|
| ① 缝纫机机头 | Machine head    |
| ② 布压脚   | Work clamp feet |
| ③ 线架装置  | Thread stand    |
| ④ 操作盘   | Operation panel |
| ⑤ 电源开关  | Power switch    |
| ⑥ 控制箱   | Control box     |
| ⑦ 踏板开关  | Pedal switch    |

## 2 安装 INSTALLATION

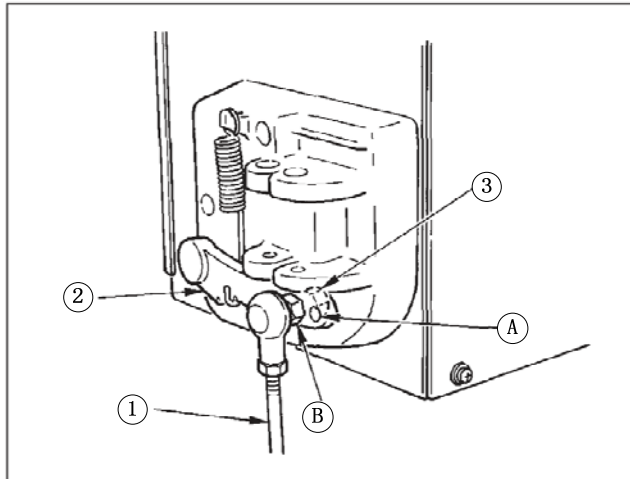
### 2.1 电气箱的安装 Installing the electrical box



缝纫机机台上附属的：圆头螺栓① 平垫片② 弹簧垫片③ 螺母④ 按照图示的位置安装好，再把头上有六角凹坑的螺栓⑤ 弹簧片⑥ 平垫片⑦ 按照图示的位置安装好。

Install the electrical box on the underside of the table at the location illustrated using: round-head bolt ①, plain washer ②, spring washer ③ and nut ④ supplied with the machine, and using bolt having hexagonal indentation on the head ⑤, spring washer ⑥ and plain washer ⑦ supplied with the machine.

### 2.2 连接杆的安装方法 Attaching the connecting rod



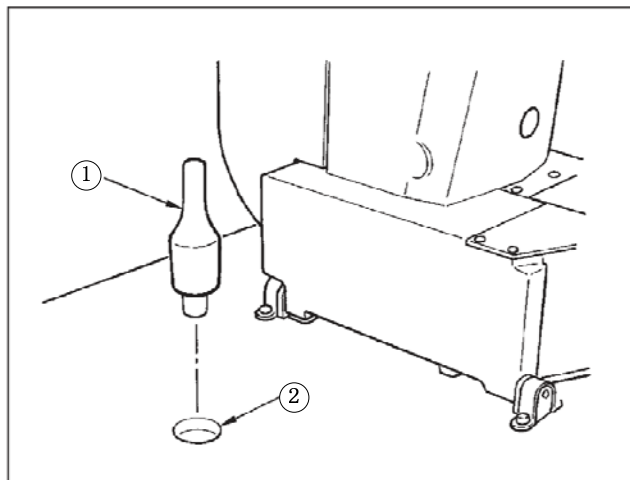
1) 连接杆① 用螺母③ 固定到踏板拨杆②的安装孔B。

2) 把连接杆①安装到安装孔A之后，踏板的踩踏行程变大。

1) Fix connecting rod ① to installing hole B of pedal lever ② with nut ③.

2) when connecting rod ① is installed in installing hole A, the depressing stroke of the pedal is increased.

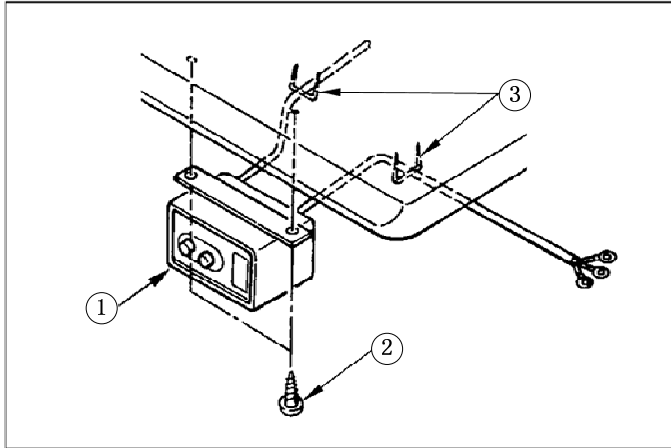
### 2.3 机头部支杆的安装 Installing the head support rod



把机头部支杆①钉到机台孔②里。

Drive head support rod ① in hole ② in the machine table.

## 2.4 电源开关的安装、连接 Installing and connecting the power switch



### (1) 电源开关的安装

请把电源开关① 用木螺丝② 固定到机台下面。请根据使用形态，用附属的卡扣③ 固定好电源线。

※卡扣③包括固定操作盘电缆共附属了5个。

(1) Fix power switch ① under the machine table with wood screws ②. Fix the cable with staples ③ supplied with the machine as accessories in accordance with the forms of use.

※Five staples ③ including the staple for fixing the operation panel cable are supplied as accessories.

### (2) 电源线的连接 Connecting the power source cord

在电压表示标签上写有电源规格。请根据规格选择电线。

Voltage specifications at the time of delivery from the factory are indicated on the voltage indication seal. Connect the cord in accordance with the specifications.

**注：**在电压规格不同的情况下绝对不能使用。

Voltage specifications at the time of delivery from the factory are indicated on the voltage indication seal. Connect the cord in accordance with the specifications.

## 2.5 缝纫机机头的安装 Installation of the sewing machine head



搬运缝纫机时，请一定2人以上

To prevent possible accidents caused by the full of the sewing machine, perform the work by two persons or more when the machine is moved.

1) 把胶垫①插到机轴上，固定缝纫机主机。

2) 拧紧固定铰链橡胶①的螺母③时，请拧紧螺母③让弹簧垫②呈图中 B 所示的那样，然后用螺母④进行固定。

1) Fit hinge rubber ① to the hinge shaft ,and fix the sewing machine main unit.

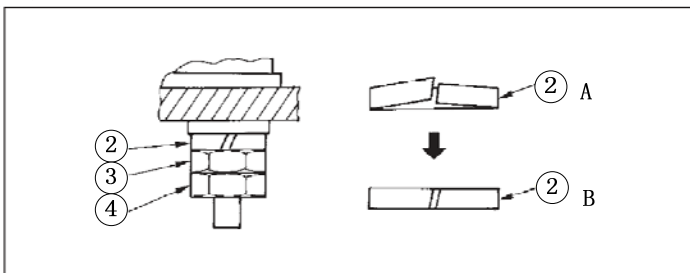
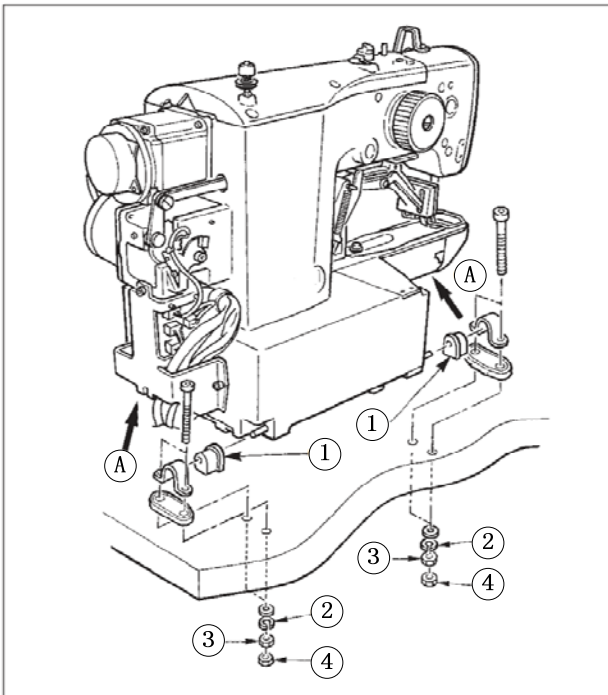
2) When tightening nut ③ to hinge rubber ①, tighten nut ③ until spring washer ② becomes as B in the illustration, and fix it with nut ④.

**注：**铰链橡胶①拧得过紧的话，就会妨碍其功能的正常发挥，请注意。

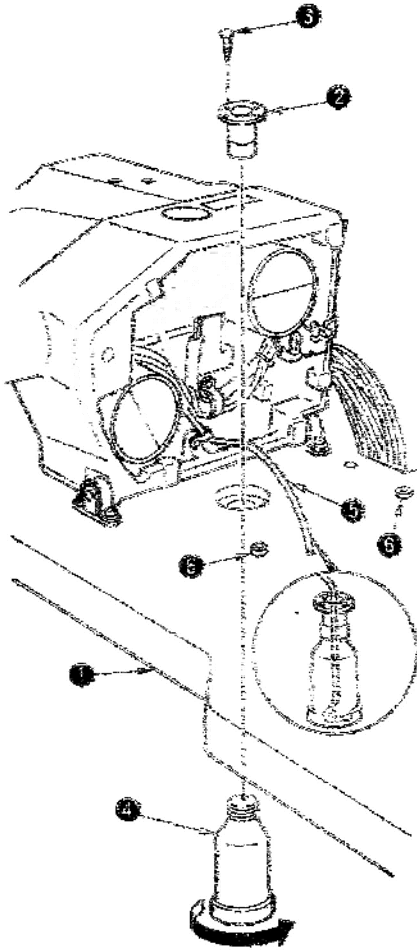
If tightening hinge rubber ① excessively, it will not work properly. So, be careful.

**注：**搬运缝纫机时，请手拿Ⓐ部。

Hold section ④ when moving the sewing machine.



## 2.6 废油槽和机头支撑橡胶的安装 Installing the drain receiver and the head support rubber



- 1) 用固定螺丝③（4个）把废油槽②固定到机台①的安装孔上。
- 2) 把废油销④拧进废油槽②。
- 3) 把缝纫机废油管⑤插到废油销④里。
- 4) 把机头支撑橡胶⑥插进机台①。

- 1) Fix drain receiver ② in the installing hole of table ① with four setscrews ③
- 2) Screw in drain bin ④ to drain receiver ②.
- 3) I insert sewing machine drain pipe ⑤ into drain bin ④.
- 4) Insert head support rubber ⑥ into table ①.

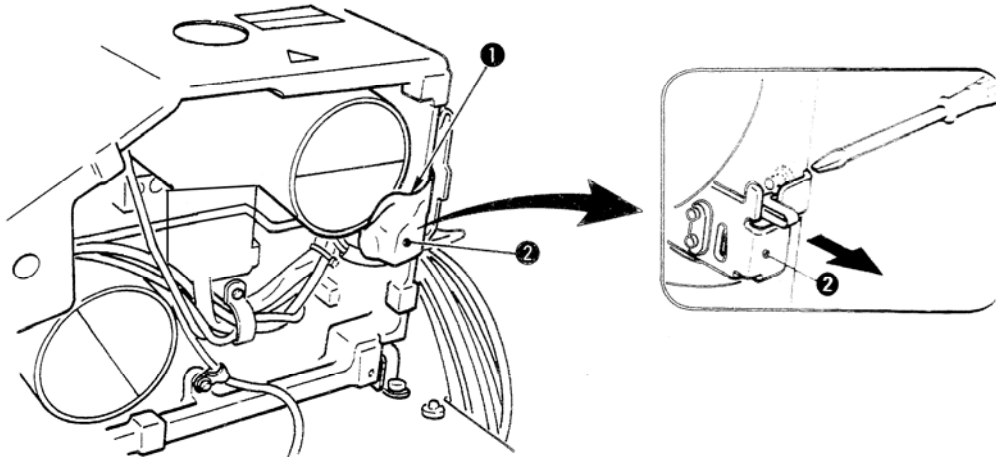
**注**：1. 放倒缝纫机头后，废油管⑤应该不从废油销④脱落，牢牢地插到最里面。

2. 请卸下固定废油管⑤的胶带。

1. Insert drain pipe ⑤ until it will go no further so that it does not come off drain bin ④ when tilting the machine head.

2. Remove the tape fixing drain pipe ⑤.

## 2.7 安全开关 Safety switch



请取下固定安全开关②的拨杆部的胶带①。

Remove tape ① fixing the lever section of safety switch ②.

- 注**：1. 不取下胶带①使用的话，放倒缝纫机的状态下缝纫机也会转动，非常危险。  
2. 安装后，缝纫机动作时如果发生异常，请用螺丝刀拧紧安全开关安装螺丝，向缝纫机的下方调整安全开关②的位置。
1. When using the safety switch without removing tape ①, it is very dangerous since the sewing machine works even in the state that it is tilted.
  2. In case error 302 occurs when the sewing machine works after setup, loosen the safety switch fitting screw with a screwdriver, and lower the safety switch ② to the downside of the sewing machine.



## 2.8 缝纫机的放倒方法 Tilting the sewing machine head

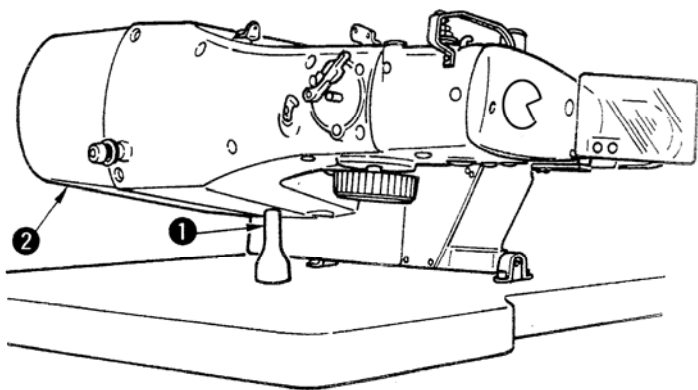


放倒缝纫机和抬起缝纫机时，请注意不要让缝纫机夹住手指。同时，为了防止突然的启动发生以外的事故，请把电源关掉之后再进行操作。

**Tilt/raise the sewing machine head with both hands taking care not to allow your fingers to be caught in the head. Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.**

放倒缝纫机时，请轻轻地放，把缝纫机放在机头支杆①上。

When tilting the sewing machine head, tilt the head gently until it comes in contact with head support rod ①.

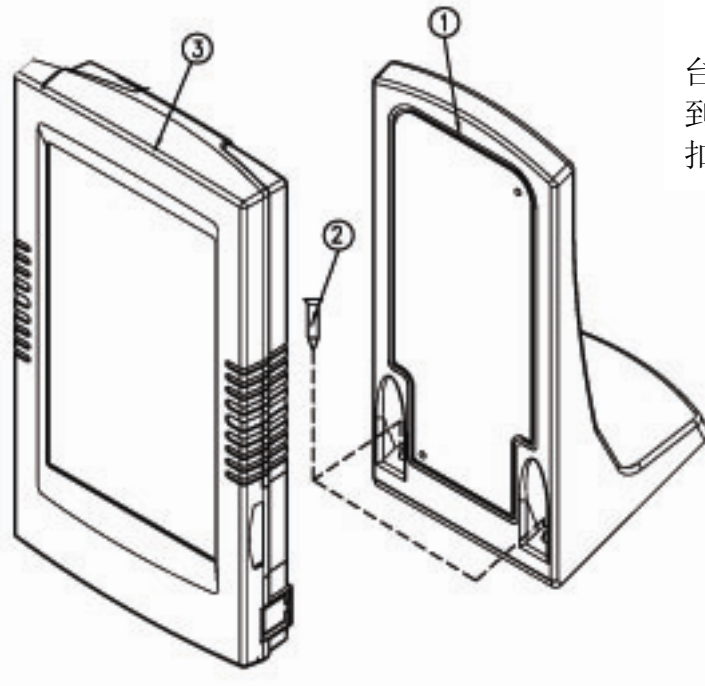


**注：**

1. 放倒缝纫机前，请先确认机台上是否安装有机头支杆①。
2. 抬起缝纫机时，请不要搬马达外罩②来抬起缝纫机，以免防止马达连外罩②损坏。
3. 为了防止翻倒机器，请一定在平坦的地方放倒缝纫机。

1. Before tilting the sewing machine head, make sure that head support rod ① is attached to the machine table.
2. When raising the sewing machine head, do not raise it while holding motor cover ②. It will be the cause of breakage of motor cover ②.
3. Be sure to tilt the sewing machine head on a flat place to prevent it from falling

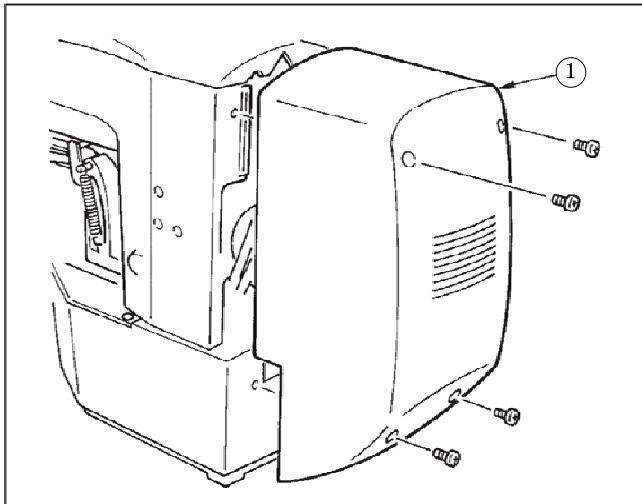
## 2.9 操作盘的安装 **Installing the operation panel**



用木螺丝②把操作盘安装板①固定到机台上，把电缆线穿过机台孔。把操作盘③吸合到操作盘安装板①上。请把电缆线用附属的卡扣固定到机台背面。

Fix operation panel installing plate ① on the machine table with wood screws ② and pass the cable through hole in the machine table. Fix the operation panel on panel installing plate ① with screws ③ supplied as accessories. Fix the cable on the bottom surface of the table with the staples supplied with the machine as accessories.

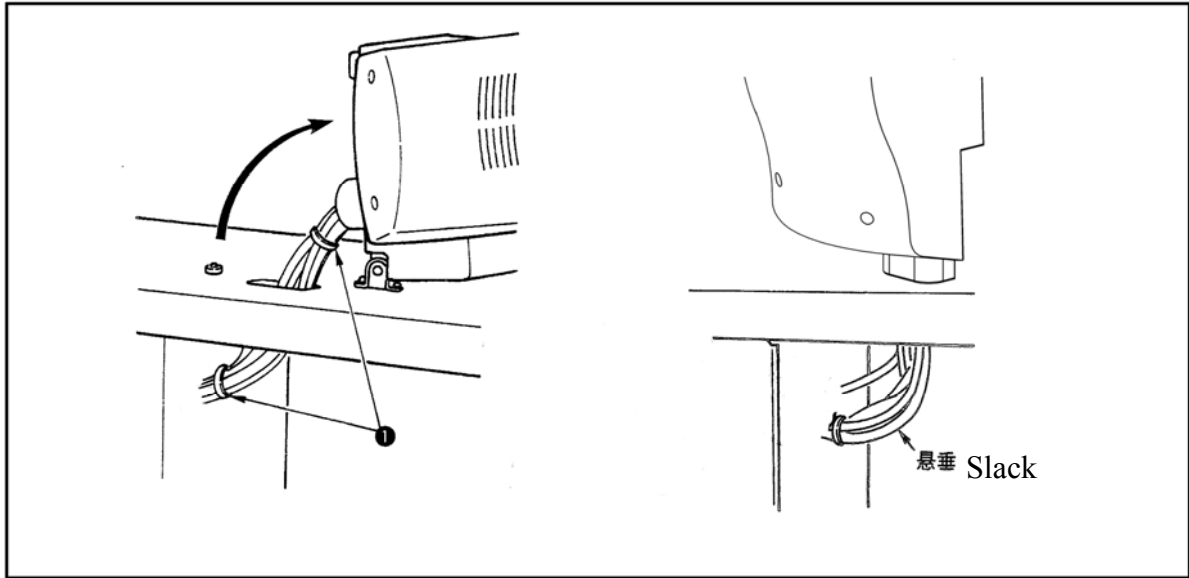
## 2.10 马达护罩的安装 **Installing the motor cover**



把马达护罩①用附属的螺丝安装到缝纫机主机上。

Install motor cover ① on the machine main unit with screws supplied with the machine as accessories.

## 2.11 电线的处理 Managing the cord



- 1) 在放倒缝纫机的状态，连接电线，如图所示用线束夹①捆紧。
- 2) 如图所示，让电线稍稍弯垂，
  - 1) In the state that the sewing machine is tilted, connect the cords, and bundle them with clip band ① as shown in the figure.
  - 2) Fix the cords with cords setting plate ② in the state that the cords slacken as shown in the figure.

**注**：放倒缝纫机时，请确认机头支杆安装在机台上。

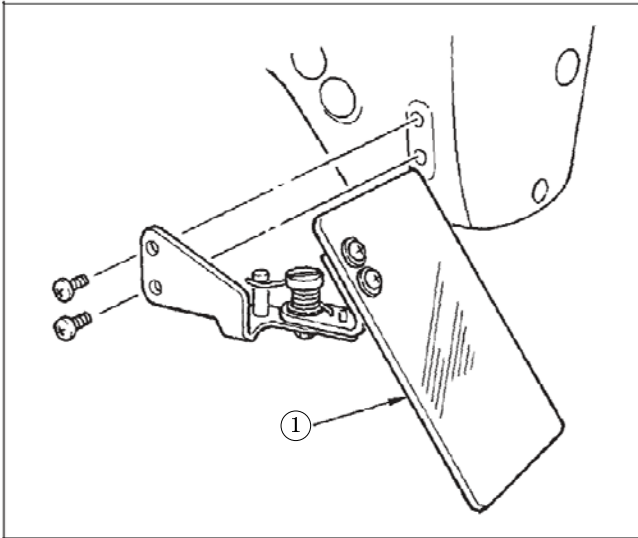
**When you tilt the sewing machine, make sure that the sewing machine head support bar is placed on the table.**

## 2.12 眼睛保护罩的安装 Installing the eye protection cover



为了保护断针飞起弄伤眼睛，请一定安装起来。

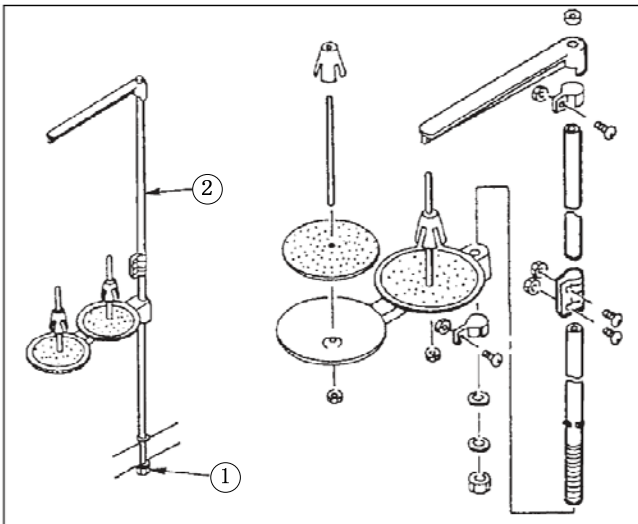
Be sure to attach this cover to protect the eyes from the disperse of needle breakage.



请一定安装眼睛保护罩①后使用缝纫机。

Be sure to attach the eye protection cover  
① before using the sewing machine.

## 2.13 线架的安装 Installing the thread stand



- 1) 如图所示那样把线架安装到机台孔上。
- 2) 用固定螺母①固定线架。
- 3) 顶线配线时，请把电源线从线架杆②中穿过。

- 1) Assemble the thread stand unit, and insert it in the hole in the machine table.
- 2) Tighten locknut ① to fix the thread stand.
- 3) For ceiling wiring, pass the power cord through spool rest rod ②.

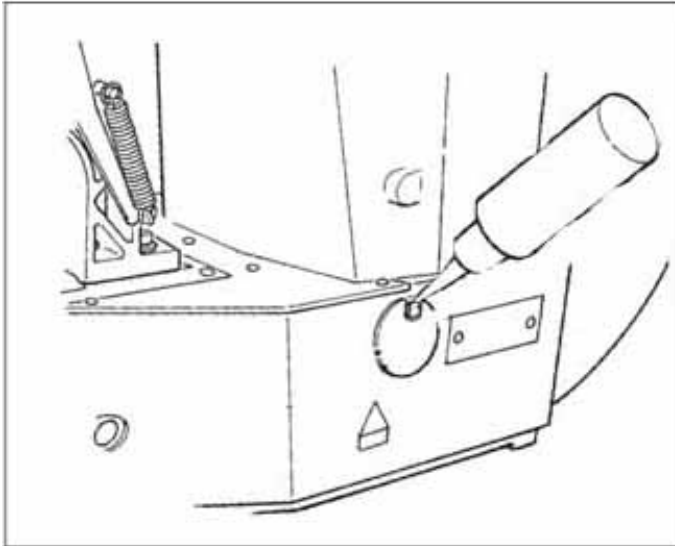
### 3. 缝纫机的准备 OPERATION OF THE SEWING MACHINE

#### 3.1 加油方法 Lubrication



为了防止突然启动造成人身事故，请关掉电源后再进行。

**Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.**



请确认机油是否油量过少。如果机油过少时，请用附属的加油器进行加油。

※加油的油槽仅是向旋梭和摆齿加油的。使用转速低时，如果旋梭的油量过多，可以把油量调小。

Check that the place between lower line B and upper line A is filled with oil. Fill there with oil using the oiler supplied with the machine as accessories when oil is short.

※The oil tank which is filled with oil is only for lubricating to the hook portion. It is possible to reduce the oil amount when the number of rotation used is low and the oil amount in the hook portion

**注：**

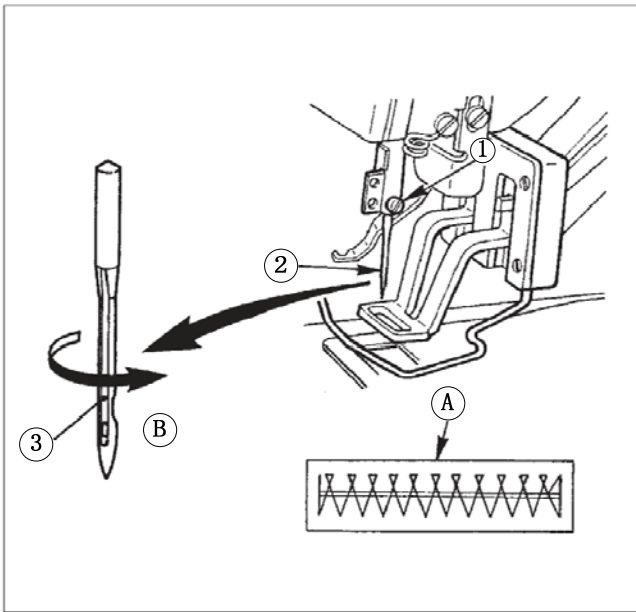
- 1、 请注意不要向油槽和下列注意2的旋梭及摆齿以外的部位加油。否则会发生零件故障。
  - 2、 初次使用缝纫机或较长时间没有使用缝纫机时， 请向旋梭加少量的机油后再使用缝纫机。
- 1、 Do not lubricate to the places other than the oil tank and the hook of Caution 2 below. Trouble of components will be caused.
- 2、 When using the sewing machine for the first time or after an extended period of disuse, use the machine after lubricating a small amount of oil to the hook portion.

#### 3.2 机针的安装方法 Attaching the needle



为了防止突然启动造成人身事故，请关掉电源后再进行。

**Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.**



安装机针时，请拧松固定螺丝①，把机针②的长沟③朝向面前，插进针杆的深处，然后拧紧

Loosen setscrew ① and hold needle ② with the long groove facing toward you. Then fully insert it into the hole in the needle bar, and

**注**：缝迹如Ⓐ时，请把机针向Ⓑ方向稍稍移动然后安装起来。

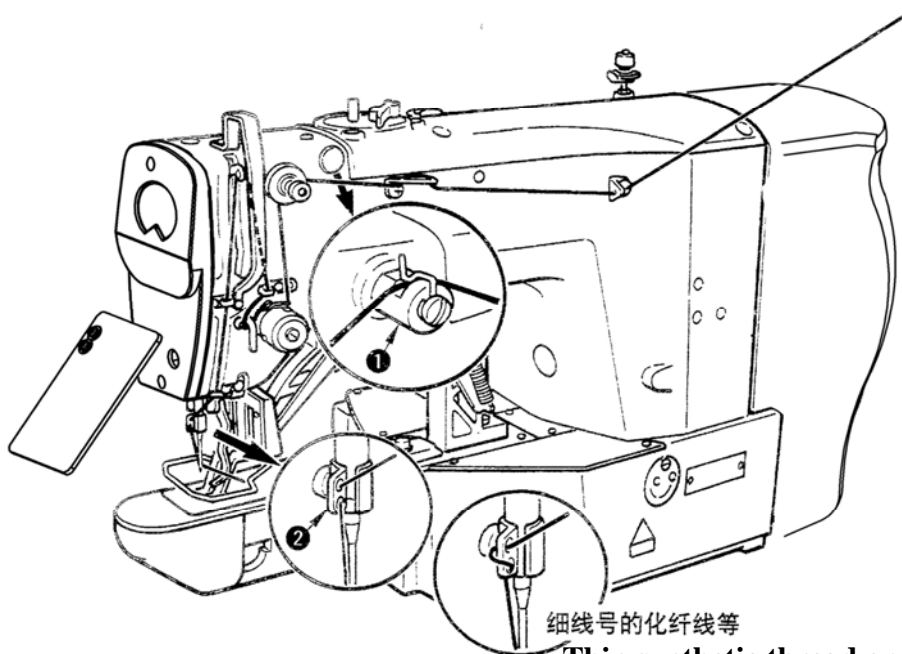
If the stitches are made as shown in Ⓐ, attach the needle facing to the direction Ⓑ to a small extent.

### 3.3 上线的穿线方法 Threading the machine head



为了防止突然启动造成人身事故，请关掉电源后再进行。

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.



Thin synthetic thread or the


穿过机针的线应留出4cm左右。


Pull out the thread by approximately 4 cm from the needle after threading through the needle

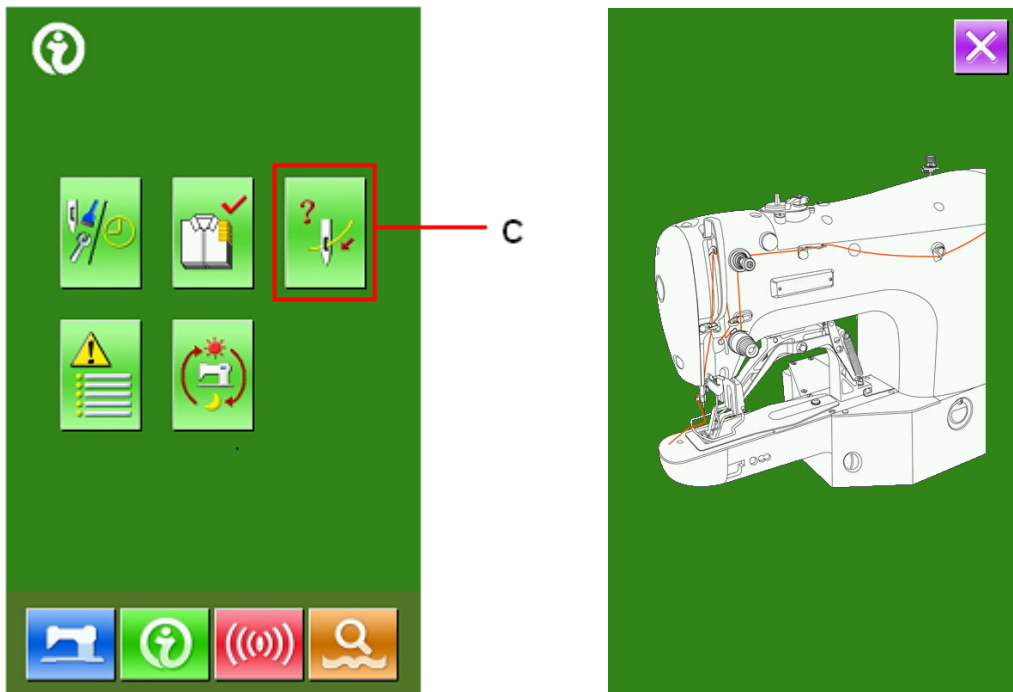
**注：**

- 1、使用硅油时，请把线穿过润滑导线器①。
  - 2、粗线时，请把机线只穿过针杆导线器②1个孔。
- 1、When the silicon oil is used, thread through thread guide for silicon ①.
  - 2、For thick thread, pass the thread through one hole only of needle bar thread guide②.

### 3.3.1 穿线 Threading

信息界面按下  (C) 之后，上穿线图被显示出来。穿线时，请参阅。

At information interface , press  (c) , On stringing diagram is displayed, when you thread, Please see

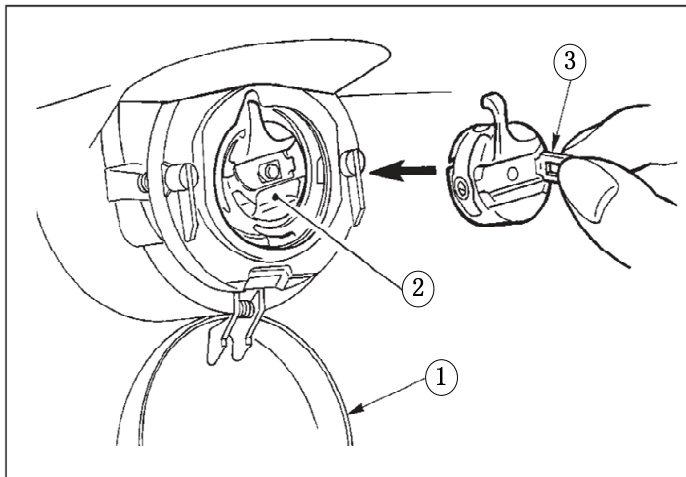


### 3.4 梭壳的取下插入 Installing and removing the bobbin case



为了防止突然启动造成人身事故，请关掉电源后再进行。

**Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.**



- 1) 打开旋梭外罩①。
- 2) 拨起旋梭壳②的抓脚③，取出旋梭。
- 3) 插入时，请把梭壳深深插入旋梭轴，并关闭抓脚。

- 1) Open hook cover ①.
- 2) Raise latch ③ of bobbin case ②, and remove the bobbin case.
- 3) When installing the bobbin case, fully insert it into the shuttle shaft, and close the



如果没有插到底，缝制途中梭壳 ② 就有可能脱落。

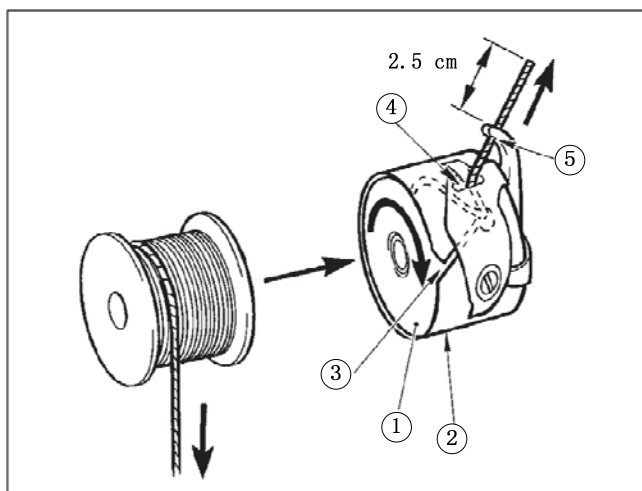
**If it is not fully inserted, bobbin case ② may slip off during sewing.**

### 3.5 旋梭的插入方法 Installing the bobbin



为了防止突然启动造成人身事故，请关掉电源后再进行。

**Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.**



- 1) 把旋梭 ① 按图示的方向插入梭壳 ②。
- 2) 把线穿过梭壳 ② 的穿线口 ③，然后拉线把线从线张力弹簧下面的穿线口 ④ 拉出来。
- 3) 把线从角部的线孔⑤穿出，从线孔约拉出 2.5 cm。

1) Set the bobbin q into bobbin case w in the direction shown in the figure.

2) Pass the thread through thread slit ③ of bobbin case ②, and pull the thread as it is. By so doing, the thread will pass under the tension spring and be pulled out from thread hole ④.

3) Pass the thread through thread hole ⑤ of the horn section, and pull out the thread by 2.5 cm from the thread

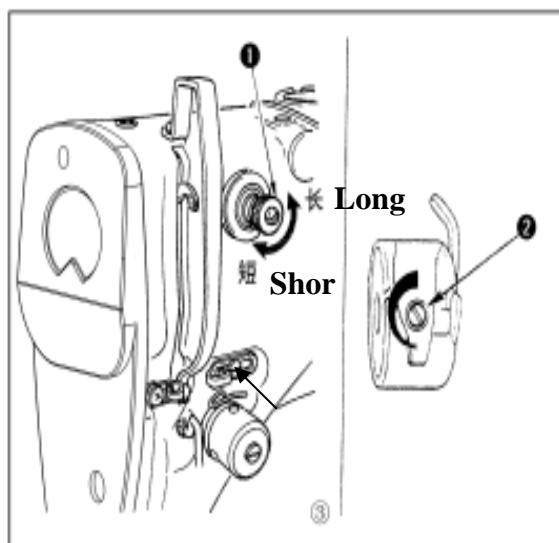


旋梭的旋转方向相反的话，底线的拉出就不稳定。

**If the bobbin is installed in the bobbin case orienting the reverse direction, the bobbin thread pulling out will result in an inconsistent state.**



### 3.6 线张力的调整方法 Adjusting the thread tension



#### 上线张力的调整

张力旋钮③向右转动，面线紧，向左转面线变松

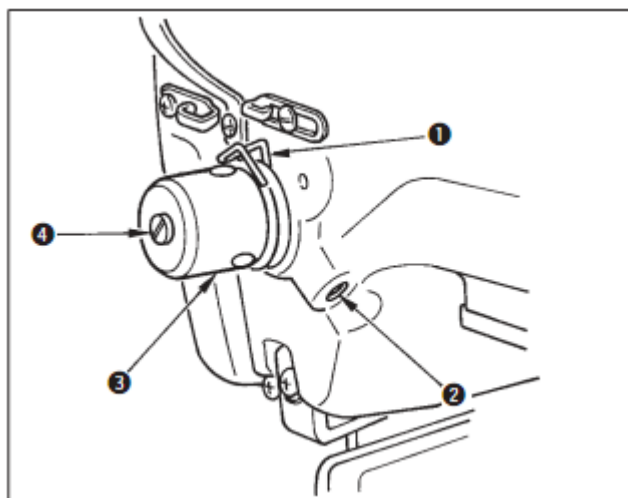
※标准出货时，第二线张力旋钮设定值1.5N（缝纫机线#50）。（第1线张力盘开放时）

#### Adjusting the needle thread tension

If thread tension controller No. 2q is turned Upper thread tension, The tension knob (3) Turn right line tight surface, turn left noodles loose.

※The tension is set 1.5 N(spun thread #50). (When thread tension No. 1 is released)

### 3.7 挑线弹簧的调节 Adjusting the thread take-up spring



挑线弹簧①的标准移动量为8~10mm，开始挑线时的强度为0.1~0.3 N。

#### 1) 移动量的调节

拧松固定螺丝②，转动线张力结合体③。向右转动之后，动作量变大，拉线量变多。

#### 2) 强度的调节

改变挑线弹簧的强度时，请在螺丝②拧紧的状态下，把细螺丝刀插到线张力杆④的缺口部转动调节。向右转动之后，挑线弹簧的强度变强，向左转动之后，强度变弱。

The standard stroke of thread take-up spring ① is 8 to 10 mm, and the pressure at the start is 0.1 to 0.3N.

#### 1) Adjusting the stroke

Loosen setscrew ②, and turn thread tension asm. ③. Turning it clockwise will increase the moving amount and the thread drawing amount will increase.

#### 2) Adjusting the pressure

To change the pressure of the thread take-up spring, insert a thin screwdriver into the slot of thread tension post ④ while screw ② is tightened, and turn it. Turning it clockwise will increase the pressure of the thread take-up spring. Turning it counterclockwise will decrease the pressure.

### 3.8 缝制张力例 Example of the thread tension

初次使用时，请参考下表调整缝制张力。

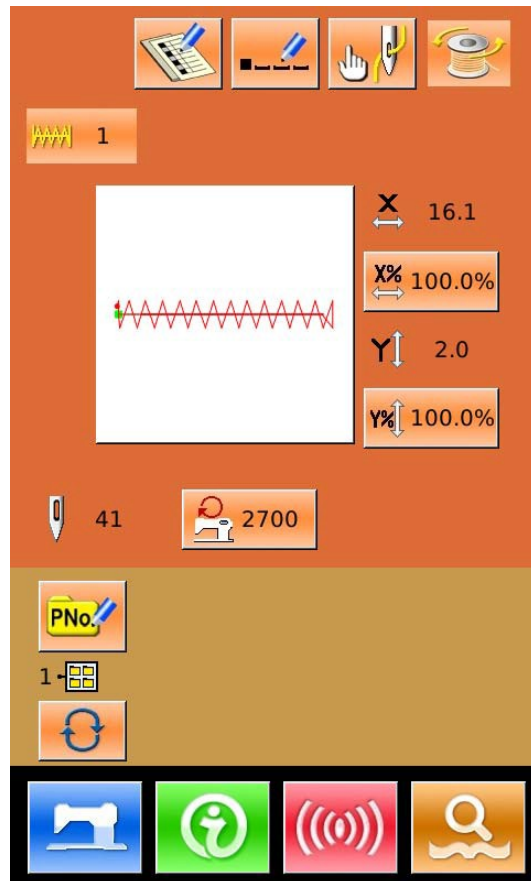
When using the sewing machine for the first time, adjust the thread tension referring to the table below.

机线 Thread	布料 Material	挑线弹簧的动作量（拉 线量） Thread take-up spring moving amount [Thread drawing amount]	强度 Strength
聚酯长纤维线#50 Polyester filament thread#50	毛 Woo	10mm[13mm]	0.1N
聚酯短纤维线#50 Polyester spun thread #50	毛 Woo	10mm[13mm]	0.2N
聚酯短纤维线#60 （抓线OFF） Polyester spun thread #60(Thread clamp OFF)	T/C宽带 T/C broad	8~10mm[11~13mm]	0.1N
棉线#50 Cotton thread #50	牛仔布Denim	10mm[13mm]	0.1N
棉线#20 Cotton thread #20	牛仔布Denim	8~10mm[11~13mm]	0.1N

## 4 操作说明 Operating Instruction

功能按钮采用业界公认的图形标识，图形是国际化语言，各国用户都可以识别。

The button using the common figure can be understood by the users from different countries.



## 4.1 通用按键Common Buttons

在本系统的各界面上进行通用操作的按键如下：

The buttons for the common operation in each interface are shown at below

序号	图标	功能
1		取消键 → 退出当前设定界面。数据变更界面时，取消变更中的数据。 ESC → Quit the current interface. At data change interface, it is for canceling the change of data.
2		确定键 → 确定变更了的数据。Enter → Confirm the changed data
3		加键 → 向上增加数值按键。Plus → Increase the value
4		减键 → 向下减小数值按键。Minus → Decrease the value
5		复位键 → 解除异常。Reset → Release the Error
6		输入键 → 显示数字键盘，可以进行数字的输入。 Number Input → Display the number keyboard and input the number.
7		准备键 → 进行数据输入界面和缝制界面的切换。 READY Key → Shift between the data input interface and sewing interface
8		信息键 → 进行数据输入界面和信息界面的切换。 Information Key → Shift between the data input interface and information interface
9		通信键 → 进行数据输入界面和通信界面的切换。 Communication Key → Shift between the data input interface and communication
10		模式键 → 进行数据输入界面和各种详细设定变换界面的切换。 Mode Key → Shift between the data input interface and communication interface

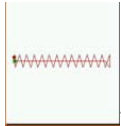
## 4.2 基本操作 Basic Operation

### ① 打开电源开关

打开电源之后，显示出数据输入界面。

### ② 选择想缝制的图案No.

当前界面下会显示出已选择的图案No.，按下花样显示按



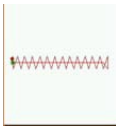
键之后可以选择图案No.。有关花样选择的操作，详见【2.7 花样选择】一节。


### ① Turn on the power

Turn on the power to display the data input interface.


### ② Select the wanted pattern No.

At current interface, the selected pattern No. will be



displayed. Press  to select pattern number For the operation of pattern selection, please refer to 【2.7 Pattern Selection】


### ③ 设定成可以缝制的状态

按准备键  之后，液晶显示的背景颜色变为蓝色，变成可以缝制的状态。

### ④ 开始缝制

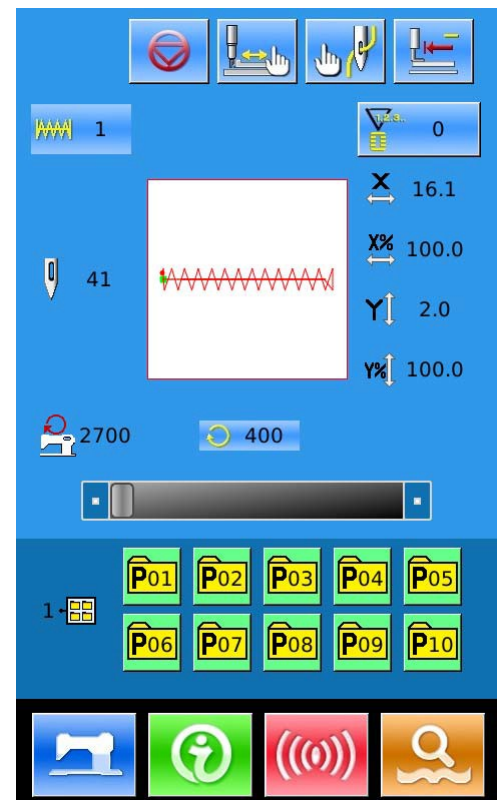
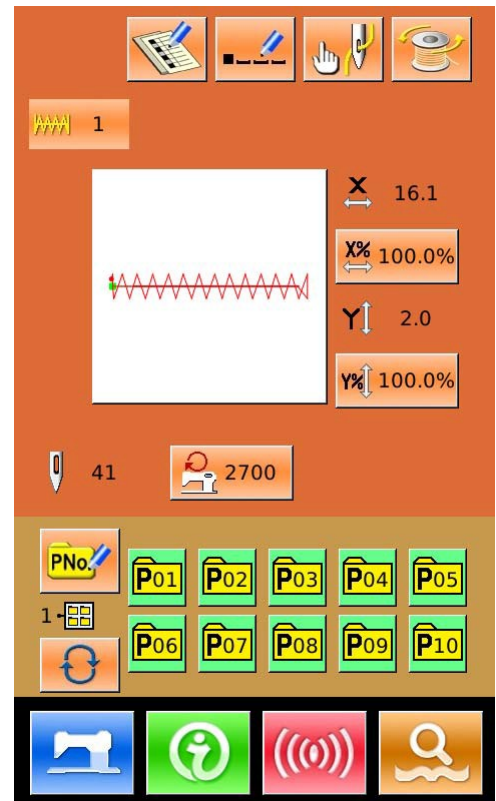
把缝制品安放到压脚部，踩踏板落下压脚，缝纫机启动，开始进行缝制。

### ③ Set machine to Ready Sewing Status

Press READY key . The back-light of LCD displayer changes to blue color and the machine is ready for sewing.

### ④ Start Sewing

Set the sewing product to the presser position; operate the pedal to start the sewing machine, and sewing starts



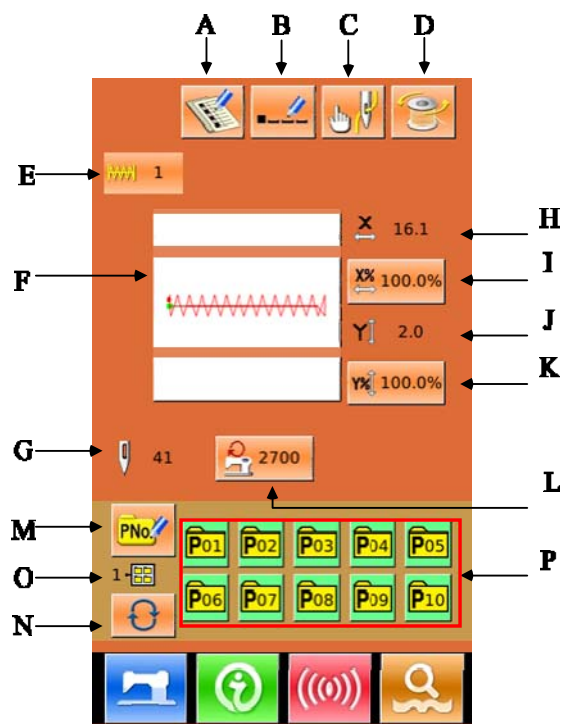
## 4.3 普通花样操作 Operation of Normal Pattern

### (1) 缝制数据输入界面

数据输入界面如右图所示,详细功能说明请 见功能键说明表。



### (1) Sewing Data Input Interface

The data input interface is shown at right. For the detailed functions, please refer to the Function Key List



功能说明:

### Function Key List:


序号No.	功能Function	内容Content
A	花样登记Pattern Registration	可以登记999 个普通花样。 At most, 999 normal patterns can be registered.
B	花样命名Pattern Naming	最多可以输入14 个字符。 At most, 14 figures can be input.
C	穿线 Threading	下降压脚, 显示出下降压脚画面。让压脚上升, 请按下降压脚画 面上显示的上升压脚按键。 Lower the presser to display the interface. For lifting the presser, please press "Presser Up button.
D	绕线 Winding	按下一次准备键  之后方可绕线。 Press  to start winding.

E	花样号码显示 Pattern No. Display	显示当前选择花样号码。 Display the current pattern number
F	缝制形状选择 Sewing Pattern Selection	按键上显示为当前花样缝制形状，按下之后进入花样选择界面。 The button will display the shape of the current pattern. Press it to enter the interface for selecting patterns
G	花样针数显示 Pattern Stitch Number	显示当前选择花样缝纫针数。 Display stitch number of the current pattern
H	X实际尺寸值显示 X Actual Size	显示当前选择花样的X 方向实际尺寸值。 通过参数U64 可以选择输入实际尺寸，此时显示出X 实际尺寸值按键。 Display the actual size of current pattern at X direction. Use parameter U64 to input the actual size, at this moment the X Actual Size button is displayed.
I	X放大缩小率设定 X Scale Rate	按键上显示当前选择花样的X 方向放大缩小率，按下之后进入设置界面。受参数U64 和U88 影响。 The button will display the X scale rate of the current pattern. Press it to enter the interface for setting. It is affected by parameters U64 & U88.
J	Y实际尺寸值显示 Y Actual Size	显示当前选择花样的Y 方向实际尺寸值。 通过参数 U64 可以选择输入实际尺寸，此时显示出 Y 实际尺寸值按键。 Display the actual size of current pattern at Y direction. Use parameter U64 to input the actual size, at this moment the Y Actual Size button is displayed.
K	Y放大缩小率设定 Y Scale Rate	按键上显示当前选择花样的Y 方向放大缩小率，按下之后进入设置界面。受参数U64 和U88 影响。 The button will display the Y scale rate of the current pattern. Press it to enter the interface for setting. It is affected by parameters U64 & U88.
L	最高转速限制 Max Speed	显示最高转速限制值，按下之后可进行设置。 Display the Max Speed. Press this button to set the speed
M	快捷花样(简称P花样)登记 Prompt Pattern (P Pattern) Registration	用于登记P 花样，最多登记50 个。 It is used for P pattern registration. At most, 50 P patterns can be registered.


O	<p>P 花样文件夹号码显示</p> <p>P Pattern File Folder</p>	<p>显示当前P 花样文件夹号码。</p> <p>Display the file folder number of current P pattern</p>
N	<p>P 花样文件夹选择</p> <p>P Pattern File Folder</p>	<p>顺序切换P 花样文件夹号码。</p> <p>Shift P pattern file folder number orderly.</p>
P	<p>P 花样选择</p> <p>P Pattern Selection</p>	<p>显示出已登记的P 花样，按下之后进入P 花样数据输入界面。初期状态不显示该按键。</p> <p>Display the registered P pattern. Press it to enter the interface for inputting P pattern data.。 This button is not displayed at initial status.</p>

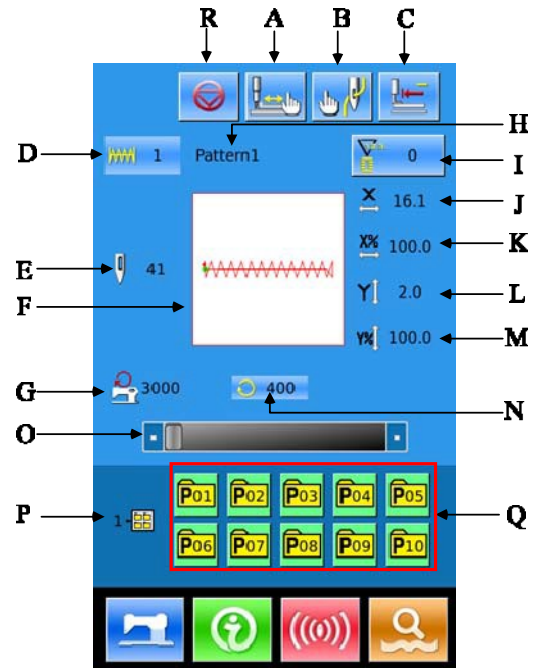


## (2) 缝制界面

按下  进入缝制界面如右图所示。详细功能说明请见功能键说明表。

## (2) Sewing Interface

Press  to enter the Sewing Interface shown as the figure at right. For detailed functions please take the Function Key List for reference.




## 功能说明:

序号	功能	内容
A	试缝	按下后进入试缝界面，可以确定花样形状。
B	压脚下降按键	下降压脚，显示出下降压脚画面。让压脚上升时，请按下降压脚画面上显示的上升压脚按键。
C	原点复位	按下后压脚返回起缝点，上升压脚
D	花样号码显示	显示当前选择花样号码。
E	花样针数显示	显示当前选择花样缝纫针数。
F	花样形状显示	显示当前选择花样形状。



G	最高转速限制显示	显示最高转速限制值。
H	花样名称	显示当前选择花样名称。
I	计数器设置	按下后可以选择计数器类型和设置当前计数值。  : 缝制计数器  : 计件计数器
J	X实际尺寸值显示	显示当前选择花样的X方向实际尺寸值。
K	X放大缩小率设定	显示当前选择花样的X方向放大缩小率。
L	Y实际尺寸值显示	显示当前选择花样的Y方向实际尺寸值。
M	Y放大缩小率设定	显示当前选择花样的Y方向放大缩小率。
N	缝纫速度显示	显示当前缝纫速度。
O	缝纫速度设置	可以变更缝纫速度。
P	P花样文件夹号码显示	显示当前P花样文件夹号码。
Q	P花样选择	显示出已登记的P花样，按下之后进入P花样缝制 界面。初期状态不显示该按键。
R	暂停按键	按下后机器停止运转。 受参数U31 的影响，选择面板暂停按键选项，显示 暂停键，其他选项不显示。

## 4.4 花样登记Pattern Registration



最多可以登记普通花样999个。按下  进入花样登记界面（如右图所示）

999 normal patterns can be registered for the most.  
press  to enter the interface of Pattern Registration (shown as the right figure)


### ① 输入花样号

通过数字键可以选择想要输入的花样 号码，如果输入了已经存在的花样号 码，界面上方会显示出被登记的缝制形状及相关数据。通过  、  键可以 检索未登记的花样号码。

### ① Input Pattern No.


Input the pattern No. via keyboard. If the pattern number is already existed in the system, the look and relevant information of the registered pattern will be shown on the upper interface. The used number can't be reused, but by pressing  ,  the unregistered number can be searched.

### ② 登记新花样

确定花样号码后按下  ,之前显示花样数据会复制到新登记花样中，操作结束后返回到新登记花样数据输入界面。

如果输入了已经存在的花样号码 会提示是否覆盖已存花样。

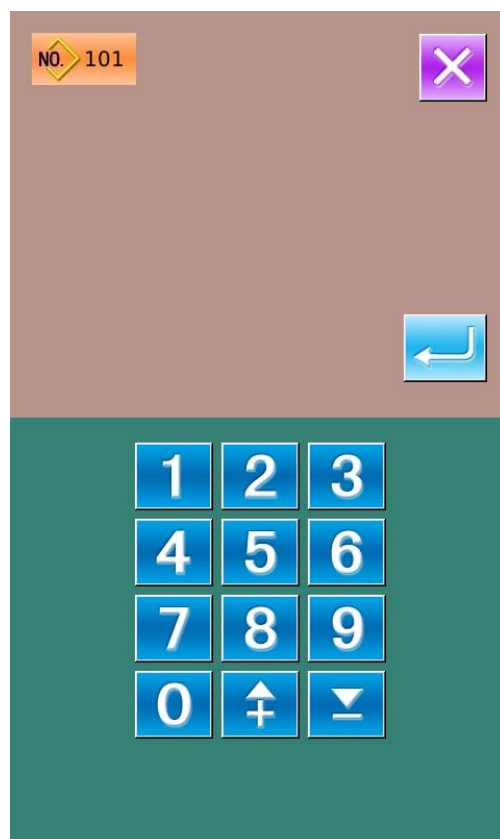
### ②New Pattern Registration

After confirm the pattern number, user can press  . The dsplayed pattern data will be copied to the newly registered pattern. Afte rthe operations, the system will return to the interface for inputtting data of the newly registered pattern.


If user inputs the existed pattern number, the system will ask user whether to replace the saved pattern.

**注：基础花样不能被覆盖。**

**Note: the Basic pattern cannot be replaced**



## 4.5 花样命名Pattern Naming

按下  进入花样命名界面(如右图所示) 最多可以输入14 个字符。



: 光标右移键




: 光标左移键




: 字母大小写切换键



: 清除键

选择想要输入的字符,按下  结束花样命名操作。通过移动光标可以确定该字符位置,清除键可以消除该位置字符。

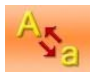
Press  to enter the interface for naming pattern (as shown in the right figure), 14 figures can be inputted at the most.



: Icon Right-moving




: Icon Left-moving

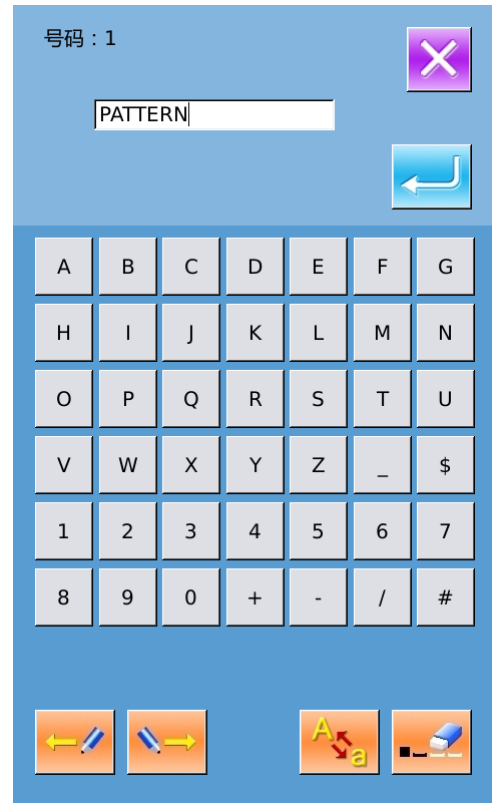


: Caps Locks



: Eraser

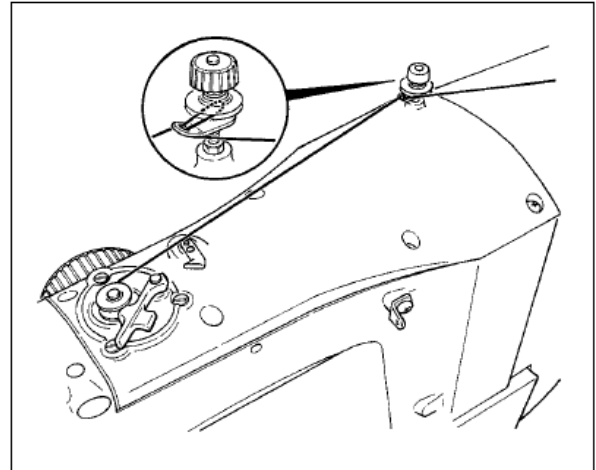
Select the figure wanted, press  to end the operation of naming the pattern. The position of figure can be determined by moving the icon, the Eraser is used to delete the figure



## 4.6 绕线 Winding

### ① 安装梭芯

把梭芯插进绕线轴如右图所示。




### ① Install the shuttle core

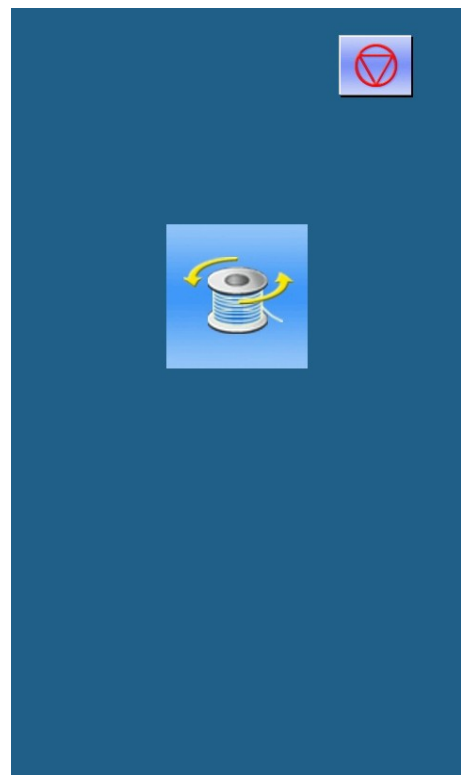
Fit the shuttle core fully onto the winder shaft. (as shown in the figure in right)

### ② 显示底线绕线界面

在数据输入界面上，按  键之后，绕线界面被显示出来（如右图所示）。

### ② Display the bottom thread winding screen

Press  in the data input interface (orange) or the sewing interface (blue), and then the winding interface will be displayed (as shown in the right figure)




### ③ 开始绕线


踩踏启动踏板之后缝纫机转动，开始卷绕底线。

### ③ Start Winding


Step the start pedal, and then the sewing machine runs and starts winding bottom thread.


### ④ 停止缝纫机

按了停止按钮  之后，缝纫机停止转动，返回通常模式。另外，在卷绕底线中再次踩踏踏板之后，缝纫机在绕线模式下停止缝纫机因此再次踩踏启动踏板，可以继续卷绕底线，在卷绕多个梭芯时可以利用此功能。

注：刚刚打开电源后，或者刚刚变更为主机输入后，不进行卷线动作。请设定1次图案花样，按准备键  之后显示出缝制画面。

### ④ Stop the sewing machine

Press STOP button  to stop the sewing machine. The system will return to the normal mode. By the way, in the bottom-thread winding mode, stepping the start pedal will stop the machine at this mode. Step the pedal again to resume winding. This function can be used at winding several shuttle cores.

Note: After user turns on the power, or changes to main controller input, the system will not perform the winding action. Please set the pattern and press the  to display the sewing interface

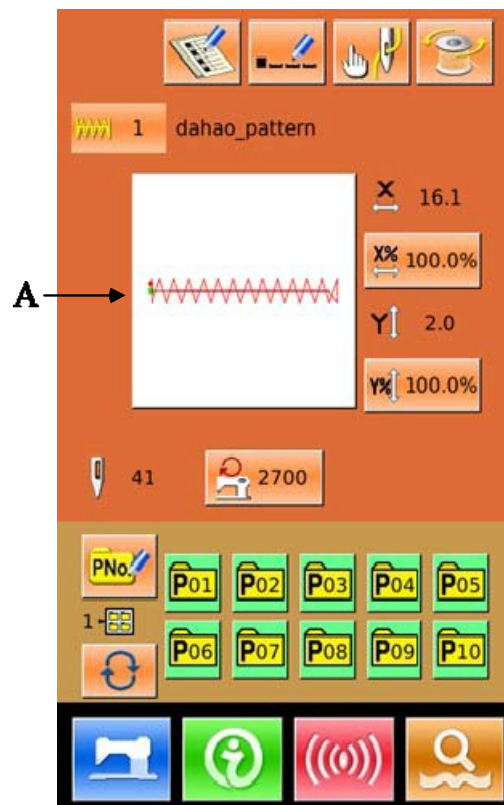
## 4.7 花样选择 Pattern Selection

### ① 进入花样选择界面




数据输入界面(如右图所示)点击缝制形状A之后进入花样选择界面。

### ① Enter Pattern Selection Interface

In the data input interface (as shown in right), click Sewing Shape (A) to enter the interface for selecting patterns.






花样选择界面上方为当前选择花样的缝制形状，下方为已登记的花样号码。

-  : 花样预览
-  : 输入号码查询花样
-  : 花样删除


点击 A 键，当存在普通花样时，会在 基础花样和用户花样之间来回切换。

The upper area of the pattern selection interface is the sewing shape of the current pattern. Below that it is the number of the registered pattern.


-  : Preview the pattern
-  : Input the number to inquire pattern
-  : Delete the pattern

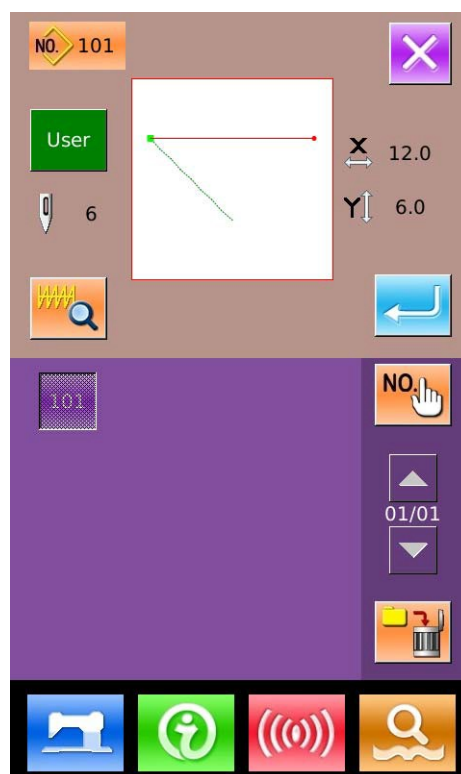
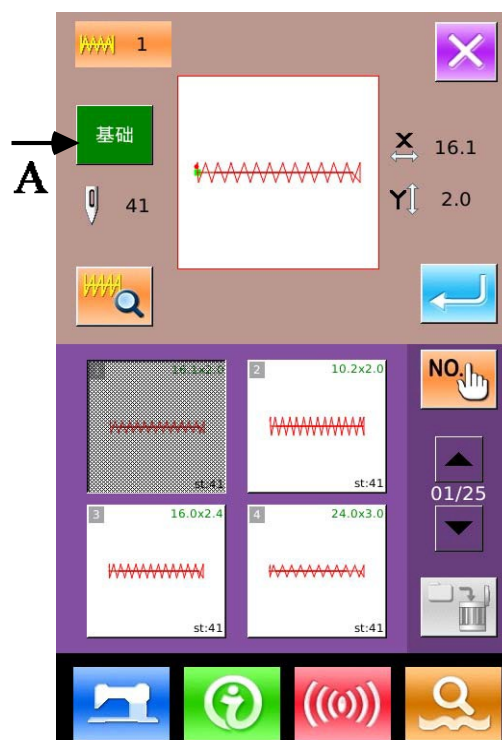
Click button A to shift between the basic patterns and user patterns, if the system has the normal patterns

## ② 选择花样


当前为基础花样时，每页可以显示4个花样号码；自编花样时，每页可显示20个花样号码。针对基础花样，每个花样号码上显示出该花样的简图和x、y范围；自编花样只显示花样号码。选中已登记的花样号码时，上方会显示已选择花样内容，按下  完成花样选择操作。

## ② Pattern Selection


If the patterns are the basic patterns, 4 pattern numbers can be displayed in one page; for the user patterns, 20 pattern numbers can be displayed in one page. For the basic pattern, at each pattern number, the system will also display the shape and x/y range of the pattern. For the user patterns, only the pattern number will be displayed. Select the registered pattern number. Then the system will display the content of that pattern in upper area. At this moment, press  to finish the selection.



### ③ 花样查询

按下  键会弹出花样查询界面,通过数字键可以直接输入花样号码。

### ③Pattern Inquiry


Press  to activate the interface of Pattern Inquiry, input the number of pattern via the number keys

### ④ 花样删除

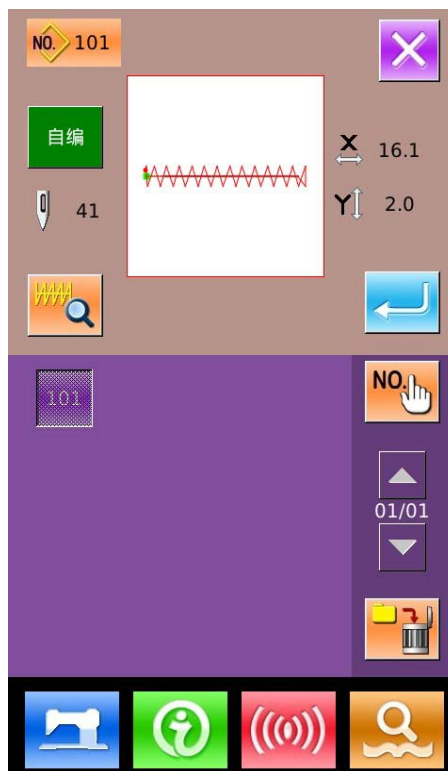
选中已登记的花样,按下  键就会删除掉该花样,但是被登记到 P 的花样是不能被删除的。

注: 花样分为基础花样和普通花样,基础花样为出厂花样,不能被删除;普通花样为用户打版、复制或 U 盘导入的花样,花样可以被删除和修改。

### ④Pattern Deletion


Select the registered pattern and then, press , the pattern will be deleted. However, the patterns registered to P pattern can't be deleted

Note: Patterns are divided into basic pattern and normal pattern. The basic patterns are the default patterns, which can't be deleted. The normal patterns are the patterns made, copied or input by user, which can be deleted or modified




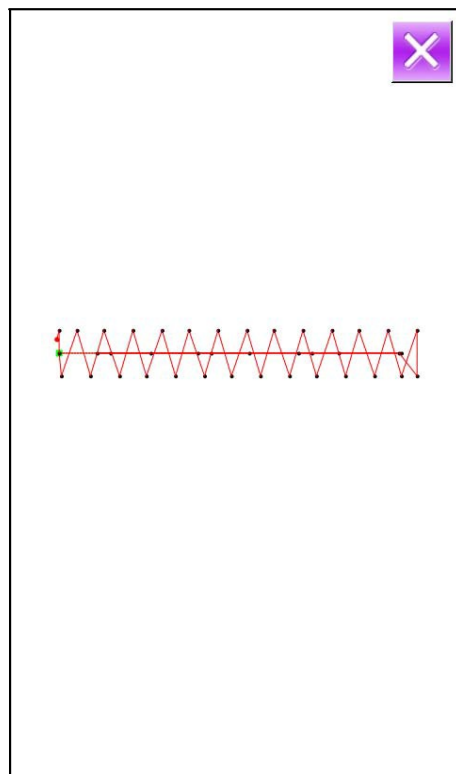


### ⑤ 花样预览

按下  键可以全屏预览当前花样形状。（背景色为白色）

### ⑤ Pattern Preview

Press  to preview the current pattern in full screen (White Background).



## 4.8 缝纫数据设定 Sewing Data Setting

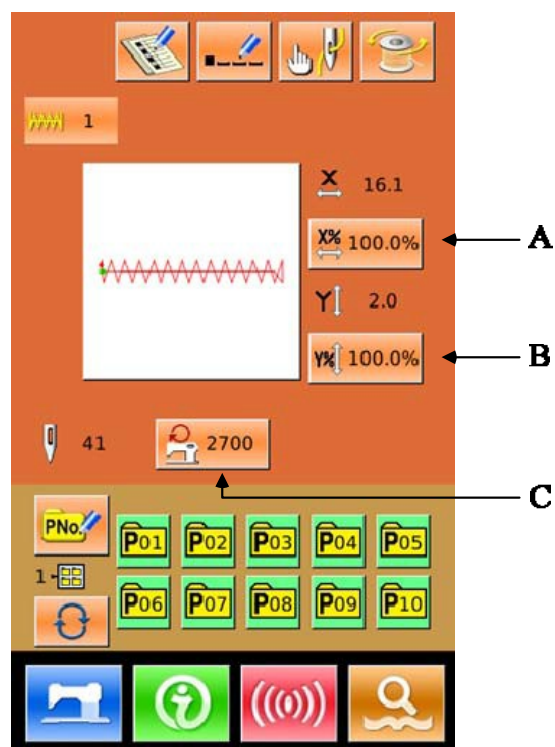
### ① 进入缝纫数据设定界面

在数据输入界面下相应按下A、B、C 可分别 进入缩放率设置和速度限制设置界面。

### ① Enter Interface for Setting the Sewing Data

In data input interface, pressing button A, B or C can enter the scale rate setting interface and speed limitation interface respectively.

	项目 Item	输入范围 Input Range	初始值 Default Value
A	X 方向放大 缩小率 X Scale Rate	1.0~400.0%	100.0%
B	Y方向放大 缩小率 Y Scale Rate	1.0~400.0%	100.0%
C	最 高 速度限制 Max Speed	400~2700rpm(各机型 上限不同) (Different among different models)	2700rpm



注1: 参数U64 可以切换选择设置放大缩小 率或实际尺寸值。

注2: 最高速度限制的最大输入范围和初始 值受参数U01 影响。

Note 1: Parameter U64 can shift between the setting of scale rate and the setting of actual size.

Note 2: The range and the default value of Max speed are affected by the parameter U01.

## ② 缩放率设定

右图为放大缩小率设定界面,界面上方为 X 方向设置,下方为 Y 方向设置。

- A: X方向实际值显示
- C: X方向放大缩小率显示
- B: Y方向实际值显示
- D: Y方向放大缩小率显示

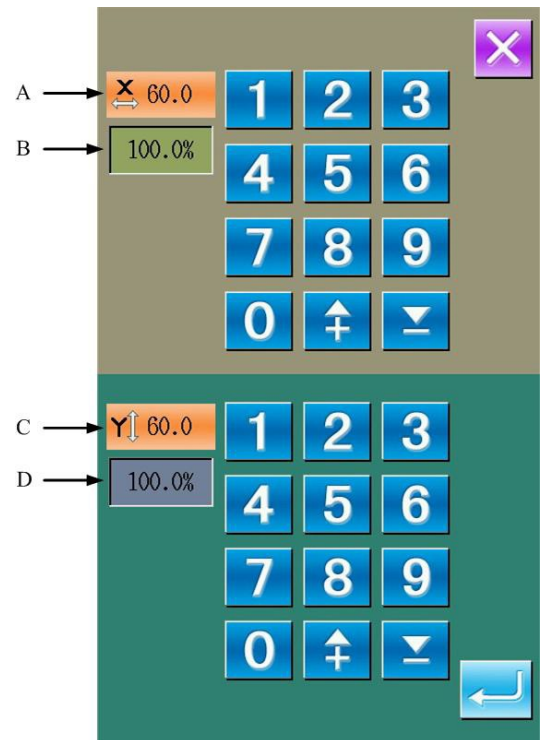
通过 **0** ~ **9** 十数字键盘或 **↑**、**↓** 键输入希望值,被输入的数字插入到显示数值的第一位,以前输入的数字一位一位的累进,按下 **↵** 确定键完成操作返回数据输入界面。

### ②Set Scale Rate

The right figure is the interface for setting the scale rate. The upper part is for setting X scale rate, while the lower part is for setting the Y scale rate.

- A: X Actual Size
- C: X Scale Rate
- B: Y Actual Size
- D: Y Scale Rate

Use **0** ~ **9** and number keyboard or **↑** & **↓** to input the value. The input value will be inserted to the first place of the figure. The number input at before will be moved forwards. Press **↵** to finish the operation and return to data input interface.

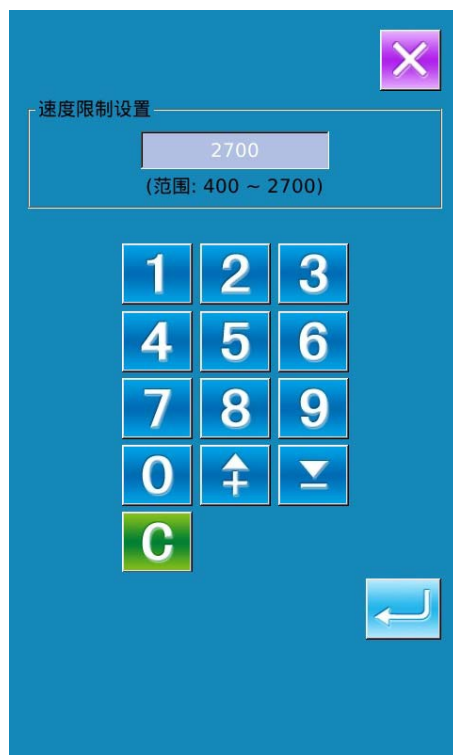


③最高速度限制设定

操作同上。


③Set Max Speed

The operation is same to that in above




## 4.9 P 花样登记 P Pattern Registration





### ① 进入P 花样登记界面

在数据输入界面下按下  进入P花样登记界面，如右图。





### ①Enter P Pattern Registration Interface

In data input interface, press  to enter the interface of P Pattern Registration (shown as the right figure)

### ② 输入P 花样号码

通过  ~  十数字键盘或  、  键输入想要登记的号码，如果输入了已经登记的花样号码，界面上方会显示出被登记的缝制形状和相关数据，这种情况下是不能登记新花样的。

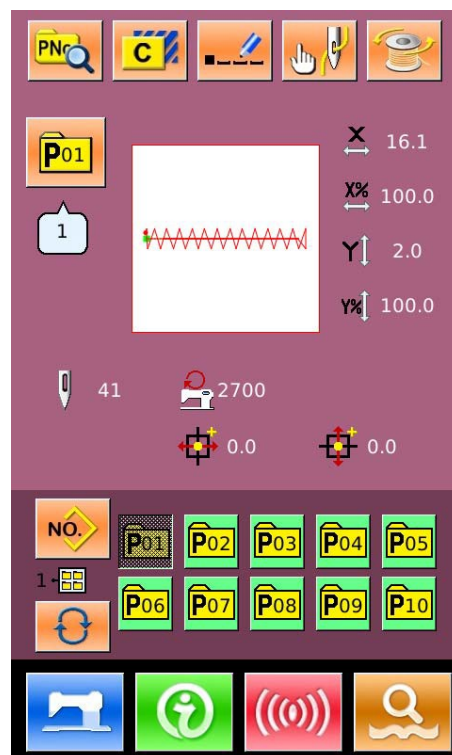
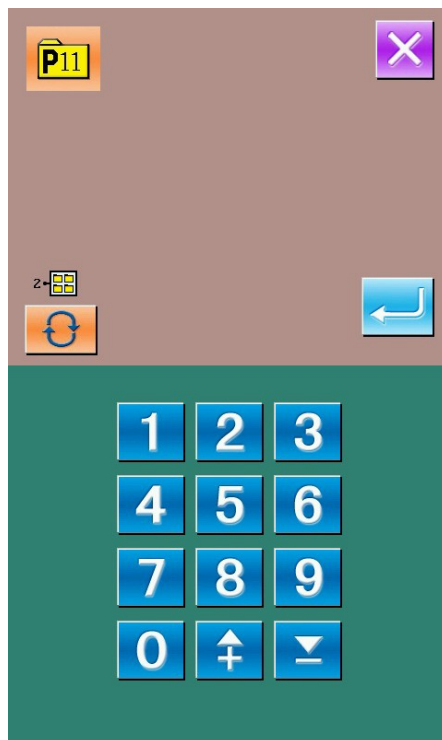
### ②Input P Pattern Number


Use  ~  and number keyboard or  &  to input the number for registration. If the input number has been registered in the system before, the interface will display the shape and relating data of that registered pattern. In this situation, the new pattern can not be registered with this number

### ③ 选择文件夹号码


P花样号码可以登记到 5个文件夹里，每个文件夹最多保存10个P花样。文件夹选择键  可以进行顺序选择。

### ③Select File Folder Number




P pattern number can be registered into 5 file folders,  
and each folder can contain 10 P  
patterns at most. Press  to select  
folder in order

#### ④ 确定花样号码


按下确定键  之后完成 P 花样登记操作，返回到P 花样  
数据数据输入界面。

#### ④Confirm Pattern Number


Press  to finish the Rgistration of P Pattern  
and return to the input interface of P Pattern Data

## 4.10 试缝操作 Trial Sewing


### ① 显示缝制界面



在数据输入界面，按准备键之后，液晶显示的背景颜色变为蓝色，此时进入缝制界面。

### ①Display the interface of sewing


At data input interface, press  , the background of screen will change to blue, and the system enters the interface for sewing





### ② 显示试缝界面

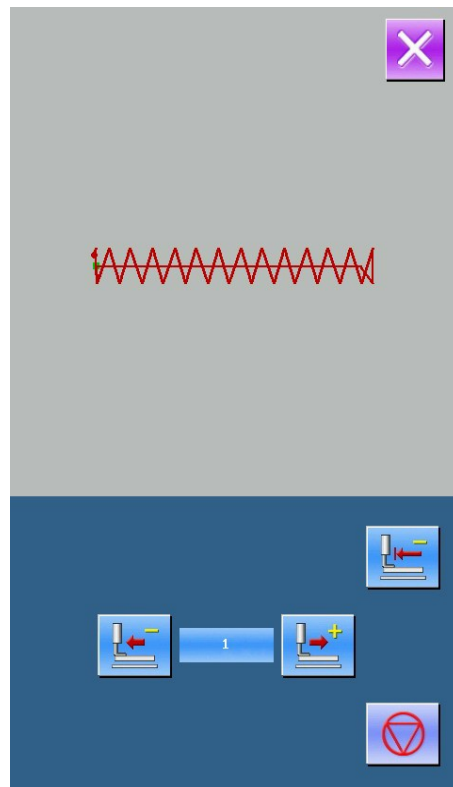
在缝制界面下,按下键后进入试缝界面(如右图所示)

-  : 返回原点
-  : 压脚后退
-  : 压脚前进
-  : 停止





### ②Display of Trial Sewing

In the sewing interface. Press  to enter the trial sewing interface (As Shown at Right):





-  : Return to Origin
-  : Return
-  : Forward
-  : Stop





### ③ 开始试缝

踩下脚踏开关下降压脚，用压脚后退键和压脚前进键确定形状。持续一段时间连续按键后，离开按键后压脚继续移动，想停止时按下键。按下键返回原点后，机针返回原点且返回到缝制界面。



### ③Start Trial Sewing

Step the pedal to lower the presser. Use  and  to confirm the shape. After user holds that button for a while and then release it, the presser will still keep moving. At this moment, please press  to stop it, Press  to have needle return to origin. And the system will return to the sewing interface.

### ④ 结束试缝

按了取消键  退出试缝界面之后，返回缝制界面。花样形状没有在开始缝制位置或结束缝制位置时，踩脚踏开关后，可以从确认中途进行缝纫。如要退出则按下原点复位键  之后，关闭凸起画面，显示出缝制画面，返回开始缝制位置。



### ④End Trial Sewing

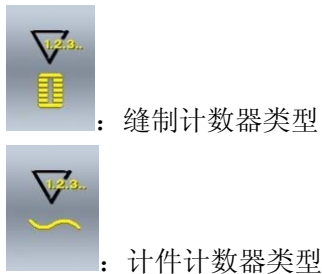
Press  to quit the trial sewing interface and return to sewing interface. When the pattern is not at the start position or end position, user can carry out sewing in the middle by stepping the pedal. For quit, please press  and turn off the activated interface. Then the sewing interface will displayed and the system returns to the sewing start position.





## 4.11 计数器操作 Counter Operation

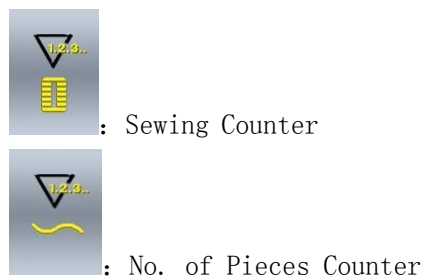
### ① 显示计数器界面

在缝制界面中，按了  (  ) 键之后，计数器设定界面被显示出来。





### ① Display the counter interface



In the sewing interface, press  (  ) the interface of counter setting comes out.

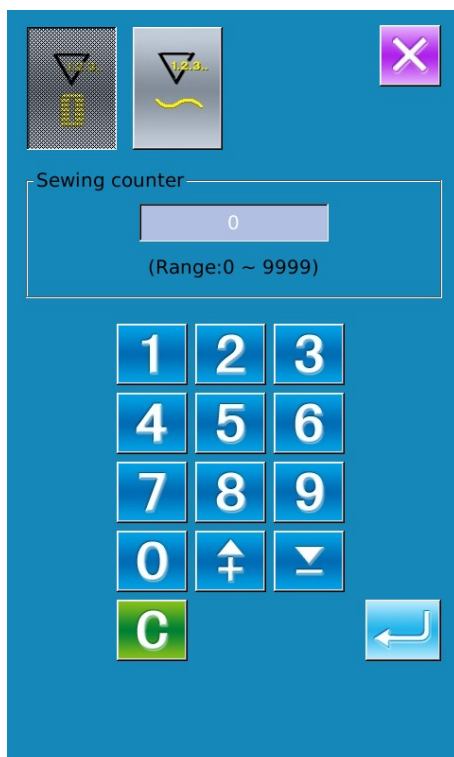


### ② 选择计数器类型并设定计数值


通过选择  和  可以设置计数器类型，并且设置其当前计数值。


### ② Selection and Setting of Counter

The user can set the type of counter by choosing  and  , and set the value of counter




## 4.12 急停 Emergency Stop


可以通过设定U31 参数来选择暂停方式：可通过无效、操作盘暂停按键、外部开关三种选项来选择。当选择操作盘暂停键之后，在缝制画面上显示出暂停按键 。

By setting parameter U31 to select pause method: User can select among Invalidity, Panel and EXT to set the pause method. When the pause button is pressed, the interface will display the .


### ① 解除异常


在缝制中按了暂停键之后，可以停止缝纫机转动。此时异常画面被显示，通知停止开关被按下。此时按下复位键  解除异常。

### ① Release the Error

Press Pause button at sewing to stop sewing machine. At this moment, the error interface is displayed, which hints user the pause key is pressed. At this moment, press  to release the error.

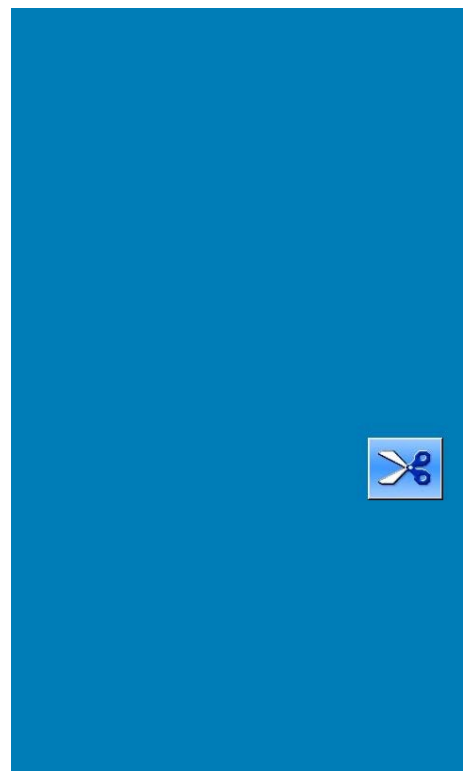
### ② 进行切线

按下切线键  之后，可以进行切线，进入到步骤设置界面。  
②Trimming

Press  to cut thread and enter the procedure setting interface.

注：参数U97设为暂停后自动切线时直接进入 步骤设置。

Note: When the Parameter U97 is set at Auto Trim at Pause, the system will enter procedure setting directly.



## ② 进行步骤设置，调整压脚到重新缝纫位置

按下切线键  进入到步骤设置界面。



: 后退送布




: 前进送布



: 原点复位

按下  或  ，移动压脚到重新缝纫位置。

## ② Set procedure and adjust the presser to re-sewing position

Press  to enter procedure setting interface.





: Backward feeding



: Forward feeding



: Return to Origin

Press  or  to move presser to the re-sewing position

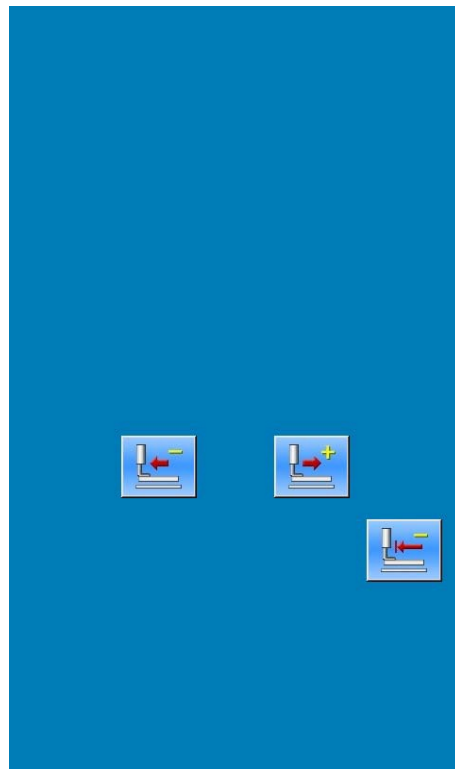
## ③ 重新缝纫

踩下脚踏板之后，重新启动缝纫

## ③ Restart sewing

Step pedal too restart sewing.

。



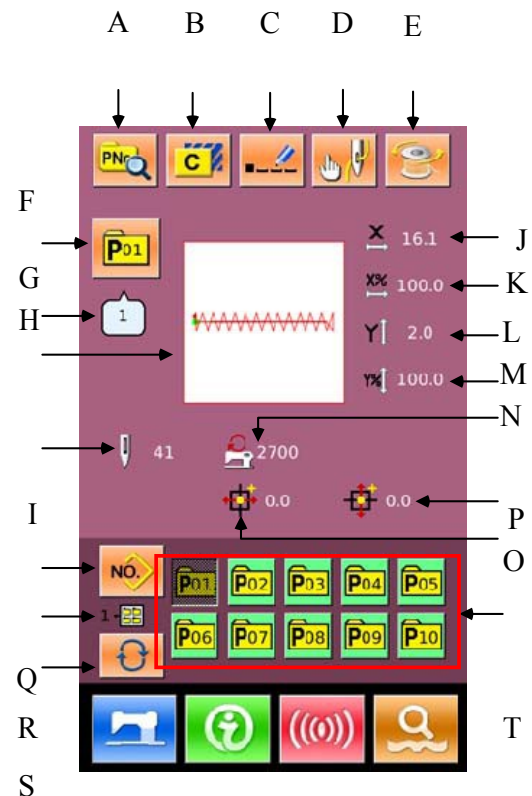
# 5 快捷(P)花样操作 Operations on Prompt(P)Pattern

## 5.1 P花样数据输入 P Pattern Data Input

快捷花样简称P 花样，由一个普通花样和相关花样缝制参数(X 缩放率、Y 缩放率、速度限制等)组成。选用P 花样不需要每次设置相关参数。

P 花样数据输入界面如右图所示。



最多可以登记50 个P 花样。



功能说明:

### List of Function Keys:


序号 No.	功能 Functions	内容 Content
A	P花样编辑 P Pattern Edition	可以编辑P花样内容。 Edit the content of P pattern

B	P花样复制 P Pattern Copy	可以复制当前P花样内容到一个空花样号码下。 Copy the content of existing P pattern to an empty pattern
C	花样命名 Pattern Naming	最多可以输入14个字符。 14 figures can be inputted at most.
D	穿线Threading	按下之后外压脚下降。Presser it to lower the presser.
E	绕线Winding	按下一次准备键之后方可绕线。  Wind the thread with a press on 
F	P花样号码显示 P Pattern Number Display	显示当前选择花样号码。 Display the number of the selected pattern.
G	缝纫形状号码显示 Sewing Shape Number Display	显示当前P花样下引用的普通花样号码。 Display the number of the normal pattern quoted in the existin
H	缝制形状选择 Sewing Shape Selection	显示为当前花样缝制形状。 Display the sewing shape of the current pattern


序号 No.	功能 Functions	内容 Content
I	花样针数显示 Pattern Stitch Number Display	显示当前选择花样缝纫针数。 Display the stitch number of the currently selected
J	X实际尺寸值显示 X Actual Size Display	显示当前选择花样的X方向实际尺寸值。 Display the X actual size of current pattern
K	X放大缩小率设定 X Scale Rate Setting	显示当前选择花样的X方向放大缩小率。 Display the X scale rate of current pattern Display the X
L	Y实际尺寸值显示 Y Actual Size Display	显示当前选择花样的Y方向实际尺寸值。 Display the Y actual size of current pattern
M	Y放大缩小率设定 Y Scale Rate Setting	显示当前选择花样的Y方向放大缩小率。 Display the Y scale rate of current pattern
N	最高转速限制 Max Speed Limitation	显示最高转速限制值。 Display the Max Speed
O	X方向偏移量显示 X Travel Amount Display	显示当前选择花样的X方向偏移量。 Display the X travel amount of the currently selected pattern
P	Y方向偏移量显示 Y Travel Amount Display	显示当前选择花样的Y方向偏移量。 Display the Y travel amount of the currently selected pattern
Q	返回普通花样数据输入 Return to Normal Pattern Data	返回到普通花样数据输入界面。 Return to the interface for inputting normal pattern data
R	P花样文件夹号码显示 P Pattern File Folder Display	显示当前P花样文件夹号码。 Display the file folder number of the current P pattern
S	P花样文件夹选择 P Pattern File Folder Selection	顺序切换P花样文件夹号码。 Shift the file folder number of P pattern in sequence
T	P花样选择 P Pattern Selection	显示出已登记的P花样。 Display the registered P pattern

## 5.2 P花样编辑 P Pattern Edition

### ① 进入P 花样编辑界面

按下  进入P花样编辑界面（如右图 所示）。

### ① Have Access to P Pattern Edition Interface

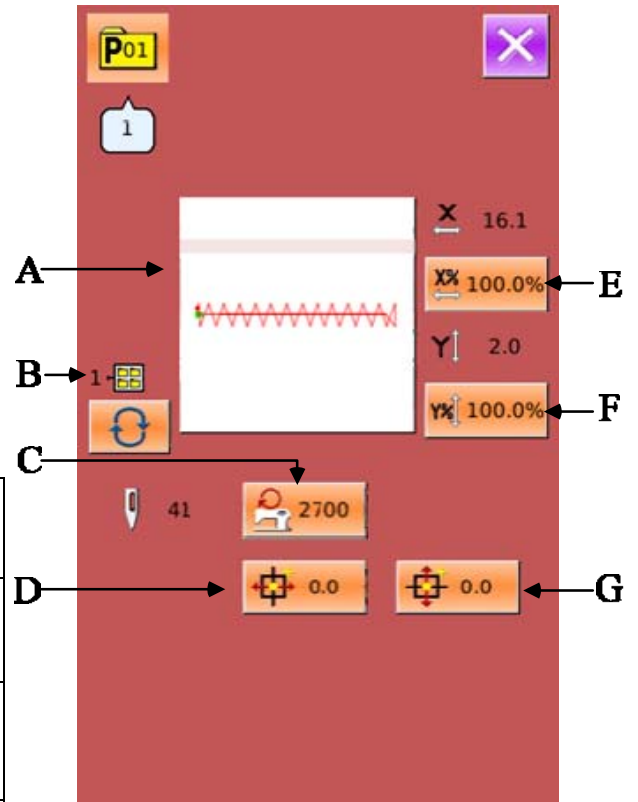
Press  to have access to P Pattern Edition Interface (as shown at the right picture)

### ② 编辑项目数据变更 选择想要变更的项目，设置数值。

### ② Change the Item Data


Select the item for changing and set the value.

	项目Item	输入范围 Range	初始值 Default Value
A	缝制形状 Sewing Shape		
B	文件夹号码 File Folder Number	1~5	
C	最高速度限制 Max Speed	400~3000rpm	3000rpm
D	X方向偏移量 X Travel Amount	-30.0~30.0mm	0
E	X方向放大 缩小率 X Scale	1.0~400.0%	100.0%
F	Y方向放大缩小率 Y Scale Rate	1.0~400.0%	100.0%
G	Y方向偏移量 Y Travel Amount	-30.0~30.0mm	0



### ③ 确定数据变更

以设置X方向偏移量为例，通过 **0** ~ **9** 十数字键盘或

**↑**、**↓** 键输入数值，按下确定键完成操作。 


**+** : 代表正数值;


**-** : 代表负数值。

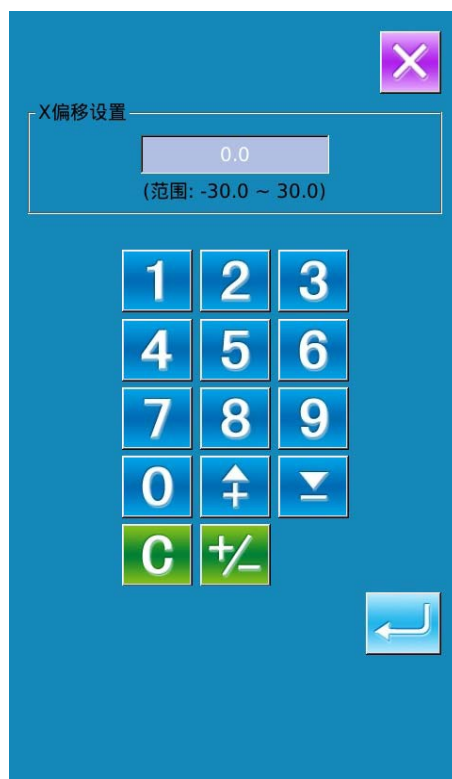
### ③ Confirm the Change of Data

Take the edition of “X Travel Amount” as example:

### ④ 退出编辑

按下  退出键关闭P花样编辑界面，返回数据输入界面。



Press  to close P Pattern Edition Interface and the system will return to the Interface for Inputting Sewing Data.






## 5.3 P花样复制 P Pattern Copy

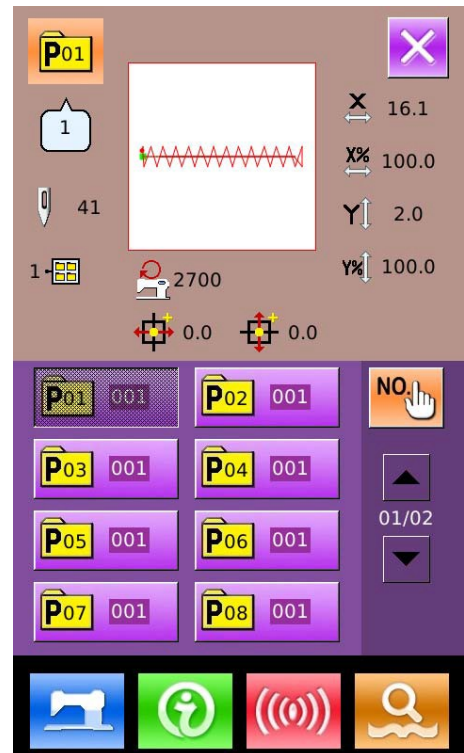
### ① 选择被复制花样

按下  进入P花样复制界面（如右图所示）。在已登记的花样中选择被复制花样号码并按下 。

### ① Select a Pattern to Be Copied



to have access to PPattern Copy Interface (as shown at right picture). Select the number of the pattern that needs copying among the

registered ones, and then press .





## ② 输入新登记的花样号码

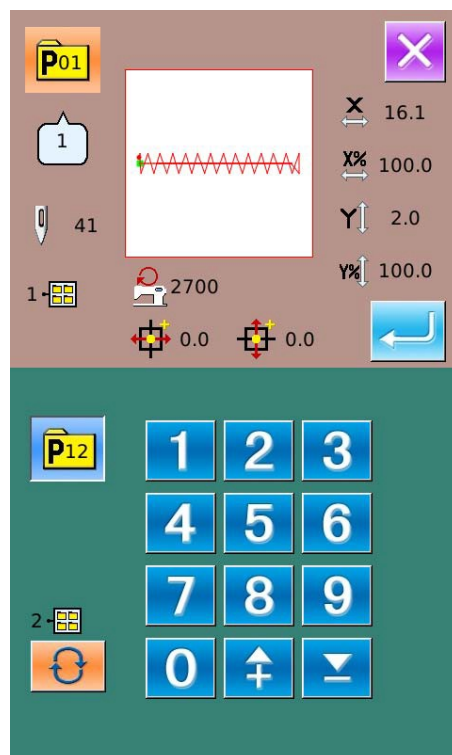
界面上方显示为被复制花样，通过数字键选择未登记的花样号码，已经登记的花样号码不能重复登记。

文件夹选择键  可以选择保存的文件夹。按下  确定键则完成花样复制操作，返回到P花样复制界面。

## ②Input newly Registered Pattern Number

The Pattern to be copied is displayed at the upper side of the interface. By using number keys, user can select the unregistered pattern number. The registered pattern number is unable to be registered again.

When pressing , user can select the file folder for saving. Press  to finish the operations for copying the pattern, and the system will return to the Interface for Copying P Pattern



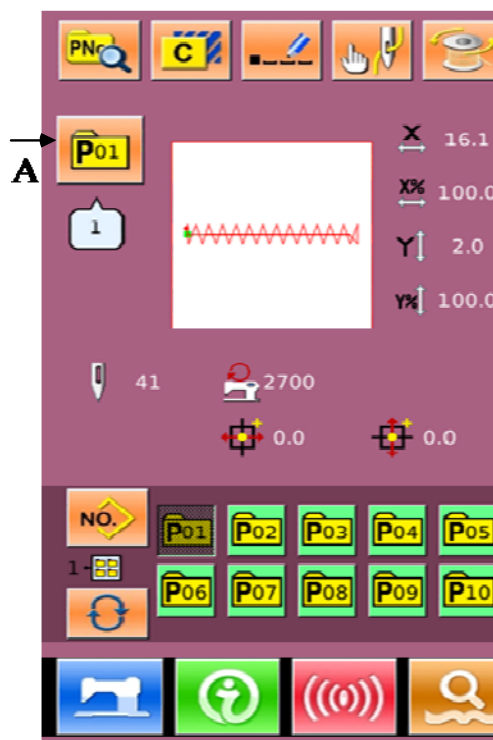
## 5.4 P花样选择 P Pattern Selection

### ① 进入P 花样选择界面


如右图所示，按下图标A，可以进入P花样选择界面。

### ① Have Access to P Pattern Selection Interface


As shown in right picture, user can press Key (A) to have access to P Pattern Selection Interface



### ② 选择花样号码


界面上方为当前选择花样信息，当按下  文件夹选择键切换到文件夹号码不显示时，可以把已登记的P花样全部显示出来。

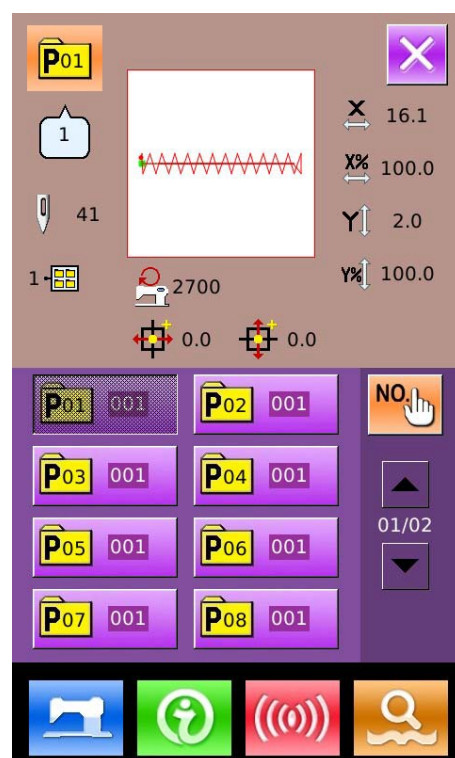
### ② Input newly Registered Pattern Number

The Pattern to be copied is displayed at the upper side of the interface. By using number keys, user can select the unregistered pattern number. The registered pattern number is unable to be registered again. When pressing , user can select the file folder for saving.


### ③ 确定花样选择

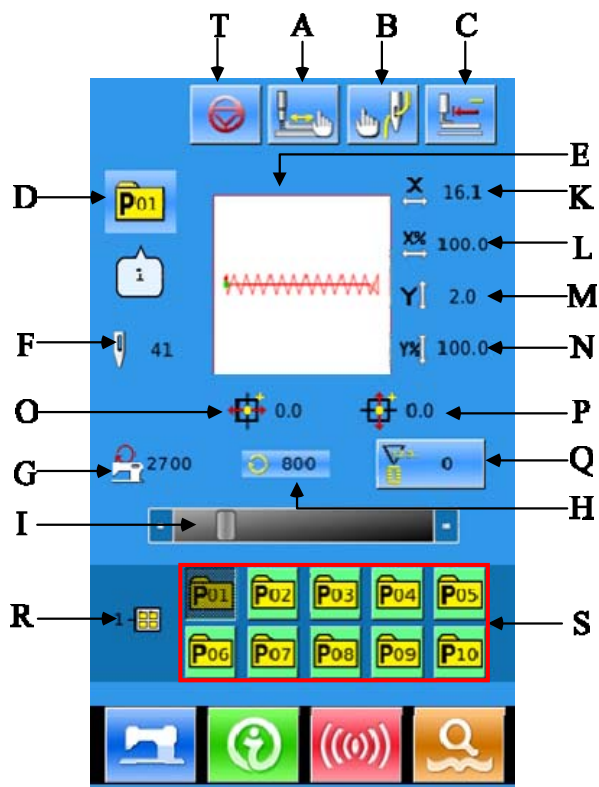
操作同普通花样选择，按下  确定键 结束选择。

Press  to finish the operations for copying the pattern, and the system will return to the Interface for Copying P Pattern



## 5.5 P花样缝制 P Pattern Sewing:





在P花样数据输入界面下按下 进入缝制界面  
(如右图所示)



功能说明： List of Functions Keys:

序号 No.	功能 Functions	内容 Content
A	试缝 Trial Sewing	按下后进入试缝界面，可以确定花样形状。 Press it to have access to Trial Sewing Interface, where user can determine the shape of f pattern.
B	穿线 Threading	按下之后外压脚下降。 Press it to lower the presser.
C	原点复位 Return to Origin	按下后压脚返回始缝点。 Press it to have the presser return to the start point.
D	P花样号码显示 P Pattern Number Display	显示当前选择花样号码。 Display the number of the currently selected pattern.

E	缝纫形状号码显示 Sewing Shape Number Display	显示当前P花样下引用的普通花样号码。 Display the number of the normal pattern quoted in the existing P pattern.
F	花样针数显示 Pattern Stitch Number Display	显示当前选择花样缝纫针数。 Display the sewing stitch number of the currently
G	最高转速限制显示 Max Speed Limitation	显示最高转速限制值。 Display the Max Speed Limitation
H	缝纫速度显示 Sewing Speed Display	显示当前缝纫速度。 Display the current sewing speed
I	缝纫速度设置 Sewing Speed Setting	可以变更缝纫速度。 Change the sewing speed

序号	功能	内容
K	X实际尺寸值显示 X Actual Size Display	显示当前选择花样的X方向实际尺寸值。 Display the X actual size of current pattern
L	X放大缩小率设定 X Scale Rate Setting	显示当前选择花样的X方向放大缩小率。 Display the X scale rate of current pattern
M	Y实际尺寸值显示 Y Actual Size Display	显示当前选择花样的Y方向实际尺寸值。 Display the Y actual size of current pattern
N	Y放大缩小率设定 Y Scale Rate Setting	显示当前选择花样的Y方向放大缩小率。 Display the Y scale rate of current pattern
O	X方向偏移量显示 X Travel Amount Display	显示当前选择花样的X方向偏移量。 Display the X travel amount of the currently selected pattern
P	Y方向偏移量显示 Y Travel Amount Display	显示当前选择花样的Y方向偏移量。 Display the Y travel amount of the currently selected pattern
Q	计数器设置 Counter Setting	按下后可以选择计数器类型和设置当前计数值。  : 缝制计数器  : 计件计数器 Press it to set the type and the present value of counter.  : Sewing Counter  : No. Pieces Counter
R	P花样文件夹号码显示 P Pattern File Folder Number Display	显示当前P花样文件夹号码。 Display the file folder number of the current P pattern
S	P花样选择 P Pattern Selection	显示出已登记的P花样。 Display the registered P pattern
T	暂停按钮 Pause	按下后机器停止运转。 受参数U31 的影响, 选择面板暂停按钮选项, 显示暂停键, 其他选项不显示。 Press it to stop machine. It is controlled by parameter U31. When user selects Panel at that parameter, the screen will display the pause key. Other options will not display that button on screen.

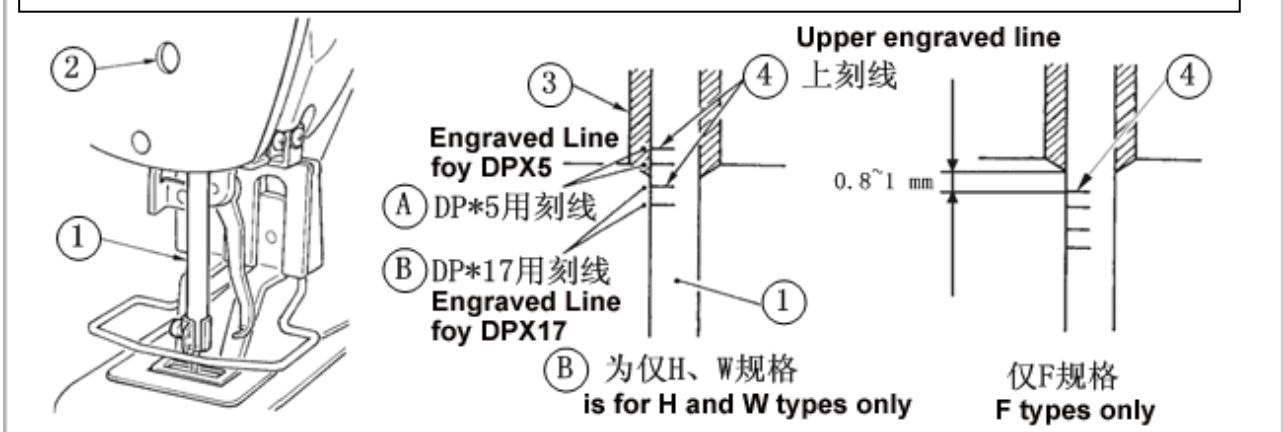
## 6. 维修 Maintenance

### 6.1 针杆高度 Adjusting the height of the needle bar



为了防止突然启动造成人身事故，请关掉电源后再进行。

**Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.**



把针杆①设到最下点，拧松针杆紧固螺丝②，把针杆上刻线④和针杆下档块③的下端调节成一致。仅F规格，请调整到针杆上刻线④中心下降0.8mm~1mm的位置。

Bring needle bar ① to the lowest position of its stroke. Loosen needle bar connection screw ② and adjust so that upper marker line ④ engraved on the needle bar aligns with the bottom end of needle bar bushing, lower ③. For F type only, adjust the needle bar to the position where it is lowered by 0.8 mm to 1 mm from the center of upper marker line ④ engraved on the needle bar.



调节后请一定确认不要有松动。

**After the adjustment, make sure that there is no uneven torque.**

※有的缝制条件发生跳针时，请从针杆上刻线④往下调节0.5mm~1mm。

※When stitch skipping occurs in accordance with the sewing conditions, adjust the height of the needle bar so as to lower it by 0.5 to 1 mm from the needle bar engraved line ④.

### 6.2 机针与旋梭 Adjusting the needle-to-shuttle relation

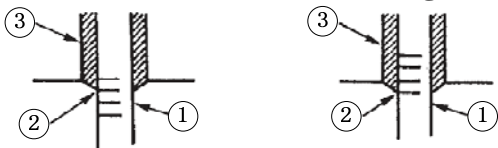


为了防止突然启动造成人身事故，请关掉电源后再进行。

**Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.**

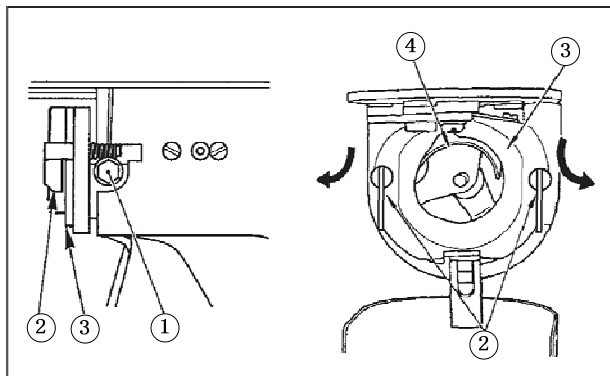
机针和刻线的关系

**Relation between needle and engraved lines**



1) 用手转动皮带轮，针杆①上升时，把下刻线②对准针杆下挡块前端一致。

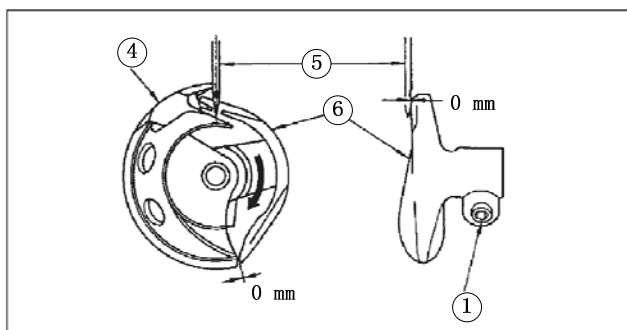
1) Turn the hand wheel by hand. When needle bar ① has gone up, adjust so that lower marker line ② engraved on the needle bar aligns with the bottom end of the needle bar bushing ③, lower.



2) 拧松驱动器固定螺丝①，左右打开中旋梭压片②，卸下中旋梭压脚③。

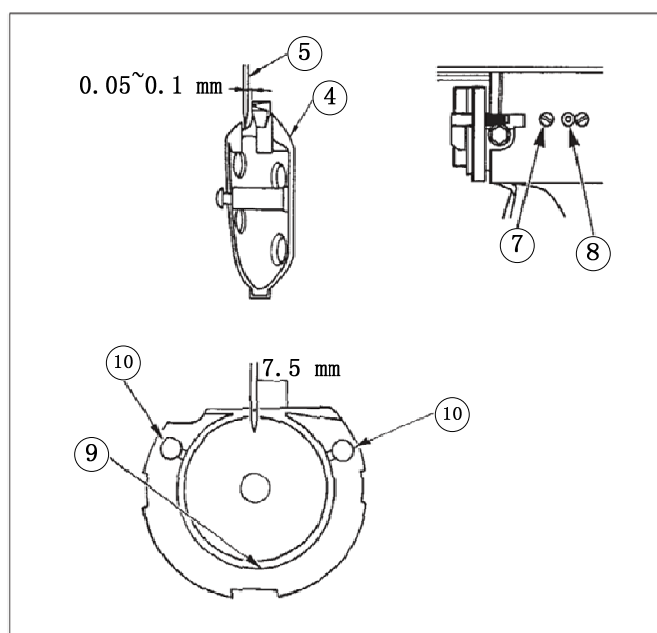
2) Loosen setscrew ① in the driver. Open inner hook pressers ② to the right and left, and remove inner hook presser ③.

**注** 此时请注意不要脱落中旋梭④。  
**At this time, be careful not to let inner hook ④ come off and fall.**



3) 为了让中旋梭④的梭尖与针⑤的中心一致，同时防止驱动器⑥在前端面与机针相碰，弄弯机针，请把驱动器前端面与机针的间隙调整为0mm，然后把驱动器固定螺丝①拧紧。

3 Adjust so that the blade point of inner hook ④ aligns with the center of needle ⑤, and that a clearance of 0 mm is provided between the front end of the driver and the needle as the front end face of driver ⑥ receives the needle to prevent the needle from being bent. Then



4) 拧紧大旋梭固定⑦，左右转动大旋梭调节轴⑧，调节大旋梭的前后位置，把机针⑤和中旋梭④的梭尖的间隙调整为0.05mm~0.1mm。

5) 调节完大旋梭的前位置后，机针和大旋梭的间隙应为7.5mm，然后拧紧大旋梭固定螺丝⑦。

4) Loosen setscrew ⑦ of the shuttle, and adjust the longitudinal position of the shuttle. To do this adjustment, turn shuttle race adjusting shaft ⑧ clockwise or counterclockwise to provide a 0.05 to 0.1 mm clearance between needle ⑤ and the blade point of inner hook ④.

5) After adjusting the longitudinal position of the shuttle, further adjust to provide a 7.5 mm clearance between the needle and the shuttle by adjusting the rotating direction. Then tighten setscrew ⑦ of the shuttle.

**注** 较长时间没有使用缝纫机或清扫过旋梭周围之后等时，请往轨道部⑨和油芯⑩加少量的机油后再使用。

Apply a small amount of oil to race section ⑨ and oil wick ⑩, and use the sewing machine after an extended period of disuse or cleaning the periphery of hook portion.

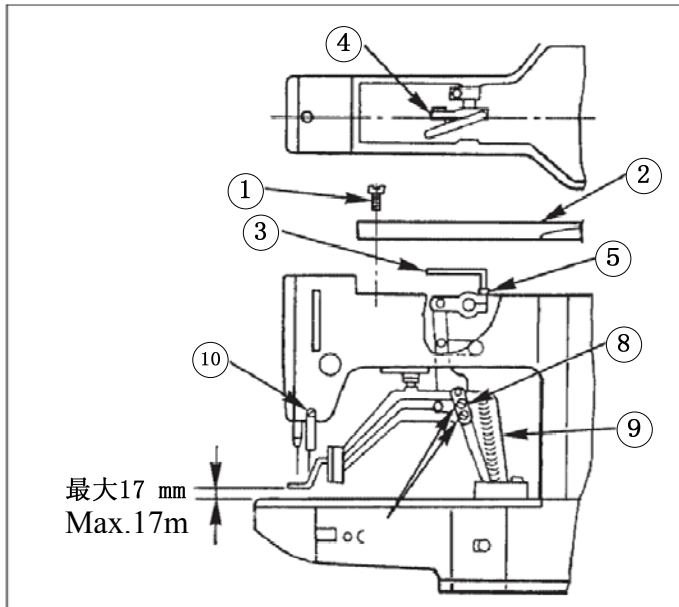


### 6.3 压脚的高度 Adjusting the lift of the work clamp foot



为了防止突然启动造成人身事故，请关掉电源后再进行。

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.



- 1) 在停止状态，卸下 6 根机架外罩固定螺丝①，然后卸下机架外罩②。
- 2) 把 L 形扳手插入中央的紧固筒的六角孔螺栓⑤。把它拧松。
- 3) 把 L 形扳手③向下压部压脚升高，向上抬布压脚降低。
- 4) 调节后，把六角孔螺栓⑤确实拧紧。
- 5) 左右压脚不一致时，拧松固定螺丝⑦，调节布压脚拨杆挡板⑧调整高度。

- 1) With the machine in stop mode, remove six setscrews ① of the top cover, and take off top cover ②.
- 2) Apply L-shaped wrench ③ to socket bolt ⑤ of clamp ④, and loosen the socket bolt.
- 3) Push down L-shaped wrench ③ to increase the lift of the work clamp foot, or pull it up to decrease the lift.
- 4) After the adjustment, securely tighten socket bolt ⑤.



此时，请不要让布压脚拨杆挡板⑧与送布台⑨相碰。如果和挑线杆相碰，请用挑线杆安装固定螺丝⑩调节挑线高度。

At this time, be careful not to cause work clamp foot lever support plate ⑧ to interfere with feed bracket ⑨.

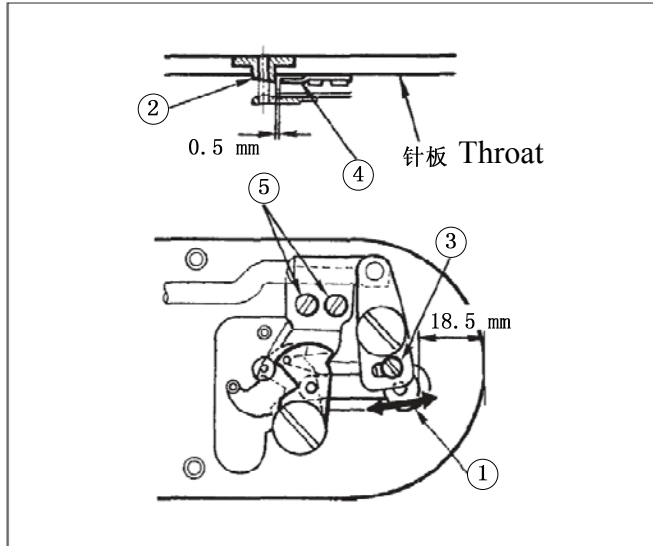
If the work clamp foot lever support plate interferes with the wiper, readjust the height of the wiper using setscrew ⑩ in the wiper installing base.

## 6.4 移动刀和固定刀 The moving knife and counter knife



为了防止突然启动造成人身事故，请关掉电源后再进行。

**Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.**



1) 拧松调节螺丝③，向箭头方向移动动刀，把从针板前端到切线小拨杆①前端的距离调整为 18.5 mm。

2) 拧松固定螺丝⑤，移动固定刀，把针孔导线器②和固定刀④之间的间隙调整为0.5mm。

1) Loosen adjusting screw ③ so that a clearance of 18.5 mm is provided between the front end of the throat plate and the top end of thread trimmer lever, small ①. To adjust, move the moving knife in the direction of arrow.

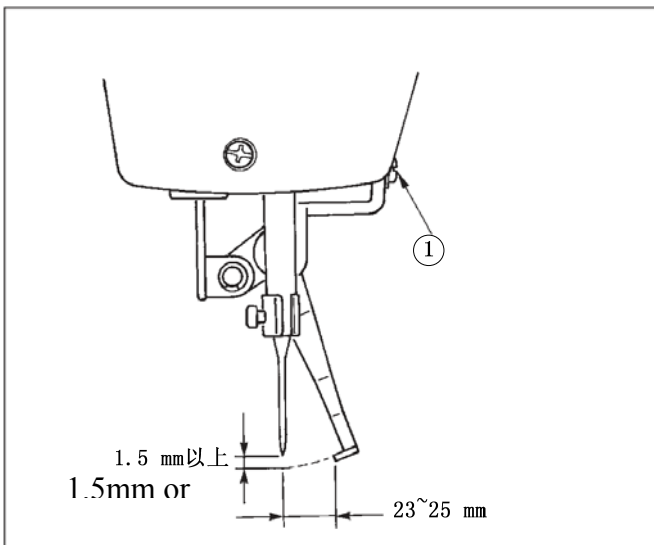
2) Loosen setscrew ⑤ so that a clearance of 0.5 mm is provided between needle hole guide ② and counter knife ④. To adjust, move the counter knife.

## 6.5 挑线杆的调整 Adjustment of the wiper



为了防止突然启动造成人身事故，请关掉电源后再进行。

**Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.**



1) 拧松螺丝①把挑线杆和机针的间隙调整为 1.5mm 以上。此时的挑线杆和机针的距离大约为 23~25mm 通过较宽的调整，在压脚下降时可以防止压倒缝纫机。特别是使用细针时，请调宽到 23mm 左右。

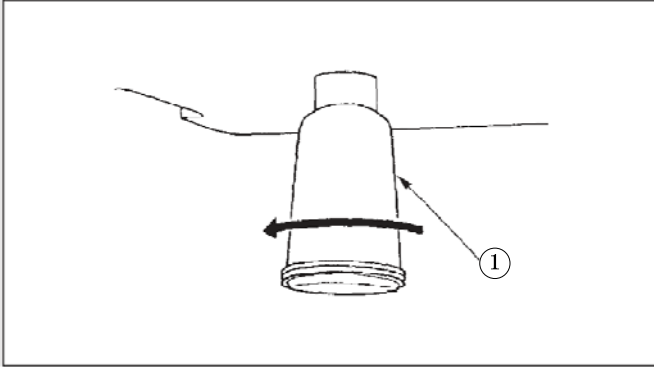
※机针为缝制结束停止的位置。

1) Loosen screw ① to adjust so that a clearance of 1.5 mm or more is provided between the wiper and the needle.

At this time, the standard of the distance between the wiper and the needle is 23 to 25 mm. By adjusting the distance wide, the work clamp foot can prevent stepping on needle thread when it comes down. Especially when the thin needle is used, adjust the distance wide to such an extent of 23 mm.

※The position of the needle is when the sewing machine has stopped after the sewing finished.

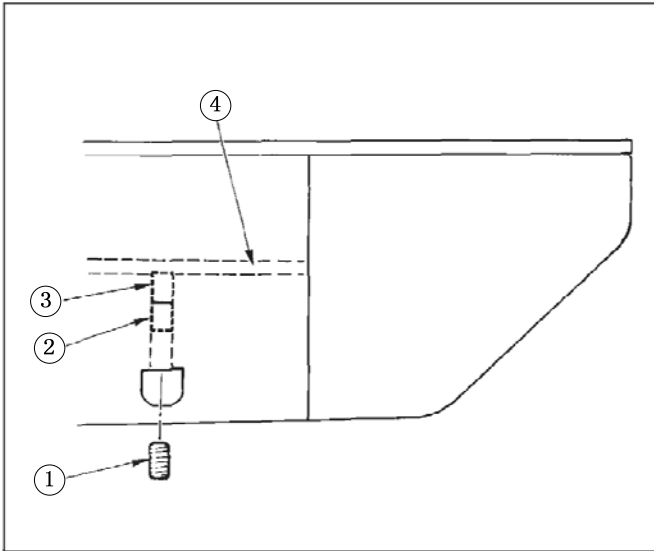
## 6.6 废油的处理 Draining waste oil



积油杯①里积满了油之后，请卸下积油杯①排放出废油。

When polyethylene oiler ① becomes filled with oil, remove polyethylene oiler ① and drain the oil.

## 6.7 旋梭的加油量 Amount of oil supplied to the hook





- 1) 拧松固定螺丝①，卸下固定螺丝①。
- 2) 拧紧调整螺丝②之后，加油管左④的油量被弄小。
- 3) 调整后，拧紧固定螺丝①固定好。



- 1) Loosen setscrew ① and remove setscrew ①.
- 2) When screwing in adjustment screw ②, the amount of oil of oil pipe, left ④ can be reduced.
- 3) After the adjustment, screw in setscrew ① and fix it.

1. 在标准出货状态，轻轻拧紧③，回转4圈的位置。
2. 弄小油量时，不要一次拧紧，拧紧③回转2圈，待半日左右观看一下。拧得过紧的话会磨损旋梭。

- 1) The state of standard delivery is the position where ③ is lightly screwed in and returned by 4 turns.
- 2) When reducing the amount of oil, do not screw in the screw at once. Observe the state for approximately half a day at the position where ③ is screwed in and returned by 2 turns. If reducing is excessive, worn-out of the hook will result.

## 6.8 向指定部位补充润滑油 Replenishing the designated places with grease

使用缝纫机进行了一定的缝制次数之后，操作盘上会显出信息提示M012，这是通知需要向指定部位补充润滑脂，此时请向大连杆部位补充润滑脂，然后在信息提示M012界面按  键进入密码登记界面，输入密码后按  键自动清除计数值。[计数器默认为8000万针]

When the sewing machine has been used for a certain number of times of sewing, error code No. M012 is displayed on the operation panel. This display informs the operator of the time to replenishing the designated places with grease. Be sure to replenish on big connecting link with the grease. Then press  with the first screen NO.M012 to enter password register screen. After input the password then press  to automatically remove count value. [default number is 8000 ten thousand]

1. 补充润滑脂后，如果不清除参数值，异常 M012 会被再次显示。
  2. 下列指定部位补充润滑脂时，请使用附属的润滑脂软管，如果补充了指定以外的润滑脂的话，有可能造成零部件损坏。
1. After replenishing the places with grease, the error M012 is displayed again unless the memory
  2. Use grease tube supplied as accessories to replenish the designated places below with grease. If grease other than the designated one is replenished, damage of components will be caused.

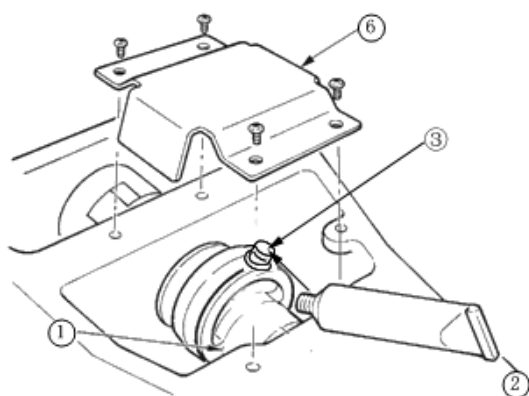


为了防止突然启动造成人身事故，请关掉电源后再进行。

**Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.**

(1) 向偏心凸轮部加润滑脂

(1) Replenishing the eccentric cam section with grease



- 1) 打开挡油板⑥
- 2) 卸下曲柄连杆①上的油脂入口处的螺钉③
- 3) 将润滑脂②通过曲柄连杆①的加油口加入

- 1) open crank rod cover ⑥.
- 2) remove setscrew③ form the grease inlet cover located at periphery of crank rod①
- 3) fill coupling with grease② through crank rod①

## 7 组合 (C) 花样操作 Operations on Combination (C) Pattern

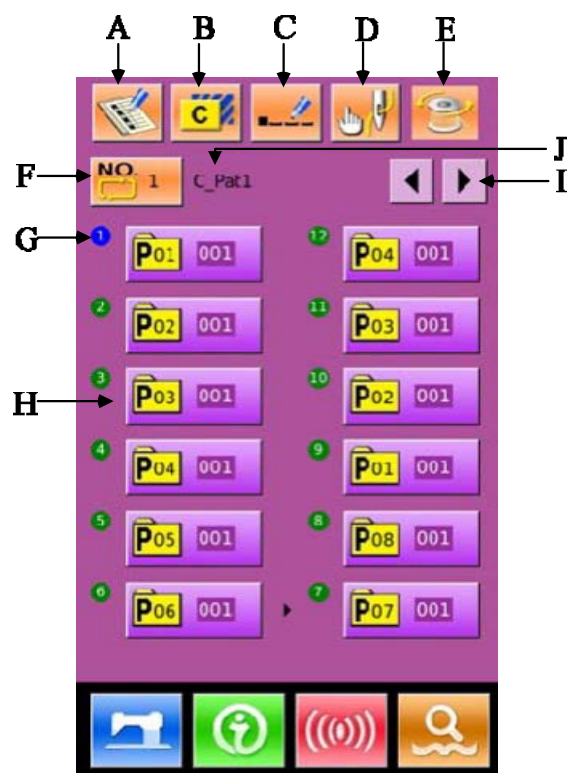
### 7.1 C花样数据输入 C Pattern Data Input

组合花样简称 C 花样，由一组 P 花样组成，每组 C 花样可以输入最多 50 个子花样。一共可以登记最多 50 组 C 花样。

参照【8.8 变换缝制类型】一节内容进入组合 花样数据输入界面，如右图所示。



The combination pattern, called as C pattern for short, consists of a group of P patterns, which can contain 50 sub-patterns at most. In this model, 50 C patterns can be registered into the system at most.

For having access to the Interface of Combination Pattern Data Input (as shown at right), please refer to the content in [8.8 Change Sewing Type]



#### 功能说明: List of Function Keys:

序号 No.	功能 Function	内容 Contents
A	C花样登记 C Pattern Registration	登记一个新组合花样。 Register a new C pattern.
B	C花样复制 C Pattern Copy	可以复制当前C花样内容到一个空花样号码下。 Copy the content of Current C pattern to an empty pattern number.
C	花样命名 Pattern Naming	最多可以输入14个字符。 14 figures can be inputted at most.
D	穿线 Threading	按下之后外压脚下降。 Press it to lower the presser.

E	绕线Winding	按下一次准备键之后方可绕线。  Wind the thread with a press on. 
F	C花样号码选择 C Pattern Number Selection	按键上显示当前选择花样号码，按下后进入C花样选择界面。 The number of the currently selected pattern is displayed on the button. Press it to have access to the C Pattern Selection Interface.
G	缝制顺序显示 Sewing Sequence Display	显示当前选择花样的缝制顺序，蓝色显示为起始缝制图案。 Display the sewing sequence of the currently selected pattern. The pattern with a blue marks is the initial sewing pattern.
H	C花样图案选择 C Pattern Shape Selection	按下后进入C花样编辑界面，可以选择输入一个P花样。 Press it to have access to C Pattern Edition Interface. Operator can select a P pattern to input.
I	翻页键 Page	C花样图案最多可以登记30个，每页最多显示6个图案。 30 C patterns can be registered at most, and 6 C patterns can be
J	C花样名称 C Pattern Name	显示C花样名称。 Display the Name of C pattern.

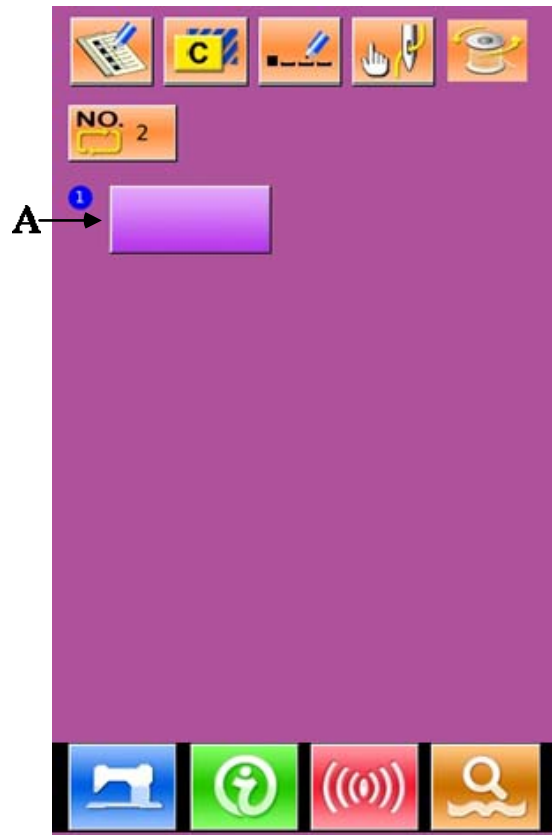
## 7.2 C花样编辑C Pattern Edition

### ① 进入c 花样编辑界面


在C 花样数据输入界面下，按下A 可以进入C 花样编辑界面。在初期状态下没有登记到P 花样做为缝制图案因为第一个图案以空白状态显示。

### ① Have Access to C Pattern Edition Interface


At Interface of C Pattern Data Input, user can press A to have access to C Pattern Edition Interface. In initial status, because no sewing shape is registered to P pattern, the first one is displayed as blank.

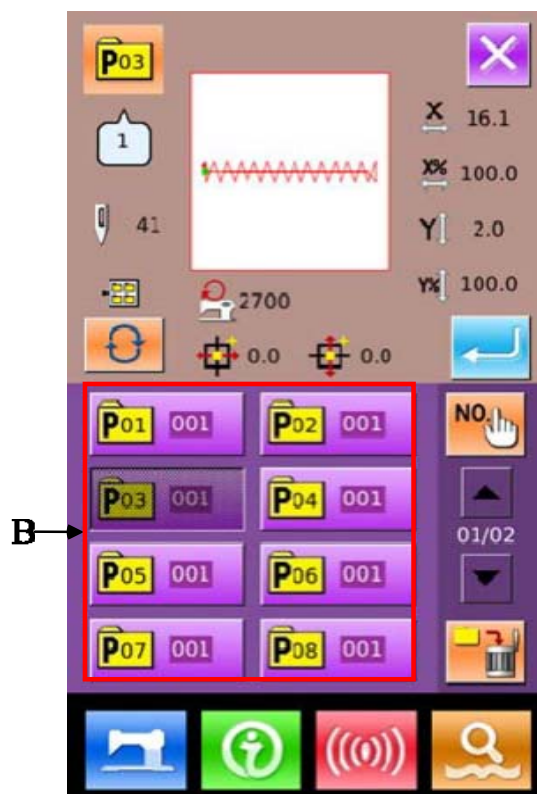


## ② 选择图案

右图为C 花样编辑界面，选择想要登记的P 花样图案B，按下确定键之后结束选择。

### ② Select Shape

At C Pattern Edition Interface (the right figure), user can select the P Pattern (B) for registration and then press  to finish the selection.

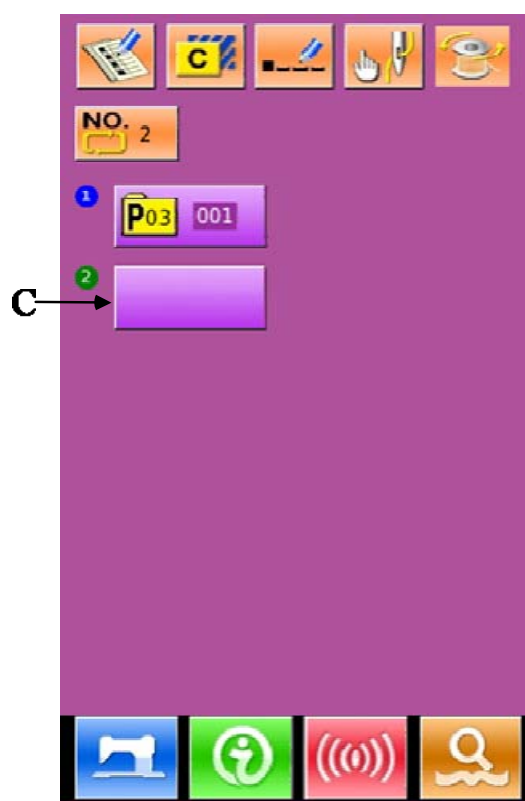


## ③ 反复登记剩余图案

第一个图案登记确定之后，第二个图 案选择键C 被显示出来，操作同上， 可以反复登记其它剩余图案。

### ③ Repeat the Registration

When the 1<sup>st</sup> pattern is registered, the Selection Key (C) for the 2<sup>nd</sup> pattern is displayed. Repeat the operations at above so as to register other patterns.

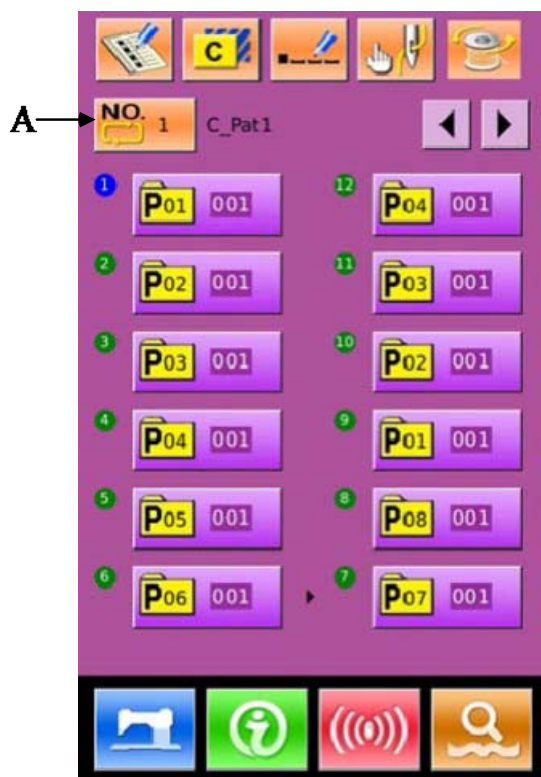


### 7.3 C花样选择C Pattern Selection

① 进入c 花样选择界面 如右图所示,按下图标 A , 可以进入 C花样选择界面。


① Have Access to C Pattern Selection Interface

As shown on the right picture, user can have access to C Pattern Selection Interface by pressing Figure A.



② 选择c 花样号码

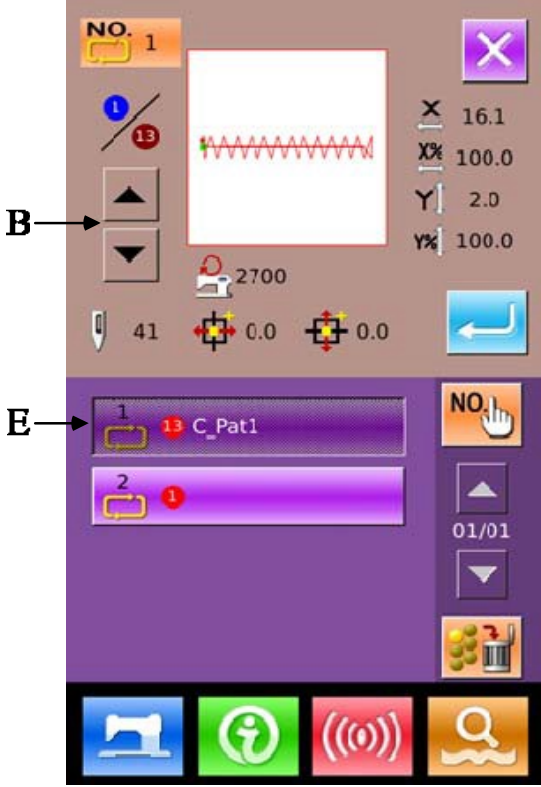
右图为C 花样选择界面按下B 键之后, 可以顺序变换当前C 花样下输入的P 子 花样数据信息。

确定要想要选择的 C 花样号码键 C, 按下  确定键之后结束选择。

② Select C Pattern Number


At C Pattern Selection Interface (the right figure), user can press B to change the data information of P patterns within the current C pattern in sequence. Confirm the number of the needed C pattern


(C), and then press  to finish selection

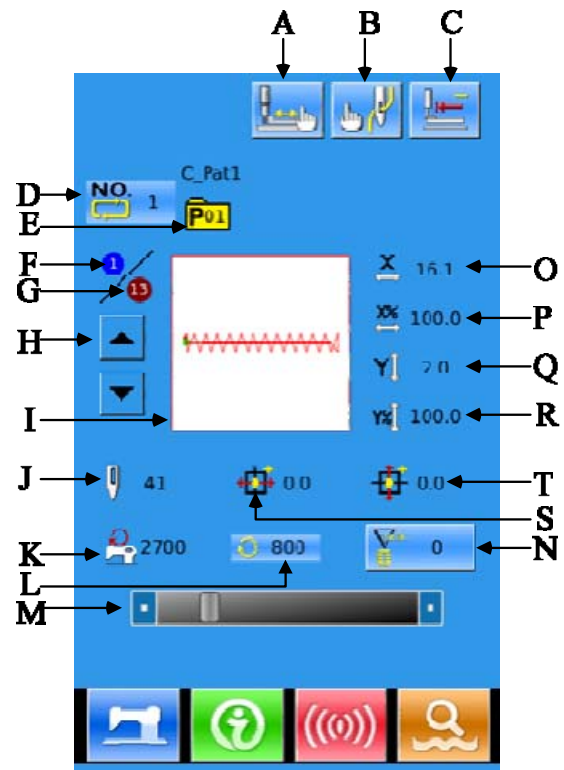




## 7.4 C花样缝制 C Pattern Sewing

在 C 花样数据输入界面下，按下  进入缝制界面（如右图所示）





At Interface of C Pattern Data Input, user can press  to have access to Sewing Interface (as shown in right picture).



功能说明：

List of Function Keys:


序号	功能Functions	内容
A	试缝Trial Sewing	按下后进入试缝界面，可以确定花样形状。 Press it to have access to Trial Sewing Interface, where user can determine the shape of f pattern.
B	穿线 Threading	按下之后外压脚下降。 Press it to lower the presser.
C	原点复位 Return to Origin	按下后压脚返回始缝点。 Press it to have the presser return to the start point.
D	C花样号码显示C Pattern Naming	显示当前选择C花样号码。Display the name of current pattern.
E	缝纫形状号码显示 Sewing Shape Number Display	显示当前C花样下登记的子花样号码。 Display the number of the sewing shape registered under the

F	缝制顺序显示 Sewing Sequence Display	显示当前缝制花样中的缝制顺序号 Display the sewing sequence number at current pattern
G	登记总数显示 Total Number Display	显示当前C花样所登记的子花样总数 Display the total number of sub-patterns registered in the current C pattern
H	缝制顺序前进/后退键 Sewing Sequence Forward/Backward	可以把缝制图案选择到后一个/前一个。 Select the previous or next shape for sewing.
I	花样形状显示 Pattern Shape	显示当前缝制所登记的形状。 Display the shape registered at current sewing
J	花样针数显示 Patten Stitch Number Display	显示当前缝纫登记形状针数。 Display the stitch number of the shape registered at current C
K	最高转速限制显示 Max Speed Limitation	显示当前缝纫登记形状最高转速限制值。 Display the Max speed at sewing this shape
L	缝纫速度显示 Sewing Speed Display	显示当前缝纫速度。 Display current sewing speed
M	缝纫速度设置	可以滑动变更缝纫速度。
N	计数器设置 Counter Setting	按下后可以选择计数器类型和设置当前计数值。  : 缝制计数器  : 计件计数器 Press it to set the type and the present value of counter.  : Sewing Counter  : No. Pieces Counter
O	X实际尺寸值显示 Display the X scale rate of the selected pattern.	显示当前缝纫登记形状的X方向实际尺寸值。 Display the actual size of the selected pattern in X direction.
P	X放大缩小率设定 X Scale Rate Setting	显示当前缝纫登记形状的X方向放大缩小率。 Display the X scale rate of the selected pattern.
Q	Y实际尺寸值显示 Y Actual Size Display	显示当前缝纫登记形状的Y方向实际尺寸值。 Display the actual size of the selected pattern in Y direction.

R	Y放大缩小率设定 Y Scale Rate Setting	显示当前缝纫登记形状的Y方向放大缩小率。 Display the Y scale rate of the selected pattern.
S	X方向偏移量显示 X Travel Amount Display	显示当前缝纫登记形状的X方向偏移量。 Display the X travel amount of the currently selected pattern
T	Y方向偏移量显示 Y Travel Amount Display	显示当前缝纫登记形状的Y方向偏移量。 Display the Y travel amount of the currently selected pattern

## 8 花样图案编辑 Pattern Edition

### 8.1 进入花样编辑模式 Have Access to Pattern Edition Mode


按下  可以切换数据输入界面和模式选择界面(如右图所示)在该界面下可以进行一些详细的设置和编辑操作。

有关模式选择界面下的详细操作和设置详见【8 模式和参数设置】

按下  ,会与  互相切换。


 : 缝纫模式

 : 编辑模式

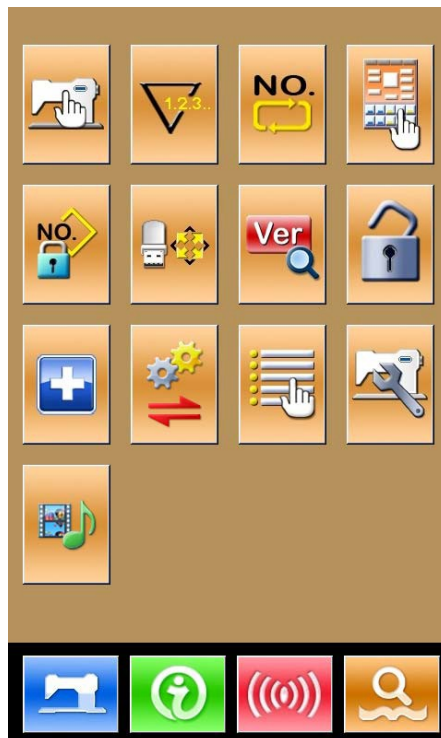
User can press  to shift the data input interface to the Mode Selection Interface (as shown at right picture), where user can make some detailed settings and editions.

For the detailed operations and settings at Mode Selection Interface, please refer to【8 Mode and Parameter Setting】.


Press  to shift with .

 : Sewing Mode


 : Edition Mode







选择编辑模式图标 ，系统提示是否进入花样编辑界面。

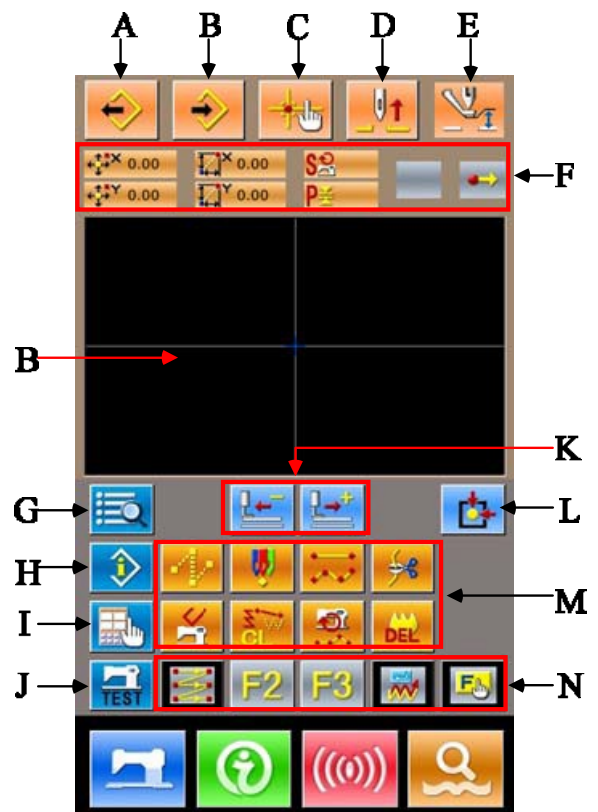


Select ，At this moment, the

system will ask user whether to have access to Pattern Edition Interface.

按下  后，进入花样编辑标准界面，如右图所示：






Press  to have access to Standard Interface for Pattern Edition, as shown in the right picture:

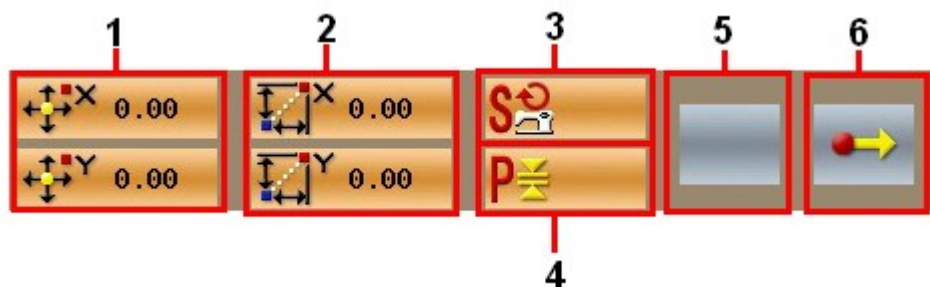


## 功能说明:






### List of Function Keys:

序号 No.	功能 Function	内容 Contents
A	读取图案 Load Pattern	显示图案读取界面 Display the Pattern Loading Interface
B	写入图案 Input Pattern	显示图案写入界面 Display the Pattern Input Interface
C	落针点查询 Needle-entry Point Inquiry	可以快速查询落针点; 在编辑花样时可以直接输入缝制点坐标 Promptly locate the needle entry point; when editing the patterns, user can input the coordinates of the sewing point directly.
D	提针 Lift needle	让机针返回到上死点 Make needle return to the highest point
E	中压脚抬升下降 Move Intermediate Presser	抬升或下降中压脚 Lift or lower the intermediate presser
F	当前机针位置信息 Current Needle Position Information	这是显示现在的机针位置信息的部分 Display the position information of needle at present
G	代码一览表 Code List	显示所有可操作的编辑功能, 详见【编辑功能一览表】 Display the entire available editing functions. Please refer to [List of Editing Functions] for details.
H	信息显示 Information Display	显示当前编辑花样的详细信息 Display the detailed information of the currently edited pattern
I	显示设定 Display Setting	可以进行广角设定以及落针点显示设定等 Enable wide-angle setting, needle entry point display setting and so on
J	试缝 Trial Sewing	可以对当前编辑的花样进行试缝 Put the currently edited pattern through a trial sewing
K	前进·后退送布 Forward· Backward Feeding	从现在的针位置移动一针 (前进  ; 后退  ) Move one stitch from the current position (forwards  ; backwards  )
L	原点复位 Return to Origin	将现在的机针位置返回到原点。 Return the needle from current position to origin
M	功能按钮 Function Keys	可以直接调用各个按钮上的功能 Call the functions on the buttons directly
		 1: 空送 Empty feeding
		 2: 点缝 Point Sewing
		 3: 普通缝 Normal Sewing

序号 No.	功能 Function	内容 Contents
		4  : 切线 Thread-trimming
		5  : 消除机械控制命令 Cancellation of Mechanical Control Order
		6  : 要素删除 Element Deletion
		7  : 缝制速度区间修改 Changes on Sewing Speed Section
		8  : 删除当前编辑的花样图案 Delete Current Pattern
N	功能快捷键 Hot Keys	通过功能选择·设定（功能代码112），可以把需要的功能分配到各按钮，作为功能快捷键使用。功能被分配后，表示功能的图标被显示到相应的按键上。 By using Function of Selection and Setting (Function Code 112), user can distribute the needed functions to each button. After the distribution, the figure of that function is displayed in the corresponding key.
O	花样图案显示区域 Pattern Shape Display Area	显示花样图案。 Display the pattern



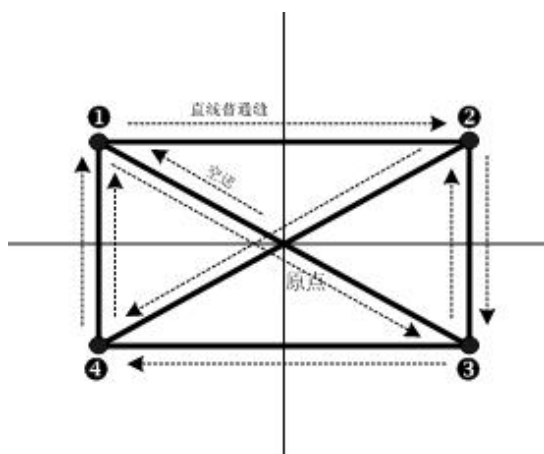
序号	项目 Item	内容 Content
1	绝对坐标 Absolute Coordinate	表示从现在的机针位置的原点的绝对坐标。The absolute coordinate of current needle position to the origin
2	相对坐标 Relating Coordinate	表示现在的机针位置的相对坐标。 The relating coordinate of current needle position
3	速度 Speed	表示当前点的缝制速度或空送速度。 The sewing speed or empty feeding speed of current point.
4	间隔 Interval	表示现在的要素缝制针迹长度。(扩大·缩小读取后，扩大 缩小前的数值被显示。) The length of current element stitch. (If the stitch is scaled, the value before the scaling will be displayed.)

5	要素种类	表示当前的要素种类。缝制数据时,显示该要素种类(空送  、折线  、自由曲线  等)的图标。机械控制命令时,显示该机械控制命令的种类(切线等)的图标。
6	落针种类	<p>表示有关落针位置的种类。</p> <p>图案起点,表示是图案的起点位置(原点)。</p> <p> 要素中途,表示是要素内的中途点(即不是顶点也不是要素终端)</p> <p>顶点,表示是折线的顶点。 </p> <p>要素终端,表示是要素的终端位置。</p> <p>图案终端,表示是图案的最终位置。</p>

## 8.2 花样编辑Pattern Edition

使用花样编辑功能,输入如下花样图案。

Use Function of Pattern Edition to input the following pattern



输入点:


	X (mm)	Y (mm)
@	-40.00	25.00
@	40.00	25.00
@	40.00	-25.00
@	-40.00	-25.00

输入次序: 如左图中虚线箭头所示。

Input Order: It is shown as the dotted arrow in the left.



## 1 空送的输入Input of Empty Feeding

在花样编辑标准界面，按  空送按钮，显示出空送设定界面：注：也可以从功能代码一览表里直接选择 020：空送，进入该界面。



At Standard Interface for Pattern Edition,


user can press  to activate the Interface for Setting Empty Feeding::



Note: user can also select “020: Empty Feeding” from function code list to enter the interface

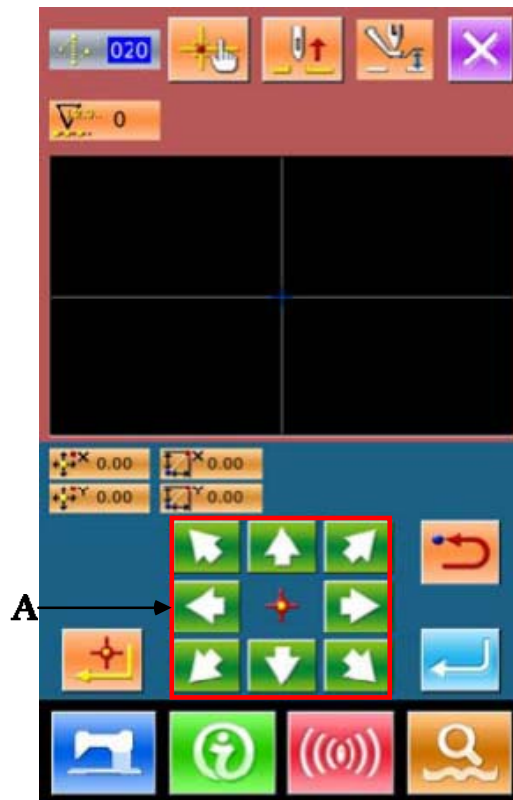


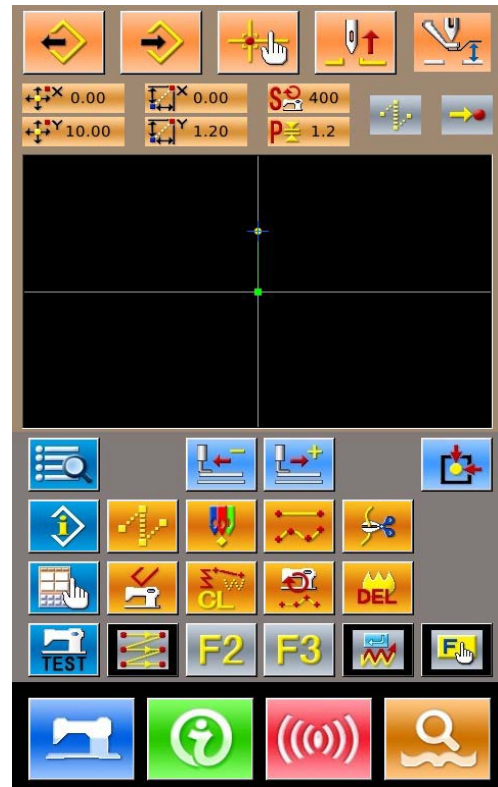
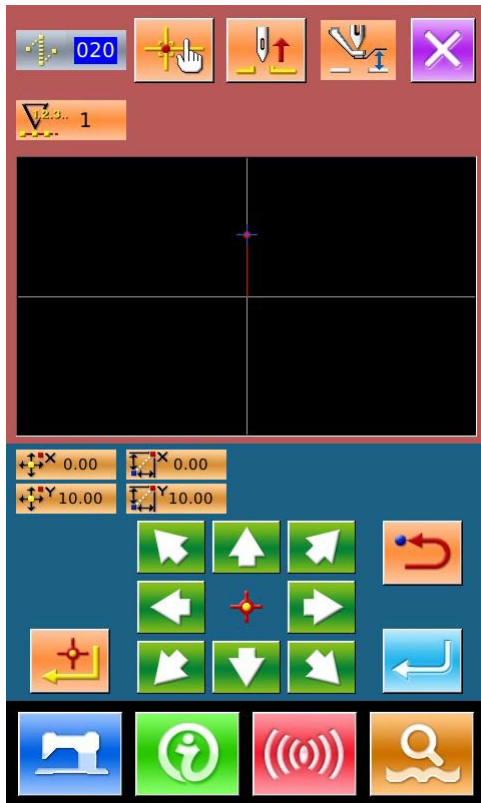
按确认键  后，显示出空送位置指定界面：

在空送位置指定界面，使用方向移动键——>A，移动光标（机针位置）到（0， 10） 处，按按钮确定后 ，再按键  保存 设置，退回到花样编辑标准界面并显示出空 送针迹：


After user presses  , the Interface for Locating the Empty Feeding Position will be displayed:


At that Interface, user can use Direction Key (A) to move the icon (needle position) to the position with coordinate (0, 10). After pressing  for confirmation, user need press  to save the settings. After that, the system will return to the Standard Interface for Pattern Edition and display the empty Feeding stitch





## 2 直线普通缝的输入Input of Linear Normal Sewing

在功能代码一览表里，选择“023 直线普通缝”，然后按确认键  后，进入直线普通缝设置界面：

At Function Code List, select “023 Linear Normal Sewing”, and then press  to have access to Interface for Setting Linear Normal Sewing



在直线普通缝设置界面下,按缝迹长度设定

按钮 **2.0mm**, 进入缝迹长度设定界面, 如右图所示。

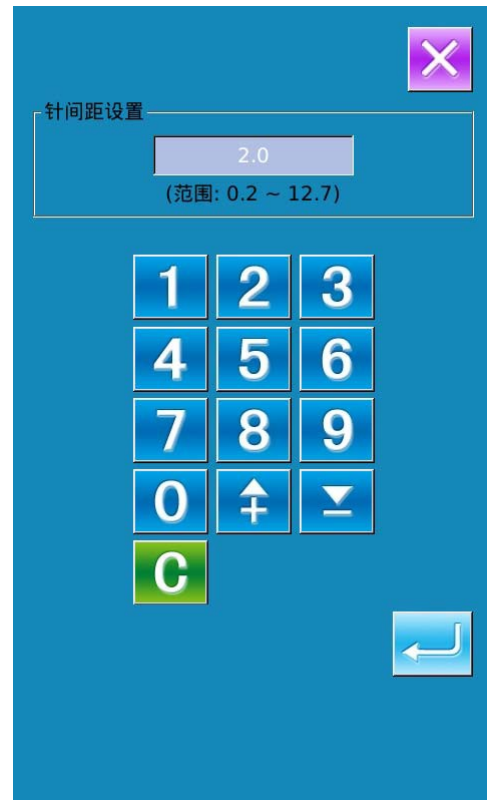
依次按、**3** 数字键, 将缝迹长度变 **0** 更为“3.0”  
按确认键保存并退回到直线普通缝设置界面。

注: 按键, 数值清零。 **C**

At Interface for Setting Linear Normal

Sewing, press **2.0mm** to have access to the interface for setting the sewing stitch length, as shown in right picture.

Press **3** and **0** in order to change the sewing length to “3.0”, and then press “ENTER” to save value and have the system return to the Interface for Setting Linear Normal Sewing




确认缝迹长度设定按钮的显示值为“3.0mm”之后，按确认键，进入直线普通缝位置设定界面。在此界面下，通过方向移动键，将光标（机


针位置）从@处移动到@处，然后按确定按钮。反复进行上述移动操作，将光标按照

@→@→@→@→@→@→@→@

的顺序依次移动，如右图所示。


After confirming the value “3.0mm” as the length of sewing stitch, user can press  to have access to the Interface for Setting Linear Normal Sewing.

In that interface, user needs press Direction Keys to move the icon (where the needle


locates) from X to Y, and then press .

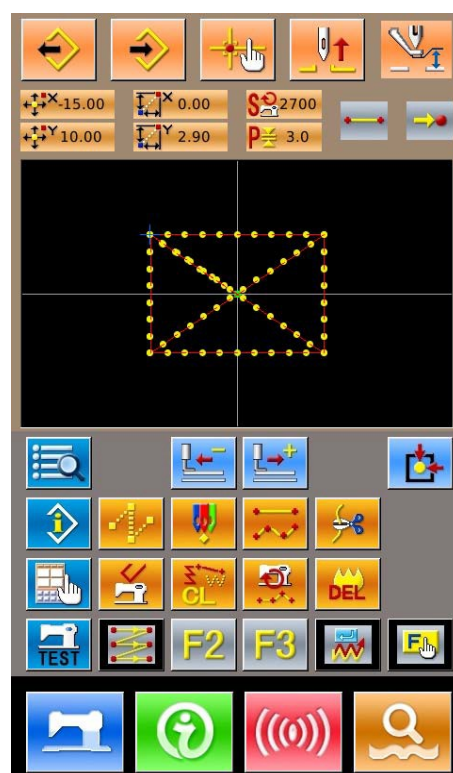
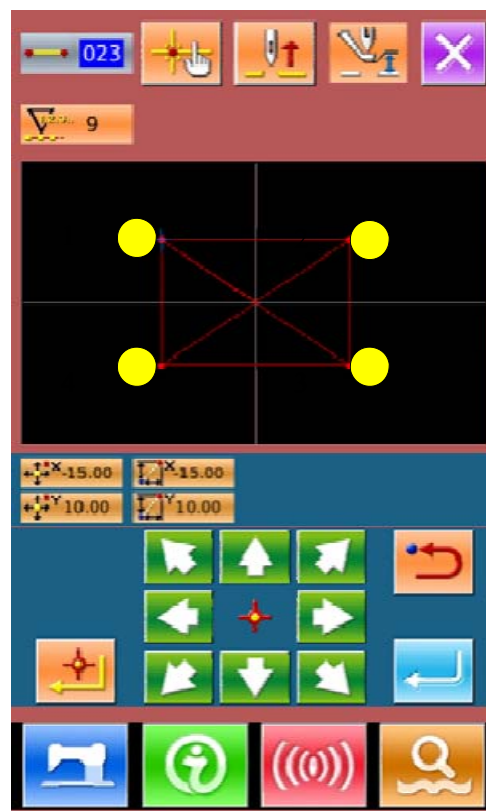
Repeat the above operations to move the icon in the order

of Y→Z→[→X→Z→Y→[→X, as shown in right picture.


确认花样图案后，按键生成花样数据并返回到花样编辑标准界面，显示出花样图案。

After confirming the pattern design, user can p


 to create the pattern data and have system return to Standard Interface for Pattern Edition where the pattern will be displayed.



### 3 保存花样 Save Pattern



按  按钮，进入图案花样保存界面，保存编辑好的花样图案，如右图所示。


系统自动设定好样号码，用户也可以通过  ~  十数字键盘或 、 键输入希望值。通过  和  按键，可以选择花样图案的存储位置。用户可以选择将其存储在操作面板存储媒介上，也可以选择存储在U盘上。



Press  to have access to Pattern Saving Interface to save the edited pattern, as shown in right pictures.

The system will set the pattern number automatically; user can also input the value with


 ~  and keyboard or 、. With


 and  , user can select the location for saving the pattern. Both the U disk and the memory on operation panel will be available for saving the pattern.

按  键后保存花样图案，系统提示，是否自动插入切线，如右图所示。

按  键自动加入切线；按  键取消自动加入切线。

操作完成后，退回到花样编辑标准界面。

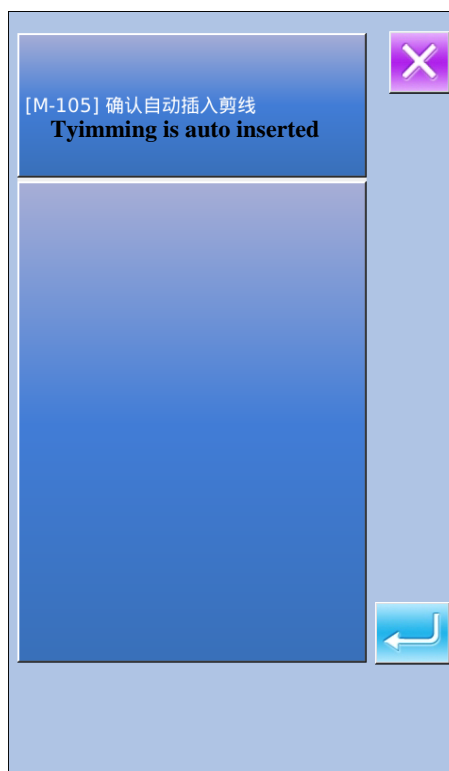
Press  to add automatic thread-trimming action;

Press  to cancel the insertion of automatic thread-trimming action

After the operations, the system will return to Standard Interface for Pattern Edition.


有关花样编辑的具体操作和说明请参照《SP-510 花样打版使用说明书》

**For the detailed operations and instructions of pattern edition, please refer to <SP500 Pattern-making Operation Manual>.**




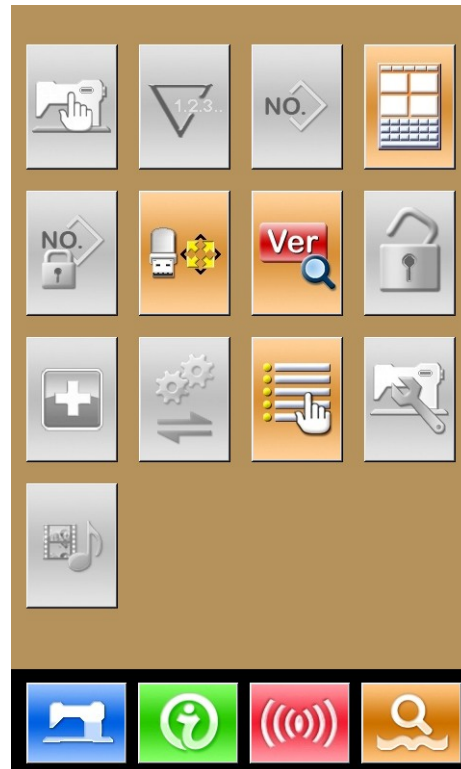
### 8.3 退出花样编辑模式Quit Pattern Edition Mode

在花样编辑界面, 按下  键后, 系统提示是否返回到缝制模式。

按  键后, 退出花样编辑模式, 返回到缝纫模式。

At Standard Interface for Pattern Edition, user can

press  to have access to Mode Selection Interface, as shown at right picture.



## 9 信息功能 Information Functions

信息功能，有下列3种功能。

- 1) 可以指定机油更换时期，机针更换时期，清扫时期等，超过了指定事件之后，进行警告通知。
- 2) 利用显示目标值和实际值功能，可以提高生产小组完成目标的意识，可以一目了然地确认进度。
- 3) 显示穿线示意图。

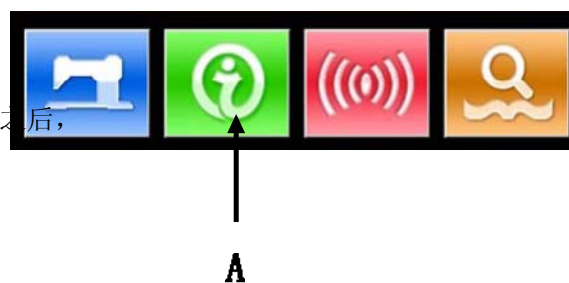
The Information Functions contain the following three functions:

- 1) The oil replacement (grease-up) time, needle replacement time, cleaning time, etc. can be specified and the warning notice can be performed after the lapse of the specified time.
- 2) Speed can be checked at a glance and the target achieving consciousness as a line or group is increased as well by the function to display the target output and the actual output.
- 3) Display the threading picture

### 9.1 查看维修保养信息 Maintenance & Repair Information

#### ① 显示信息界面

在数据输入界面，按开关密封部的信息按键(A)之后，信息界面被显示出来。



#### ① Display Information Interface

At Sewing Data Input Interface, user can Press Information Key (A) to activate the Information Interface.

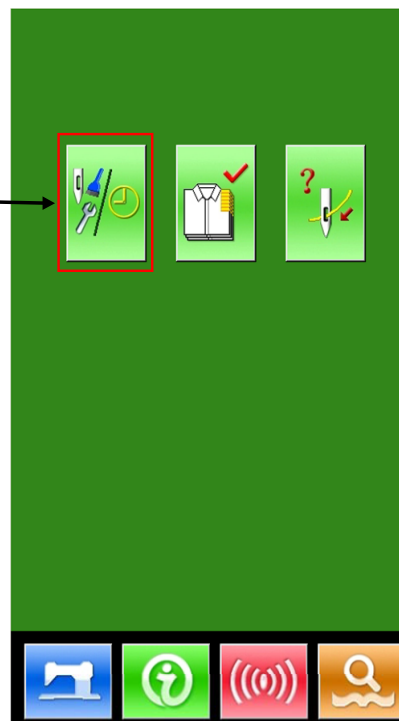
#### ② 显示保养维修界面。 请按信息界面的保养维修信息

界面显示按键 (B)。



#### ② Display Maintenance & Repair Interface

Please press (B) at Information Interface





在保养维修信息界面上，有以下3个项目的信息被显示出来。




: 更换机针(千针)

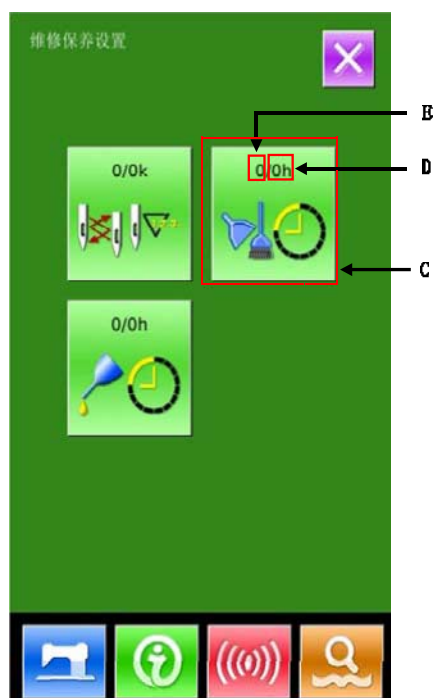


: 清扫时间(小时)



: 机油更换时间(小时)

各项目显示在按键(C)，通知检修的间隔显示在D，至更换的剩余时间显示在E。点按相应的按键，可以清除至更换的剩余时间。按退出键直接退回到信息界面。



At Maintenance & Repair Interface, the system will display the information of the following three items.



:Needle Replacement (Thousand Stitches)\




: Cleaning Time (Hour)

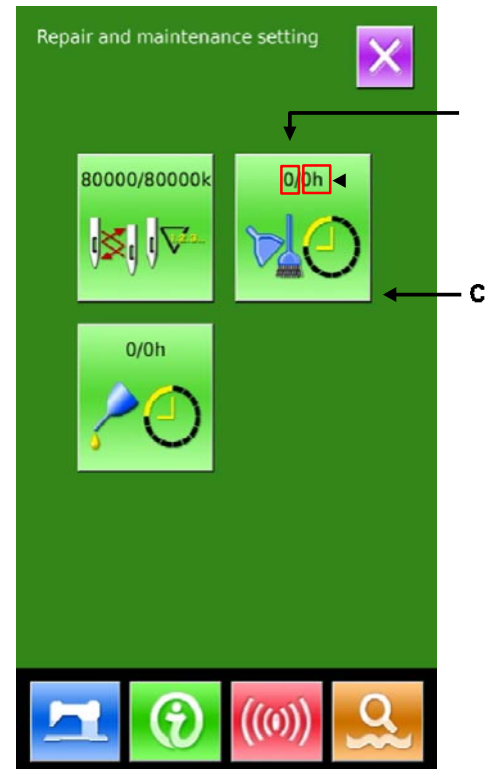


: Oil Replacement Time (Hour)

The figure of each item is displayed on the button (C), the time interval for the repair notice is displayed at (D), and the time left to the replacement is displayed at (E)

Additionally, the time left to the replacement can be cleared by users.

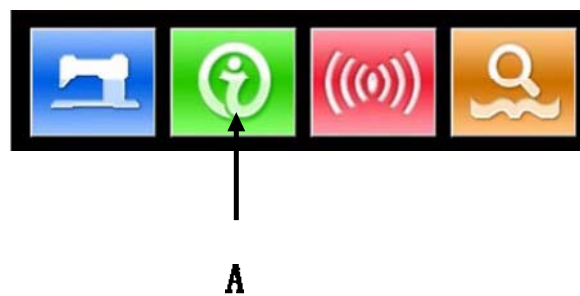
Press  to quit to information interface.



## 9.2 维修保养时间设置 Input Time for Maintenance & Repair

### ① 显示信息界面（维修人员等级）

在数据输入界面，按信息按键(A)约3秒钟之后，信息界面（维修人员等级）被显示出来。



### ① Display Information Interface (Maintenance Level)

At Interface for Inputting Sewing Data, user can hold the Information Key (A) for about 3 seconds to activate the Information Interface (Maintenance Level).

At that level, there are 6 buttons displayed on the interface

② 信息界面功能 维修人员等级时，有六项功能显示

:



: 维修保养



: 生产管理



: 穿线示意




: 报警记录



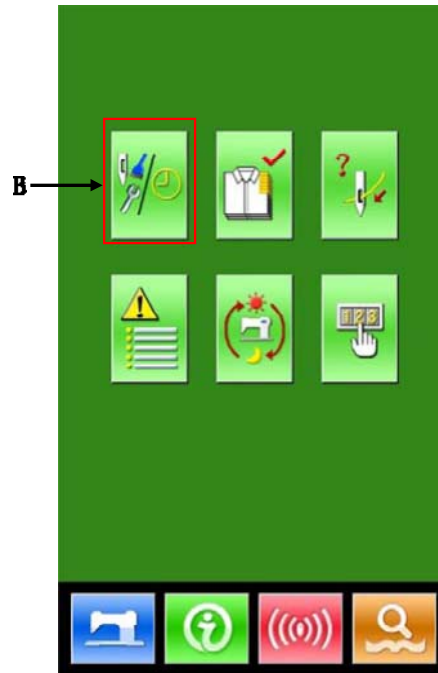
: 运转记录



: 分期密码 请按信息界面的保养维修



信息界面显示按  键 (B)，进入维修保养界面。

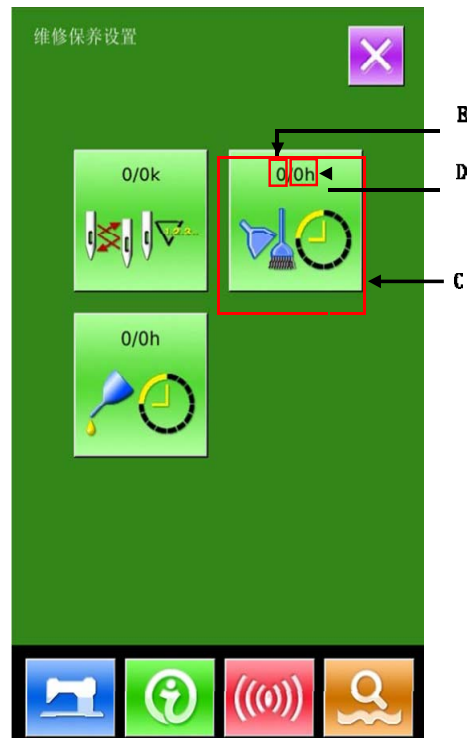
。



③ 维修保养设置

在保养维修信息界面上，显示出与通常的 维修保养信息界面一样的信息。按了想变 更维修保养时间的项目 按键(C)之后，相关 输入界面被显示出来。

比如按下  键，则可以设置清扫时间。按  退出键直接退回到信息界面。



#### ④ 设置维修保养项


把维修保养项设定值设定为0 之后，则停止维修保养功能。

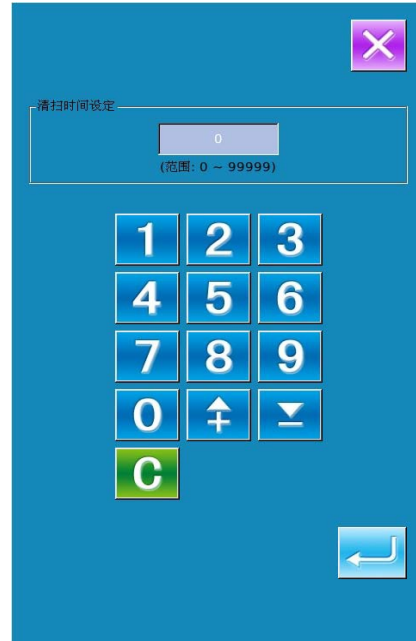
维修保养设置项包括：

- ◇ 机针更换时间设定
- ◇ 清扫时间设定
- ◇ 机油更换时间设定 按相应的图标，进入设置界面：

A、通过数字键盘输入维修保养项的设定值。

B、按回车键之后确定输入。

C、按退出键直接退回到维修保养界面。



#### ④ Set Maintenance & Repair Item


If the value of this item is set at 0, the function of maintenance & repair will be stopped.

The items for setting include:

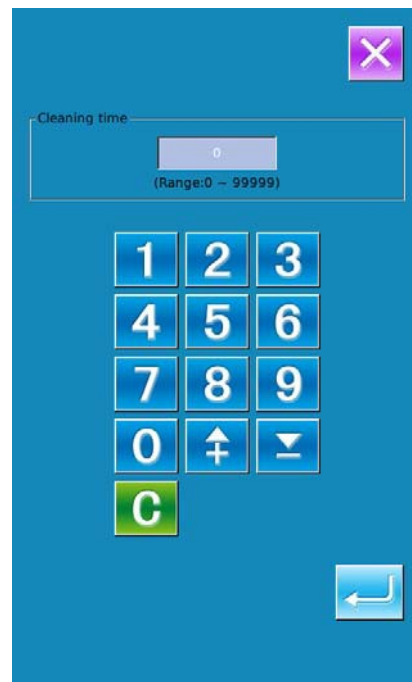
- ◆ Needle Replacement Time
- ◆ Cleaning Time
- ◆ Oil Replacement Time

Press the figure to enter the corresponding interface:


A、Input the value via keyboard

B、Press  to confirm the input.

C、Press  to return to the interface for repair & maintenance directly




## 9.3 警告的解除方法How to Release Alarm

到了指定的维修保养时间之后，信息提示界面被显示出来。要清除维修保养时间时，请按回车键。在清除维修保养时间之前，每次缝制结束后显示信息提示界面。

各项目的信息提示号码如下。

- 机针更换：M-052
- 机油更换时间：M-053
- 清扫时间：M-054

When it comes to the pointed time for maintenance or repair, the system will activate the prompt interface. If

user wants to clear the maintenance and repair time, please press . Before the clearance of the maintenance and repair time, the information prompt interface will be displayed after each one sewing task.

The following are the prompt code for each item

- Needle Replacement：M-052
- Oil Replacement Time: M-053
- Cleaning Time: M-054

## 9.4 生产管理信息Production Control

在生产管理界面上，指定开始，可以进行从开始到现在的生产件数，生产目标件数的显示等。生产管理界面的显示方法有以下2种：

- 1、从信息界面显示
- 2、从缝制界面显示

In the interface of production control, the system will be able to display the amount of products from the beginning to now and the target producing amount, as long as the user fixes the time of start.

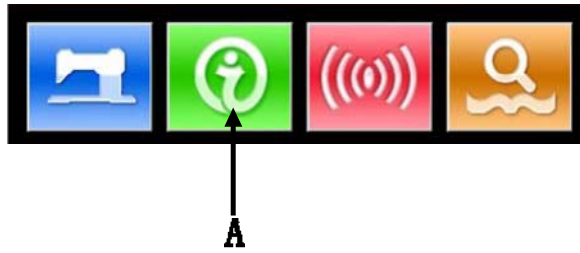
There are two ways to activate the production control interface:

- 1、Via Information Interface
- 2、Via Sewing Interface

## 9. 4. 1 从信息界面显示Via Information Interface

### ① 显示信息界面。

在数据输入界面按了开关部的信息键 (A) 之后, 信息界面被显示出来。



### ① Display the Information Interface

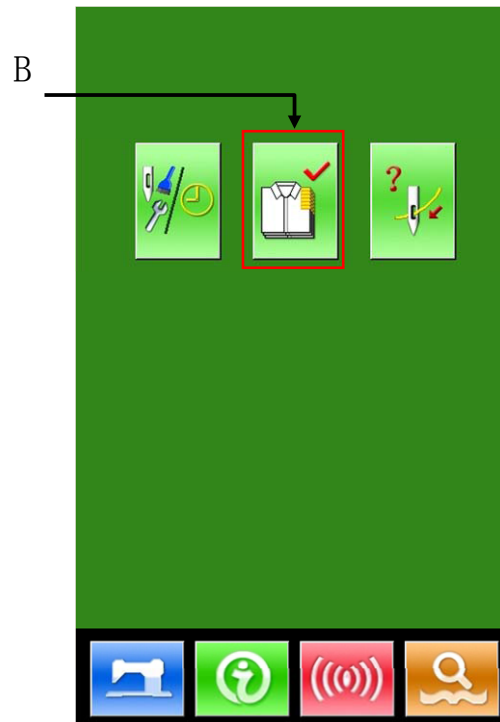
At Interface for Inputting Sewing Data, press Information Key (A) to activate the Information Interface.

### ② 显示生产管理界面。

请按信息界面的生产管理界面显示按钮 (B)。生产管理界面被显示出来 (如 右图所示)。

### ② Display the Production Control Interface

Please press Production Control Button (B) at the Information Interface so as to display the Production control interface (as shown at right picture)



生产管理界面上显示有下列5个项目的信息。

**A: 目标值**

依照间隔时间自动地显示出截止现在的目标缝制件数。

**B: 实际值**

自动地显示已经缝制的件数。

**C: 最终目标值**

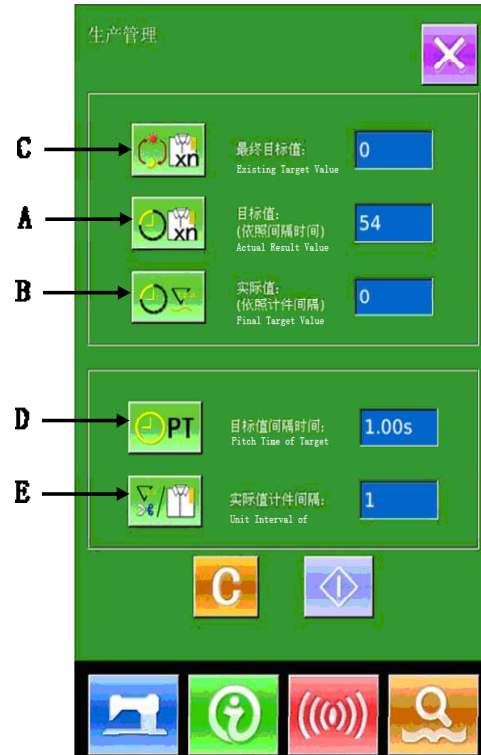
设置最终目标的缝制件数。

**D: 目标值间隔时间**

设置完成一个工序需要的时间（秒）。

**E: 实际计件间隔**

设置实际完成一个工序的间隔。



There are five items displayed on the production control interface

**A: Existing Target Value**

According to the pitch time, the target sewing amount up to now is displayed automatically.

**B: Actual Result Value**

Automatically display the amount of pieces sewn

**C: Final Target Value**

Set the final Target amount of production

**D: Pitch Time of Target**

Set the pitch time (Second) among each working process


**E: Unit Interval of Actual**

Set the actual time for finishing one process




## 9.4.2 从缝制界面显示 Via Sewing Interface

### ① 显示缝制界面。

在数据输入界面按了  准备键之后, 缝制界面被显示出来。

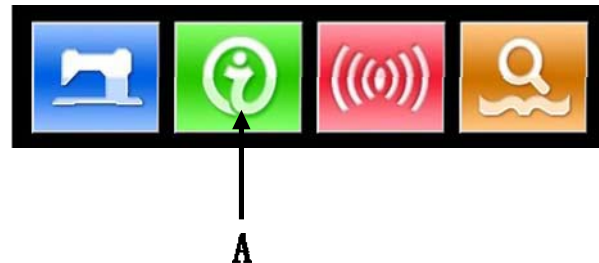
### ① Display Sewing Interface

At Interface for Inputting Sewing Data, user can press  to activate the Sewing Interface.

### ② 显示生产管理界面。

在缝制界面, 按了信息按键 (A) 之后生产管理界面被显示出来。

显示内容和功能与上述6.4.1节相同。




### ② Display Production Control Interface

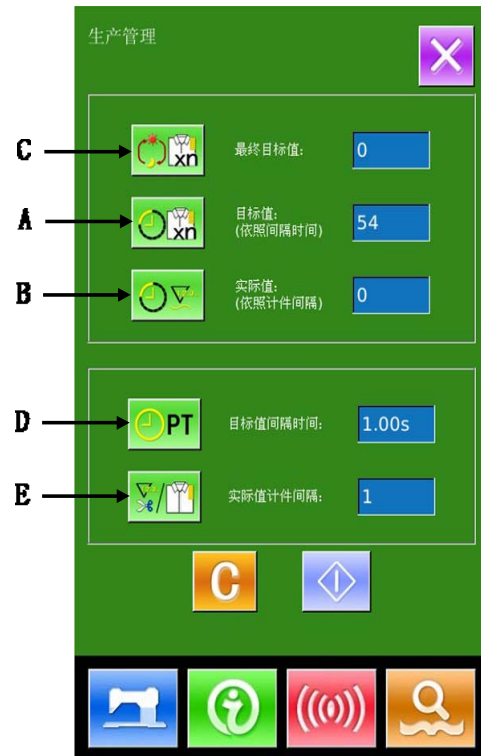
At Sewing Interface, user can press Information Key (A) to activate the Production Control Interface.

The displayed content and the functions are same to the content in Chapter 6.4.1 at above.

### 9.4.3 生产管理信息设定 Setting on Production Control

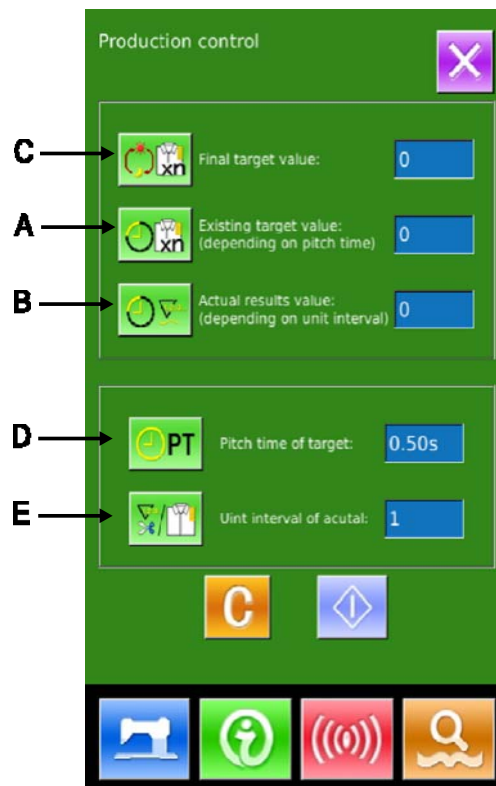
① 显示生产管理界面。

按下  ，显示出生产管理界面。






① Display Production Control Interface

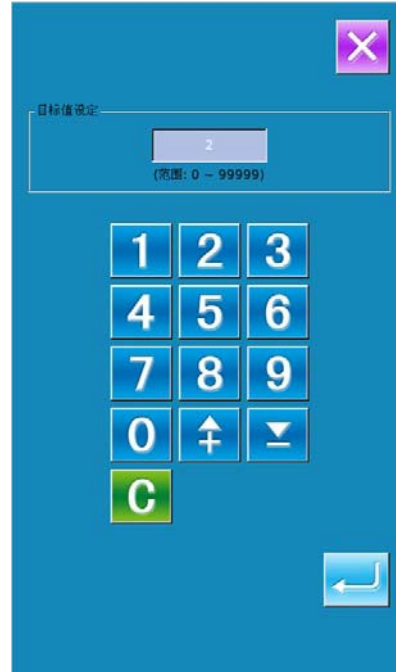
Press  to display the Production Control Interface



## ② 输入最终目标值。




首先，请输入从现在开始进行缝制工序的生产目

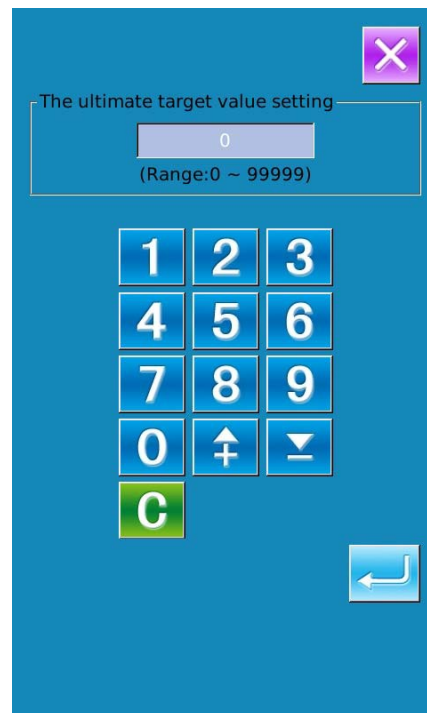
标件数。按了最终目标值按键  (C) 之后，最终目标值输入界面被显示出来。请用数字键或加减按键输入希望的数值。输入后，请按  确定按键，按下  退出键退出。



## ②Input Final Target Value




Firstly, please input the number of production target pieces to which the sewing is performed from now

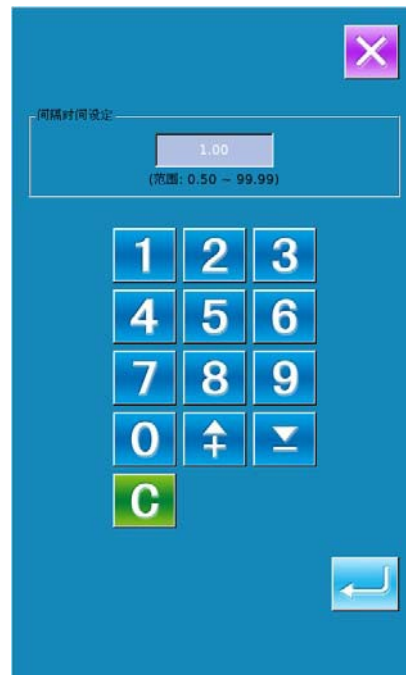
on. Press Final Target Amount Key  (C) to activate the Target Value Input Interface. Please use the number keys or +/- keys to input the wished value. After the input, please press  to confirm. Press  to quit.



### ③ 输入间隔时间。




然后，请输入1 工序需要的间隔时间。按了前页的间

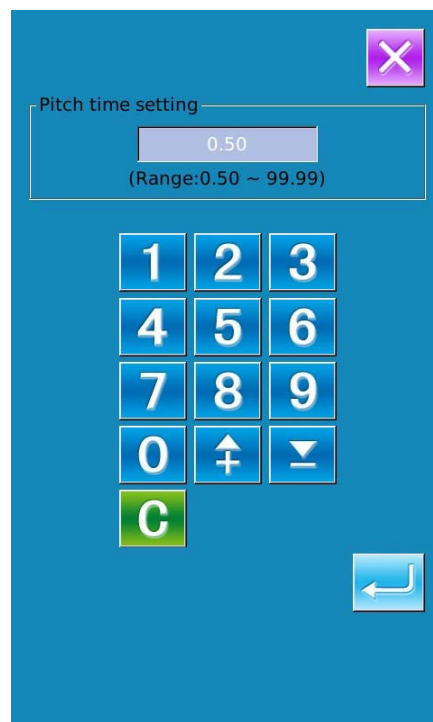
隔时间按键  (D) 之后，间隔时间输入界面被显示出来。请用数字键加或减按键输入希望的数值。输入后，请按  确定按键，按下  退出键直接退出。



### ③ Input Pitch Time of Target




Then, input the pitch time needed for one process. By pressing the Pitch Time of Target Key

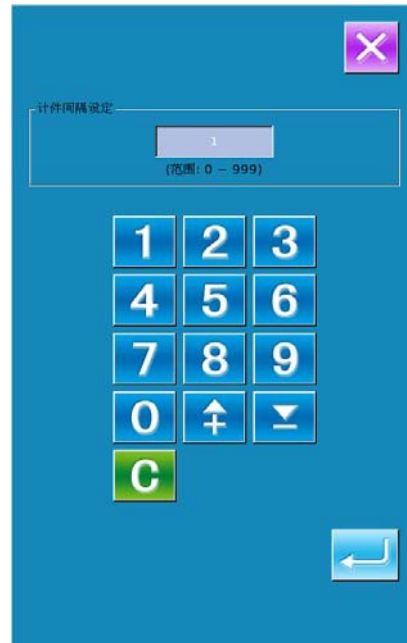
 (D), user can activate the Pitch Time Input Interface. Please use the number keys or +/- keys to input the wished value. After the input, please press  to confirm. Press  to quit.



#### ④ 输入计件间隔。




然后，请输入平均1 工序的计件间隔。按了前页的

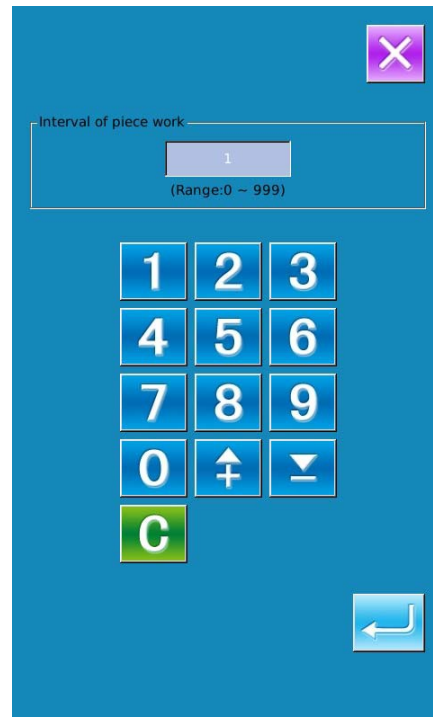
间隔按键  (E) 之后，计件间隔的输入界面被显示出来。请用数字键或加减按键输入希望的数值。输入后，请按  确定按键，按下  退出键直接退出。




#### ④ Input Unit Interval of Actual

Then, input the time for trimming at one process in

average. By pressing Unit Interval of Actual Key  (E) at previous page, the user can activate the Interface for Inputting Trimming Time .Please use the number keys or +/- keys to input the wished value. After the input, please press  to confirm. Press  to quit.



⑤ 开始车生产件数的计数。

按  键 (I) 之后, 【最终目标值】 【目标值】 【实际值】 变灰, 并开始生产件数的计数。

**最终目标值:** 可以作为参考时间


**目标值:** 目标值按照【目标值间隔】设定的 时长, 开始计时, 每过一个时间间 隔增1。

**实际值:** 当通过“6.4.2从缝制界面显示”进 入时, 实际值按照【实际值计件间 隔】设定的值, 开始计件, 每缝完 一件 增1。

通过设置目标值和实际值可以对比每缝一件 的生产效率是提 高了还是降低了。

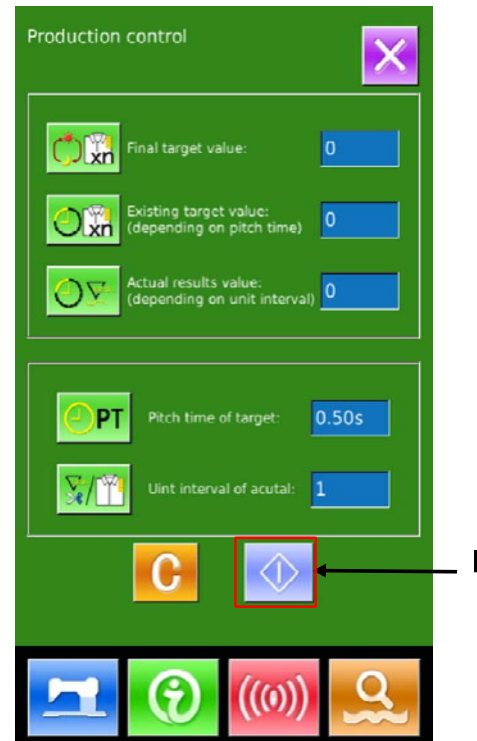


⑤ Start to Count Amount of Production







Press  (I) to start counting the number of production amount, the [Final Target Amount], [Target Amount at Present] and [Actual Amount] will turns to dark

**Final Target Value:** Can be used as the time reference  
**Existing Target Value:** The target value adds 1 after each time pitch set [Pitch Time of Target]








**Actual Result Value:** After entry from the “6.4.2 Via Sewing Interface”, the system will start count the actual value by adding 1 at finishing each piece  
 By setting the Target Value and the Actual Result Value, user can find out the change of productivity.




## ⑥ 停止计数。

计数状态下，停止键  被显示出来。按了停止按键  之后，停止计数。停止后，在停止按键的位置显示出计数按键 。需要继续进行计数时，请再次按计数按键 。在按了清除按键  之前，计数的数值不被清除。按下退出键  直接退出返回。

## ⑥ Stop Counting

In the status of counting, you can see the  displayed on the screen. Press  to stop counting. After stop, the Counting Key  will take the position of . If user wants to continue counting, please press . Without pressing , the value will be kept. Press  to quit directly

### ⑦ 清除计数值。

清除计数的值时，让计数器为停止计数状态，按下清除按键 。可以被清除的值为现在的目标值





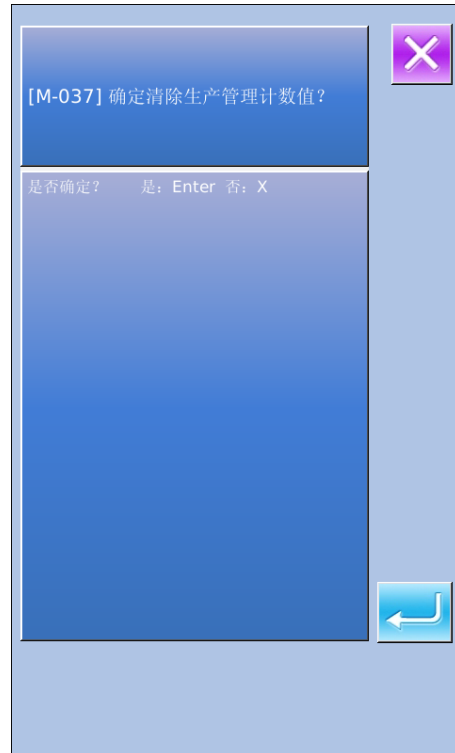
和实际值



。（注：仅在停止计数状态时清除按键可以显示。）按下清除按键之后，显示

清除确认界面 。在清除确认界面，按下确定

按键确认清除 ，按下退出键  直接退出。



### ⑦ Clear the Data in Counter

For clearing the value of the counter, the user should stop the counter at first and then Press



. The values of



and




can

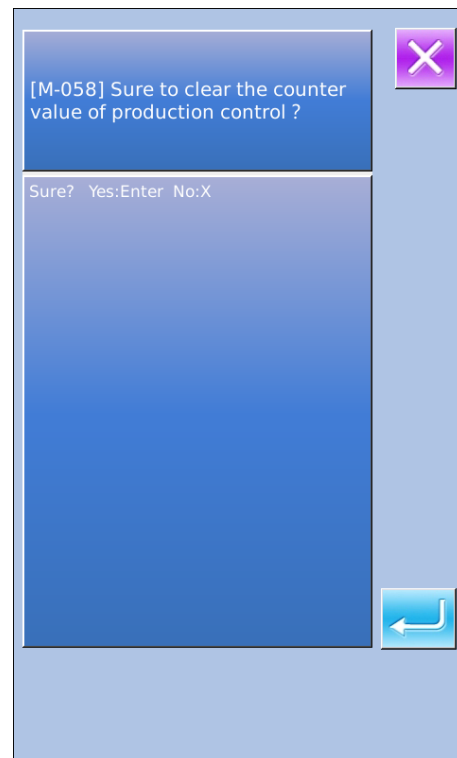
be cleared both. (Note: the clear key can only be displayed when the counter is stopped.) After

pressing ,

the Interface for Confirming Clearance is activated. In the Interface for

Confirming Clearance, user can press  to


confirm the clearance. Press  to quit.

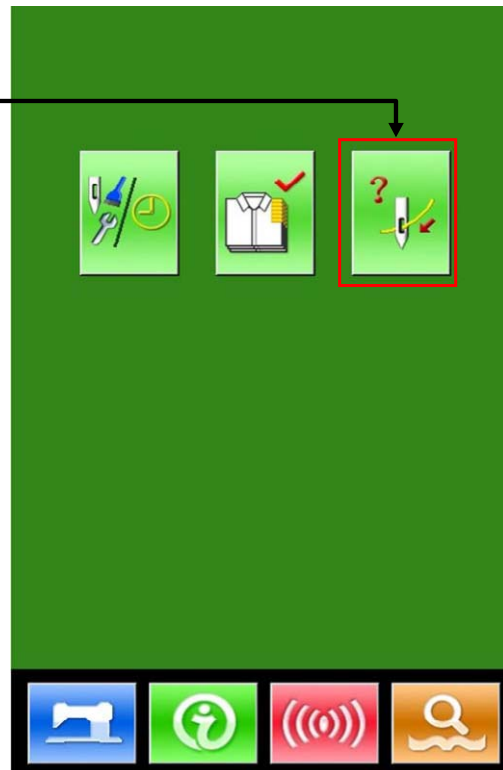




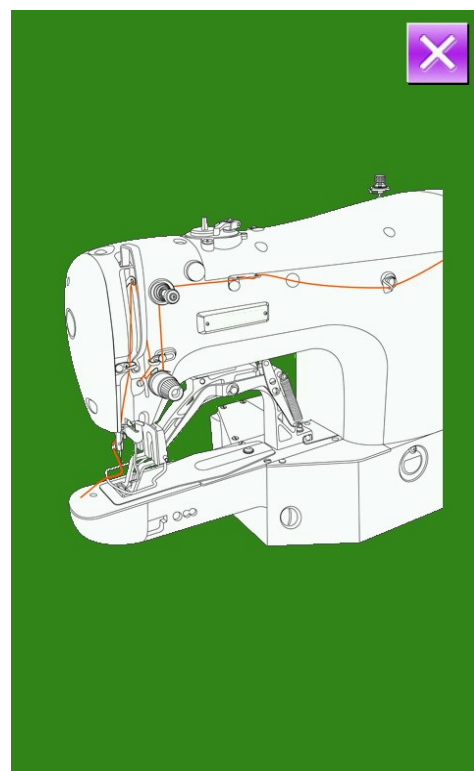
## 9.5 显示穿线图 Display Threading Figure

信息界面按下穿线按钮  (C) 之后，上穿线图被显示出来。


At Information Interface, user can press Threading Button  (C) to activate reference the Threading Figure, which can be taken when user threads the machine.





穿线时，请参阅。



## 9.6 报警记录 Alarm Record

① 维修人员等级时，按下  可以查询机器的报警记录信息。

① At Maintenance Level, press  to inquire the alarm records.

② 按  查询记录 如图，显示报警信息和出现的次数

操作键功能：

A、按下 、 进行翻页

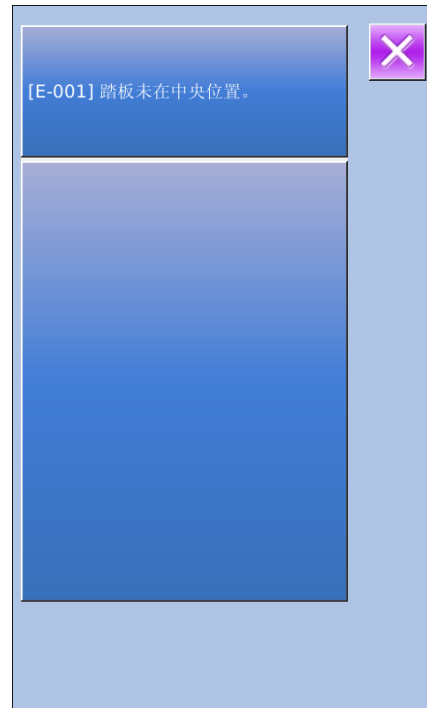
B、按下退出键  退出查询操作。

C、按下清除键  清除保留的报警记录



③ 按报警提示栏左边的序号键显示报警记录的详细信息

按退出。




② Press  to check the records

As in the picture, the warning information and the times of occurrence are displayed

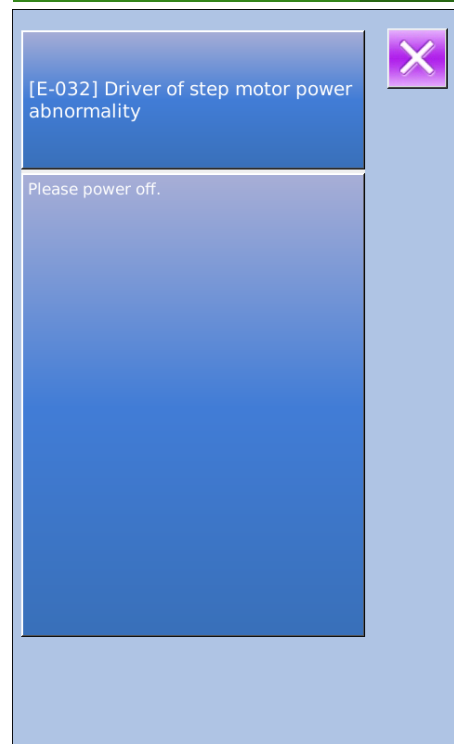
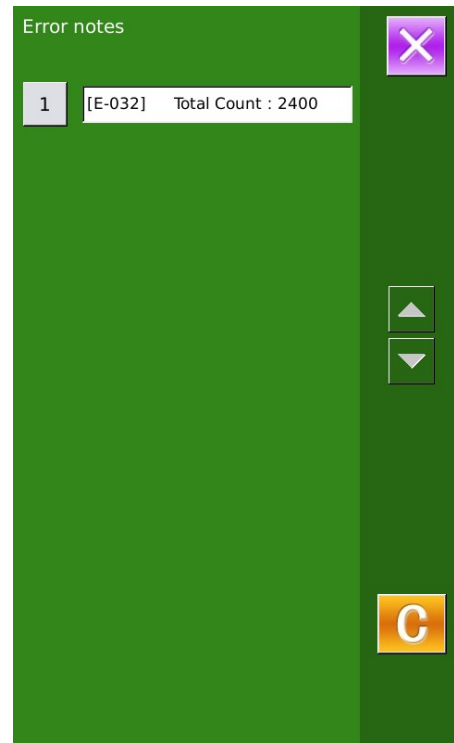
Function of Keys:

A、Press  or  to turn pages B、Press  to quit the inquiry

C、 Press  to clear the filed record

③ Press the number key at the left of the column to display the details of the warning records


Press  to quit



## 9.7 运转记录 Running Record

① 维修人员等级时，按下  可以查询机器的运转信息。

① In the interface of maintenance level,

press  to check the running information of the machine.



② 运转记录包括:

- a): 机器累积运转时间 (小时单位)
- b): 机器累积切线次数
- c): 机器累积上电时间 (小时单位)
- d): 机器累积针数 (1000 针单位)

A、按退出键  退出 B、按清除键清除记录

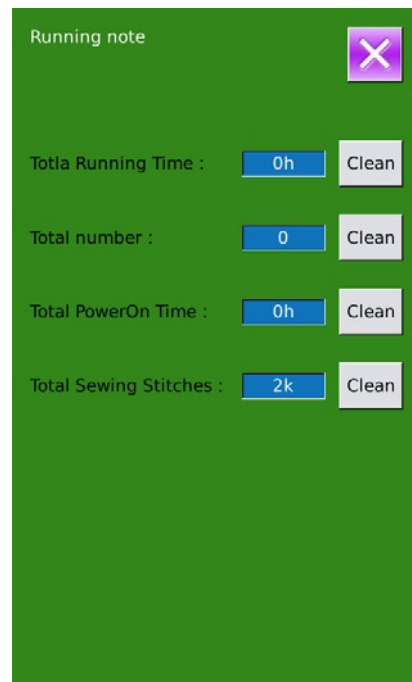


② The Running Records contain:


- a): Accumulated running time (Hour)
- b): Accumulated times for thread trimming
- c): Accumulated time of power-on (Hour)
- d): Accumulated number of stitch (1000stitch)

A、Press  to quit

B、Press Clear to clear the record




## 9.8 分期密码设置 Setting of Periodical Password

1) 维修人员等级时，按下  可以设置分期密码

该界面下会显示输入用户ID 界面，输入正确的厂家ID后即进入密码管理模式，主要用于用户分期密码的设置和管理。


- ✧ 可以最多设置10个不同的密码发作日期。
- ✧ 系统可以显示厂家设置的密码信息。

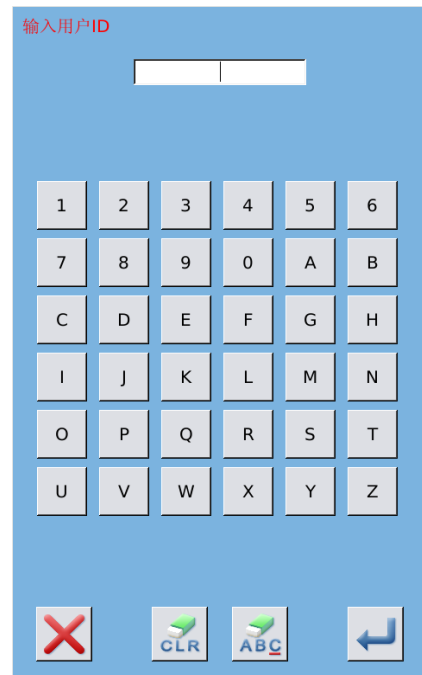
1) In maintenance level, Press  to set periodical password


In this interface, the system will ask user to input the User ID. Input the right manufacturer ID to enter the password management mode, where user can set and manage the periodical passwords.

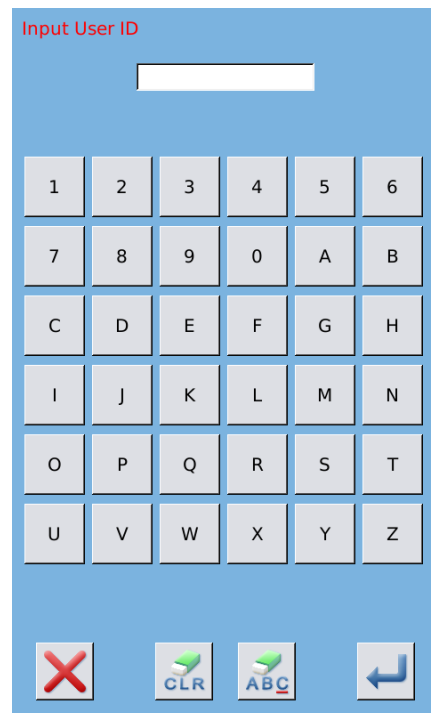
- ✧ At most ten periodical passwords with different activation dates can be set
- ✧ The system will display the information of passwords set by manufacturer.



2) 按下  后要求输入厂家ID



2) Press  To input User ID





3) 输入正确的厂家ID 后, 进入密码设置 界面  
分期密码设置步骤:

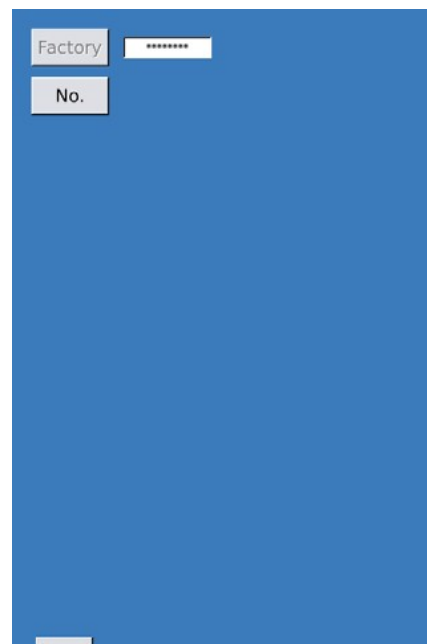
A、继续输入其他的分期密码



3) **Input the Correct Factory ID to enter the password setting interface**

Procedure for setting the periodical password:

A、 Continue inputting other periodical passwords



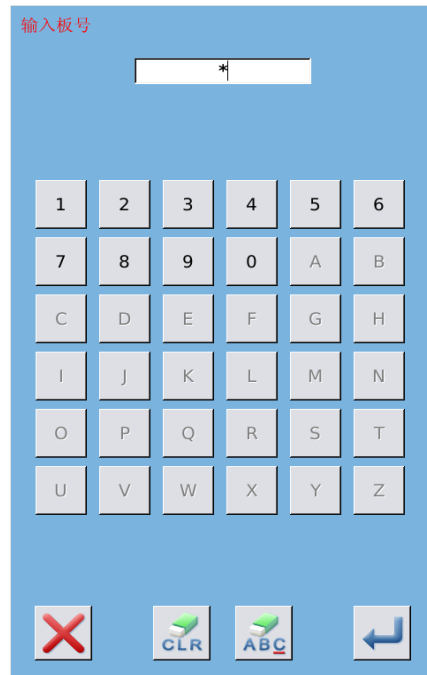
#### 4) 输入板号

按下【板号】键，进入板号输入界面，输入板号后，按下



完成板号输入界面

※ 板号为四位，范围0~9999



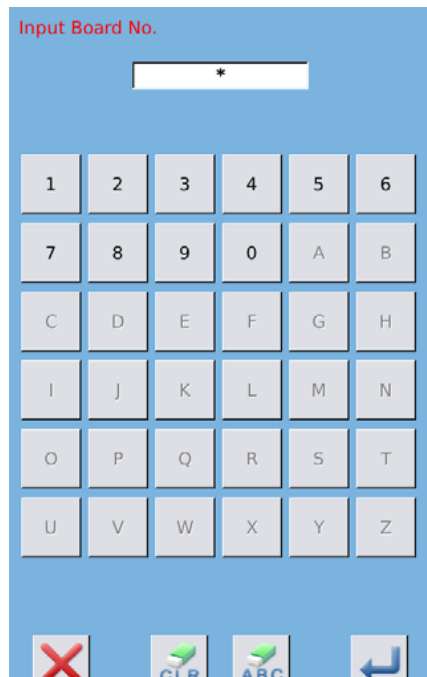
#### 4) Input Board Number

Press 【Board Number】 to enter the board number input interface. Input the board number and



press to finish the input

※ The board is a four-figure number, from 0~9999



### 5) 输入系统时钟

按下【时钟】键，进入系统时钟设置界面，确定系统时钟



### 5) Input System Clock

Press **【Clock】** to enter the interface for setting the system clock and set the time.



### 6) 输入超级密码

按下【超级密码】键，进入超级密码 设置界面，输入超级密码

※最多可输入9位总密码

※密码输入要求确认两次密码必须一致

输入超级密码

输入密码:

1	2	3	4	5	6
7	8	9	0	A	B
C	D	E	F	G	H
I	J	K	L	M	N
O	P	Q	R	S	T
U	V	W	X	Y	Z

### 6) Input the super password

Press the【Super Password】 to enter the interface for setting super password

※At most, nine super passwords can be input

※At the password confirmation, make sure the two input passwords are same

Input super password

Input password:

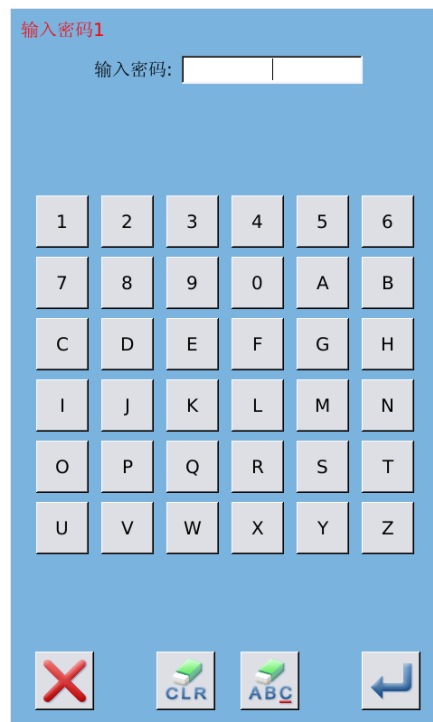
1	2	3	4	5	6
7	8	9	0	A	B
C	D	E	F	G	H
I	J	K	L	M	N
O	P	Q	R	S	T
U	V	W	X	Y	Z

### 7) 输入分期密码


按下【密码-1】键，进入第一次密码 到期界面，要求输入第一个有效日期，选择合适的日期后，按确认，然后进入密码设置界面，输入密码

※ 日期不能小于系统日期

※ 密码输入要求确认，两次密码 必须一致

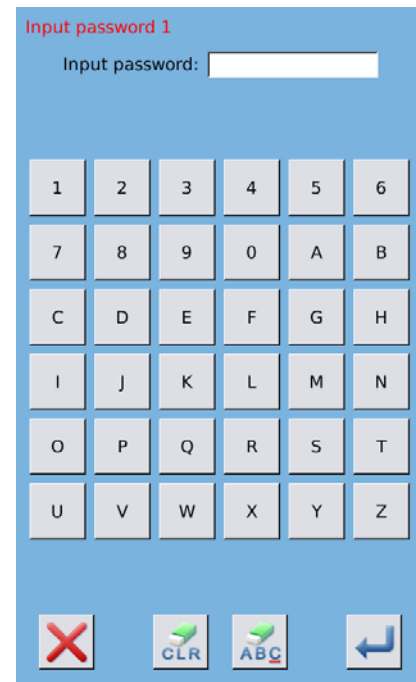


### 7) Input periodical password

Press **【Password-1】** to enter the first password date, where user can input the first date for activation. After selecting the proper date, user can press  for confirmation. Then enter the password setting interface to input the password.

**\* The date should not be earlier than the system date**

**\* At the password confirmation, make sure the two input passwords are same**



### 8) 输入其他的分期密码

其他分期密码的设置和⑦相同，参考⑦的设置

\* 下一个有效日期必须大于上一个 有效日期

厂家	*****
板号	0001
时钟	2012-12-07 15:05
超级密码	*****
密码-1	2012-12-24
密码-2	


### 8) Input other periodical password


The setting of other periodical password is same to that in step ⑦. Please take the reference to that

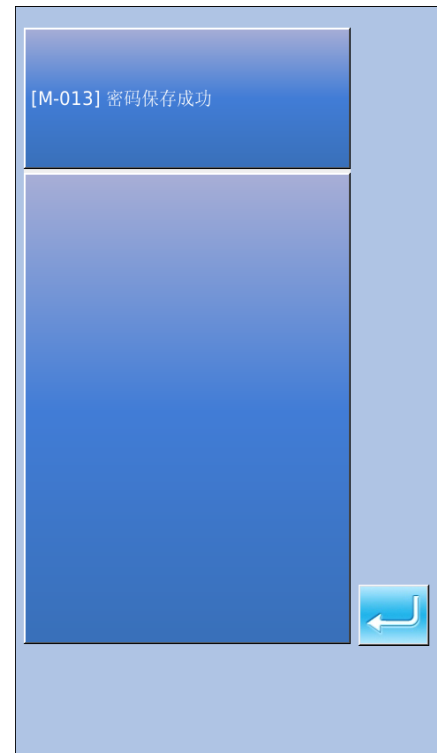
**\* The next activation date shall be later than the previous date.**

Factory	*****
No	0001
Clock	13-06-24 11:15
Super password	**
Password-1	2013-06-25
Password-2	


## 9) 保存密码


A、密码输入完成后，按  完成密码保存

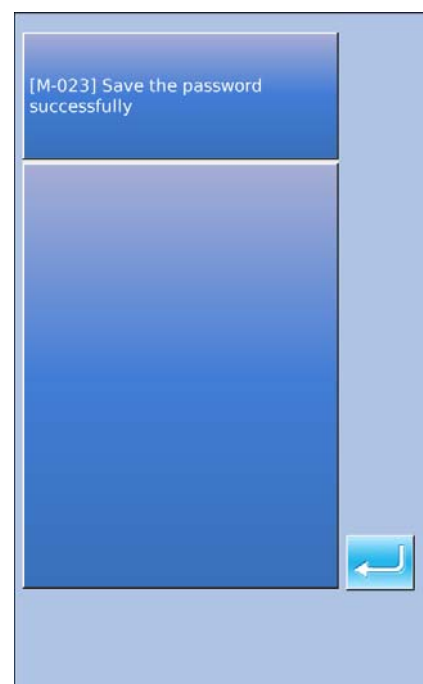
B、密码保存成功，显示【密码保存成功】界面，按  完成密码保存并退回到【信息主界面】



## 9) Save Password

A、After inputting the password, please press  to save it.

B、After the password is saved, the system will display 【Save the password successfully】. Press  to finish the operation and return to the main interface of information.

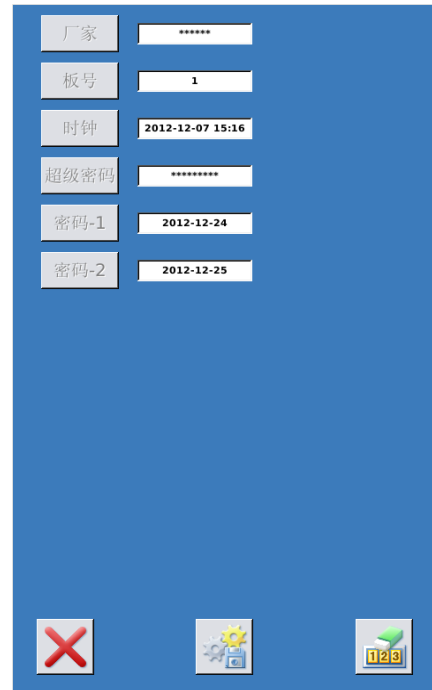




### 10) 密码发作时清除

如果系统设置了密码,并且没有清除,则使用至密码发作日期时,会遇到密码发作。此时若继续使用,必须输入密码才能继续正常使用。

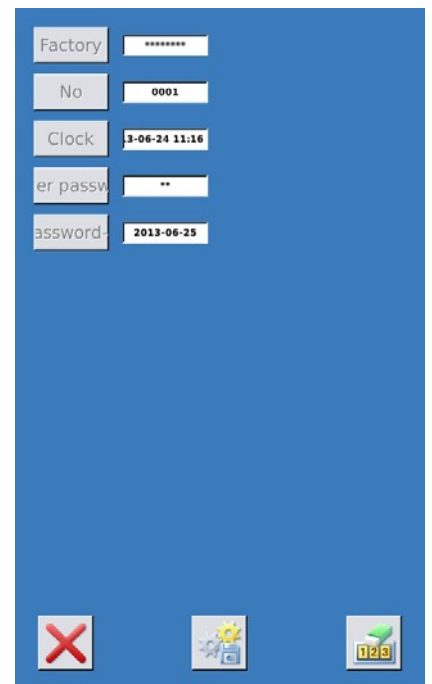
- A、有效密码包括当期提示的密码和超级密码。
- B、若输入的是当期密码,则清除当期密码。清除当前密码后,若后面没有密码,则机器不再会出现密码发作的问题。
- C、若输入的是超级密码,则全部清除分期密码。



### 10) Clear Password at Activation

If the system has password and that password is still effective, it will be activated at the activation day. If user wants to use the machine he should input the right password.

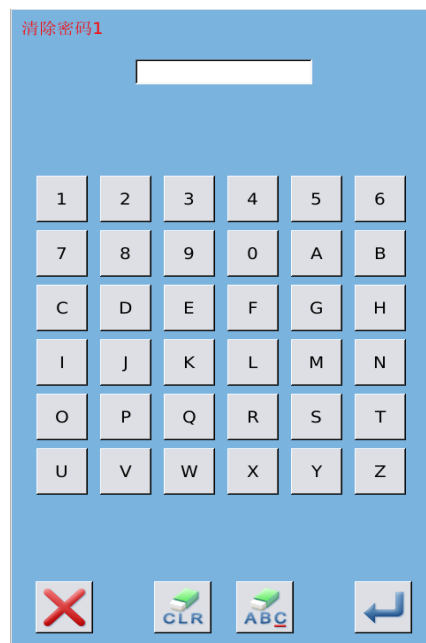
- A、The effective passwords include current password and super password
- B、If the current password is input, the current password will be deleted. After user clears the current password, if it is the last password in machine, no more activation of password will happen in future.
- C、If the super password is input, all the periodical passwords will be deleted.



### 11) 密码发作时清除

如果系统设置了密码,并且没有清除,则使用至密码发作日期时,会遇到密码发作。此时若继续使用,必须输入密码才能继续正常使用。

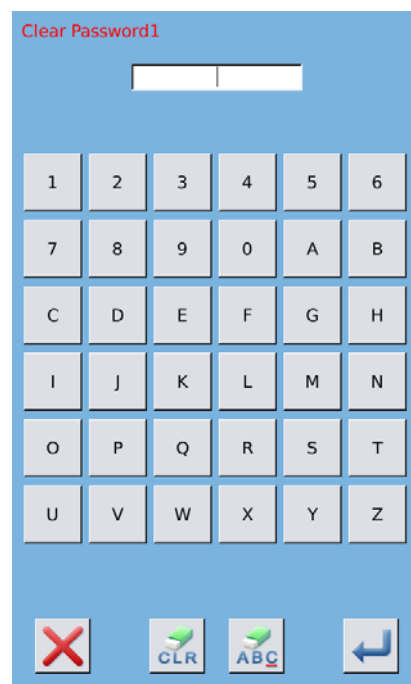
- A、有效密码包括当期提示的密码和超级密码。
- B、若输入的是当期密码,则清除当期密码。清除当前密码后,若后面没有密码,则机器不再会出现密码发作的问题。
- C、若输入的是超级密码,则全部清除分期密码。



### 11) Clear Password at Activation

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- A、The effective passwords include current password and super password
- B、If the current password is input, the current password will be deleted. After user clears the current password, if it is the last password in machine, no more activation of password will happen in future.
- C、If the super password is input, all the periodical passwords will be deleted.



# 10 通讯功能Communication Functions

通信功能完成以下几项功能：

- \* 把其它缝纫机编制的缝制数据或打版软件编制后的缝制数据下载到缝纫机；
- \* 向U盘或计算机里加载缝制数据。
- \* 从U盘加载参数
- \* 将操作头中保存的参数导入到U盘中
- \* 操作头软件升级

At Communication, user can perform the following functions:

- \* Download the sewing data made at other sewing machines or produced by the pattern-designing software to the sewing machine;
- \* Load sewing data to U disk or computer
- \* Load parameters from U disk
- \* Input the parameters within the operation panel to U disk
- \* Update the software within the operation panel

## 10.1 关于可以处理的数据 About the Available Data

可以处理的缝制数据如下，其数据形式如下。

数据类型	标准格式
VDT	[0-9][0-9][1-9].vdt
DXF	[0-9][0-9][1-9].dxf
DST/DSB	[0-9][0-9][1-9].dst/ [0-9][0-9][1-9].dsb
B/BA	[0-9][0-9][1-9].(1-599)/ [0-9][0-9][1-9].(600-999)
PAT	[0-9][0-9][1-9].pat

往U盘保存数据时，请保存到DH\_PAT文件夹里，否则就不能读取文件。


The available data is sewn at below, as well as the data type:

Data Type	Standard Type
VDT	[0-9][0-9][1-9].vdt
DXF	[0-9][0-9][1-9].dxf
DST/DSB	[0-9][0-9][1-9].dst/ [0-9][0-9][1-9].dsb
B/BA	[0-9][0-9][1-9].(1-599)/ [0-9][0-9][1-9].(600-999)
PAT	[0-9][0-9][1-9].pat

When saving data to the U disk, user needs save it to the DH\_PAT folder. Otherwise, the file is unable to be read.

## 10.2 功能操作 Operations

### ① 显示通信界面

在数据输入界面，按通信键  之后，显示出通信界面。

### ② 选择相应操作

该界面下可选择的功能，分为三类：


- ◇ 花样传输
- ◇ 参数传输
- ◇ 软件升级

点按相应的图标，进行功能操作。

### ③ 按通讯键 退出通讯功能



### ① Display the Communication Interface

In the data input interface, press  to display the communication interface.

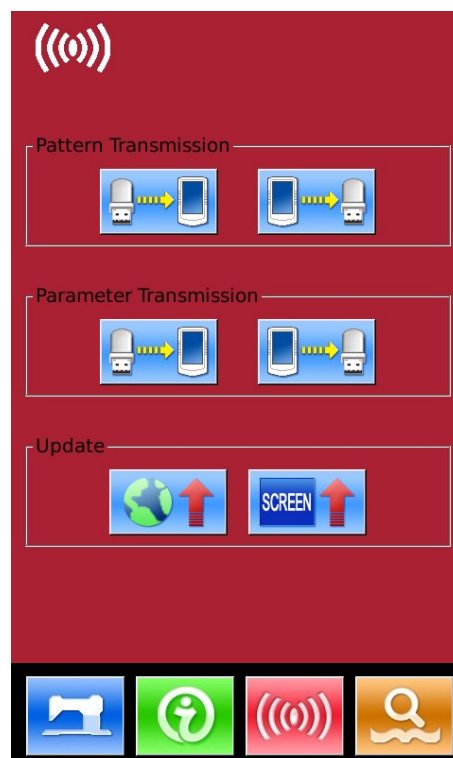
### ② Select the relating operations

The following three kinds of functions can be selected in this interface:

- \* Pattern Transfer
- \* Parameter Transfer
- \* Software Update

Click the corresponding figure to perform the operations.

### ③ Press to quit the Communication



## 10.3 花样传输 Pattern Transfer

① 显示通信界面 在通讯界面下，按：

A：从U盘中向操作头导入花样

B：将操作头中保存的花样导出到U盘中

U盘的路径：DH\_PAT

※ 从U盘导入花样时，请将花样文件保存在U盘的DH\_PAT目录中

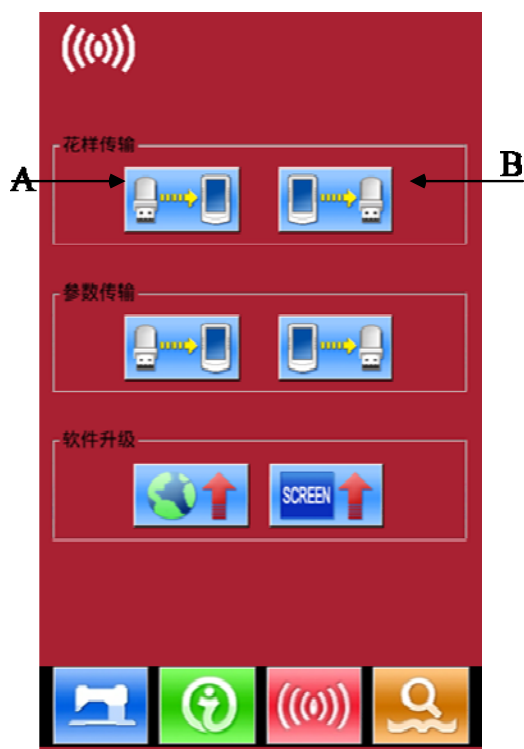
※ 从操作头导出花样时，导出的花样文件保存在U盘的DH\_PAT中

※ U盘中的花样命名方式 从U盘导入花样时，请遵守下面的规则命名：

文件名：三位数字，001~999

后缀名：VDT（大小写无关） 举例：

正确的文件命名： 100. vdt、102.VDT 其他的命名方式不正确，系统不能识别。



## ① Display the Communication Interface

In communication interface, press:

A: Input patterns from U Disk to Operation Panel

B: Output patterns from Operation Panel to U Disk

Path of U Disk: DH\_PAT

※When inputting patterns from U disk, user has to save the pattern into the DH\_PAT in the U disk.

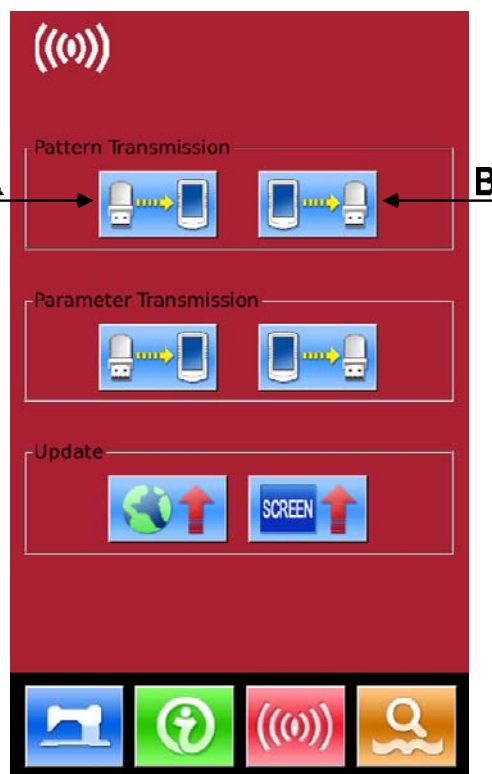
※When outputting patterns from operation panel, user has to save the pattern into the DH\_PAT in the U disk.

※Naming Method of Patterns within U Disk When inputting patterns from U disk, user needs follow the naming rule at below::

**File Name: 3 figures, 001~999**

**Suffix: vdt** (no matter at CAP or not)

Example: **Right Names:** 100.vdt, 102.VDT, Other naming methods are wrong, which can not be recognized by machine



② 按A指示键，进入从U盘向操作头导入 花样界面

注：如果U盘中花样与操作头中花样存在同名的情况，花样号码会显示出红色，此时红色号码的花样就需要利用F键操作才能导入操作头。如图1所示。

A、利用【上箭头】【下箭头】键进行翻页

B、利用下面三种操作，选择花样

- ◇ 按  选择全部花样
- ◇ 按  反向选择
- ◇ 点击花样号码按键

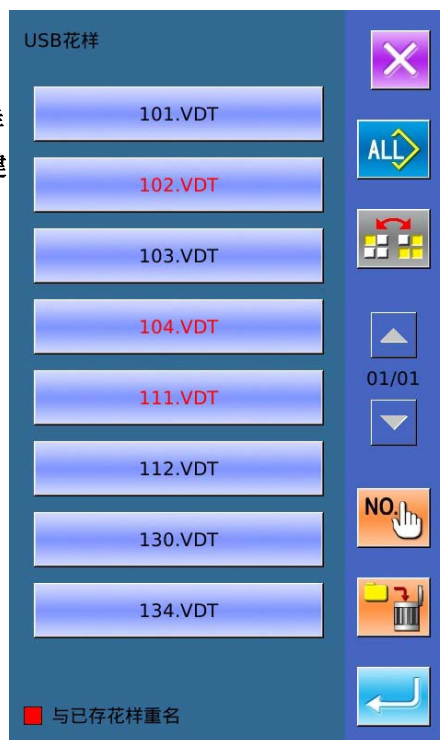




图1



C、按  完成导入花样功能，此时导入 操作头的花样号与选择的花样号保持一致。如图2所示。

D、按  完成选中花样的删除功能

E、按退出键  退出到通讯界面。

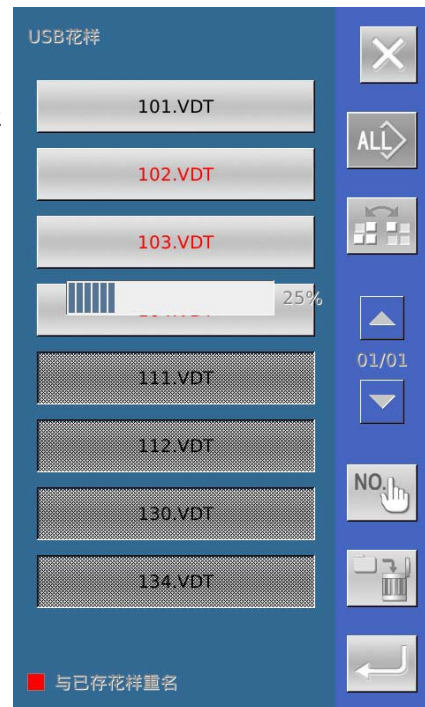




图2

F、当选中某个花样后，按  键，出现图3所示界面，输入要存入的花样号；

G、如果选中好几个花样，则不能进行上一步操作。按退出键  退出到 上一界面。

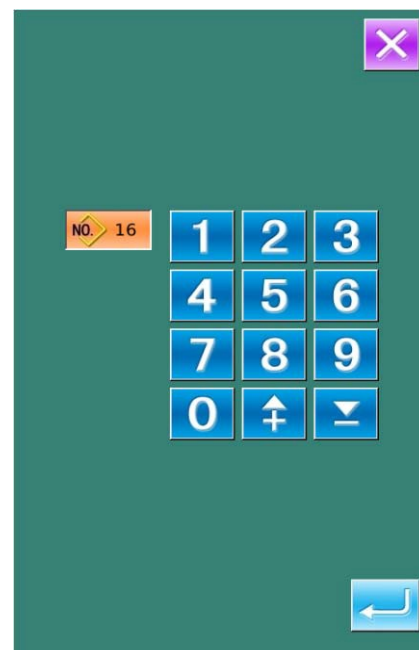


图3

注意：如果选择花样号在操作头中已存在，会出现如图4所示。如果是其他格式的数据，操作头会自动将其转换成vdt格式数据，存入内存。





图4

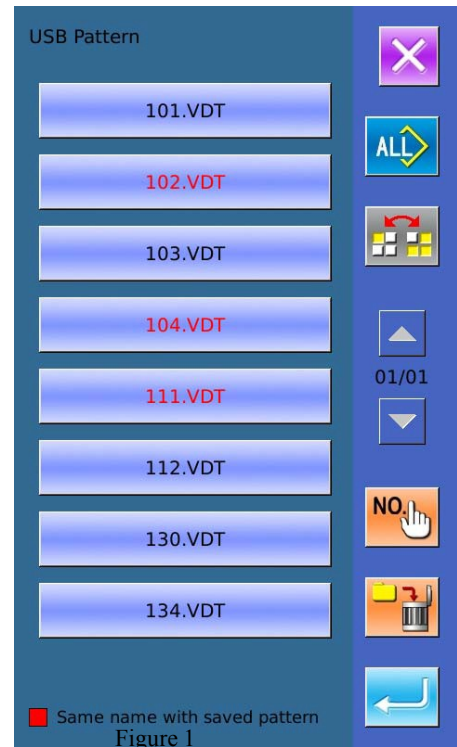
② Press button A to enter the interface for inputting patterns from U Disk


**Note:** If the pattern in U disk has the same name to the pattern within the panel, the pattern number will be displayed in red. The pattern with red code can only be inputted with button F, as shown in figure 1

A.Use【Up Arrow】【 Down Arrow】to turn the page

B.Use these three methods to select patterns

- ◆ Press  to select all the patterns
- ◆ Press  to select in contrary way
- ◆ Input Pattern Number



C、Press  to finish pattern input. At this moment, the patterns inputted and the patterns selected share the identical pattern number, as shown in figure 2

D、Press  to delete the selected pattern

E、Press  to quit Communication Interface

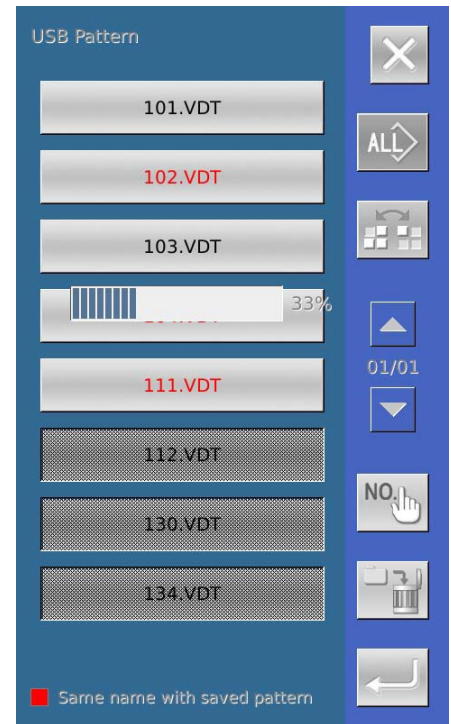




Figure 2

F、Select a pattern and then press  to display the interface shown as figure 3.  
Input the pattern number for saving;

G、If user selects several patterns, he will be unable to perform the above operation.

Press  to quit to the previous r interface

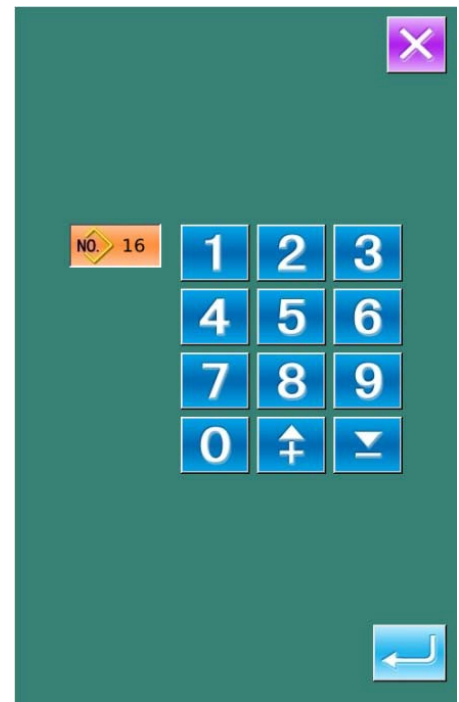


Figure 3

**Attention: If the selected pattern number exists in operation panel, the screen as the figure 4 will be displayed. If the data is in other format, the panel will automatically turn it to the vdt format and save it into memory.**

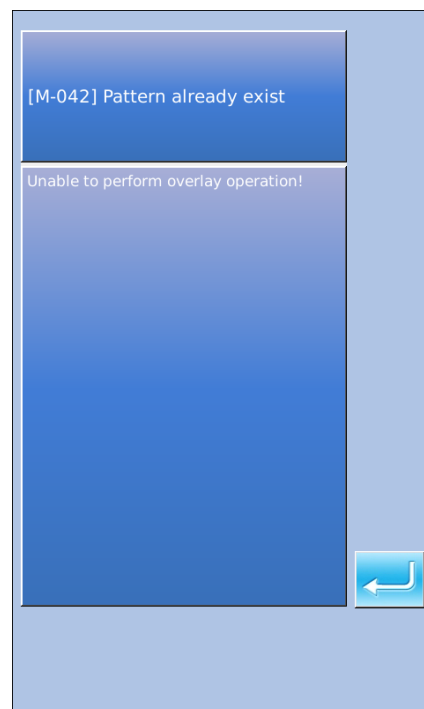


Figure 4

③ 按B指示键完成操作头的花样导出到 U盘中


A、利用【上箭头】下箭头】键进行 翻页

B、利用下面三种操作，选择花样

◆ 按  选择全部花样，

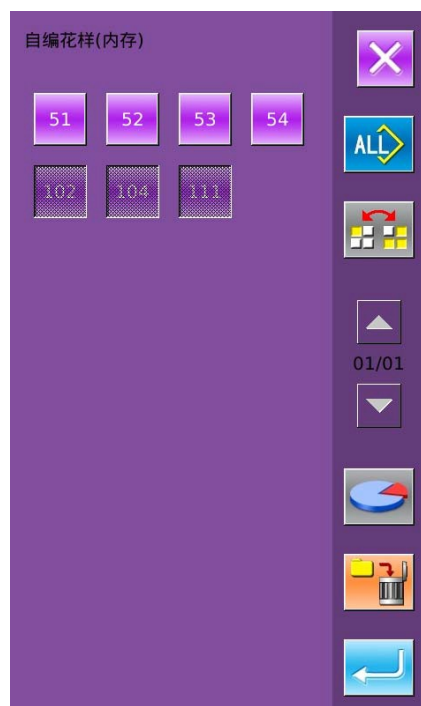
◆ 按  反向选择


◆ 点击花样号码按键

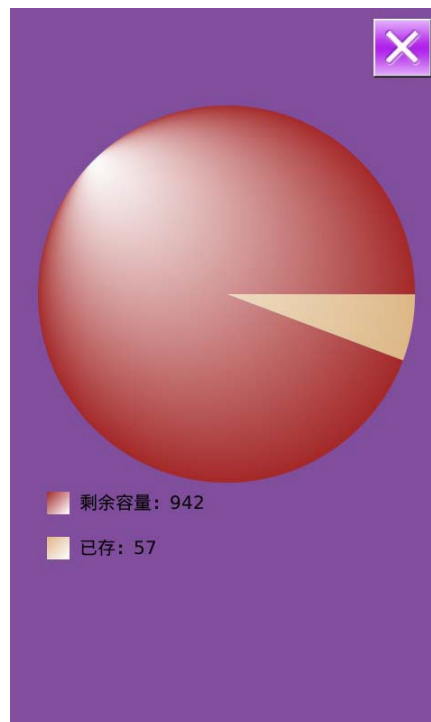
C、按完成选中花样的删除功能 

D、按  完成导出花样功能

E、按退出键  退出花样导出功能界面



F、在该界面下，按  键，显示当前内存中花样占用的空间，及花样的个数



③ **Press Button B to enter the interface for outputting patterns from panel to U Disk.**

A、Use **【Up Arrow】**, **【Down Arrow】** to turn the page


B、Use these three methods to select patterns

✧ Press  to select all the patterns

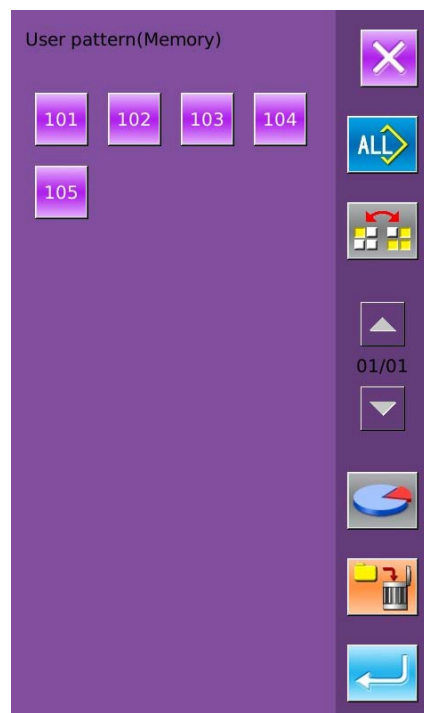
✧ Press  to select in contrary way


✧ Input Pattern Number

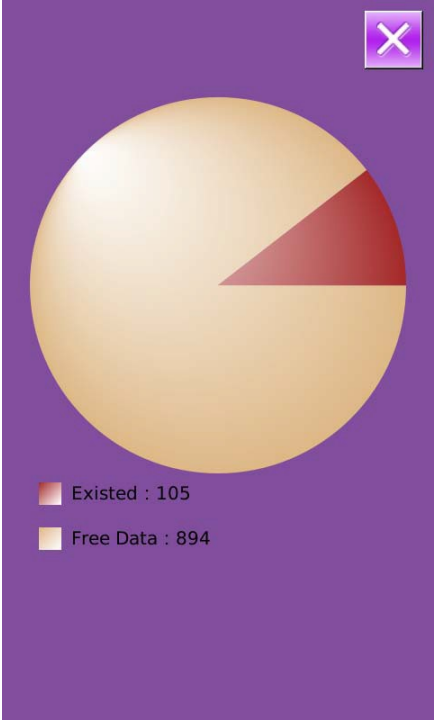
C、Press  to delete the selected pattern

D、Press  to finish pattern output

E、Press  to quit Communication Interface



F、 In this interface, press  to display the free room of the memory and the number of pattern.



## 10.4 参数传输Parameter Transfer

### ①显示通信界面

在通讯界面下，按：

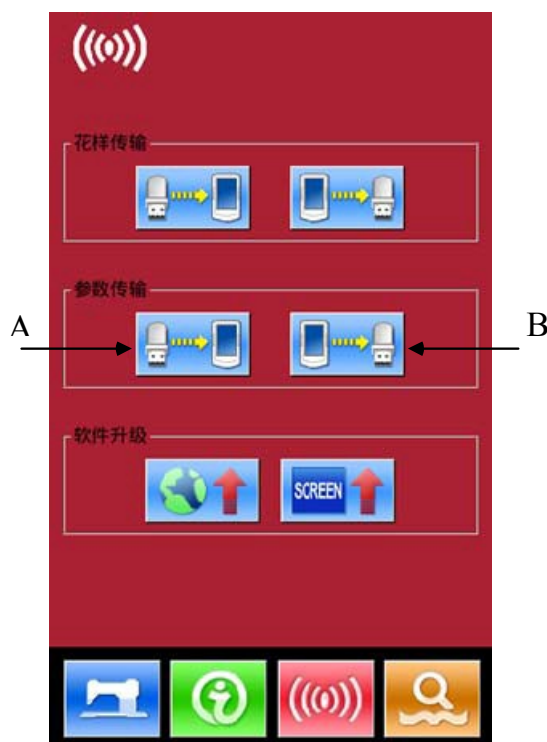
A: 从U盘中向操作头导入参数

B: 将操作头中保存的参数导出到U盘中

※ 从U盘导入参数时，请将参数文件保存在U盘的DH\_PARA目录中，并命名为：ukParam

※ 从操作头导出参数时导出的参数文件保存在U盘的DH\_PARA中，参数文件：ukParam

※ 参数文件是二进制文件对文件的操作在操作头上完成，不要手动修改文件，以免影响使用。



### ① Display the Communication Interface

In communication interface, press:

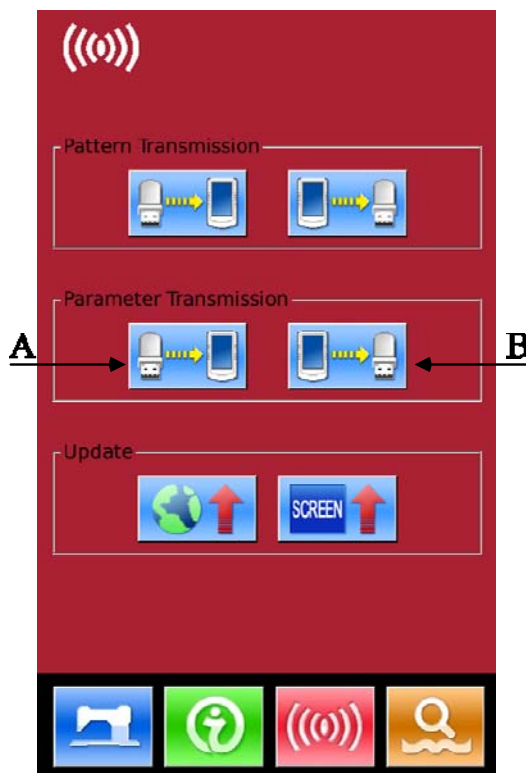
A: Input parameters from U Disk to Operation Panel

B: Output parameters from Operation Panel to U Disk

※When inputting patterns from U disk, user has to save the parameters into the DH\_PARA in the U disk with name ukParam.

※When outputting patterns from operation panel, user has to save the parameters into the DH\_PARA in the U disk with name ukParam.

※The parameter file is the binary file, which is operated on the control panel. User can not change that file manually on PC, or the file may be damaged






② 按A指示键，完成从U盘向操作头导入参数


A、按回车键  完成从U 盘向操作 头导入参数并退出

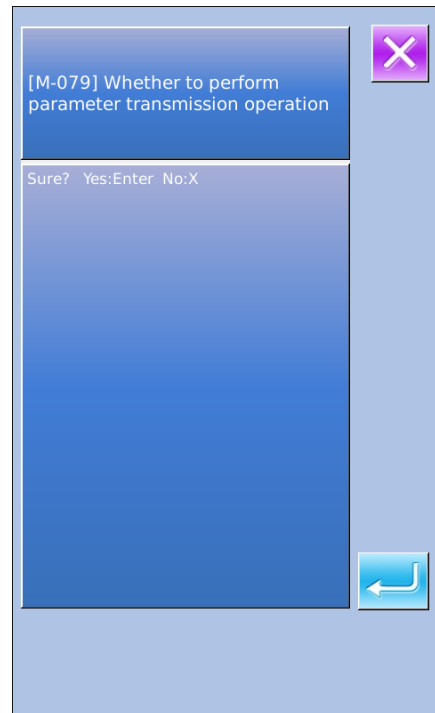
B、按退出键  直接退出




② **Press Button A to Input Parameters from U Disk to Operation Panel**

A、 Press  to input the parameters and quit

B、 Press  to quit directly.




③ 按B指示键，完成操作头的参数导出 到U盘中


A、按回车键完成从操作头向U盘导出参数并退出

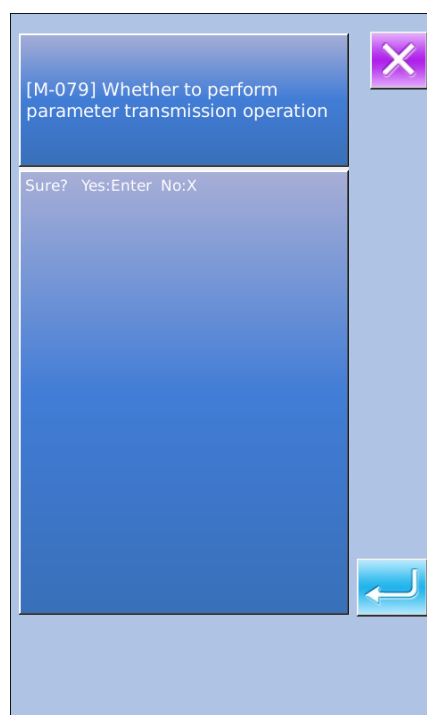
B、按退出键直接退出



③ **Press Button B to Output Parameters to Operation Panel**

A、Press  to output parameters from operation panel to U disk and quit

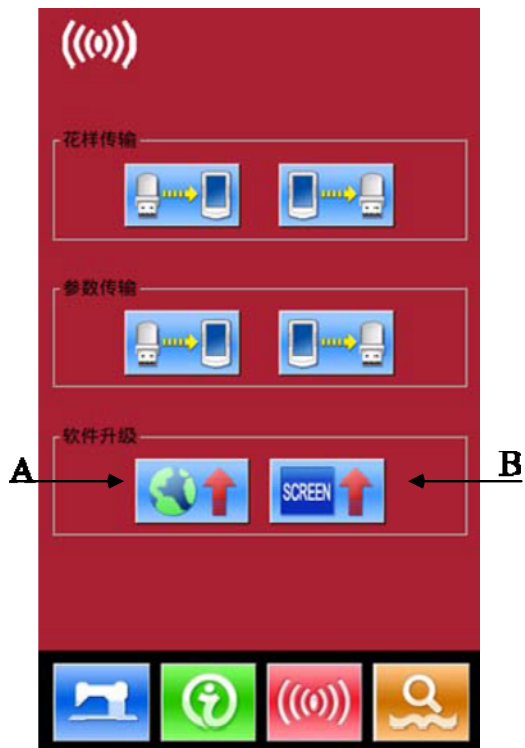
B、Press  to quit directly



## 10.5 软件升级 Software Update

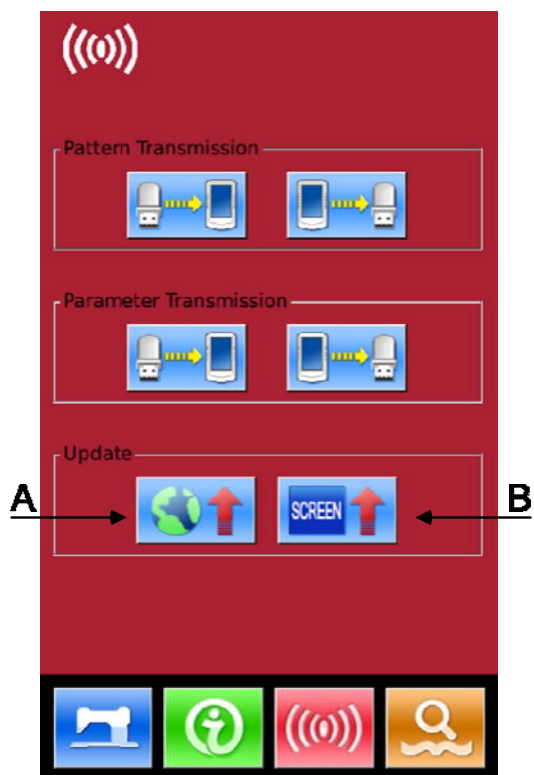
### 1) 显示通信界面

在通讯界面下，按A键进入软件升级界面



### 1) Display the Interface


In Communication interface, press A to enter Software Update Interface



## 2) 升级类型选择

软件升级包括:

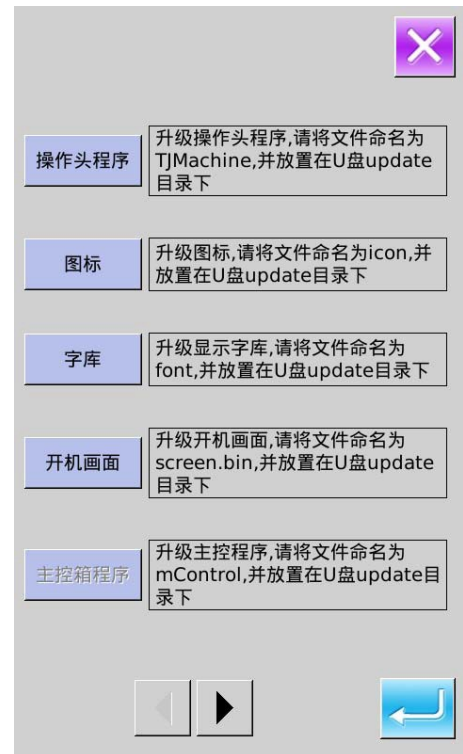
- ◇ 操作头程序
- ◇ 图标
- ◇ 显示字库
- ◇ 开机画面 按和 ◀ 键进行翻页 ▶

A、按回车键  完成选中功能的升级， 并退出

B、按退出键  直接退出

C、各个功能键能同时多选，系统顺序 执行相应的升级功能

D、升级完成后，关机重启即可





## 2) Update Selection

The software update contains:

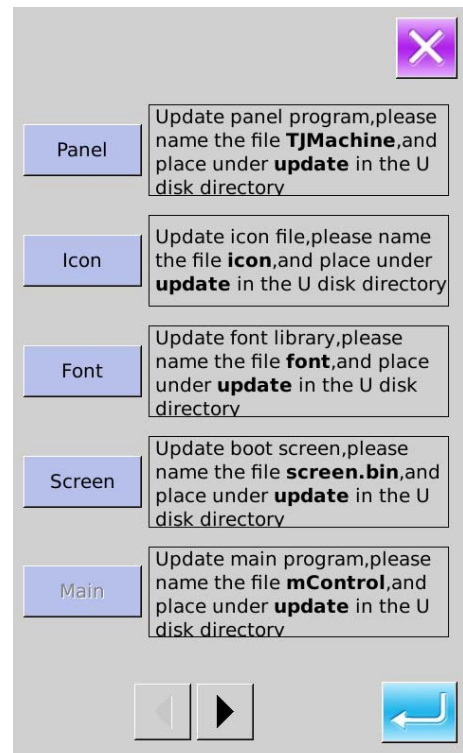
- ◇ Operation Panel Software
- ◇ Icon
- ◇ Font
- ◇ Power-on Screen

Press ◀ and ▶ to turn the page


A、Press  to finish the selected update and quit

B、press  to quit directly C、User can select several items for update at same time. The system will perform the update according to the order


D、After the update, please restart the machine.

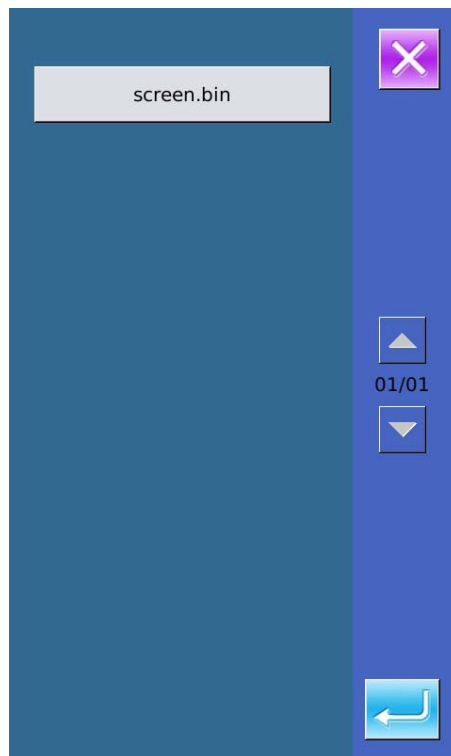


### 3) 按B进入开机画面升级界面


将开机画面生成的bin文件放入U盘的update目录下，选择bin文件后，按回车键  完成开机画面的升级。


### 3) Press B to enter the interface for updating the power-on screen

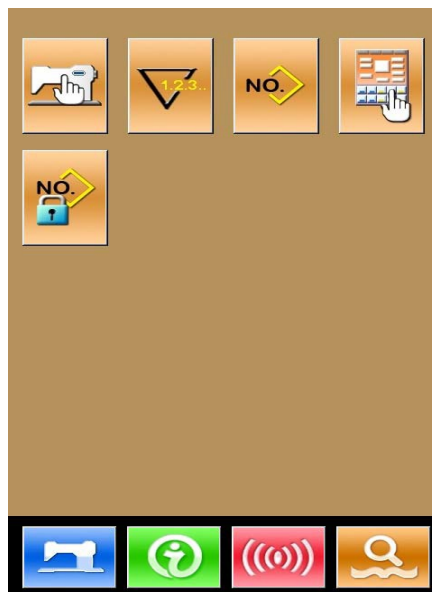
Put the bin file (generated from the power-on screen) into the "Update" catalogue in U disk. Select the bin file and then press  to finish the update.



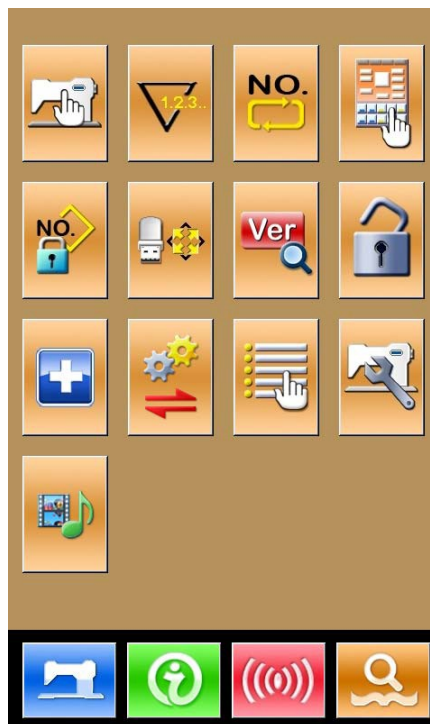
# 11 模式和参数设置 Mode & Parameter Setting

按下  可以切换数据输入界面和模式界面（如右图所示）在该界面下可以进行一些详细的设置和编辑操作。


长按键  3 秒可以进入设置模式等级2 状态，常按6 秒可以进入设置模式等级3 状态。




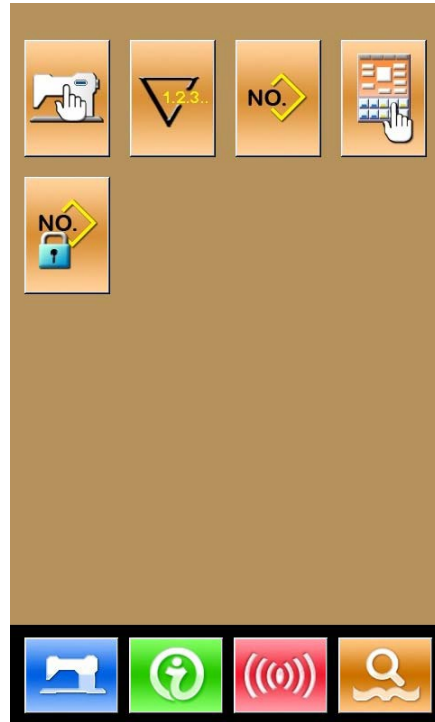
设置模式等级2



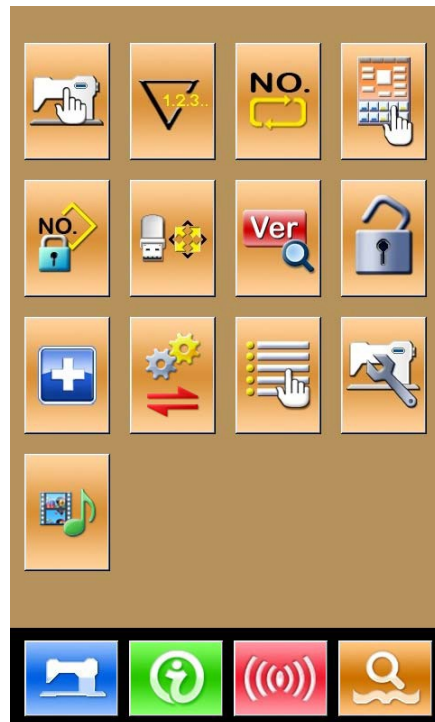
设置模式等级3

Press  to shift from the Data Input Interface to the Mode Interface (as shown in right figure), where user can perform some detailed settings and editions.

Hold  for 3 seconds to have access to Mode Setting Level 2 Interface; hold for 6 seconds to have access to Mode Setting Level 3 Interface.



Mode Setting Level 2 Interface




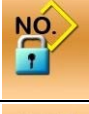


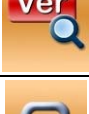

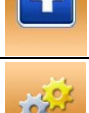






Mode Setting Level 3 Interface

## 11.1 功能说明 List of Function Keys


序号	图标	功能	内容
1		一级参数设置	进行一级（U）参数设置。
2		计数器设置	可以设置计数器类型、计数值和设定值。
3		缝制类型设置	切换普通花样缝纫和组合花样缝纫。
4		花样锁定	可以进入花样锁定设置界面。
5		花样编辑	可以进入花样编辑。
6		格式化U 盘	格式化U 盘。
7		软件版本查询	查询当前面板、主控、电机软件版本。
8		键盘锁定	可以锁定一些可设定项功能。
9		检测模式	针对机器外设和液晶进行检测。
10		参数备份	可以对当前参数进行备份和恢复。
11		编辑参数开关	可以对编辑下参数进行打开或关闭操作。
12		二级参数设置	进行二级（K）参数设置。
13		视频播放	可播放视频文件



No.	Figure	Functions	Content
1		Level 1 Parameters Setting	Set the Level 1 (U) parameters
2		Counter Setting	Set the type of counter, counting value and default value
3		Sewing Type Setting	Shift between normal pattern sewing and combination pattern sewing
4		Pattern Lock	Enter the interface for locking pattern
5		Pattern Edition	Have access to pattern edition status
6		U Disk Initialization	Initialize the U disk.
7		Software Version Inquiry	Inquire the versions of the current panel, main controller and motor
8		Keyboard Lock	Lock some functions that can be set.
9		Test Mode	Set the mechanical devices and LCD
10		Parameter Back-up	Backup or recover the current parameters
11		Activate Parameter Edition	Activate or deactivate the edition of parameters
12		Level 2 Parameters Setting	Set the Level 2 (K) parameters
13		Play Video	Play the video

## 11.2 一级参数设置 Level 1 Parameters Setting

### ① 参数设置操作

选择  进入一级参数设置界面（如右图所示）

按  键退出参数设置界面。

当有参数修改时，在参数设置界面显示

【已修改】按键，

选择想要修改的参数后进入设置状态，参数设置分为数据输入类型和选择类型。举例如下：




选择U01，进入界面




选择U25，进入界面

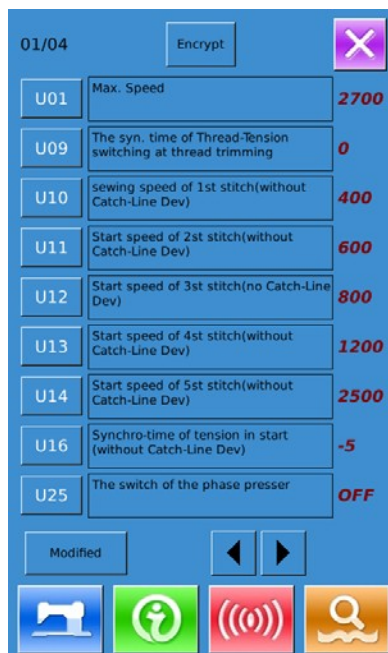


## ① Set Parameter

Select  to enter the interface of Level 1 parameter setting (shown as the figure at right).

Press  to quit the setting interface. When some parameters are changed, the system will display the “Modified” in the parameter setting interface.

Select the parameter for changing; Then the system will enter the setting status. The parameters are separated as “Data Input Type” and “Selection Type”. Please refer to the example at below:





Select U01 and enter the interface below



Select U25 and enter the interface below:



## ② 参数加密

A、按“加密”键后，进入密码输入界面。按  全部清除输入内容，按  每按一次删除一个字符

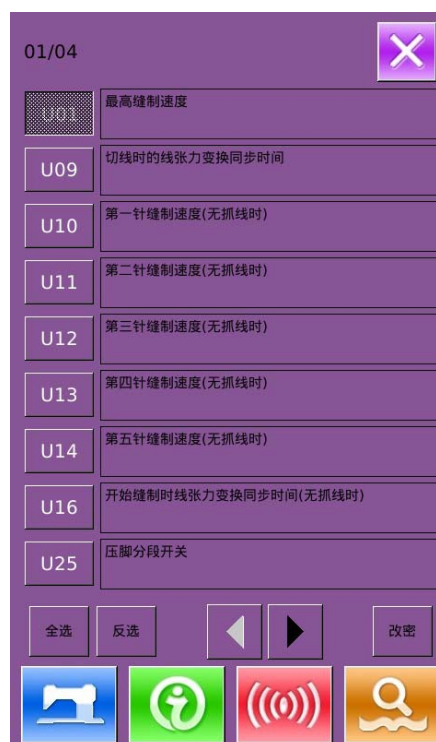
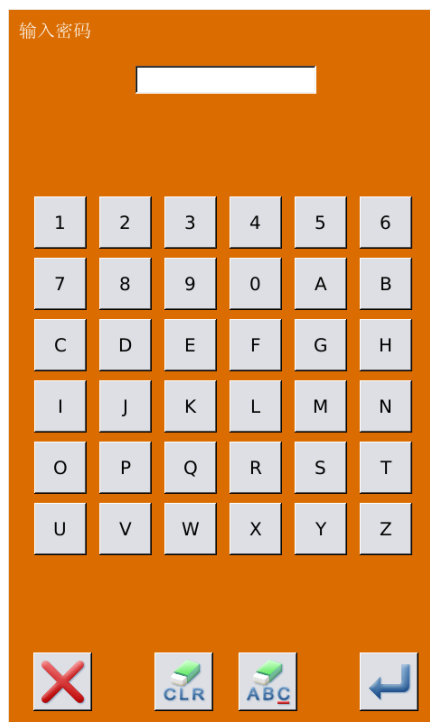
B、输入正确的密码后，进入参数加密界面，选择要加密的参数

按【全选】全部参数加密



按【反选】反向选择参数加密

按【改密】修改加密密码，默认是厂家ID

按退出键  退出加密功能家



## ② Parameter Encryption


A、Press “Encryption” to enter the password input interface. Press  to clear all the content. Press  to erase one figure at each pressing

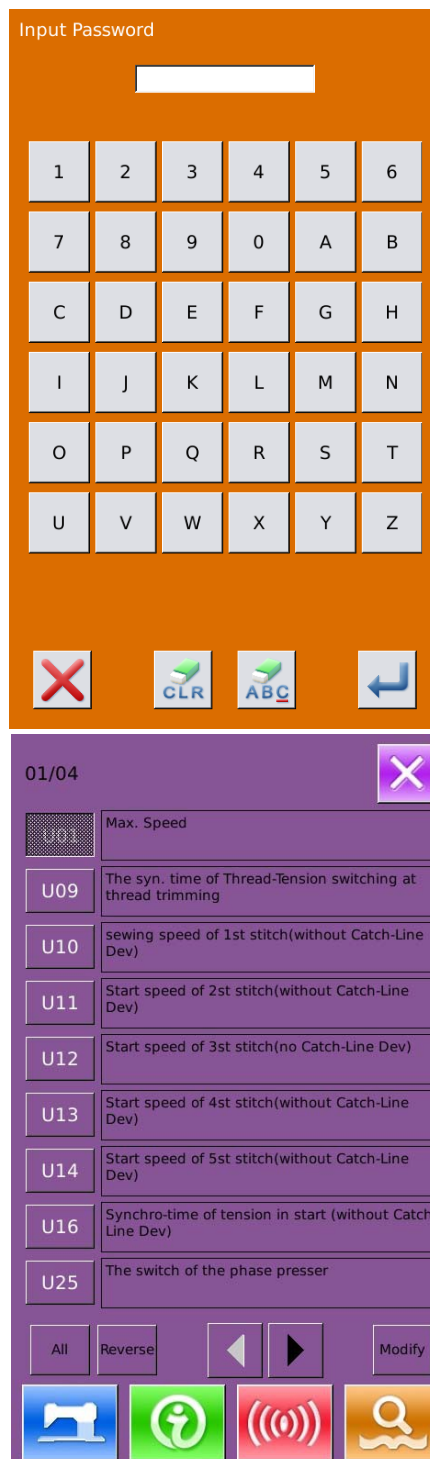
B、Input the right password to enter the interface for parameter encryption. Select the parameter for encryption.

Press **【Select All】** to attach password to all the parameters.

Press **【Reverse】** to select parameter for encryption in reverse way.

Press **【Change】** to change the password, the default is the manufacturer ID.

Press  to quit the encrypting function.




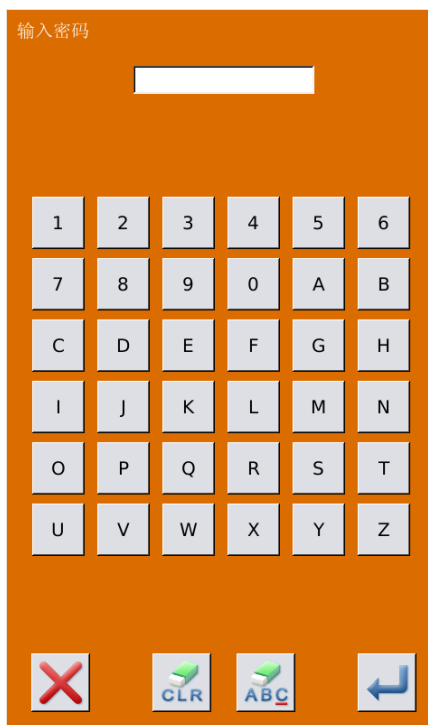
### ③ 查询已修改参数

A、当有参数修改时，在参数设置界面显示【已修改】按钮

B、在参数设置界面，按下【已修改】按钮，可以查询已修改过的参数。首先要求输入密码，输入密码界面的操作参考②的 A 项，输入正确的密码后进入到已修改参数查询界面

C、在已修改参数查询界面下，可以查询到所有修改过的参数列表，在该列表中显示修改的当前值和复位值。在该界面下：

- ✧ 按【还原所有】按钮，将修改的参数恢复为复位值
- ✧ 点按参数名称键，例如【压脚类型】，再点按【选择还原】将选中的参数恢复为复位值。参数键可以多选。
- ✧ 按参数号码键，例如【U14】，能够进入参数设置界面，可以重新设置参数数值。
- ✧ 存在多于1个页面时，通过箭按钮可以翻页操作。
- ✧ 点按，退出该界面




### ③ Check the changed parameter

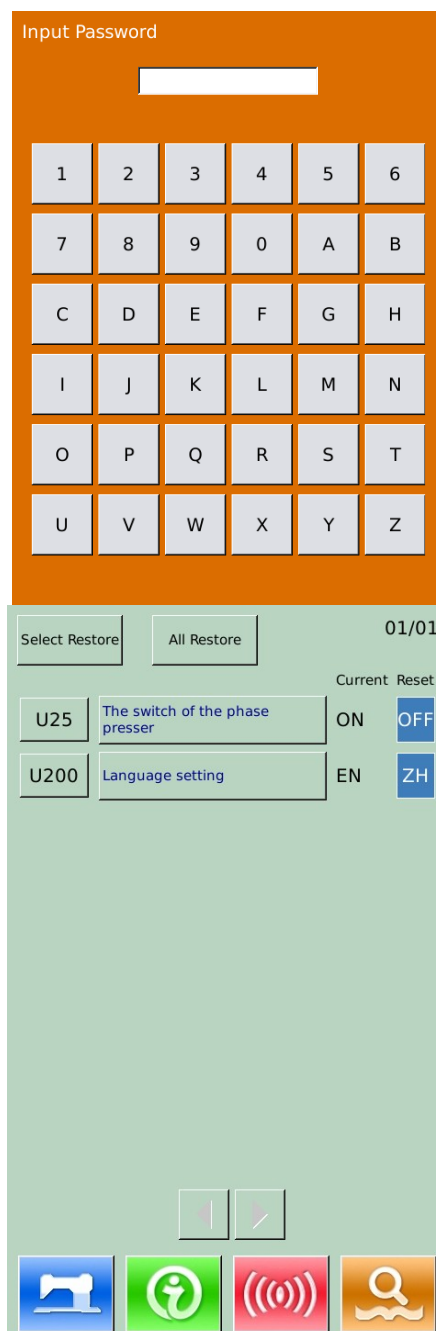
A、When parameter is changed, the system will display “Modified” key at parameter setting interface.

B、In the parameter setting interface, press **【 Modified 】** to check the changed parameters. At first, the system will ask user to input the password. For the operation at password input interface, please refer to the “A” at ②. After inputting the right password, user can enter the interface for inquiring changed parameters.

C、Under the interface of changed parameter inquiry, user can find the list containing all the changed parameters with their current value and default value.

In that interface:

- ✧ Press **【 All Rest 】** will restore all the changed parameters to their default values
- ✧ Click Parameter Name, like **【 Presser Type 】** and then press **【 Select Rest. 】** to restore this parameter to the default value. User can select many parameters at here.
- ✧ Press Parameter Number, like **【 U14 】** to enter the parameter setting interface, where user can reset the parameter value.
- ✧ When the pages are more than one, user can use arrow key to turn the page
- ✧ Press  to quit the interface.



④ 一级参数表

序号	参数	设定范围	编辑单位	出厂设置
U01	最高缝制速度	400~3000rpm	100rpm	2700rpm
U09	切线时的线张力变换同步时间	-6~4	1	0
U10	第一针的启动速度	400~1500rpm	100rpm	400rpm
U11	第二针的启动速度	400~3000rpm	100rpm	900rpm
U12	第三针的启动速度	400~3000rpm	100rpm	2700rpm
U13	第四针的启动速度	400~3000rpm	100rpm	2700rpm
U14	第五针的启动速度	400~3000rpm	100rpm	2700rpm
U16	启缝时的线张力切换相位	-5~2	1	-5
U25	压脚分段开关 ON: 压脚分段 OFF: 禁止压脚分段	0: 压脚分段 1: 禁止压脚分段	1	1
U26	2 级行程时压脚分段高度调整	50~90	1	70
U27	缝制计数器计数单位	1~30	1	1
U31	操作头按键可以停止缝纫机操作 OFF: 无效 PANEL: 操作盘暂停按键 EXT: 外部暂停键	0: 无效 1: 操作盘暂停按键 2: 外部暂停	1	1
U32	蜂鸣器声音设定 OFF: 禁止蜂鸣器 PAN: 操作盘声音 ALL: 操作盘加报警	0: 无蜂鸣音 1: 操作盘音 2: 操作盘+报警音		2
U36	选择送布动作时间	-8~16	1	12
U37	缝完后先回起缝点还是先抬压脚 0: 先回起缝点再抬压脚 1: 先抬压脚再回起缝点	0: 先回起缝点再抬压脚 1: 先抬压脚再回起缝点	1	1



序号	参数	设定范围	编辑单位	出厂设置
U38	自动加工完成后压板抬起 ON: 压脚上升 OFF: 禁止压脚上升	0: 压脚上升 1: 禁止压脚上升	1	0
U39	缝制结束后是否检索原点 OFF: 无原点检索 ON: 有原点检索	0: 无原点检索 1: 有原点检索	1	0
U40	设定组合缝制时的原点检索 OFF: 无原点检索 PAT: 每一图案结束后 CLC: 每一循环结束后	0: 无原点检索 1: 每一图案结束后 2: 每一循环结束后	1	0
U41	设定P 花样切换时的原点检索 OFF: 无效 ON: 有效	0: 无效 1: 有效		0
U42	针杆停止位置 UP: 上位置 DEAD: 上死点	0: 上位置 1: 上死点	1	0
U46	设定禁止切线 ON: 允许切线 OFF: 禁止切线	0: 允许 1: 禁止	1	0
U49	绕线速度设置	800~2000	100rpm	1600rpm
U64	选择尺寸变更单位 %: 输入百分比 SIZ: 输入实际尺寸	0: 输入百分比 1: 输入实际尺寸		0
U88	缩放模式 OFF: 禁止 PIT: 间隔增减 STI: 针数增减	0: 禁止 1: 间隔增减 2: 针数增减		1
U97	暂停后的切线方式 AUT: 自动切线 MAN: 手动切线	0: 自动切线 1: 手动切线	1	0
U135	缝制结束后回起缝点还是回原点 0: 缝制结束后回起缝点 1: 缝制结束后回原点	0: 缝制结束后回起缝点 1: 缝制结束后回原点	1	0

序号	参数	设定范围	编辑单位	出厂设置
U190	背光自动关闭 OFF: 不能自动关闭 ON: 自动关闭	0: 否 1: 是		0
U191	背光自动关闭等待时间	1~9	1m	3m
U192	液晶背光亮度调节	20~100		100
U193	禁止计数器被修改 OFF: 允许修改 ON: 禁止修改	0: 允许修改 1: 禁止修改		0
U194	计数器达到设定值时缝纫机的操作 OFF: 停止缝纫 ON: 可继续缝纫	0: 停止缝纫 1: 可继续缝纫		0
U195	音量大小	30~63		50
U200	语言选择 0: 中文 1: 英文	0: 中文 1: 英文		0
U201	开机是否进入语言设置 OFF: 不能进入 ON: 开机就进入	0: 否 1: 是		0
U212	气阀分离压脚下降顺序 0: 同时下降 1: 先下降左再下降右 2: 先下降右再下降左	0: 同时下降 1: 先下降左再下降右 2: 先下降右再下降左		0
U213	气阀分离上升顺序 0: 同时上升 1: 先上升左再上升右 2: 先上升右再上升左	0: 同时上升 1: 先上升左再上升右 2: 先上升右再上升左		0
U214	翻转压脚使能 OFF: 禁止 ON: 使能	0: 禁止 1: 使能		1

④ List of Level 1 Parameters

No.	Parameter	Range	Unit	Default value
U01	Max Sewing Speed	400~3000	100rpm	2700rpm
U09	Thread Tension Changeover Timing at thread-trimming	-6~4	1	0
U10	Start Speed of 1st Stitch	400~1500rpm	100rpm	400rpm
U11	Start Speed of 2nd Stitch	400~3000rpm	100rpm	900rpm
U12	Start Speed of 3rd Stitch	400~3000rpm	100rpm	2700rpm
U13	Start Speed of 4th Stitch	400~3000rpm	100rpm	2700rpm
U14	Start Speed of 5th Stitch	400~3000rpm	100rpm	2700rpm
U16	Thread Tension Changeover Phase at Sewing Start	-5~2	1	-5
U25	Presser Height Division Switch ON: Permit Presser Height Division OFF:	0:Permit Presser Height Division	1	1
U26	Adjustment of Divided Presser Height at 2	50~90	1	70
U27	Counting Unit of the Sewing Counter	1~30	1	1
U31	Stop Sewing Machine with Button on Panel OFF: Invalidity	0: Invalidity 1: Pause Key at Panel	1	1
U32	Settings on Buzzer Sound OFF: Silence PAN: Operating	0: Silence 1: Operating Sound		2
U36	Select Time for Feeding Actions	-8~16	1	12


<b>No.</b>	<b>Parameter</b>	<b>Range</b>	<b>Unit</b>	<b>Default value</b>
U37	Presser Status at Sewing End 0: Return and then lift presser 1: Lift presser and then return	0: Return and then lift presser 1: Lift presser and then	1	1
U38	Presser Goes Up at Sewing End ON: Presser Up Permitted. OFF: Presser Up Forbidden	0: Presser Up Permitted. 1: Presser Up Forbidden.	1	0
U39	Search Origin at Sewing End OFF: Not Search ON: Search	0: Not Search 1: Search	1	0
U40	Origin-Searching at Sewing Combination Patterns OFF: Not Search Origin PAT: Search Origin at Finishing Each Pattern CLC: Search Origin at Finishing Each Cycle	0: Not Search Origin 1: Search Origin at Finishing Each Pattern 2: Search Origin at Finishing Each Cycle	1	0
U41	Search Origin at Shifting P Pattern OFF: Invalid ON: Valid	0: Invalid 1: Valid		0
U42	Needle Rod Stop Position UP: Upper Position DEAD: Highest Point	0: Upper Position 1: Highest Point	1	0
U46	Permit Trimming the Thread ON: Permit OFF: Forbid	0: Permit 1: Forbid	1	0
U49	Winding Speed Setting	800~2000	100rpm	1600rpm
U64	Select Unit for Size Change %: Input Percentage SIZ: Input Actual Size	0: Input Percentage 1: Input Actual Size		0
U88	Scale Mode OFF: Forbidden PIT: Change at Stitch Pitch STI: Change at Stitch Number	0: Forbidden 1: Changes at Stitch Pitch 2: Changes at Stitch Number		1
U97	Thread-trimming Method after Pause AUT: Automatic MAN: Manual	0: Automatic 1: Manual	1	0
U135	Return to Start Point or Origin at Sewing End 0: Start Point 1: Origin	0: Start Point 1: Origin	1	0
U190	Back Light Auto Off OFF: Not Auto Off ON: Auto Off	OFF: Not Auto Off ON: Auto Off		0

No.	Parameter	Range	Unit	Default value
U191	Back Light Off Wait Time	1~9	1m	3m
U192	Back Light Adjustment	20~100		100
U193	Modify the Counter Value OFF: Permit ON: Forbid	0: Permit 1: Forbid		0
U194	Operation at Reaching set value of Counter OFF: Stop Sewing ON: Continue Sewing	OFF: Stop Sewing ON: Continue Sewing		0
U195	Voice Column	30~63		50
U200	Language 0: Chinese 1: English	0: Chinese 1: English		0
U201	Set Language at Power-on OFF: No ON: Yes	OFF: No ON: Yes		0
U212	Presser Down Order at Separating Valves 0: Same Time 1: Left then Right 2: Right then Left	0: Same Time 1: Left then Right 2: Right then Left		0
U213	Presser Up Order at Separating Valves 0: Same Time 1: Left then Right 2: Right then left	0: Same Time 1: Left then Right 2: Right then Left		0
U214	Reverse Presser OFF: Forbid ON: Enable	OFF: Forbid ON: Enable		1

## 11.3 二级参数设置 Level 2 Parameters Setting


### ① 参数设置操作


在设置模式等级3 下, 选择  进入二级参数设置界面 (如右图所示) 操作方法 参照 “8.2 一级参数设置”

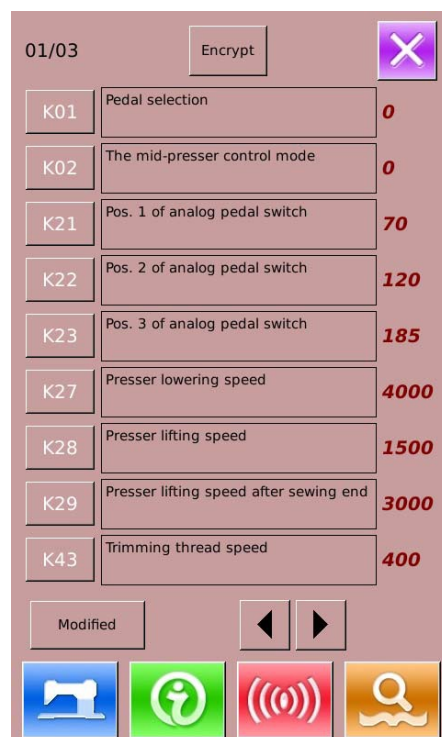
当有参数修改时, 在参数设置界面显示【已修改】按钮, 按  键退出参数设置界面



### ① Parameter Setting


At Mode Setting Level 3 Interface, press  to have access to Level 2 Parameter Setting Interface (as shown in right picture). For the operation methods, please refer to descriptions at 8.2 Level 1 Parameters Setting.

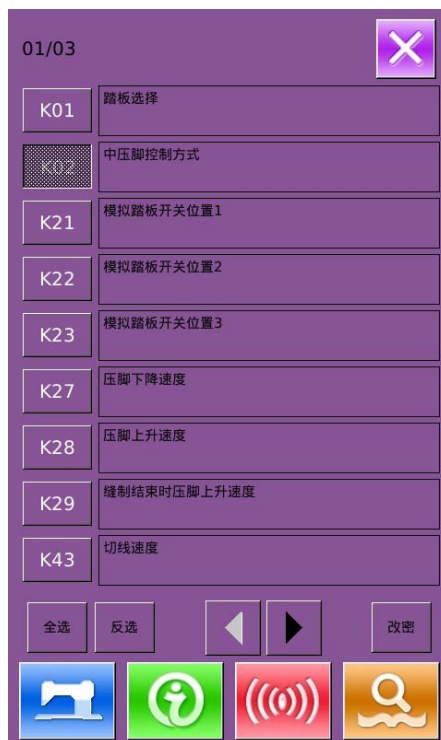
When some parameters are changed, the system will display the “Modified” in the parameter setting interface. Press  to quit the setting interface



## ② 参数加密


参数加密的操作步骤，请参考“8.2 一级 参数设置”

，按  键退出参数加密界面



## ② Parameter Encryption

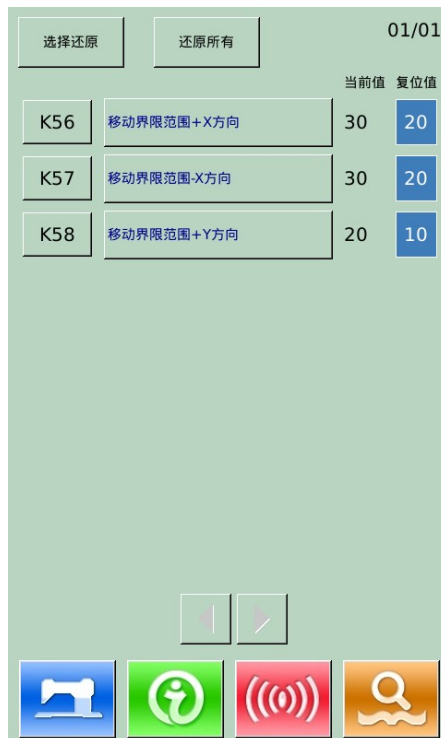
For the operations, please refer to the description

within “8.2 Level 1 Parameters Setting” Press  to quit parameter encryption interface



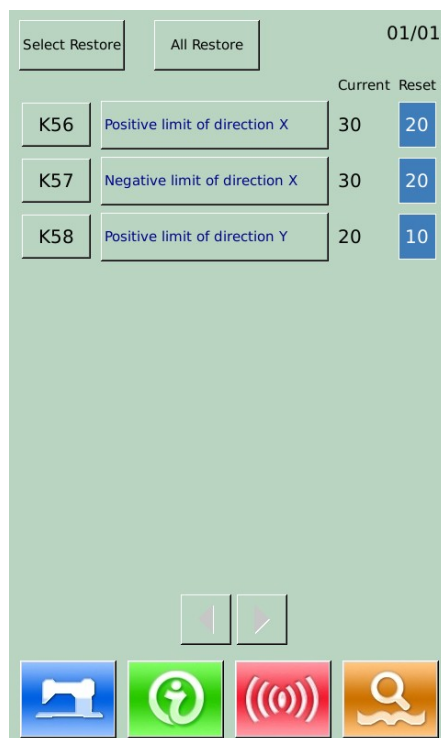
### ③ 已修改参数查询

当有参数修改时，在参数设置界面显示【已修改】按钮，点按【已修改】按钮可以查询已修改过的参数，并且可以进行参数的复位。具体操作可参考“8.2 一级参数设置”



### ③ Check the changed parameters

When parameter is changed, the system will display "Modified" key at parameter setting interface In the parameter setting interface, press 【Modified】 to check the changed parameters. User can also reset the parameters here. For the specific operation, please refer to "8.2 Level 1 Parameter Setting"





## ④ 二级参数表

序号	参数	设定范围	编辑单位	出厂设置
K01	踏板选择 0: 模拟踏板 2: 双踏板 3: 双踏板, 但只运行踏板起控制作用	0: 模拟 2: 双踏板 3: 双踏板, 但只运行踏板起控制作用	1	0
K02	中压脚控制方式 0: 无中压脚控制 2: 电磁铁控制中压脚 3: 机械控制中压脚	0: 无中压脚控制 2: 电磁铁控制中压脚 3: 机械控制中压脚		0
K21	模拟踏板开关位置1	50~200	1	70
K22	模拟踏板开关位置2	50~200	1	120
K23	模拟踏板开关位置3	50~200	1	185
K27	压脚下降速度	100~4000pps	10pps	4000pps
K28	压脚上升速度	100~4000pps	10pps	1500pps
K29	缝制结束时压脚上升速度	100~4000pps	10pps	3000pps
K43	切线速度	300~700rpm	100rpm	400rpm
K44	切线空送布控制有无 OFF: 无效 ON: 有效	0: 无效 1: 有效	1	1
K45	切线空送布控制时针孔导向直径	1.6~4.0mm	0.2mm	1.6mm
K56	移动界限+X 方向	0~50mm	1mm	20mm
K57	移动界限-X 方向	0~50mm	1mm	20mm
K58	移动界限+Y 方向	0~30mm	1mm	10mm

序号	参数	设定范围	编辑单位	出厂设置
K59	移动界限-Y 方向	0~30mm	1mm	20mm
K64	拨线方式选择 0: 电磁铁拨线 1: 电机拨线	0: 电磁铁拨线 1: 电机拨线	1	1
K74	电磁/气动压脚选择 AIR: 气动压脚 MOTO: 电机压脚	0: 气动压脚 1: 电机压脚	1	1
K95	切线角度	-10~10	1	0
K112	停车位置补偿	-10~10	1	0
K122	OC	-128~128	2	0
K123	OD	-128~128	2	0
K124	BD	-512~512	4	0
K135	电磁铁分线延时	-10~30	1	0
K137	电磁铁抓线角度偏移	-150~150	1	0
K138	电磁铁吸合延时	-1~1	1	0
K140	线张力控制方式 0: 电子夹线 1: 机械夹线	0: 电子夹线 1: 机械夹线	1	1
K141	支线张力电磁铁吸合力度微调	-20~20	1	0
K142	支线张力电磁铁保持力度微调	-40~40	1	0
K150	机头安全开关输入的禁止选择 ON: 通常 OFF: 禁止	0: 通常 1: 禁止		0
K200	恢复出厂参数			
K241	机型设置 注:更改机型时会重新加载基础花样,并删除掉已保存的普通花样注 2: 杰克 1906 机型此参数不可见	0: 加固机 5: 1906 机型 7: 钉扣机		0

④ 二级参数表

No.	Parameters	Range	Unit	Default
K01	Pedal Selection 0: Simulate 2: Double Pedals 3: Double Pedals, only the operation pedal can control machine	0: Simulate 2: Double Pedals 3: Double Pedals, only the operation pedal can control machine	1	0
K02	Presser Control 0: No Presser Control 2: Presser Controlled by Solenoid 3: Presser Controlled by Mechanism	0: No Presser Control 2: Presser Controlled by Solenoid 3: Presser Controlled by Mechanism		0
K21	Simulated Pedal Position 1	50~200	1	70
K22	Simulated Pedal Position 2	50~200	1	120
K23	Simulated Pedal Position 3	50~200	1	185
K27	Speed for Lowering Presser	100~4000pps	10pps	4000pps
K28	Speed for lifting Presser	100~4000pps	10pps	1500pps
K29	Speed for Lifting Presser at Sewing End	100~4000pps	10pps	3000pps
K43	Trimming Speed	300~700rpm	100rpm	400rpm
K44	Empty Feeding Control At Thread-trimming OFF: Ineffective ON: Effective	OFF: Ineffective ON: Effective	1	1
K45	Needle Guider Diagram at Controlling Empty Feeding	1.6~4.0mm	0.2mm	1.6mm
K56	Move Range +X Direction	0~50mm	1mm	20mm
K57	Move Range -X Direction	0~50mm	1mm	20mm
K58	Move Range + Y Direction	0~30mm	1mm	10mm
K59	Move Range -Y Direction	0~30mm	1mm	20mm
K64	Thread-stirring Method 0: By Solenoid 1: By Motor	0: By Solenoid 1: By Motor	1	1

No.	Parameters	Range	Unit	Default
K74	Selection of Solenoid/ Air-driven Presser AIR: Air-driven Presser MOTO: Motor Presser	AIR: Air-driven Presser MOTO: Motor Presser	1	1
K95	Trimming Angle	-10~10	1	0
K112	Stop Position Compensation	-10~10	1	0
K122	OC	-128~128	2	0
K123	OD	-128~128	2	0
K124	BD	-512~512	4	0
K135	Solenoid Junction Delay	-10~30	1	0
K137	Solenoid Thread-catching Angle Deviation	-150~150	1	0
K138	Solenoid Close Delay	-1~1	1	0
K140	Thread Tension Control Method 0: Electronic Method 1: Mechanical Method	0: Electronic Method 1: Mechanical Method	1	1
K141	Adjustment of Close Force at Branch Tension Solenoid	-20~20	1	0
K142	Adjustment of Holding Force at Branch Tension Solenoid	-40~40	1	0
K150	Head Safety Switch ON: Normal OFF: Forbid	ON: Normal OFF: Forbid		0
K200	Restore Default Settings			
K241	Type Setting Note:At changing the machine type, the system will re-add the basic patterns and delete the saved normal patterns Note 2 :Unable to see at JK 1906	0: Bar-tacking Machine 5: 1906 Machine 7: Button Sewing Machine		0

## 11.4 计数器设置 Counter Setting



按下  进入计数器设置界面(如右图 所示)

操作步骤:

### ① 缝制计数器类型选择


选择缝制计数、件件计数功能


### ② 设定当前值、设定值

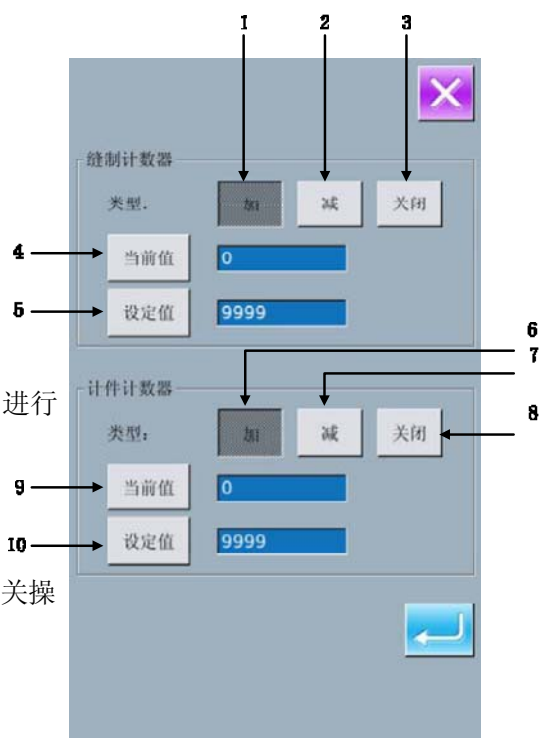
在选定的类型中按“当前值”“设定值” 按键，进行有关操作

### ③ 选择加计数还是减计数


在选定的类型中，按“加”“减” 按键， 进行有关操作。

按  键退出计数器设置界面。


按  完成设置，并退出。




#### ◇ 缝制加计数:

每缝制 1 形状的缝制物之后，在当前值 上加数。当当前值与设定值相等时，显示出计数器溢出报警界面。按下  键，计数器当前值恢复为0。


#### ◇ 缝制减计数:

每缝制 1 形状的缝制物之后，从当前值 减1。当当前值等于 0 之后，显示出计数器溢出报警界面。按下  键，计数器 当前值恢复为设定值。

#### ◇ 件件加计数:


每缝制 1 循环或 1 连续缝，在当前值上 进行加数。当当前值与设定值相等时，显示出计数器溢出报警界面。按下  键，计数器当前值恢复为 0。

#### ◇ 件件减计数:

每缝制 1 循环或 1 连续缝从当前值减1。当当前值等于 0 之后，显示出计数器溢出报警界面。按下  键，计数器当前值 恢复为设定值。

### ④ 关闭计数器

在选定的类型中，按“关闭”按键，关 闭计数器。

Press  to have access to the Counter Setting Interface (as shown in right picture).

Procedure:

**① Counter Selection**


Select Sewing Counter or No. of Pcs Counter

**② Set the Current Value and the Set Value of Counter**

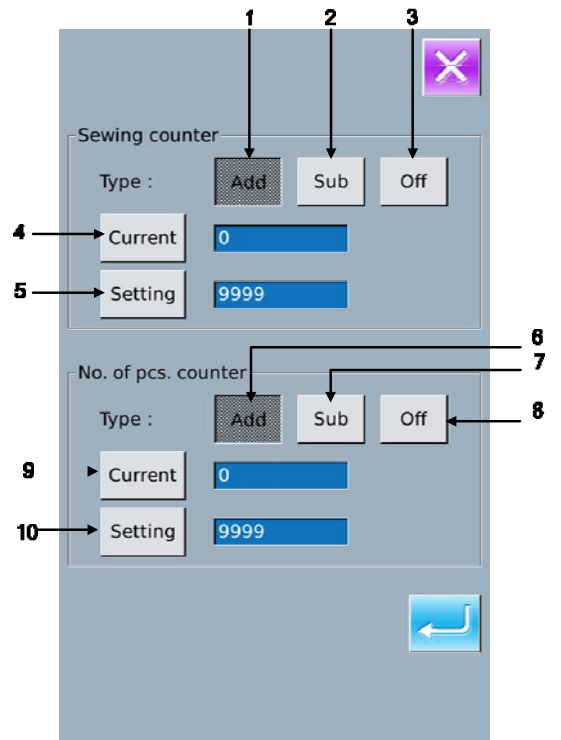
At the set type, press the “Current” or “Setting” to perform the relating operation.

**③ Select Up Counter or Down Counter**


At the selected type, please press “Up” and “Down” to perform the relating operations

Press  interface to quit counter setting


Press  to finish setting and quit.




✧ **Sewing UP Counter :**

Every time the sewing of one shape is performed, the existing value is counted up 1. When the existing value is equal to the set value, the interface of counter exceed warning will be displayed. Press  to restore the existing value to 0

✧ **Sewing DOWN Counter :**

Every time the sewing of one shape is performed, the existing value is counted down 1. When the existing value is reached to “0”, the interface of counter exceed warning will be displayed. Press  to restore the existing value to the set value.

✧ **No of piece UP counter :**

Every time a cyclic sewing or a continuous sewing is performed, the existing value is counted up 1. When the existing value is equal to the set value, the interface of counter exceed warning will be displayed. Press  to restore the existing value To 0

✧ **No of piece DOWN counter:**


Every time a cyclic sewing or a continuous sewing is performed, the existing value is counted down 1. When the existing value is reached to “0”, the interface of counter exceed warning will be displayed.

## 11.4.1 功能介绍 Functions

序号	功能
1	缝制计数器加计数
2	缝制计数器减计数
3	关闭缝制计数器
4	设定缝制计数器当前值
5	设定缝制计数器设定值
6	计件计数器加计数
7	计件计数器减计数
8	关闭计件计数器
9	设定计件计数器当前值
10	设定计件计数器设定值



No.	Function
1	Sewing Add Counter
2	Sewing Down Counter
3	Sewing Counter Off
4	Set Current Sewing Counter Value
5	Set the Setting Value of Sewing Counter
6	No.of Pcs Add Counter
7	No.of Pcs Down Counter
8	No.of Pcs Counter Off
9	Set Current No.of Pcs Counter Value
10	Set the Setting Value of No.of Pcs Counter


## 11.5 变换缝制类型 Change Sewing Mode

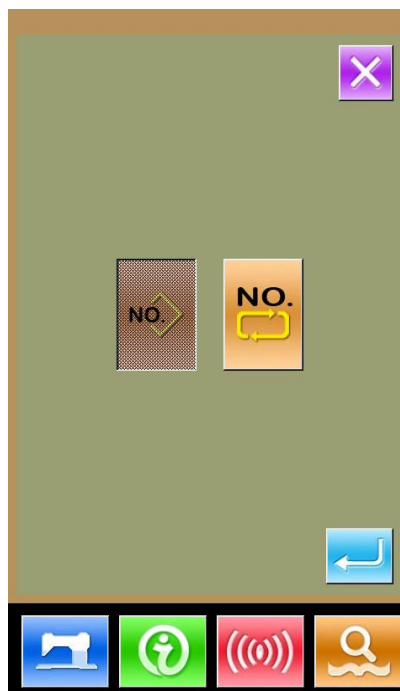
按下  进入缝制类型选择界面 ( )


 : 普通缝


 : 循环缝

确定缝制类型之后, 按下  结束。按  之后, 显示出选择的缝制类型的数据库输入界面。



按键退出变换缝制类型界面 , 原来的缝制类型不变。




Press  to enter the interface of sewing type selection (as shown in the right figure).

 : Normal Sewing

 : Cyclic Sewing


After confirming the sewing type, press  to end the operation. Press , then the data input interface of the selected sewing type is displayed.

Press  to quit and the original sewing type remains.






## 11.6 进入花样编辑 Have Access to Pattern Edition


按下 , 如下两种图标会互相切换。(参照5.1 节描述)

 : 缝纫模式

 : 编辑模式




Press  to shift between the following two figures and enter the pattern edition mode (Please refer to section 5.1)


 : Sewing Mode

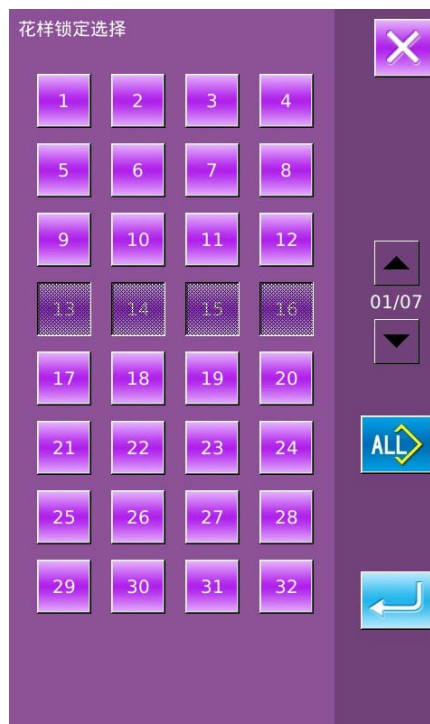
 : Edition Mode





## 11.7 花样锁定设置 Set Pattern Lock

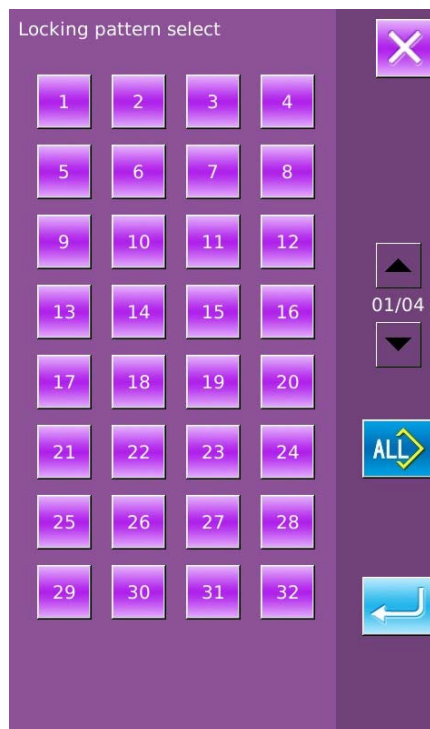
在设置模式等级1下,按下  进入花样锁定设置界面该界面会显示所有花样号, 每页显示32个。如果要锁定某花样, 按与 花样号对应的按键即可, 选中花样号凹下 显示。

按下 , 将会保存设置, 所有选中的花 样将全部锁定。




In Setting Mode Level 1, press  to enter the interface for setting pattern lock, where the entire pattern number will be displayed. 32 pattern numbers are in each page. For locking a pattern, user only needs to press the pattern number. The seelcted pattern numer will be displayed in dark.

Press  to save the setting. The seelcted patterns will be locked.




## 11.8 格式化操作 Initialization




按下  进入锁键盘设置界面。在该界面下，可以完成：

- ◇ U 盘格式化
- ◇ 内存花样格式化
- ◇ 自定义格式化
- ◇ P、C花样格式化

按下相应的功能键，进入相关界面。按退出键  退出格式化U 盘



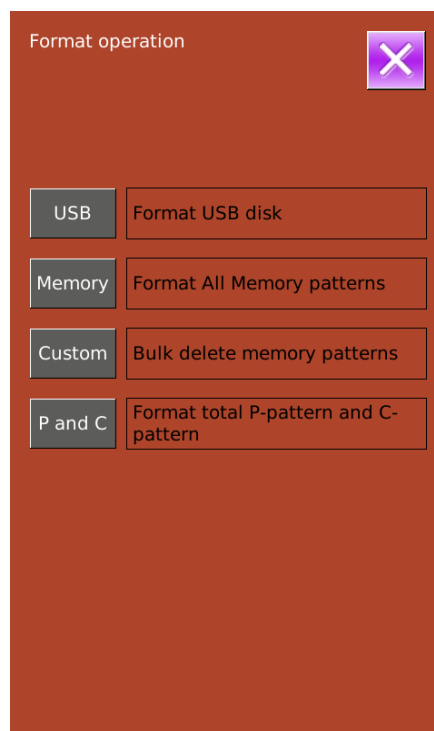
Press  to enter the interface for setting the keyboard lock.

In this interface, user can operate:

- ◇ U Disk Initialization
- ◇ Memory Initialization
- ◇ Customized Initialization
- ◇ P and C Pattern Initialization

Press the relating functions keys and enter the corresponding interface.

Press  to quit.





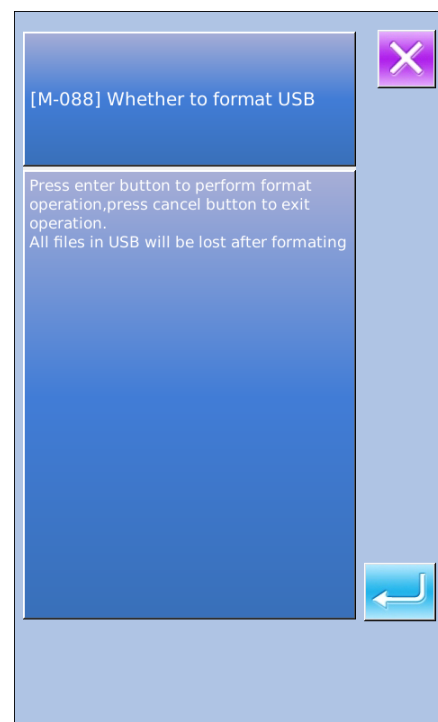
② 按“USB”键，进入U盘格式化

按回车键全部格式化U盘文件，按退出键退出格式化U盘。



②Press “USB” to Initialize U Disk Files



Press  to initialize all the U disk files, Press  to quit U disk initialization。



### ③ 按“内存”按键，格式化内存花样

格式花样包括：

- ◇ 普通花样，包括基础花样和用户花样
- ◇ 循环缝C 花样
- ◇ 登记的P 花样

按回车键  全部格式化，按退出键  退出格式化。



※ 格式化内存花样会将内存中存在的全部花样文件删除，请谨慎操作！



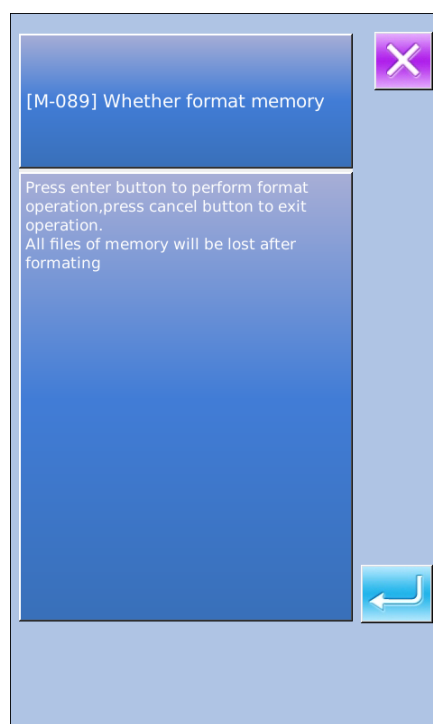
### ③ Press “Memory” to initialize memory patterns

The following patterns can be initialized:

- ◇ Normal Pattern (Basic Patterns & User Patterns)
- ◇ Cyclic Sewing Pattern
- ◇ Registered P Pattern

Press  to initialize all the files in memory. Press  to quit U disk initialization.

※**Caution! This operation will delete all the patterns within the memory!**



#### ④ 按“自定义”键，进入批量删除功能

在该界面下，会显示当前内存中存在的所有花样文件，点按相应的按键完成批量删除功能。

自定义功能的操作：

A. 利用“上箭头”“下箭头”键进行 翻页

B、利用下面三种操作，选择花样

✧ 按  选择全部花样，

✧ 按  反向选择

✧ 点击花样号码按键

C、按  完成批量删除功能

D、按退出键  退出到格式化操作界面。



#### ④ Press “Custom” to perform the batch deletion

In this interface, the system will display all the pattern files within the memory. Click the corresponding button to perform the batch deletion.

Operations at this function:

A.Use “Up Arrow”, “Down Arrow” to turn the page


B、Use the following three operations to select patterns

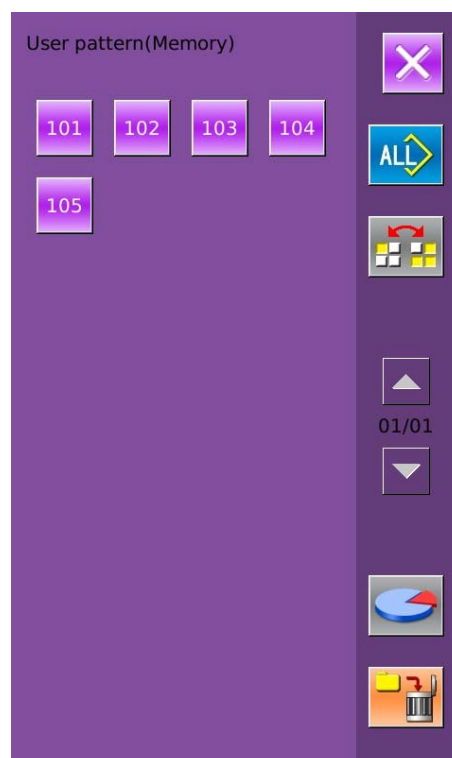
✧ Press  to select all the patterns


✧ Press  to select pattern in contrary way

✧ Input pattern number

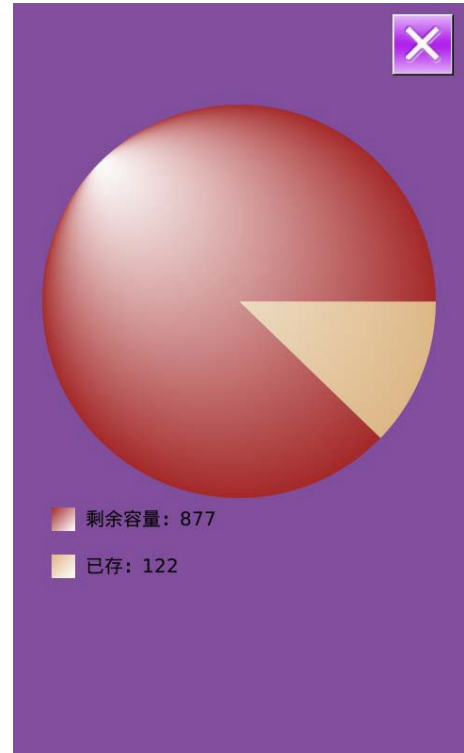
C、Press  to delete the patterns in batch


D 、 Press  to quit Initialization Interface




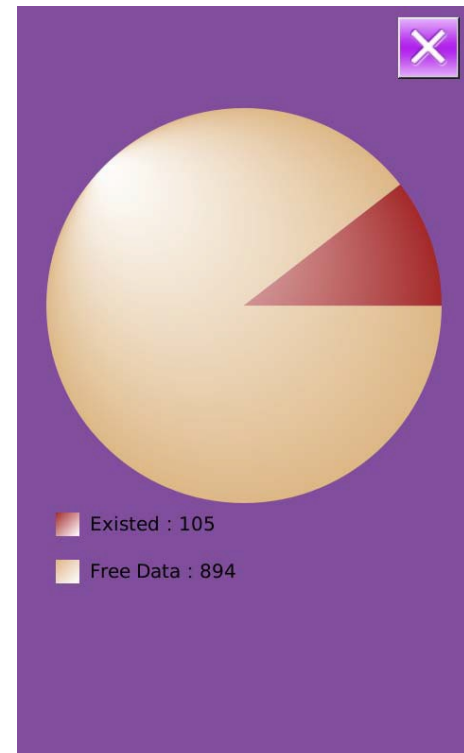
⑤ 在自定义格式化界面下，按  键，显示当前内存中花样占用的空间,及剩余空间的大小

按退出键  退出到上一界面。




⑤ Under the Interface of Custom Initialization, press  to display the free room of the memory and the number of patterns in each format.

Press  to return the upper interface.



## 11.9 软件版本查询Software Version Inquiry


在设置模式等级2下,按下  可以查询系统软件版本


 :可以将当前版本信息保存至 U 盘 根目录下。

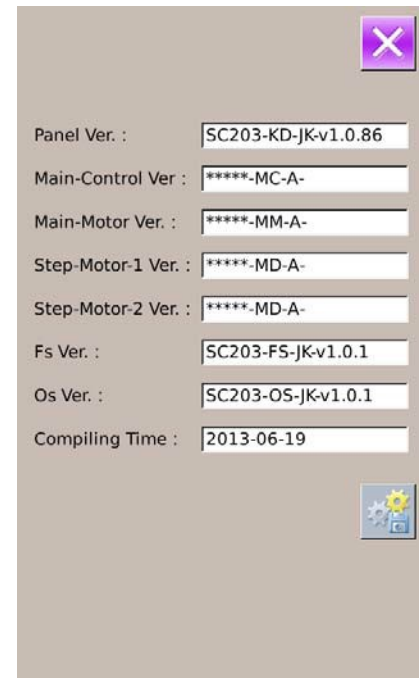


面板版本:	SC203-KD-JK-v1.0.88
主控版本:	SC203-MC-JK-v1.0.128
主轴电机版本:	SC203-MM-JK-v1.0.128
步进电机1版本:	SC203-MD-JK-v1.0.22
步进电机2版本:	SC203-MD-JK-v1.0.22
文件系统版本:	SC203-FS-JK-v1.0.39
操作系统版本:	SC203-OS-JK-v1.0.37
编译时间:	2013-06-9

At Mode Setting Level 2 Interface, user can

press  to check the software version of system.


 : Save the Current version information to the root directory of U disk.



Panel Ver. :	SC203-KD-JK-v1.0.86
Main-Control Ver. :	*****MC-A-
Main-Motor Ver. :	*****MM-A-
Step-Motor-1 Ver. :	*****MD-A-
Step-Motor-2 Ver. :	*****MD-A-
Fs Ver. :	SC203-FS-JK-v1.0.1
Os Ver. :	SC203-OS-JK-v1.0.1
Compiling Time :	2013-06-19



## 11.10 检测模式Test Mode


在设置模式等级2下,按下  键可以进入检测模式界面（如右图所示）各图标功能说明详见下表：

序号	名称Name
A	I01 触摸屏校正
B	I02 液晶显示检测
C	I03 输入检测
D	I04 转速测定
E	I05 输出检测
F	I06 连续运转
G	I07XY 马达原点检测
H	I09 压脚马达/原点传感器检测


按退出键  检测模式界面

**注意：**选项只能在维修保养界面呼出二级菜单（详见6.2节）模式界面呼出三级菜单（详见第8节）两个条件满足的情况下，才可见，并可操作。

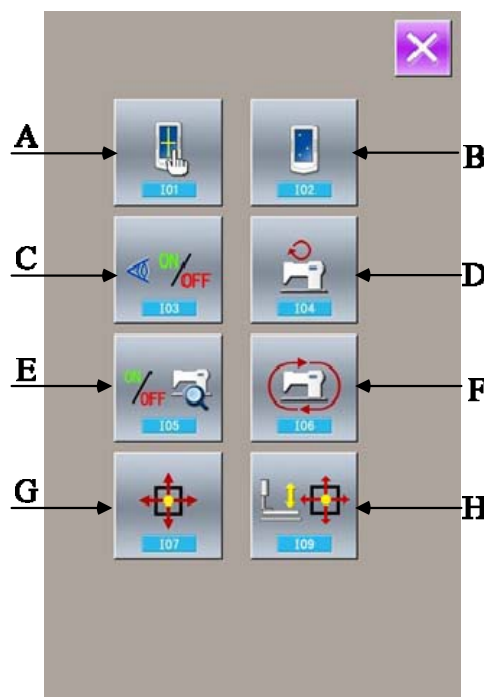
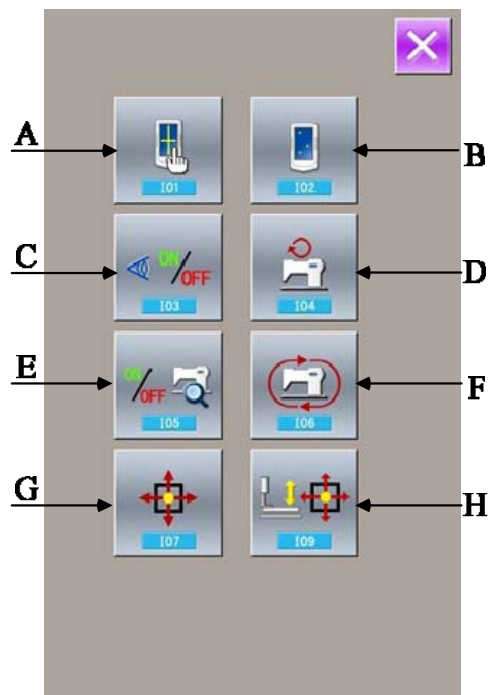
At Mode Setting Level 2 Interface, user can

press  to have access to the Test Mode Interface (as shown in right picture) The following is the list of each figure:




No.	Name
A	I01 Touching Panel Correction
B	I02 LCD Test
C	I03 Input Test
D	I04 Speed Test
E	I05 Output Test
F	I06 Continuous Running
G	I07 XY Motor Origin Test
H	I09 Presser-/ Origin Sensor Test

Press  to quit the Test Mode interface

**Attention:** Only when the level 2 menu is displayed at Maintenance Interface (refer to section 6.2) and level 3 menu is displayed at Mode Interface (refer to section 8), can the items I & J be operated.



## (1) 触摸屏校正


A、在检测模式界面按下  (IO1 触摸屏校正) 键, 提示【确定进入触摸屏校正模式】按进入触摸屏校正  界面(如右图所示), 按可以退出  触摸屏校正状态。

B、需要进行 5 点校正, 最好采用触摸笔一类的工具点击画面中的十字光标, 校正结束后, 会显示本次操作是否成功





※校正过程中, 请务必按照十字光标标识的位置进行, 否则会导致校正结束后无法正常使  
用触摸屏的情况

## (1) Correction of Touching Panel

A、In the interface of Mode Inspection,  
Press  (IO1 Correction of Touch Panel).

Then system will hint user 【Enter Touching Panel Correction Mode?】.


Press  to enter the interface for Touch Panel Correction (as shown in right figure). Press  to quit the correction status.

B、Because the corrections for five spots are needed, the user had better click the cross icon on the screen with tools like touching pen. After the correction, the system will tell user that this operation is successful or not.



※During the correction, please do perform the operation according to the positions of crosses. Otherwise, the touching panel will be unable to work normally after the correction.

## (2) 液晶检测

在检测模式界面按下  (I02 液晶检测) 键进入液晶检测界面(如右图所示)在该状态下检测液晶是否失色。


在界面下点按,在“蓝色 — 黑色 — 红色 — 绿色 — 白色”间循环显示

按退出键  退出液晶检测界面。




## (2) Inspection of LCD Display

In the interface of Mode Inspection,


press  (I02 Inspection of LCD Display) to enter the interface of LCD Display Inspection (as shown in right figure). Check whether the LCD fades in that status.

Touch the panel to have the screen display in the cycle of “Blue — Black — Red — Green — White”.

Press  to quit the interface of LCD Display Inspection




### (3) 输入信号检测方法

在检测模式界面按下  (I03 输入检测) 键进入输入检测界面 (如右图所示) 在该界面下可以确认各种开关和传感器的输入状况。

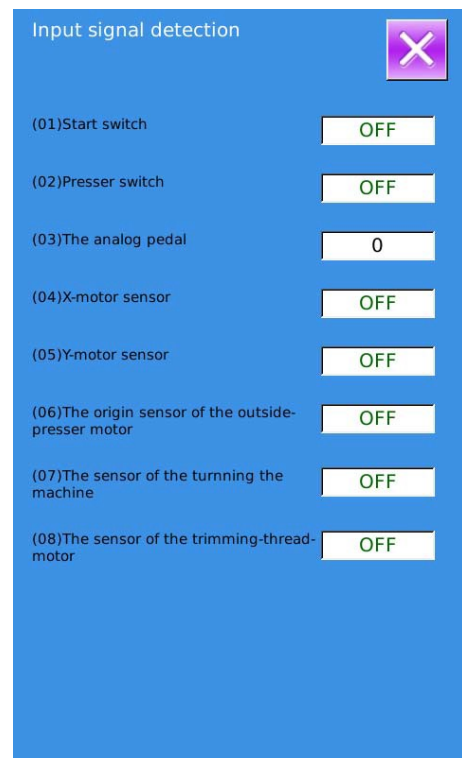
- ON:** 表示开启
- OFF:** 表示关闭
- 01: 启动开关
- 02: 压脚开关
- 03: 模拟踏板
- 04: X 马达传感器
- 05: Y 马达传感器
- 06: 外压脚马达原点传感器
- 07: 机头翻转传感器
- 08: 切线马达传感器



### (3) Input Signal Test Method



In the interface of Test Mode, press  (I03 Input Inspection) to enter the interface of input inspection interface (as shown in right). Users can confirm the input status of each switch and sensor.

- ON:** Turn On
- OFF:** Turn Off
- 01: Start Switch
- 02: Presser Switch
- 03: Analog Pedal
- 04: X Motor Sensor
- 05: Y Motor Sensor
- 06: Origin Sensor of Outside-presser Motor
- 07: Sensor of Head Reversion
- 08: Sensor of Thread-trimming Motor




#### (4) 转速测定

##### ① 显示转速测定界面

在检测模式界面按下  (I07 转速测定) 键进入转速测定界面(如右图所示)在该界面下可以检测主轴马达转速。按退出键  退出转速测定界面。

##### ② 速测定设置



通过按加键“+”和按减键“-”可以设置主轴马达转速,按下  后,主轴马达会以已设定的转速旋转。此时,实际测得的转速在界面中的实际转速栏中显示。

按下  则机器停止运转。





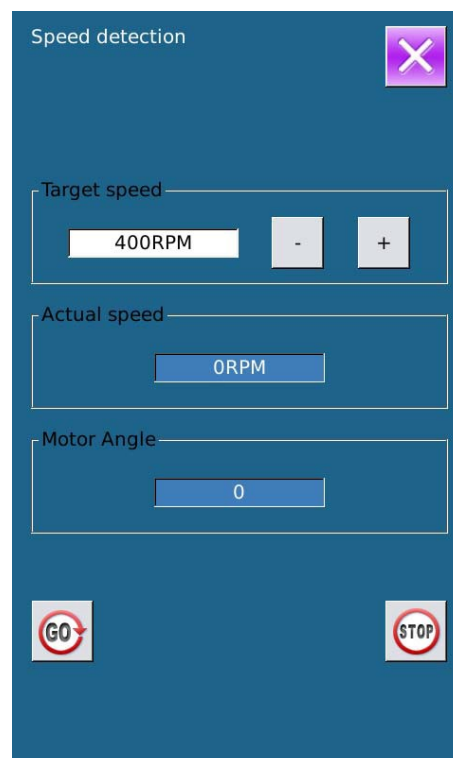
#### (4) Speed Test

##### ① Interface for Speed Test


In the interface of Mode Inspection, Press  (I04speed test) to enter the interface for Speed Test (as shown in right figure). The speed of main shaft motor can be tested in that interface. Press  to quit the interface for speed test.

##### ② Speed Test Setting

Press “+” & “-“ to set the speed of the main shaft motor. Press  , then the motor will run at the set speed. At this moment, the actual tested speed is displayed in the interface.. Press  to stop the machine




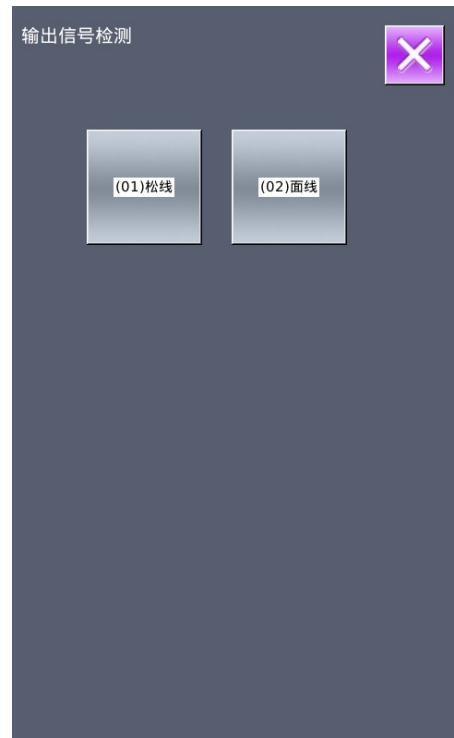
## (5) 输出检测

在检测模式界面按下  (I05 输出检测) 键进入输出检测界面 (如右图所示) 在该界面下可以检测的输出状态包括:

01: 松线电磁铁检测


02: 面线电磁铁检测

按  退出输出检测界面。




※ 注意缝纫机会有相应的动作

## (5) Output Inspection

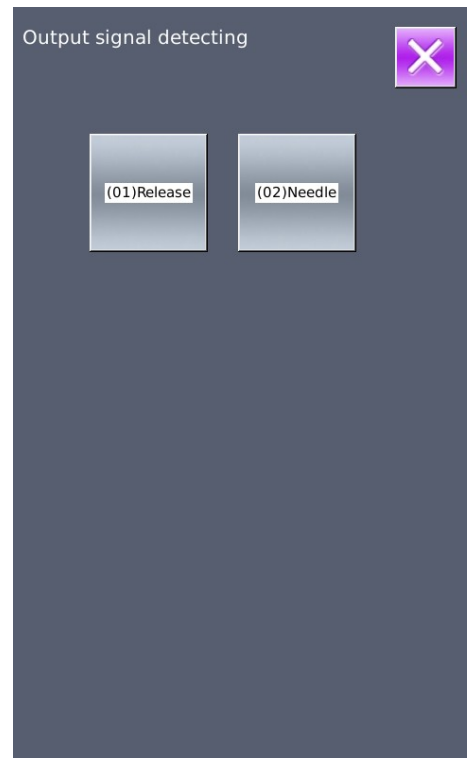
In the interface of Mode Inspection, Press  (I05 Output Inspection) to enter the interface of Output Inspection (as shown in the right figure). The following output status of the solenoid can be checked under that interface.

01: Thread-releasing Solenoid Test

02: Needle Thread Solenoid Test


- Press  to quit output inspection interface

※Attention: Sewing machine will perform relating actions.




## (6) 连续运转

### ① 显示连续运转界面

在检测模式界面按下  (I06 连续运转) 键进入连续运转界面 (如右图所示)


A: 动作间隔

B: 收针原点检测

按退出键  退出连续运转界面。

### ② 连续运转设置


点击连续运转状态下的“动作间隔”输入框和“收针原点检测”输入框，通过数字 键盘输入设置值，可设定动作间隔时间和 收针原点检测。

按  键，踩下脚踏板即开始连续运转。连续运转过程中可以通过暂停开关暂停，也可以在动作结束后压脚抬起时踩下脚踏板或按暂停开关停止连续运转。




## (6) Continuous Running

### ① Display the interface for continuous running

In the interface of Mode Inspection, Press  (I06 continuous running) to enter the interface of continuous running (as shown in right figure).


A: Action interval

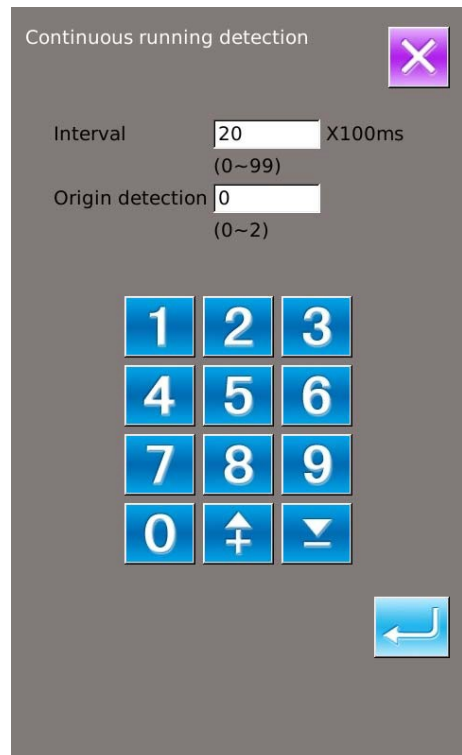
B: Origin Detection

Press  to quit that interface.


### ② Continuous running setting


Click the columns under the interface of Continuous Running to set the Action interval and Origin Detection. Set the value with the number keys.




Press  and step the pedal to start the continuous running. During the running, user can use the pause switch to stop machine or he can stop machine by stepping the pedal or pressing pause switch at action end



## (7) XY马达原点传感器检测


在检测模式界面按下  (I07XY 马达原点检测) 键进入X、Y 马达、传感器输出检测界面(如右图所示)


若上电后不进入准备状态且在该界面下不按  进行原点检索,可以直接通过方向键驱动马达移动,并显示出X、Y 两传感器的ON/OFF 状态,以检测X、Y 马达驱动和传感器是否正常工作。



若上电后进入过准备状态,或在该界面按下  过进行原点检索,则每次进入该 I07模式后,都需要先按  键进行原点检索后,才可以按方向键驱动X、Y 马达移动,这种情况下表示对X、Y 原点进行微调功能。左侧 X、Y 坐标显示的是原点偏移值,右侧X、Y坐标显示的是压脚框当前所处位置,按下  可将当前位置设置为原点参考值。

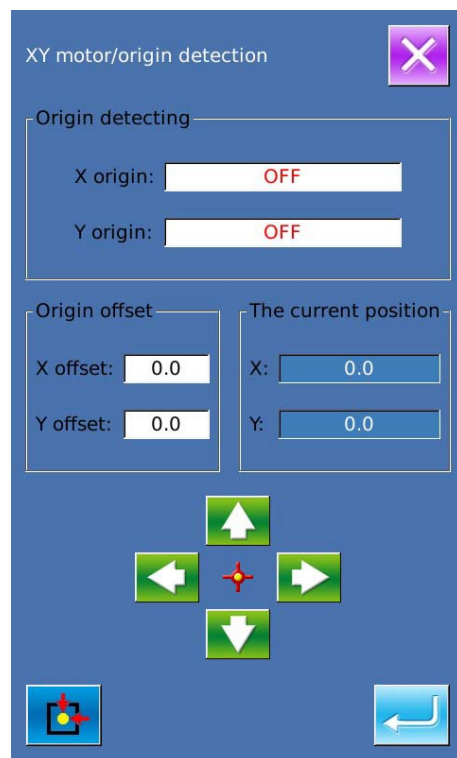


## (7) XY Motor Origin Sensor Test


At Test Mode Interface, user can press  (I07XY Motor Origin Test) to activate XY Motor/Origin Output Test Interface (as shown in right picture).

If user turns on the machine without entering the Ready Status and pressing  to search the origin, user can directly press the direction keys to move the motor and display the On/Off statuses of Sensors at both XY sides. In this way, user can test the working condition of the XY Motor Driver and their sensors.

If user enters the Ready Status after power-on or presses  to search origin, the user will have to press  to search origin at each entry to the I07 mode in future so that he could use direction keys to move XY motors. This is the manual adjustment of the XY origin. The coordinates








displayed at left is the deviation value of the origin, while the coordinates displayed at right is the current position of presser frame. User can press  to set current position as the reference value of the origin.

### (8) 压脚马达/原点传感器检测

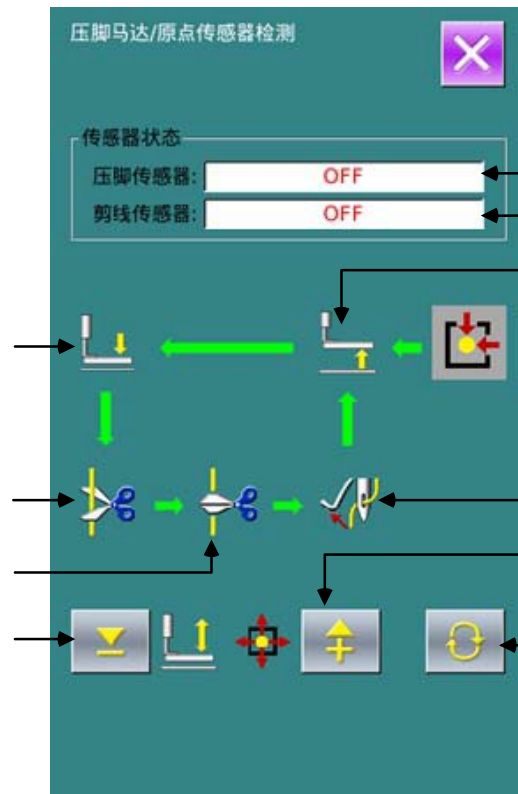
根据压脚原点传感器状态, A 位置显示压脚原点传感器的ON/OFF 状态,B 位置显示 剪线传感器的状态。

通过  和  , 压脚电机以1个脉冲1个脉冲进行驱动。

另外,按下  可驱动压脚电机到下述的定位置, 显示该位置的图形为阴影。



- A: 压脚传感器
- B: 剪线传感器
- C: 压脚放下位置
- D: 分线完成位置
- E: 剪线完成位置
- F: 拨线完成位置
- G: 压脚抬起位置
- H: 正向运动一步
- J: 运动到下一位置
- I: 反向运动一步


注: 用启动开关进行压脚·切线电机原点检索之后, 变为有效。



## (8) Presser Motor / Origin Sensor Detection

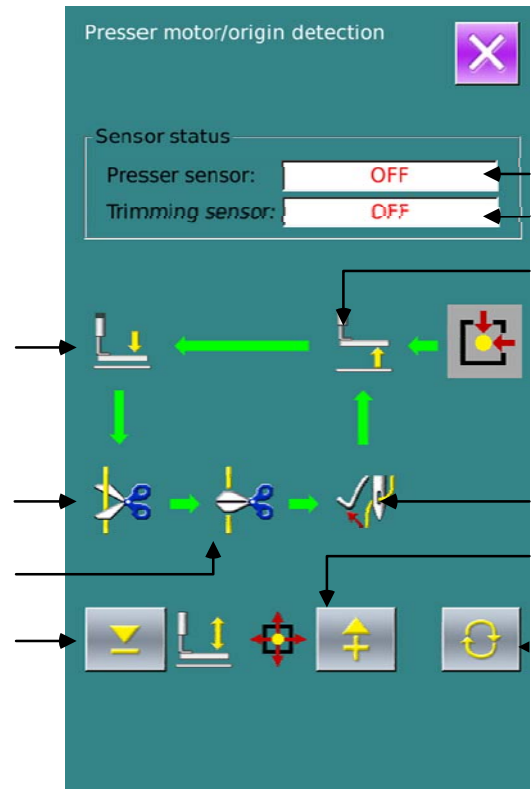
According to the status of the presser origin sensor, the position A displays the status (ON/OFF) of presser origin sensor; position B displays the status of trimming sensor.

By using  & , the user can drive the presser motor at each pulse


Additionally, pressing  is to drive presser motor to the position pointed at below, whose figure is displayed in dark.


- A: Presser Sensor
- B: Trimming Sensor
- C: Presser down Position
- D: Thread-trimming Wait Position
- E: Trimming Finish Position
- F: Thread-stirring Position
- G: Presser Up Position
- H: Forward one Step
- J: Move to Next Position
- I: Backward one Step

Note: Use Switch to search the origin of presser & thread-trimming motor, then this function will be effective.



## 11.11 锁键盘操作Keyboard Lock

在设置模式等级2下按下  进入锁键盘设置界面。

At Setting Mode Level 2 Interface, user can press  to activate Keyboard Lock Setting Interface.




### ① 锁键盘操作



: 未设定锁键盘状态



: 已设定锁键盘状态

选择 ，按下  完成锁键盘操作。按退出键  退出锁键盘操作。




### ① Operation for Keyboard Lock

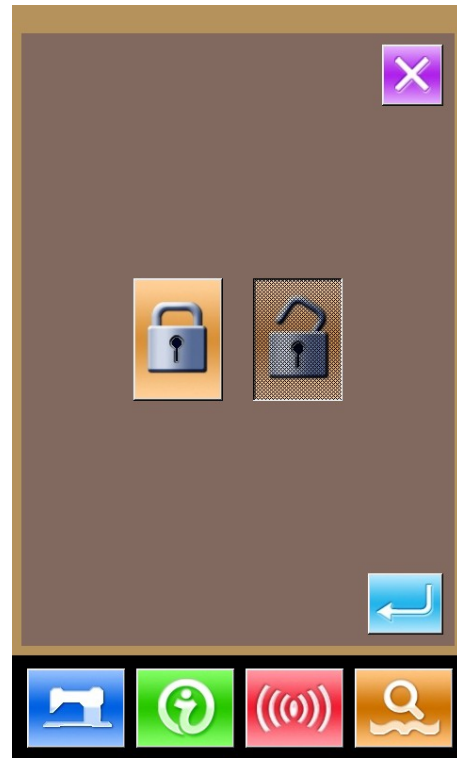


: Keyboard Unlocked




: Keyboard Locked


Select  and then Press  to finish the operation of locking keyboard. Press  to quit the keyboard lock operation.

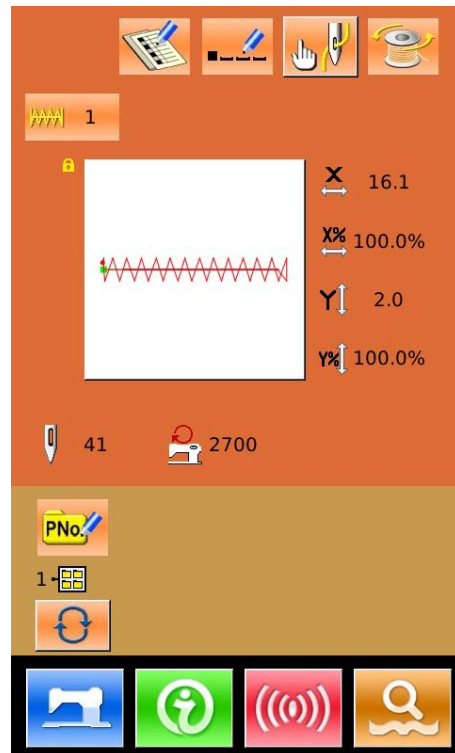


## ② 锁键盘状态显示

关闭参数设置模式界面,返回数据输入界面,如右图,可以看到花样号码下方有一个显示锁键盘状态的图标 。在锁键盘状态下仅显示可使用图标。

## ② Display of Keyboard Lock Status

Close Parameter Setting Mode Interface, and have system return to Sewing Data Input Interface (as shown in right picture.), where user can see a lock figure  under the pattern number. In the Keyboard Locked status, only the available figures can be displayed.



### ③ 键盘锁定范围

#### 1、普通缝数据输入界面：

- 1) 花样登记
- 2) 花样命名
- 3) 放大缩小率设置
- 4) 最高转速限制
- 5) P 花样登记
- 6) 花样删除
- 7) 穿线
- 8) 花样选择

#### 2、普通缝缝制界面：

- 1) 移框
- 2) 计数器设置
- 3) 试缝
- 4) 回原点
- 5) 速度滚动条

#### 3、P 花样输入界面：

- 1) P 花样编辑
- 2) P 花样复制
- 3) P 花样命名
- 4) 花样删除
- 5) 穿线

#### 4、P 花样缝制界面：

- 1) 计数器设置
- 2) 速度滚动条
- 3) 回原点
- 4) 试缝

#### 5、C 花样数据输入界面：

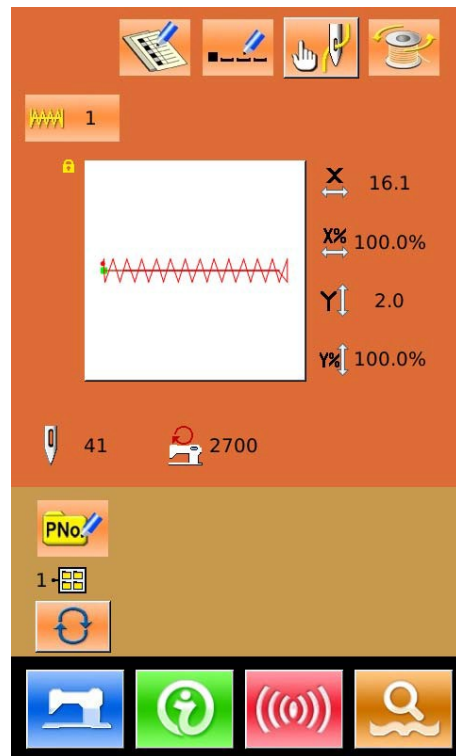
- 1) C 花样登记
- 2) C 花样复制
- 3) C 花样命名
- 4) C 花样编辑
- 5) 花样删除
- 6) 速度滚动条
- 7) 回原点
- 8) 试缝

#### 6、C 花样缝制界面：

- 1) 试缝
- 2) 计数器设置
- 3) 回原点
- 4) C 花样切换

#### 7、参数设置模式：

- 1) 参数1 级
- 2) 参数2 级
- 3) 计数器编辑
- 4) 检测模式
- 5) 花样锁定设置



### ③Range of Keyboard Lock

#### 1、 Interface of Normal Sewing Data Input:

- 1) Pattern Registration
- 2) Pattern Naming
- 3) Scale Rate Setting
- 4) Max Speed Limitation
- 5) P Pattern Registration
- 6) Pattern Deletion
- 7) Thread
- 8) Pattern Select

#### 2、 Normal Sewing Interface:

- 1) Frame-moving
- 2) Counter Setting
- 3) Step Sewing
- 4) Return Origin
- 5) Speed Scrollbar

#### 3、 P Pattern Input Interface:

- 1) P Pattern Edition
- 2) P Pattern Copy
- 3) P Pattern Naming
- 4) Pattern Deletion
- 5) Thread

#### 4、 P Pattern Sewing Interface:

- 1) Counter Setting
- 2) Return Origin
- 3) Step Sewing
- 4) Speed Scrollbar

#### 5、 C Pattern Data Input Interface:

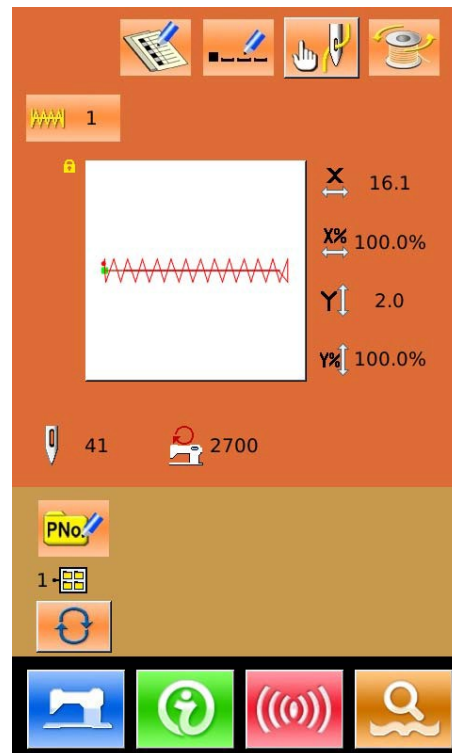
- 1) C Patten Registration
- 2) C Pattern Copy
- 3) C Pattern Naming
- 4) C Pattern Edition
- 5) Pattern Deletion
- 6) Speed Scrollbar
- 7) Return Origin
- 8) Step Sewing

#### 6、 C Pattern Sewing Interface:

- 1) Counter Setting
- 2) Step Sewing
- 3) Return Origin
- 4) C Pattern Switch

#### 7、 Parameter Setting Mode:

- 1) Level 1 Parameter
- 2) Level 2 Parameter
- 3) Counter edition
- 4) Test Mode





## 11.12 参数备份设置Parameter Back-up



在设置模式等级 3 下，按键进入 参数还原 备份界面，如右图所示：

清除键：清除全部已经保存的自定义参数 保存键：保存当前参数 恢复键：恢复当前参数

① 点击  ~  其中任意一键，以确定参数保存位置，然后点击「保存」键进行保存。

② 观察「自定义参数xx(有/无)」键显示内容，如果括号内显示为「有」的则表示该位置上存储了用户参数。例如



③ 选择已经存储参数的自定义参数键，按下「恢复」键就会重新加载相应的参数设定值。

④ 按下「清除」键会清除全部已存参数。





In setting mode level 3, press to enter the interface of parameter back-up & restoration, as shown in right:

Clear : Clear all the customized parameters that are saved.

Save: Save current parameters

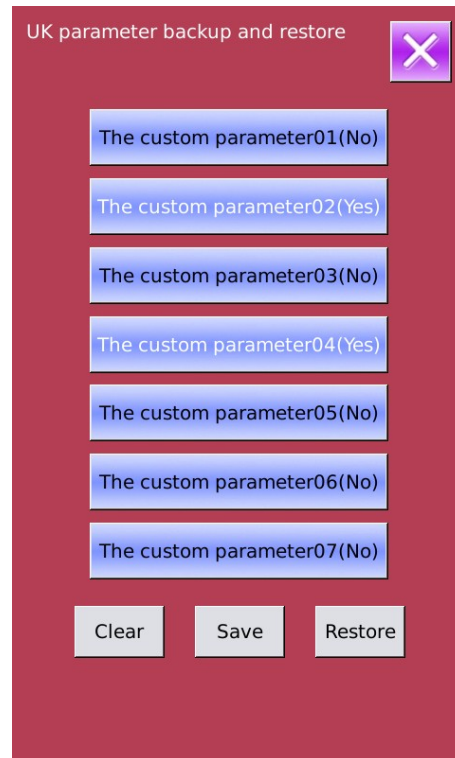
Restore: Restore the current parameters

① Click any key among **The custom parameter01(No)** ~ **The custom parameter07(No)** to set the position for saving the parameter. And then press [Save] to save that parameter.

② Check the content on [Custom xx (On/Off)]. If [On] is displayed in bracket, that means this position has the user parameter, for an example **The custom parameter02(Yes)**.

③ Select the button with parameters, press [Restore ] to reload the corresponding parameter values

④ Press [Clear ] to delete all the saved parameters





## 11.13 钉扣机型设置 Button-stitching Function Setting

### ①参数设置操作




在设置模式等级 3 下，选择进入二级参数设置界面（如右图所示）操作方法参照一级或二级参数设置。选择K241 进下一界面

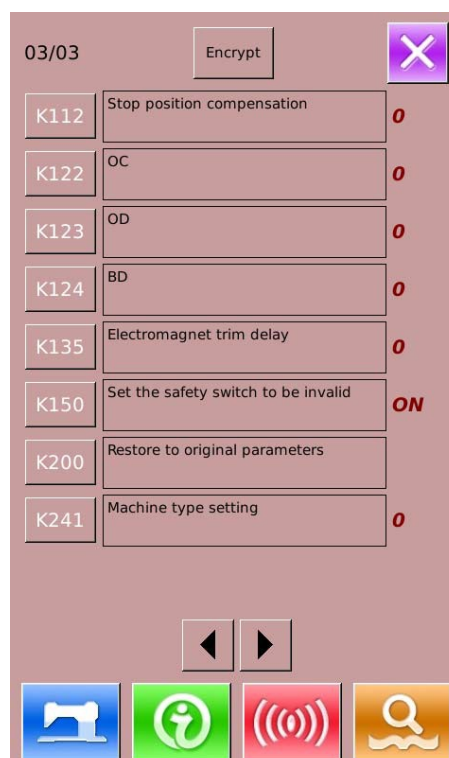


### ①Parameter Setting Operation

At Setting mode Level 3 Interface, user

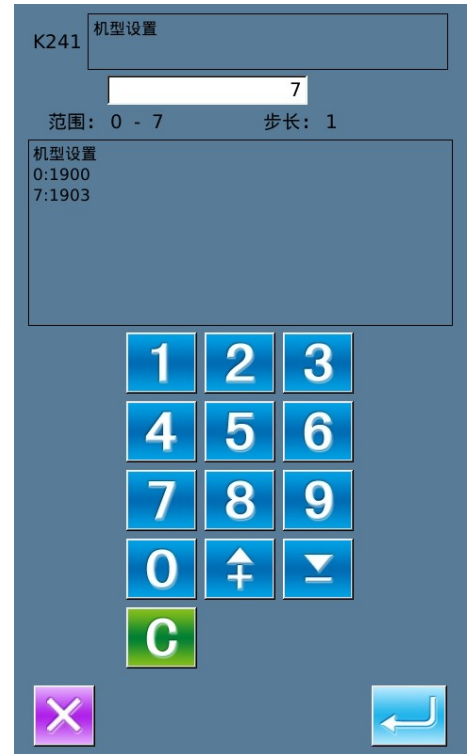



can press  to have access to Level 2 Parameter Setting Interface (as shown in right figure). For the operating methods, please refer to the descriptions in Level 1 or 2 Parameter Setting. Press Key **K241** to activate the next interfac.



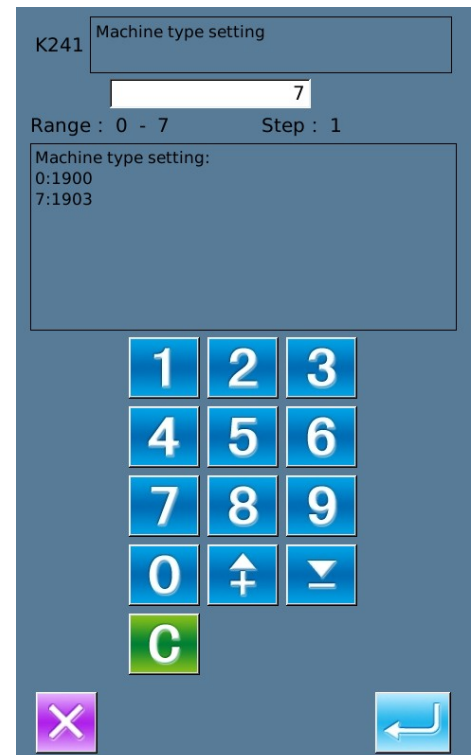
右图为机型选择界面，通过键盘选择数字 7，即为选择为钉扣功能。按下  则结束选择。



注：更换机型后会清除掉系统已存储的花样，然后重新加载新机型花样，更换机型前请注意备份花样。

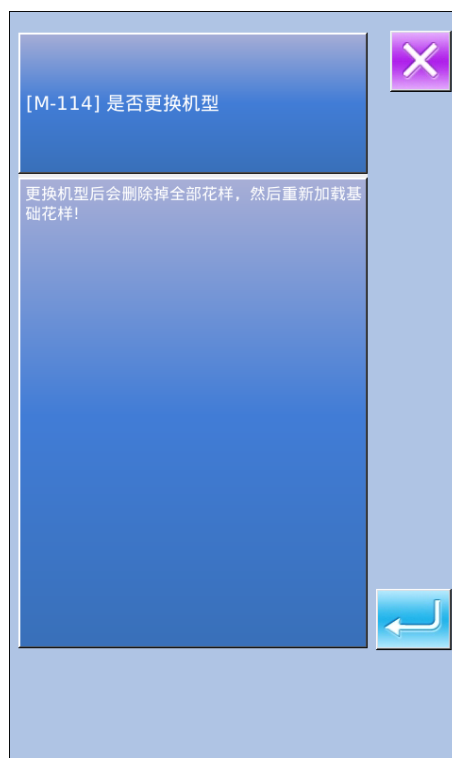


Press  to finish the selection.

**Note: When the model is changed, the system will clear the entire saved pattern and reload the pattern for the newly selected model. Therefore, users have to pay attention to backing up patterns before changing the model.**



此时出现提示界面,如右图所示,按下退出键则取消设置,按下则进入确定清除掉旧机型已存花样。



成功清除掉旧机型花样后, 需要关闭电源, 如右图所示。



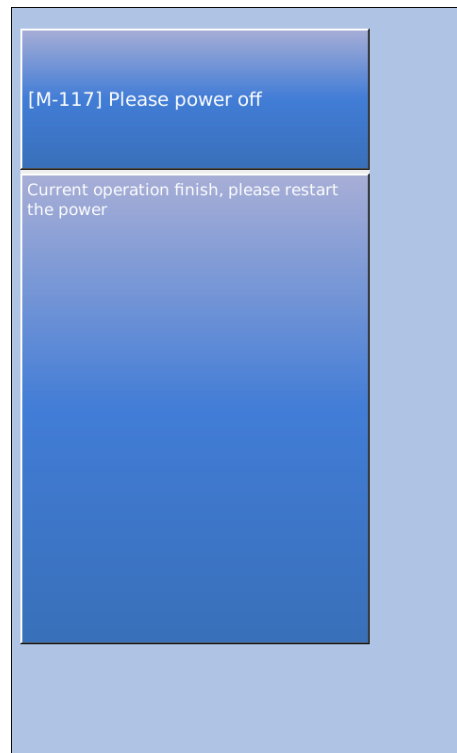
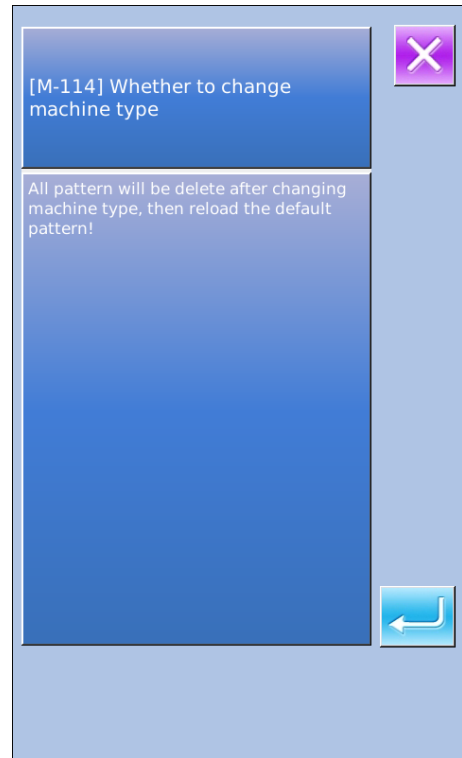
At this moment, the Hint Interface will be displayed, as shown in right picture. Pressing




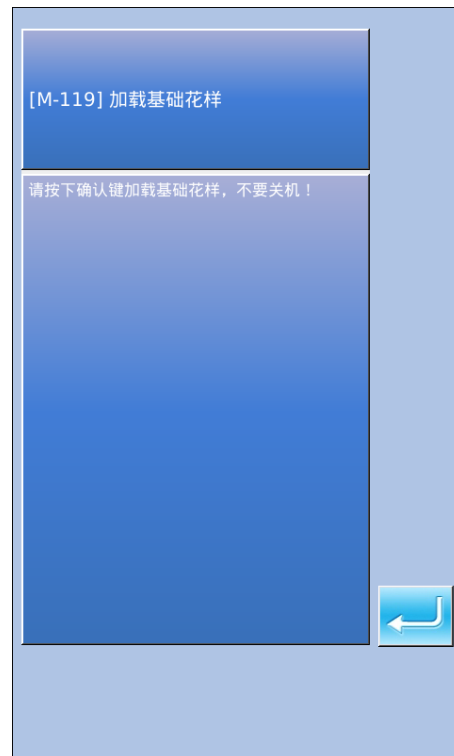
is to cancel the settings, while pressing



is to confirm clearance of the existed patterns in the old model.

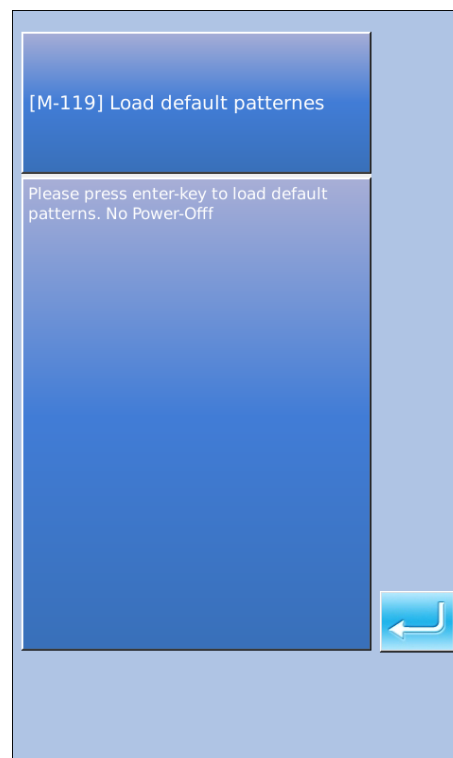


关闭电源重新启动后会出现加载新机型 花样的提示界面, 如右图所示, 按下确定键  即可。



Re-power the machine. The hint interface for reloading patterns of new model will be displayed, as shown in the right picture.

The user only needs to press .

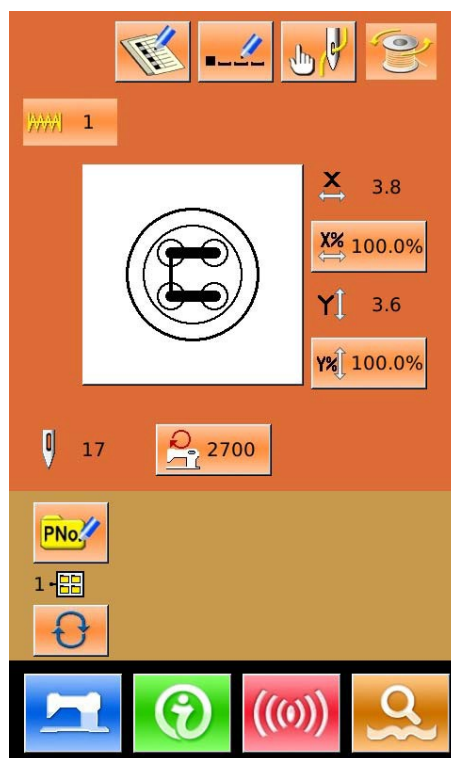


成功加载了机型基础花样之后，系统进入到 N 花样主界面，如右图所示。

钉扣功能设置成功！


When loading the basic patterns for the new model successfully, the system will activate the Main Interface of Pattern N, as the right picture shows.

Button-sewing function is set successfully!




## 11.14 花样编辑参数设置 Pattern Edition Parameter Setting



在设置模式等级 3 下,按下  可以进入花样编辑参数设置界面。


带有阴影效果的凹下图标表示该功能被 打开,不带有阴影效果的凸起图标表示该功能被禁止。

根据需要设置编辑参数,按下确定键  完成设置。




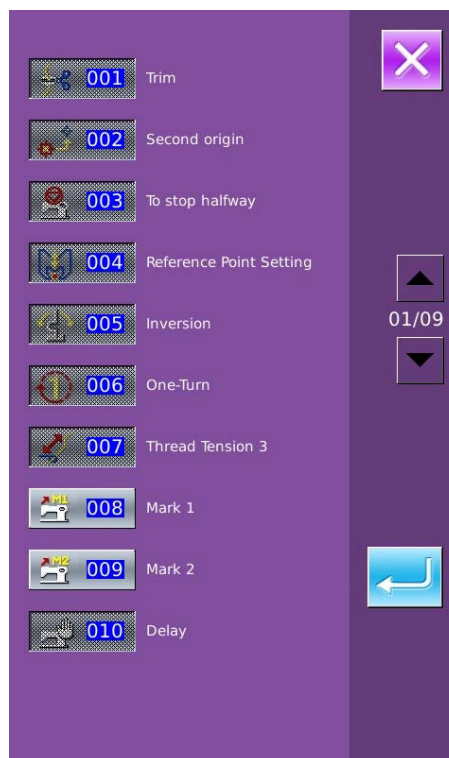
At Setting Mode Level 3 Interface, user



can press  to activate the Interface for Setting Pattern Edition Parameters.

The figures of the available functions are displayed in dark, while the figures of the unavailable functions are displayed with highlight.

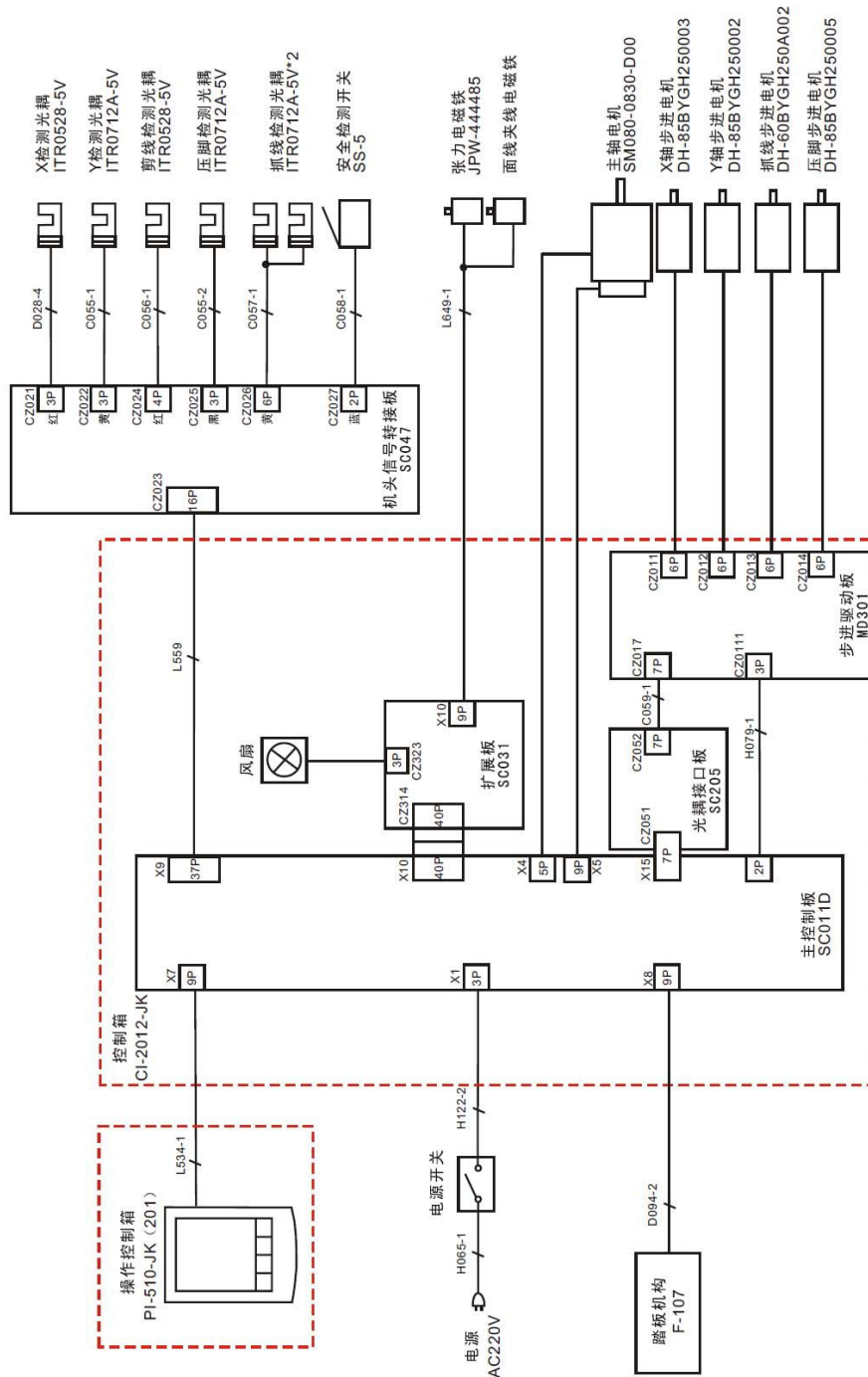
Edit the parameters according to your needs, press  to finish the setting.。



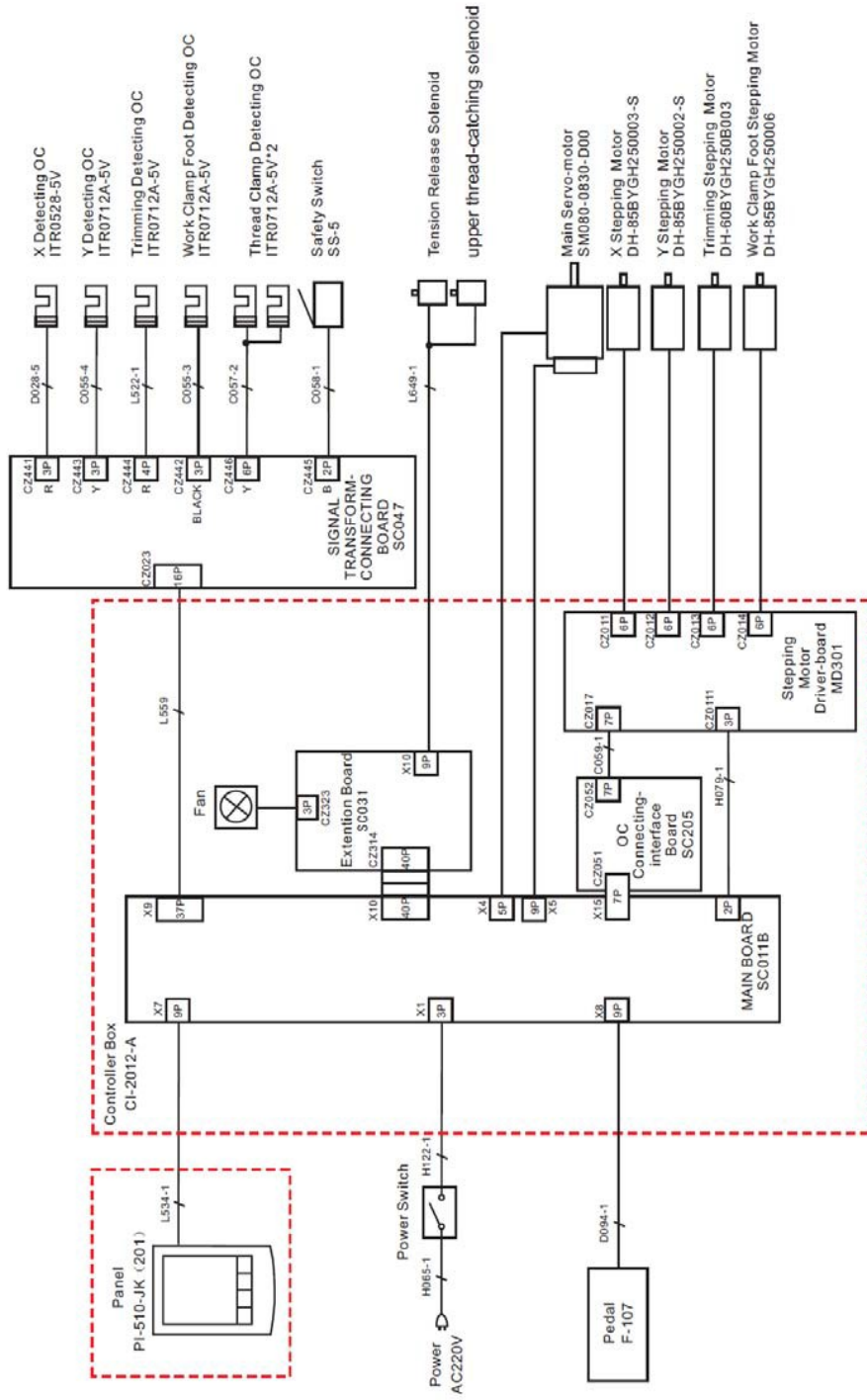
# 12 电控系统原理 Controller System Principle

## 12.1 控制系统组成 Structure of Control System

### 12.1.1 控制系统框图 Diagram of Control System







## 12.1.2 控制箱的外部线缆连接 External Cable Connection of Control Box

外部线缆插头上有对应的编号，请仔细查看后对应接插。示意图1、2。

The plug of each external cable has a number corresponding to the code on the socket. Please connect them correspondingly. Please refer to figure 1 and 2

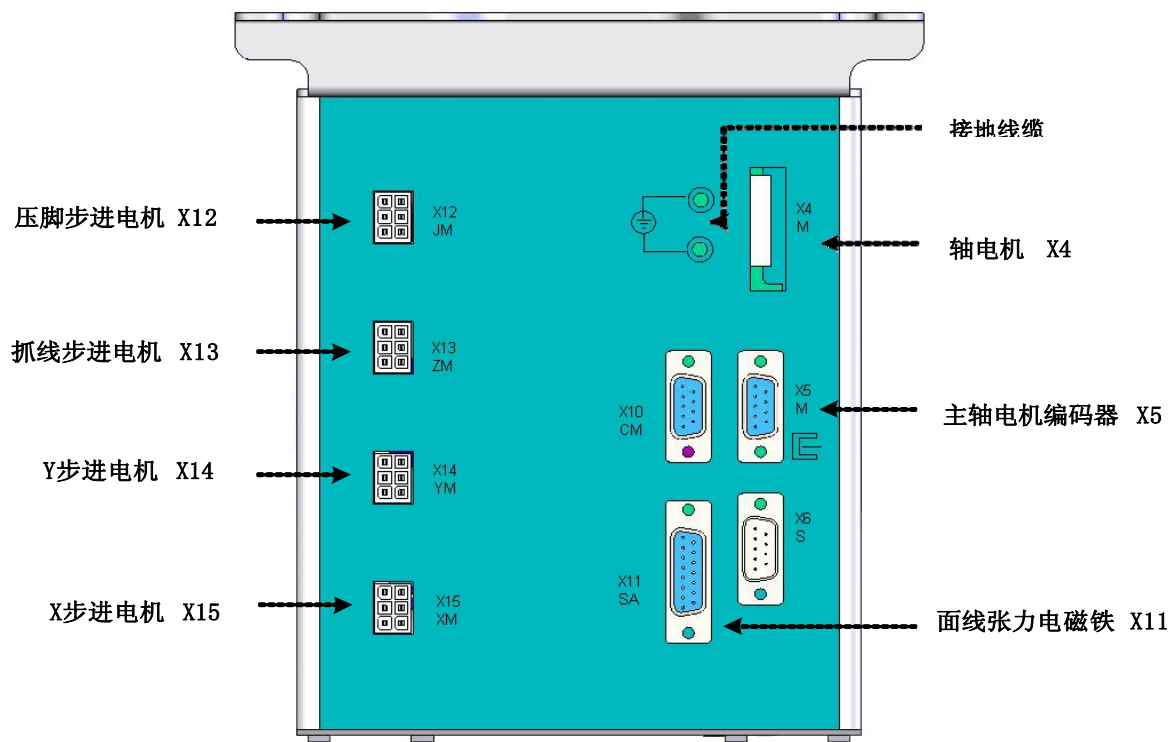


图1

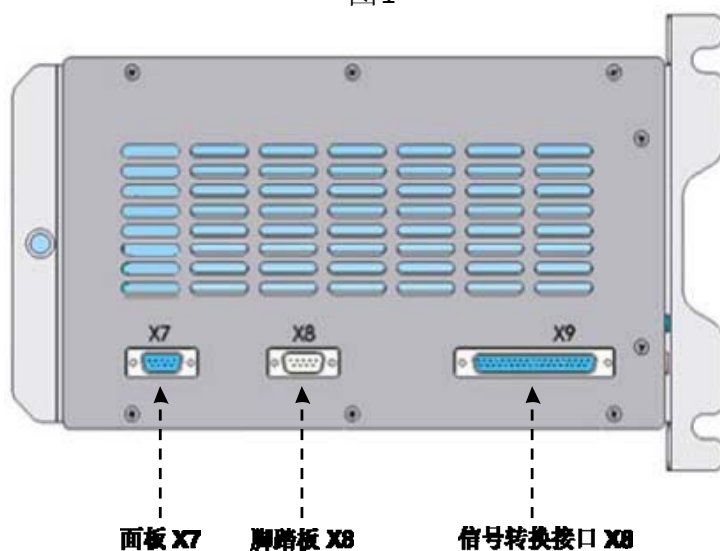


图2

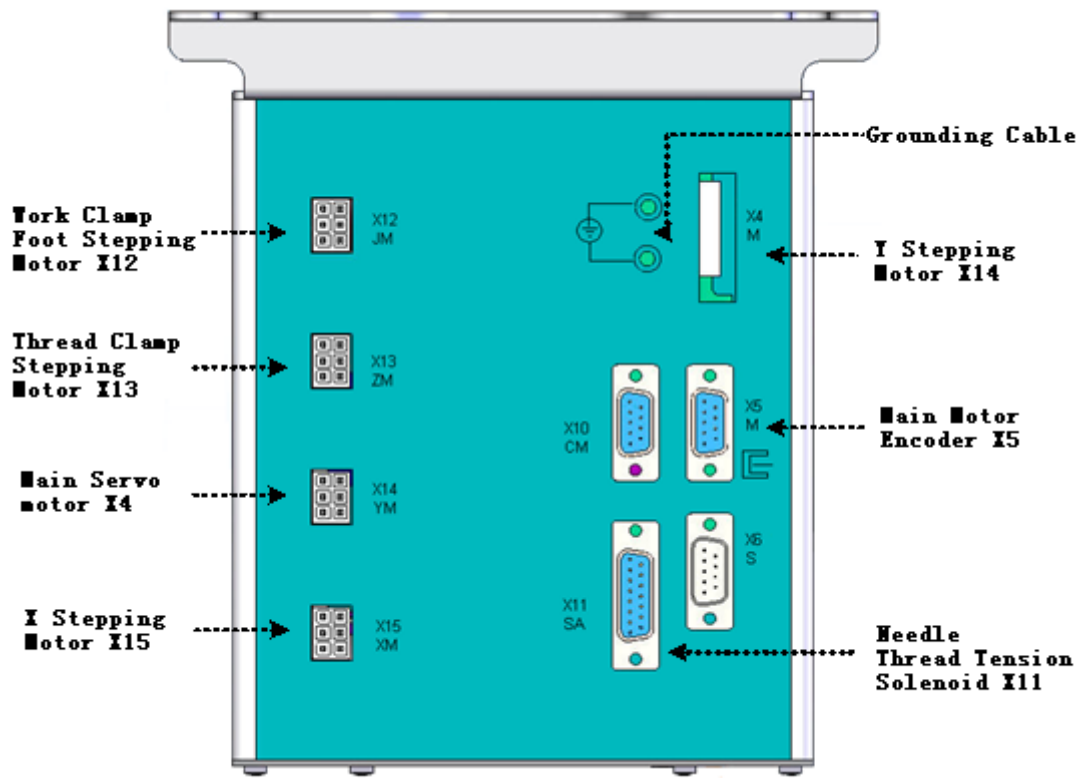


Figure 1

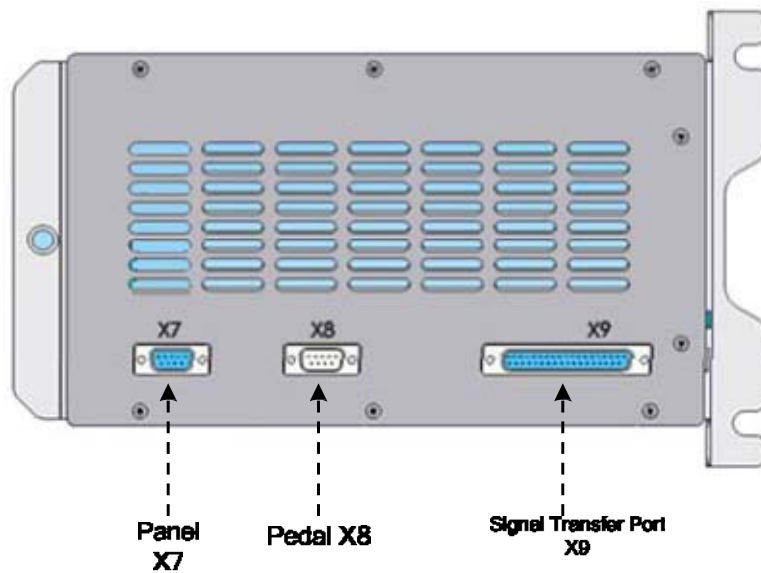
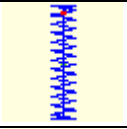
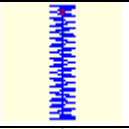
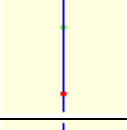
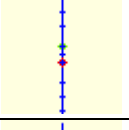
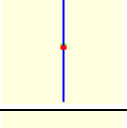
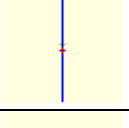
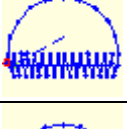
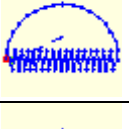
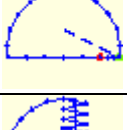
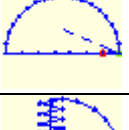
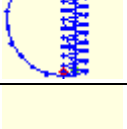
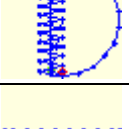
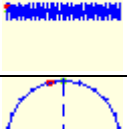
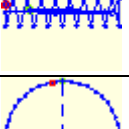
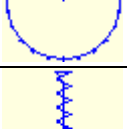
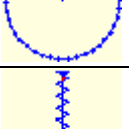
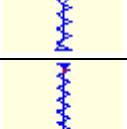
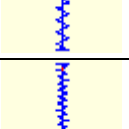
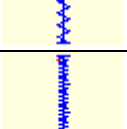
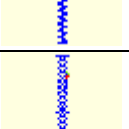
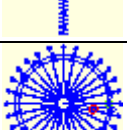
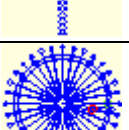
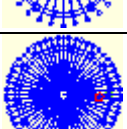
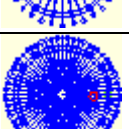
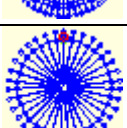
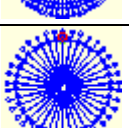
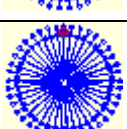
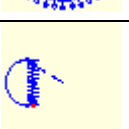

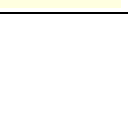

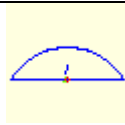
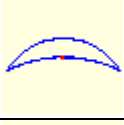
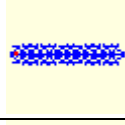
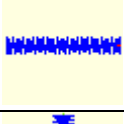
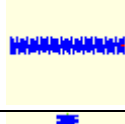
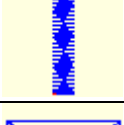
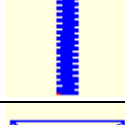
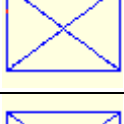
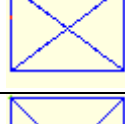
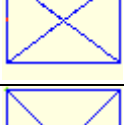
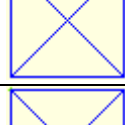
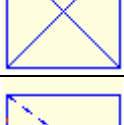
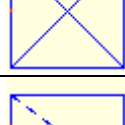
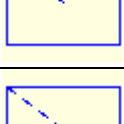
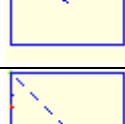
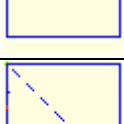
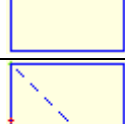
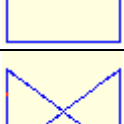
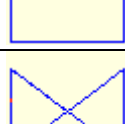
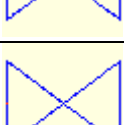
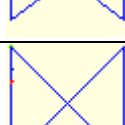
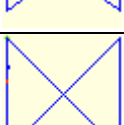
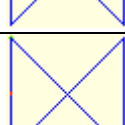
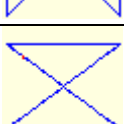
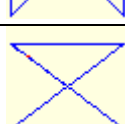
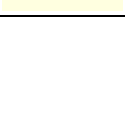
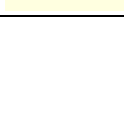


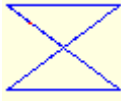
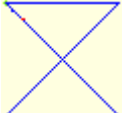
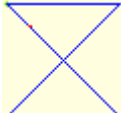


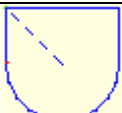
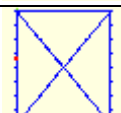
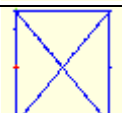
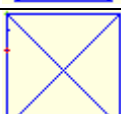
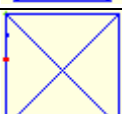
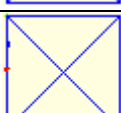
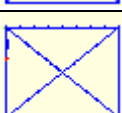
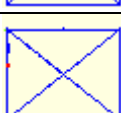
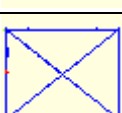

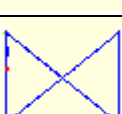

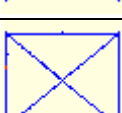
Figure 2

## 12.2 1900B 套结机花样一览表 List of Patterns in 1900B Controller

NO.	缝纫图案	针数	长×宽 (mm)	NO.	缝纫图案	针数	长×宽 (mm)
NO.	Patterns	Stitch Number	Length × Width (mm)	NO.	Pattern	Stitch Number	Length × Width (mm)
1		41	16.1×2	2		41	10.2×2
3		41	16×2.4	4		41	24×3
5		27	10.1×2	6		27	16×2.4
7		35	10.1×2	8		35	16×2.4
9		55	24×3	10		63	24×3
11		20	6.1×2.4	12		27	6.2×2.4
13		35	6.1×2.4	14		14	8×2
15		20	8×2	16		27	8×2
17		20	10×0	18		27	10×0
19		27	25.2×0	20		35	24.8×0
21		40	25.2×0	22		43	35×0
23		27	4×20	24		35	4×20

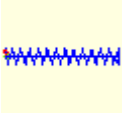




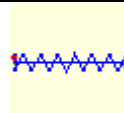

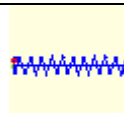
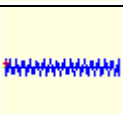
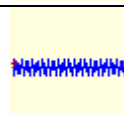
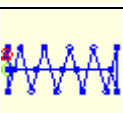
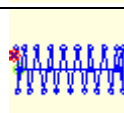
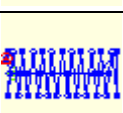
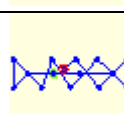
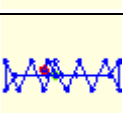
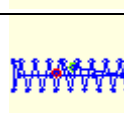
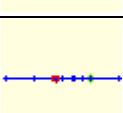

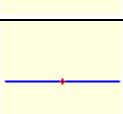
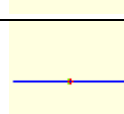
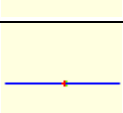
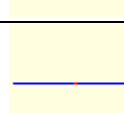
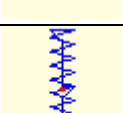
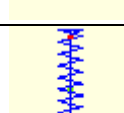
25		41	4x20	26		55	4x20
27		17	0x20	28		20	0x10
29		20	0x20	30		27	0x20
31		51	10.1x7	32		62	12.1x7
33		23	10.2x6	34		30	12x6
35		47	7x10	36		47	7x10
37		89	24x3	38		27	8x2
39		25	11.8x12	40		45	12x12
41		28	2.4x20	42		38	2.4x25
43		38	2.4x25	44		57	2.4x30
45		75	2.4x30	46		41	2.4x30
47		89	8x8	48		98	8x8
49		147	8x8	50		163	8x8
51		110	7.9x7.9	52		120	7.9x7.9
53		130	7.9x7.9	54		51	12.4x10.2

55		50	12.4×10.2	56		52	21×6
57		57	21×6	58		102	19×3
59		115	40×5	60		115	40×5
61		93	5×30	62		109	5×30
63		108	40×30	64		80	40×30
65		64	40×30	66		96	30×30
67		76	30×30	68		60	30×30
69		52	40×30	70		40	40×30
71		32	40×30	72		44	30×30
73		36	30×30	74		28	30×30
75		60	40×30	76		48	40×30
77		36	40×30	78		56	30×30
79		44	30×30	80		36	30×30
81		67	40×30	82		51	40×30

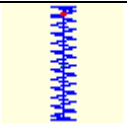
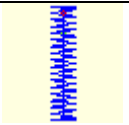
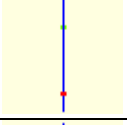
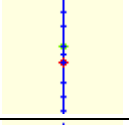
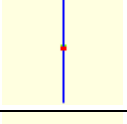
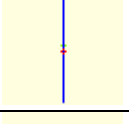
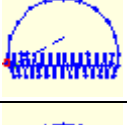
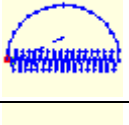
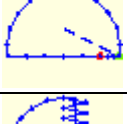
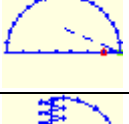
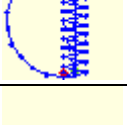
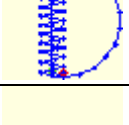
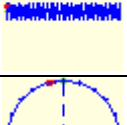
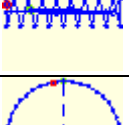
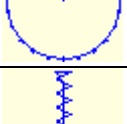
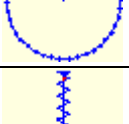
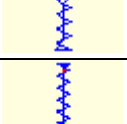
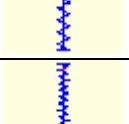
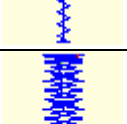
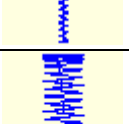
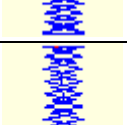
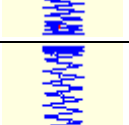
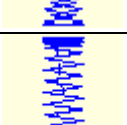
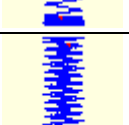
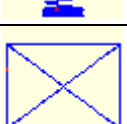
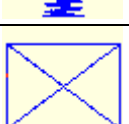
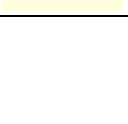
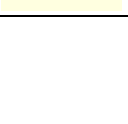
83		39	40×30	84		55	30×30
85		35	30×30	86		42	30×30
87		32	30.1×30	88		26	30×30
89		74	20×24	90		54	20×24
91		65	20×20	92		49	20×20
93		39	20×20	94		63	25×20
95		51	25×20	96		45	25×20
97		42	25×20	98		33	25×20
99		27	25×20	100		88	30×25

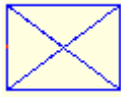
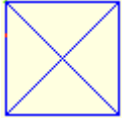
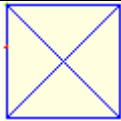
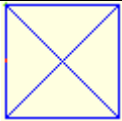
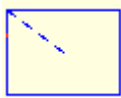
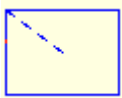
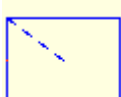
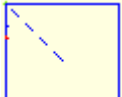
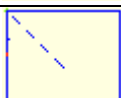
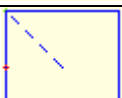


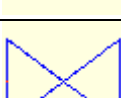






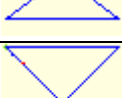
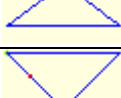
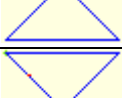


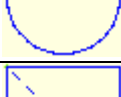


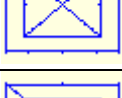
### 12.3 1906B 套结花样一览表


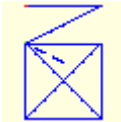


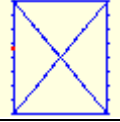
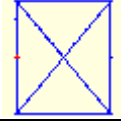
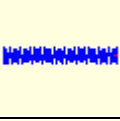
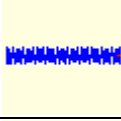
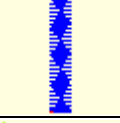
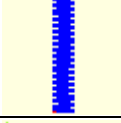
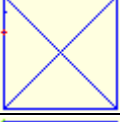
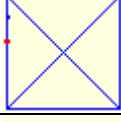
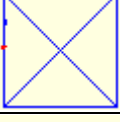
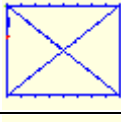
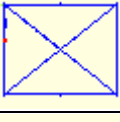
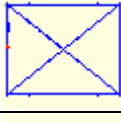
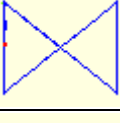
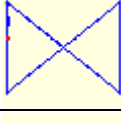


#### List of Patterns for Doubling in 1906B Controller

NO.	缝纫图案	针数	长×宽 (mm)	NO.	缝纫图案	针数	长×宽 (mm)
NO.	Patterns	Stitch Number	Length×Width (mm)	NO.	Patterns	Stitch Number	Length×Width (mm)
1		41	16.1×2	2		41	10.2×2
3		41	16×2.4	4		41	24×3
5		27	10.1×2	6		27	16×2.4
7		35	10.1×2	8		35	16×2.4
9		55	24×3	10		63	24×3
11		20	6.1×2.4	12		27	6.2×2.4
13		35	6.1×2.4	14		14	8×2
15		20	8×2	16		27	8×2
17		20	10×0	18		27	10×0
19		27	25.2×0	20		35	24.8×0
21		40	25.2×0	22		43	35×0
23		27	4×20	24		35	4×20



25		41	4x20	26		55	4x20
27		17	0x20	28		20	0x10
29		20	0x20	30		27	0x20
31		51	10.1x7	32		62	12.1x7
33		23	10.2x6	34		30	12x6
35		47	7x10	36		47	7x10
37		89	24x3	38		27	8x2
39		25	11.8x12	40		45	12x12
41		28	2.4x20	42		38	2.4x25
43		38	2.4x25	44		57	2.4x30
45		141	10x30	46		122	10x30
47		97	10x30	48		109	10.1x30
49		122	10.1x30	50		265	10x30
51		108	40x30	52		80	40x30

53		64	40×30	54		96	30×30
55		76	30×30	56		60	30×30
57		52	40×30	58		40	40×30
59		32	40×30	60		44	30×30
61		36	30×30	62		28	30×30
63		60	40×30	64		48	40×30
65		36	40×30	66		56	30×30
67		44	30×30	68		36	30×30
69		67	40×30	70		51	40×30
71		39	40×30	72		55	30×30
73		43	30×30	74		35	30×30
75		42	30×30	76		32	30.1×30
77		26	30×30	78		103	30×25
79		82	30×25	80		64	30×25

81		80	20×30	82		60	20×30
83		80	30×20	84		60	30×20
85		74	20×24	86		54	20×24
87		115	40×5	88		115	40×5
89		93	5×30	90		109	5×30
91		65	20×20	92		49	20×20
93		39	20×20	94		63	25×20
95		51	25×20	96		45	25×20
97		42	25×20	98		33	25×20
99		111	60×40	100		91	60×40

# 13. 1903B 高速电子平缝钉扣缝纫机的说明

## EXPLANATION OF THE 1903B, COMPUTER-CONTROLLED HIGH-SPEED LOCKSTITCH BUTTON SEWING MACHINE

### 13. 1规格Specifications

这里只记述1900B不同部位的说明.

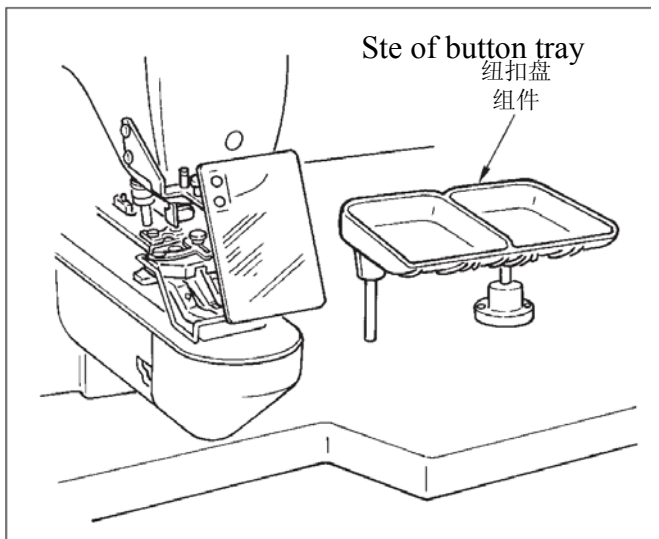
Different specifications from those of the 1900B only are described.

- (1) 转速 Sewing speed..... 最高 2,700rpm Max. 2,700rpm
- (2) 使用机针 Needle..... DP×17 # 14
- (3) 压脚提升方式 Lifting method of the work clamp foot..... 脉冲马达 Stepping motor
- (4) 压脚上升量 Lift of the work clamp foot ..... 最大 13mm Max. 13mm
- (5) 记忆数据数量 Number of standard patterns..... 50 种 50 patterns
- (6) 拨线方式 Wiper method..... 脉冲马达压脚提升运动 Interlocked with work clamp foot lifter driven by stepping motor

### 13. 2安装和运转准备Installation of the sewing machine and preparation of the operation



搬运缝纫机时，请一定2人以上To prevent possible accidents caused by the full of the sewing machine, perform the work by two persons or more when the machine is moved.



- 1) 机头、电器箱的安装与 1900B 相同，请参考 1900B使用说明。
- 2) 附属品安装在纽扣盘架上，请安装到容易作业的位置。
- 3) 操作方法与 1900B 相同。
- 1) Installation of the sewing machine head and the control box is the same as that of the 1900B. Refer to the instruction manual for the 1900B.
- 2) Install a set of the button tray base to a convenient place for the work as the set is included in the accessories.
- 3) The way of operation is the same as that of the 1900B

**注**：运转前请转动手轮确认机针是否与纽扣相碰。Make sure before operation that the needle does not strike

### 13.3 机针与机线 Needle and thread

机针 Needle	上线 Needle thread	底线 Bobbin thread
DP×17 # 14	# 60	# 80
	# 60	# 60
	# 50	# 60
	# 40	# 60

























机针和机线，因缝制条件不同而不同，使用时请参照左表选择，最好使用棉线、聚酯短纤维线。

Needle and thread will vary in accordance with thesewing conditions. When using the needle and the thread, select them referring to the left table.

Cotton thread and polyester spun thread are

### 13.4 标准花样 Table of the standard patterns

#### 13.4.1 钉扣机花样一览表 Table of the 1903B Standard Patterns

图案号 Pattern No.	缝制 图案 Stitch shape	缝线 (根) Number of threads (thread)	标准缝 制长度 X(mm) Standard sewing size X(mm)	标准缝 制长度 Y(mm) Standard sewing size Y(mm)	图案号 Pattern No.	缝制图 案 Stitch shape	缝线 (根) Number of threads (thread)	标准缝 制长度 X(mm) Standard sewing size X(mm)	标准缝 制长度 Y(mm) Standard sewing size Y(mm)		
1·34		6-6	3.4	3.4	18·44		6	3.4	0		
2·35		8-8			19·45		8				
3		10-10			20		10				
4		12-12			21		12				
5·36		6-6			22		16				
6·37		8-8			23·46		6			0	3.4
7		10-10			24		10				
8		12-12			25		12				
9·38		6-6	3.4	3.4	26·47		6-6	3.4	3.4		
10·39		8-8			27		10-10				
11		10-10			28·48		6-6				
12·40		6-6			29		10-10				

图案号 Pattern No.	缝制 图案 Stitch shape	缝线 (根) Number of threads (thread)	标准缝 制长度 X(mm) Standard sewing size X(mm)	标准缝 制长度 Y(mm) Standard sewing size Y(mm)	图案号 Pattern No.	缝制图 案 Stitch shape	缝线 (根) Number of threads (thread)	标准缝 制长度 X(mm) Standard sewing size X(mm)	标准缝 制长度 Y(mm) Standard sewing size Y(mm)
13・41		8-8			30・49		5-5-5	3.0	2.5
14		10-10			31		8-8-8		
15・42		6-6			32・50		5-5-5		
16・43		8-8			33		8-8-8		
17		10-10							

※标准缝制长度X、Y扩大所效率100%时，图案号No.34~No.50钮扣眼小时（ $\phi 1.5$  mm以下）使用。  
 ※The standard sewing sizes of X and Y are when the enlargement / reduction rate is 100%. Use the pattern No. 34 to No.50 when the button hole is small ( $\phi 1.5$  mm or less).

### 13. 4. 2关于缝制图案的选定和缝制宽度Selection of the sewing pattern and the sewing width

- (1) 缝制图案的选定方法与 1900B 相同。Selection of the sewing pattern is the same as that of the 1900B.
- (2) 缝制图案号的标准缝制宽度与使用钮扣的扣孔不合时，请利用扩大、缩小功能进行调整。扩大、缩小方法与 1900B 相同。  
 When the distance between holes of the button used does not fit the standard sewing width of the sewing pattern No., adjust the sewing width by enlarging、reducing the sewing width. The way of enlarging、reducing is the same as that of the 1900B. Refer to the table given below for the scale for enlargement、reduction in terms of the sewing width.
- (3) 变更了缝制图案号和缝制宽度之后，请一定确认落针位置。确认方法请参考 1900B 使用说明书图案形状的确。确认。  
 After changing the sewing pattern No. and the sewing width, make sure of the needle entry point. As for the way of confirmation, refer to the confirmation of the shape of sewing pattern in the instruction manual for the 1900B.

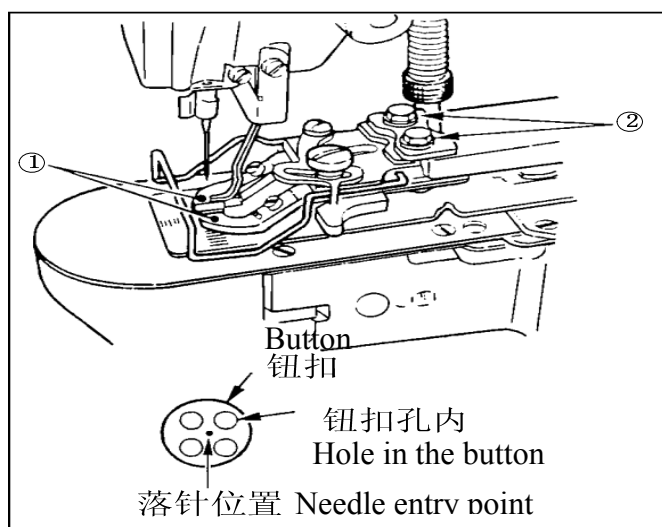
(4) 根据缝制宽度调整 X、Y 扩大、缩小率一览表 Table of XY scale in terms of the sewing width


X.Y(mm)	2.4	2.6	2.8	3.0	3.2	<b>3.4</b>	3.6	4.0	4.3	4.5	4.7	5.2	5.6	6.0	6.2	6.4
%	71	76	82	88	94	<b>100</b>	106	118	126	132	138	153	165	176	182	188

### 13. 5 钮扣爪脚的位置 Position of the button clamp jaw lever



**注意：**变更了钮扣形状、图案，或利用扩大缩小功能变更了缝纫宽度之后，请一定要确认落针位置。如果机针落到钮扣外，图案超出抓起位置，机针在缝制中会发生断针的危险。

When change of the shape of button, change of the sewing pattern or enlargement/reduction of the sewing width is performed, make sure the needle entry point. If the needle extends outside the button hole or the sewing pattern extends outside the button clamp unit, the needle interferes with the button hole or the button clamp unit, resulting in the danger of the needle breakage or the like.





- 1) 在编辑状态下，长按  键 3 秒可以进入设置模式等级 2 状态。
- 2) 把钮扣放入钮扣爪脚①。

- 3) 在按  键，进入右下图所示检测模式界面

- 4) 在检测模式界面按下  (I07XY 马达原点检测) 键进入输出检测界面 (如左下图所示)，按下  可使 X、Y 回到原点。转动手飞轮，确认机针中心是否在钮扣中心。确认原点位置。

- 5) 如果机针没有在钮扣中心时，请拧松钮扣爪脚安装台固定螺丝②，进行调整；或通过调节 X/Y 传感器进行调整。
- 6) 调节后，请确认图案形状。确认机针是否正好落到钮扣孔内。

- 1) Hold  for 3 seconds to have access to Mode Setting Level 2 Interface.
- 2) Place a button in button clamp jaw levers ①.


- 3) press  to have access to the Test Mode Interface

4) At Test Mode Interface, user can press

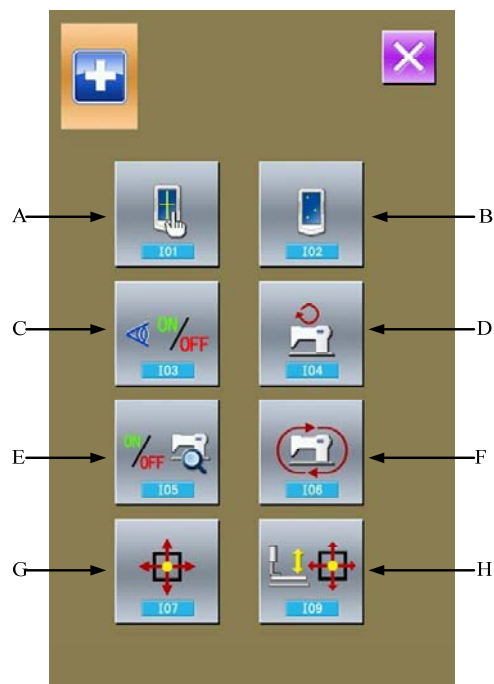
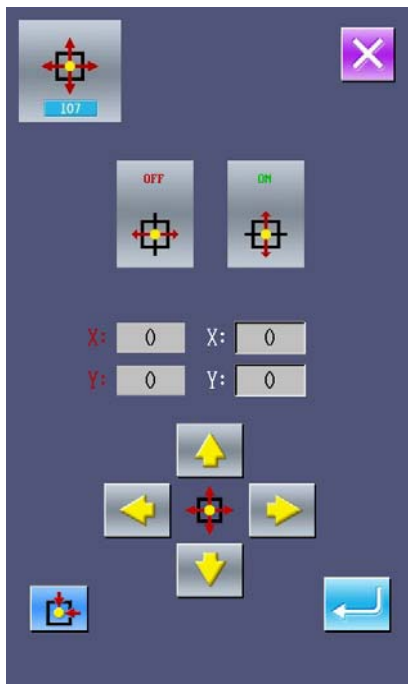


(I07XY Motor Origin Test) to

activate Output Test Interface (as shown in

Lower left picture) , Pressing  is to turn the coordinates of X/Y to the origin , Turn the hand pulley and check that the center of the needle enters the center of the button

- 5) If the center of the needle is not located in the center of the button, loosen screws ② in the button clamp jaw lever base to adjust so that the center of the needle enters the center of the button; or adjusting the X、 Y position of the sensitive film.
- 6) After the adjustment, perform the confirmation of the pattern shape and make sure that the needle surely has entered the button hole.
- 7) Origin Retrieval, refer to the “2.3.2”

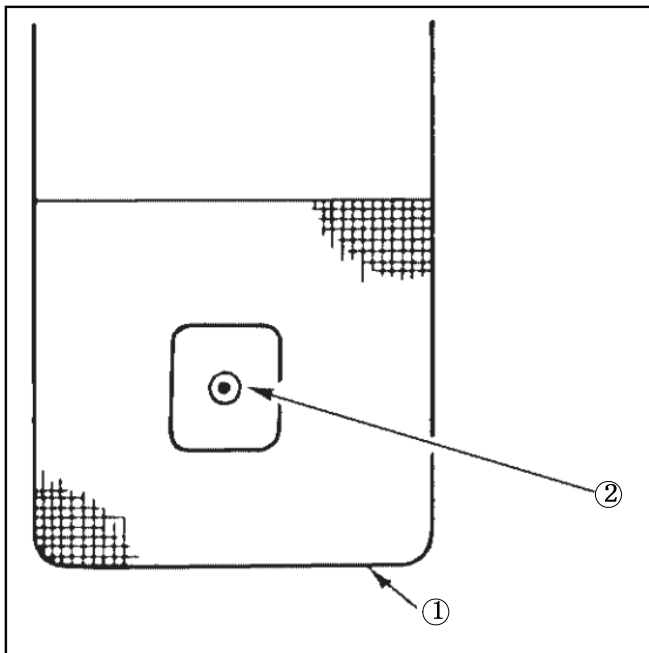





## 13. 6布压脚底板的调整 Adjusting the feed plate



**注意：**变更了钮扣形状、图案，或利用扩大缩小功能变更了缝纫宽度之后，请一定要确认落针位置。如果布压脚与针孔导板相碰，会发生断针的危险。另外，调整中如果踩了踏板，爪脚装置会上下移动，请注意危险。

When change of the shape of the button, change of the sewing pattern or enlargement/reduction of the sewing width is performed, make sure of the shape of the sewing pattern. If the feed plate interferes with the needle hole guide, it will result in the danger of the needle breakage or the like. Also, if the pedal is depressed during the adjustment, the button clamp unit will go up or come down. So, be careful.





1) 在编辑状态下，长按  键 3 秒可以进入设置模式等级 2 状态。



2) 在按  键，进入右下图所示检测模式界面

3) 在检测模式界面按下  (I07XY 马达原点检测) 键进入输出检测界面，按下  可使 X、Y 回到原点。

4) 调整布压脚底板①，使针孔导板②正好在布压脚底板①的 H 部的中心。

1) Hold  for 3 seconds to have access to Mode Setting Level 2 Interface.

2) press  to have access to the Test Mode Interface

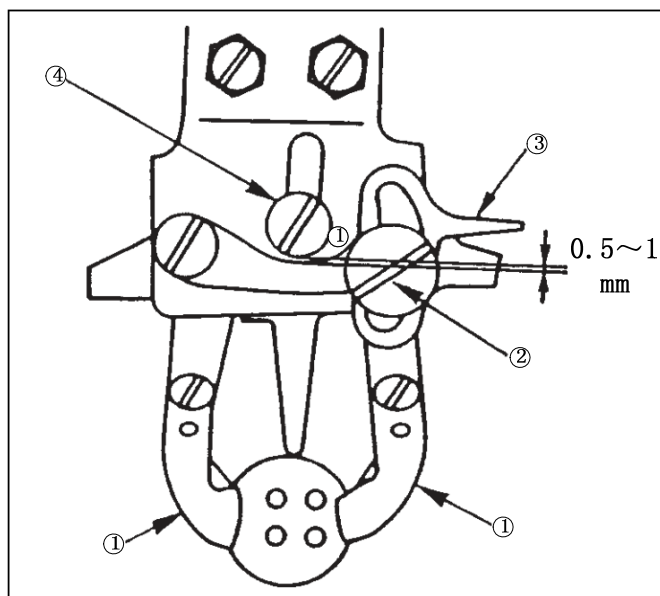
3) At Test Mode Interface, user can press  (I07XY Motor Origin Test) to activate Output Test Interface , Pressing  is to turn the coordinates of X/Y to the origin.

4) Adjust feed plate ① so that needle hole guide ② comes to the center of the recessed part of feed plate ①.

## 13.7 爪脚张开拨杆的调整 Adjusting the button clamp jaw lever

**注意：** 为了防止突然的启动造成人身事故，请关掉电源，确认马达完全停止后再进行操作。

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.



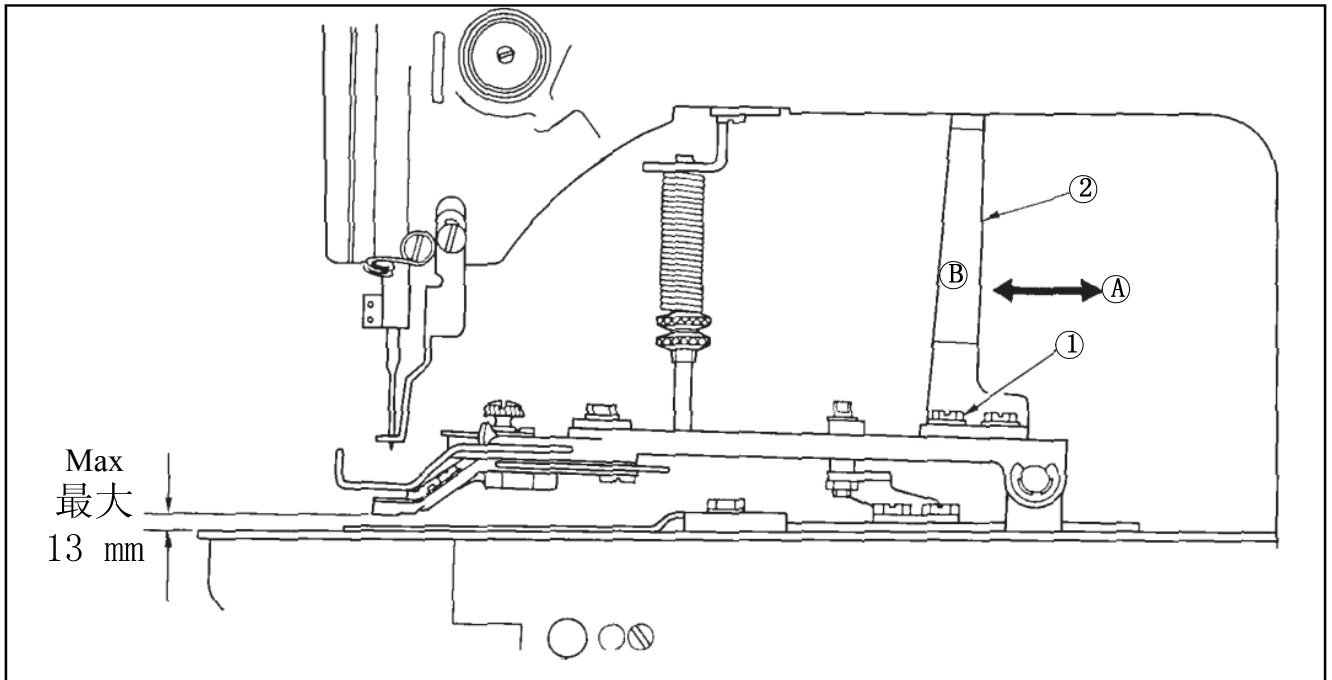
在让停止位置的爪脚①上升的状态，拧松打开爪脚拨杆固定螺丝②，让钮扣设定到爪脚②，把爪脚打开拨杆③和塔形螺丝④之间的间隙为0.5~1mm,然后拧紧打开爪脚拨杆固

Bring the machine to its stop-motion state. Then lift button clamp ①. Loosen screw ② in the button clamp jaw lever and adjust so that a clearance of 0.5 to 1mm is provided between button clamp jaw lever ③ and hinge screw ④ when placing a button in between button clamps ①. Then tighten screw ② in the button clamp jaw lever.

### 13. 8钮扣爪脚上升量的调整 Adjusting the lifting amount of the button clamp

**注意：** 为了防止突然的启动造成人身事故，请关掉电源，确认马达完全停止后再进行操作。

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.



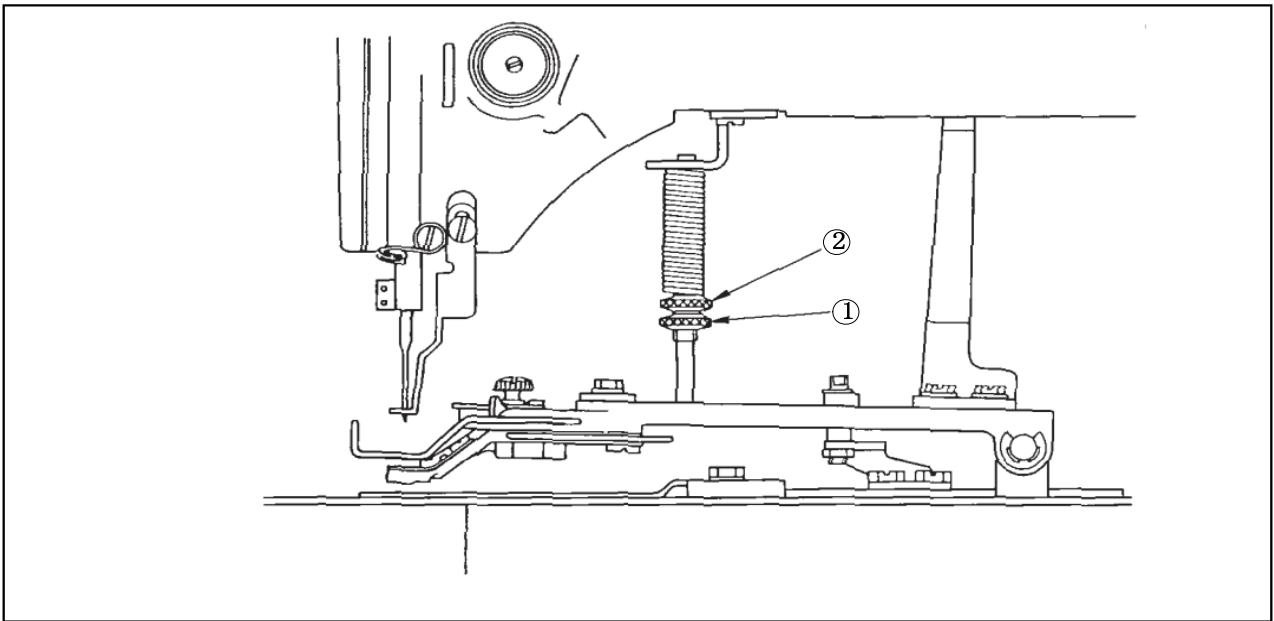
把压脚提升动作板②向④方向移动后，提升量变低，向③方向移动后，则变高。调整后把固定螺丝确实拧紧固定。请拧松2个固定螺丝①，前后调整压脚提升动作板②进行调整。

Loosen two setscrews ①, and move moving plate ② back and forth in the direction of arrow to adjust. The lifting amount of the button clamp will be decreased when moving plate ② is moved in the direction of ④, and be increased when it is moved in the direction of ③. After the adjustment, securely tighten setscrews ①.

### 13.9 压脚压力的调整 Adjustment of the wiper spring

**注意：** 为了防止突然的启动造成人身事故，请关掉电源，确认马达完全停止后再进行操作。

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.



拧

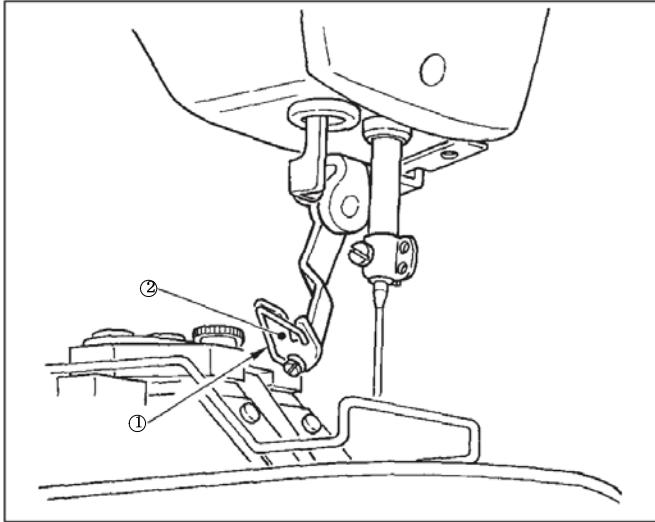
松调整螺丝①，转动调节螺丝②，使布料运转中尽量不要偏斜。

The pressure of the work clamp unit should be minimized as long as the material does not warp during sewing. Loosen adjusting screw ① and turn adjusting screw ② to obtain the aforementioned pressure.

### 13. 10挑线杆弹簧的调整Adjustment of the wiper spring

**注意：** 为了防止突然的启动造成人身事故，请关掉电源，确认马达完全停止后再进行操作。

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.



调整挑线杆弹簧①，使挑线杆弹簧①把切先后的上线保持到挑线杆②之间，这时的强度为20~30g(比从梭壳出来的底线稍强)

Wiper spring ① retains the needle thread after thread trimming in between wiper ② and the wiper spring. Correct properly the tension of wiper spring ① so that the tension at that time becomes 20 to 30g (a little higher tension than that of the bobbin thread coming out of the bobbin case).

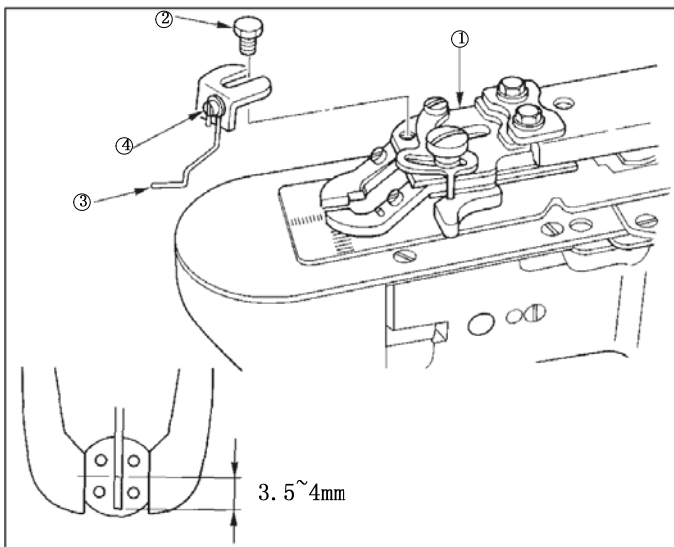
**注：** 保持过强的话，梭壳上的线就会脱落。

If the retaining of the needle thread is excessive, the thread may protrude from the upper side of the button.

### 13. 11钮扣挑起杆的安装（选购品）Installing the save button bar (accessory part)

**注意：** 为了防止突然的启动造成人身事故，请关掉电源，确认马达完全停止后再进行操作。

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.



- 1) 用六角螺丝②把钮扣挑起杆③安装到爪脚安装台①上。
- 2) 把挑起杆移动到钮扣中心位置，让钮扣中心到挑起杆前端的距离为3.5~4mm。
- 3) 请拧松螺丝④，上下移动挑起杆，调节挑线量。

- 1) Install save button bar ③ on button clamp base ① with hexagon screw ②.
- 2) Adjust so that a clearance of 3.5 to 4 mm is provided between the center of the button and the top end of the save button bar.
- 3) To adjust the raising amount of the save button bar, loosen screw ④, and move the save button bar up or down.



## 14 报警信息一览表List of Warning


故障号	故障名称	复位方法
E-001	脚踏板未在中央位置	确认进入准备缝制界面时踏板没有被踩下
E-002	机器进入急停状态	按复位键进入急停后移框  状态，或者按复位开关切线后，再次开始或返回原点。
E-003	机头翻倒错误	按确定键,在放倒机头的状态不能运转。请返回到正常的位置。技术人员可直接用短路块将 SC047A机头板上的2P蓝色插头短路。
E-004	主电压（300V）过低	关机
E-005	主电压（300V）过高	自恢复错误
E-007	IPM 过压或过流	关机
E-008	辅助设备电压（24V）过压异常	关机
E-009	辅助设备电压（24V）欠压异常	关闭电源,稍待一些时间后再次打开电源。同时也要确认X11接口所连接的各电磁铁未短路。
E-010	气阀（风扇）故障	关机
E-013	编码器故障或未连	关闭电源，确认X5接口的连线正确，没有出现虚接的问题。
E-014	电机运行异常	关机。查看电机编码器信号是否正常。
E-015	移动过程中超过缝制区域	按复位开关，确认图案和X、Y 放大率。触发条件：软件花样计算报错。





故障号	故障名称	复位方法
E-016	针杆上位置异常	按下确定键  , 主轴停车位置错误, 可能是主轴驱动的原因, 也可能是人为转动所致.转动手轮, 把针杆返回到上位置。
E-017	断线检测错误	按下确定键
E-018	剪刀位置异常	关闭电源开关,确认机头信号电路板上的CZ024是否松动脱落。若未松动, 检查剪线光藕。
E-019	急停开关未在正常位置	自恢复错误
E-020	步进软件版本错误	关机,确认所用步进板及步进程序是否正确。
E-021	机器进入急停状态 (Free)	按复位键
E-022	机器进入急停状态 (Ready)	按复位键
E-023	抓线位置异常	关机
E-024	操作头与缝纫机连接错误	关机
E-025	X 原点检测异常	关闭电源开关,确认机头信号电路板CZ021、控制箱X9是否松动、脱落。
E-026	Y 原点检测异常	关闭电源开关,确认机头信号电路板CZ022、控制箱X9是否松动、脱落。
E-027	压脚原点检测异常	关闭电源开关,确认机头信号电路板CZ025、控制箱X9是否松动、脱落。
E-028	抓线原点检测异常	关机
E-029	中压脚原点检测异常	关机
E-030	步进驱动器通讯异常	关闭电源,稍待一些时间后再次打开电源.检查电控箱内的通讯线缆及主板与驱动板是否有故障。
E-031	步进电机过流	关闭电源,稍待一些时间后再次打开电源。
E-032	步进驱动电源异常	关机
E-034	异常电流	关机.查看主轴电机驱动电路是否正常,编码器反馈信号是否正常,也可能
E-035	IPM 频繁过流1	关机.查看主轴电机驱动电路是否正常,编码器反馈信号是否正常,也可能是机械负载不正常所造成。


故障号	故障名称	复位方法
E-036	IPM 频繁过流2	关机。查看主轴电机驱动电路是否正常,编码器反馈信号是否正常,也可能是机械负载不正常所造成。
E-037	电机堵转1	按下确定键
E-038	电机堵转2	发送主轴运转命令后,主轴电机无反映。查看主轴电机驱动电路六路PWM波形是否正常,编码器反馈信号是否正常,也可能是机械卡死所造成。
E-039	电机超速	关闭电源,稍待一些时间后再次打开电源。
E-040	停车过流	关机
E-041	点击过载	关机
E-042	母线电压异常	按下确定键
E-043	剪线电机原点异常	按下确定键
E-044	机头板EEROM 读写错误	按下确定键 
E-045	器件异常	关机
E-046	CRC 校验错误	关机
E-047	数据校验错误	关机
E-048	X 校验错误	电控箱的主控板与步进板通信有误
E-049	Y 校验错误	电控箱的主控板与步进板通信有误
E-050	MD1 步进过流	关机,检查步进驱动板和步进电机是否正常。
E-051	MD1 X 方向未走完	关机,步进未执行完当前指令,但主控却再次发送了动作指令。
E-052	MD1 Y 方向未走完	关机,步进未执行完当前指令,但主控却再次发送了动作指令。
E-053	MD2 步进过流	关机,检查步进驱动板和步进电机是否正常。
E-054	MD2 X 方向未走完	关机,步进未执行完当前指令,但主控却再次发送了动作指令。
E-055	MD2 Y 方向未走完	关机,步进未执行完当前指令,但主控却再次发送了动作指令。
E-254	未定义错误	按下确定键 



Code	Name	Release Method
E-001	Pedal is not at the middle position.	Check whether pedal is stepped at entering the Ready Sewing Interface
E-002	Machine is in emergency stop	Press  to enter the Status of frame-moving at stop or press Reset Switch to trim thread and restart or return to origin.
E-003	Tilt of Machine Head Error	Press Enter. Machine can not run at status of head tilt. Please return to the normal position. The technician can use the short connect block to short the 2P blue plug on SC047A board.
E-004	Main voltage is too low (300V)	Turn off Machine
E-005	Main voltage is too high (300V)	Self-recovery
E-007	IPM over-voltage or over current	Turn off Machine
E-008	Voltage of assistant device (24V) is too high	Turn off Machine
E-009	Voltage of assistant device (24V) is too low	Turn off power. Please re-power the machine after a while. Meanwhile, user also has to ensure no short circuit at solenoids connecting X11 port.
E-010	Valve (fan) problem	Turn off Machine
E-012	Presser Position Abnormal	Please turn off the power and check the system hardware.
E-013	Encoder error or unconnected	Turn off power and check the connection at X5 port.
E-014	Motor running abnormal	Turn off Machine. Check the signal from motor encoder
E-015	Exceeds sewing area	Press Reset switch, and confirm the figure and X/Y scale rate. Activating Condition: Software Pattern Error
E-016	Needle bar upper position abnormal	Press  The wrong stop position of main motor may be caused by the main shaft driver or the manual rotation. Turn the wheel to return the needle bar to the upper position.

E-017	Thread breakage detection error	Press 
E-018	Knife position abnormal	Turn off power. Check the connecting condition of CZ024 on head signal board. If that is ok, please check trimming coupler.
E-019	Emergency switch is not at the right position	Self-recovery
E-020	Stepping software version error	Turn off machine. Make sure the used stepping board and the board program are correct
E-021	Machine is in emergency stop (Free)	Press Reset
E-022	Machine is in emergency stop (Ready)	Press Reset
E-023	Thread-catching position error	Turn off Machine
E-024	Wrong connection between operation panel and sewing machine	Turn off Machine
E-025	X origin detection abnormal	Turn off power. Check the connecting condition of X9 port (on control box) and CZ021 port (on head signal board).
E-026	Y origin detection abnormal	Turn off power. Check the connecting condition of X9 port (on control box) and CZ022 port (on head signal board).
E-027	Presser origin detection abnormal	Turn off power. Check the connecting condition of X9 port (on control box) and CZ025 port (on head signal board).
E-028	Thread-catching origin detection abnormal	Turn off Machine
E-029	Intermediate presser origin detection abnormal	Turn off Machine
E-030	Stepping driver communication abnormal	Turn off power. Re-power the machine after a while. Check the condition of communication cable, mother board and driving board.
E-031	Stepping motor over-current	Turn off power. Re-power the machine after a while.
E-032	Stepping driver power supply abnormal	Turn off Machine

E-034	Abnormal current	Turn off machine. Check the condition of the main motor driving circuit, encoder response signal and mechanical load in order
E-035	IPM frequent over-current 1	Turn off machine. Check the condition of the main motor driving circuit, encoder response signal and mechanical load in order
E-036	IPM frequent over-current 2	Turn off machine. Check the condition of the main motor driving circuit, encoder response signal and mechanical load in order
E-037	Motor blockage 1	Press 
E-038	Motor blockage 2	After the action order is sent to main motor, main motor has to response. Check the 6-line PWM wave of main motor driving circuit and response signal of encoder. At last, make sure the mechanism has no blockage.
E-039	Motor over speed	Turn off power and turn it on after a while
E-040	Stop over-current	Turn off Machine
E-041	Motor overload	Turn off Machine
E-042	Bus voltage abnormal	Press 
E-043	Thread-trimming motor origin abnormal	Press 
E-044	Head board EEPROM loading error	Press 
E-045	Component abnormal	Turn off Machine
E-046	CRC checking error	Turn off Machine
E-047	Data checking error	Turn off Machine
E-048	X checking error	Communication error between main control board and stepping board
E-049	Y checking error	Communication error between main control board and stepping board
E-050	MD1 stepping motor over-current	Turn off machine and check the stepping driving board and stepping motor

E-051	MD1 X direction not finish	Turn off machine. The main controller sends the new action order before the stepping device finish the current order.
E-052	MD1 Y direction not finish	Turn off machine. The main controller sends the new action order before the stepping device finish the current order.
E-053	MD2 stepping motor over-current	Turn off machine and check the stepping driving board and stepping motor
E-054	MD2 X direction not finish	Turn off machine. The main controller sends the new action order before the stepping device finish the current order.
E-055	MD2 Y direction not finish	Turn off machine. The main controller sends the new action order before the stepping device finish the current order.
E-254	Undefined error	Press 

## 15 信息提示一览表 Hint List

信息号	信息名称	子信息内容
M-001	花样数据不存在	请重新读取或打版输入
M-002	设置值太大	请输入范围内数值
M-003	设置值太小	请输入范围内数值
M-004	存储参数异常	请按下确定键恢复出厂设置
M-005	通讯错误	操作头与控制箱通讯异常
M-006	字母绣字库文件读取失败	
M-007	操作头与控制箱类型不符	请核对机型和软件版本
M-008	超出最大针距	
M-009	密码错误	请重新输入
M-010	硬件时钟故障	发现硬件时钟故障，请联系厂家维修
M-011	字母绣花样保存成功	请进入花样选择界面下选择新生成的字母绣花样
M-012	SRAM 初始化	清除掉SRAM 中全部数据，请关电并将拨码开关位置还原
M-013	关机，再见	
M-014	USB 盘已拔出	USB 盘已经拔出
M-015	U 盘中没有发现花样数据	
M-016	至少输入一个字母	设置了分期密码，不能修改系统时间
M-017	无报警记录	
M-018	输入用户ID 有误	请重新输入
M-019	确认密码失败	请重新输入密码
M-020	禁止修改系统时间	设置了分期密码，不能修改系统时间
M-021	密码文件写入失败	
M-022	密码文件读取失败	
M-023	密码保存成功	
M-024	清除全部密码失败	密码文件无法被删除
M-025	清除密码失败	清除密码后，文件写入异常
M-026	密码文件被恶意删除	用户设置的分期密码被恶意删除，请关机
M-027	用户ID 文件损坏	

信息号	信息名称	子信息内容
M-028	输入不能为空	请输入密码
M-029	当前密码不符	请重新输入当前密码
M-030	新密码不一致	请重新输入新密码并再次确认
M-031	确定进入触摸屏校正模式	其否确定？是：enter 否：X
M-032	触摸屏校正成功	校正成功，请关闭电源后重启
M-033	触摸屏校正失败	请重新校正
M-034	确定清除报警记录	其否确定？是：enter 否：X
M-035	分期密码不能和总密码相同	请重新输入密码
M-036	花样数据错误	当前花样数据错误，将由出厂花样替换！
M-037	花样信息文件打开失败	恢复出厂花样配置！
M-038	花样个数已满	请删除不用的花样后再执行操作！
M-039	是否覆盖花样	其否确定？是：enter 否：X
M-040	P 花样打开失败	花样文件错误，将会被删除
M-041	C 花样打开失败	花样文件错误，将会被删除
M-042	花样已存在	不能执行覆盖操作
M-043	是否删除花样数据	按下确定键执行删除操作，按下取消键退出当前操作。
M-044	是否删除选中的文件	其否确定？是：enter 否：X
M-045	花样被引用，不能删除！	请在P 花样或C 花样中解除引用
M-046	请至少保留一个花样！	最后一个花样不能被删除
M-047	加载出厂花样	内存中没有花样，需要加载出厂花样
M-048	内存中没有花样	按确定键加载出厂花样
M-049	输入号码不存在	请重新输入
M-050	P 花样不存在	请先创建P 花样
M-051	保存软件版本成功	软件版本已经成功保存到U盘
M-052	更换机针	更换机针设定值已到达，请更换机针
M-053	更换机油	更换机油时间设定值已到达，请更换机油
M-054	清扫机器	清扫机器时间设定值已到达，请清扫机器

信息号	信息名称	子信息内容
M-055	确定清除更换机针计数值	其否确定？是：enter 否：X
M-056	确定清除更换机油计数值	其否确定？是：enter 否：X
M-057	确定清除清扫时间计数值	其否确定？是：enter 否：X
M-058	确定清除生产管理计数值	其否确定？是：enter 否：X
M-059	确定清除累积运转时间？	其否确定？是：enter 否：X
M-060	确定清除累积缝纫件数？	其否确定？是：enter 否：X
M-061	确定清除累积上电时间？	其否确定？是：enter 否：X
M-062	确定清除累积缝纫针数？	其否确定？是：enter 否：X
M-063	确定清除累积过流次数？	其否确定？是：enter 否：X
M-064	确定清除累积停车错误次数？	其否确定？是：enter 否：X
M-065	是否编辑新花样？	其否确定？是：enter 否：X
M-066	是否返回缝制模式？	其否确定？是：enter 否：X
M-067	是否还原所有设定	其否确定？是：enter 否：X
M-068	是否还原选择项目	其否确定？是：enter 否：X
M-069	未选择项目	请选择一个或几个参数项
M-070	缝制计数器达到设定值	请按下确定键清除
M-071	计件计数器达到设定值	请按下确定键清除
M-072	成功	已成功执行当前操作
M-073	失败	当前操作执行失败
M-074	拷贝文件失败	请检查磁盘空间是否已满
M-075	拷贝文件失败	请检查是否拔出了USB 盘
M-076	文件读写错误	文件读写错误
M-077	升级主控程序时校验失败	
M-078	花样数据不能删除	被选中的缝制数据正在使用
M-079	是否执行参数传输操作	其否确定？是：enter 否：X
M-080	转换花样无法打开	请确认花样文件
M-081	转换花样格式错误	请确认花样文件
M-082	转换花样数据超长	请确认花样文件

信息号	信息名称	子信息内容
M-083	升级成功	升级成功，请重新启动机器
M-084	打开文件失败	U 盘中打开文件失败
M-085	恢复参数成功	恢复参数成功，请重新启动机器
M-086	没有选中升级条目	请选中要升级的条目，至少要选中一个条目
M-087	选中的升级条目中有些不存在	不存在升级文件的条目返回后将会取消选中，如果要升级剩下的条目，请再次确认
M-088	是否格式化U 盘	按下确定键执行格式化操作，按下取消键退出当前操作。格式化后会删除全部U 盘文件！
M-089	是否格式化内存	按下确定键执行格式化操作，按取消键退出当前操作。格式化后删除全部内存花样数据！
M-090	内存空间不足	
M-091	不能选择该功能	
M-092	制定的形状点重复	
M-093	不能执行回退操作	
M-094	没有下一针缝制数据	
M-095	没有上一针缝制数据	
M-096	花样数据太大	
M-097	运算异常	
M-098	打版通用错误	
M-099	花样不存在	
M-100	超过移动范围	
M-101	超出缝制范围	请确保花样数据在缝制范围以内
M-102	针数超出范围	请减少花样针数
M-103	花样文件数据错误	
M-104	确认点改变	
M-105	确认自动插入剪线	
M-106	删除新编辑花样	确定键确认，退出键取消
M-107	删除要素	确定键确认，退出键取消
M-108	执行，确认吗？	确定键确认，退出键取消
M-109	删除机械控制命令？	确定键确认，退出键取消
M-110	删除落针点	确定键确认，退出键取消
M-111	移动压脚，确认吗？	确定键确认，退出键取消
M-112	删除形状点	确定键确认，退出键取消



信息号	信息名称	子信息内容
M-113	警告：格式化将删除磁盘上的所有数据！	确定键确认，退出键取消
M-114	是否更换机型	确定键确认，退出键取消
M-115	花样被锁定	请解锁后再使用
M-116	禁止修改基础花样	
M-117	请关机	当前操作结束，请重新启动机器
M-118	禁止修改计数器	当修改时，请关闭设定
M-119	加载基础花样	请按下确认键加载基础花样，不要关机！
M-120	是否恢复出厂设置	确定键执行操作，取消键退出操作
M-121	是否清楚全部自定参数	是否确定？是：enter 否：X
M-122	机头板参数异常	按下确定键恢复出厂值
M-123	花样计算错误	
M-124	是否删除全部P 花样和C 花样	按下确定键执行格式化操作，按下取消键退出当前操作。
M-125	确定恢复机头板参数？	是否确定？是：enter 否：X
M-126	超出设定值范围	
M-127	自编花样不存在	当前操作仅支持自编花样，基础花样不能导出！
M-128	外压脚在上	当前操作需要落下外压脚后执行！
M-129	不能进行正确操作	
M-130	USB 盘不存在	请插入包含mp3 文件的USB盘
M-131	没有视频文件vid.avi	请将vid.avi 文件存放到盘的pdat 目录，并进入到升级界面升级视频文件

<b>No.</b>	<b>Name</b>	<b>Content</b>
M-001	Can not find pattern data	Please reload or input from design software
M-002	Set value too large	Please input value within range
M-003	Set value too small	Please input value within range
M-004	Parameter save error	Press Enter to recover default setting
M-005	Communication error	Communication error between operation
M-006	Fail to load letter sewing file	
M-007	Operation head not match to control box	Please check the model and the software
M-008	Over Max stitch pitch	
M-009	Wrong password	Input again
M-010	Clock error	The hardware clock is down, please contact manufacturer for repair
M-011	Letter sewing pattern saved successfully	Enter the pattern selection interface and
M-012	SRAM initialization	Clear all the data within SRAM, please turn off machine and restore the DIP
M-013	Turning off	
M-014	USB is pulled out	USB is pulled out
M-015	Can not find pattern in U disk	
M-016	At least input one letter	Periodical password has been set, can not
M-017	No warning record	
M-018	Wrong user ID	Input again
M-019	Fail to confirm password	Input password again
M-020	Can not change system time	Periodical password has been set, can not
M-021	Password file input error	
M-022	Password file load error	
M-023	Password save successful	
M-024	Clear all password failed	Can not delete password file
M-025	Fail to clear password	After clearance of password, the input of file has problem
M-026	Password file is deleted without authorization	Password file is deleted without authorization, please turn off machine
M-027	User ID file damaged	
M-028	Can not input blank	Input password again
M-029	Current password not match	Input current password again

<b>No.</b>	<b>Name</b>	<b>Content</b>
M-030	New password not match	Input new password again
M-037	Pattern information file open failed	Restore to default pattern configuration
M-038	Memory full	Please delete the unused patterns
M-039	Cover the pattern	Are You Sure? Yes: enter No: X
M-040	P pattern open error	Pattern file has mistake, it will be deleted
M-041	C pattern open error	Pattern file has mistake, it will be deleted
M-042	Pattern is existed	Can not replace the pattern
M-043	Delete pattern data	Press Enter to delete; Press ESC to quit
M-044	Delete the selected pattern	Are You Sure? Yes: enter No: X
M-045	Pattern is used, can not delete	Please release the quotation at P or C pattern
M-046	Save at lease one pattern	Can not delete last pattern
M-047	Load default patterns	No pattern in memory, please load default patterns
M-048	No pattern in memory	Press Enter to load default patterns
M-116	Can not modify basic pattern	
M-117	Turn off machine.	Current operation is finished, please restart machine
M-118	Can not modify counter	At modification, please turn off setting
M-119	Load basic pattern	Press ENTER to load basic pattern, don't turn off machine!
M-120	Restore to default setting?	Press Enter to confirm; Press ESC to quit
M-121	Clear entire custom parameters?	Are You Sure? Yes: enter No: X
M-122	Head board parameter error	Press ENTER to restore to default values
M-127	Can not find customized pattern	This operation is only available for customized pattern. The basic pattern can not be outputted!
M-128	Outer presser is at upper position	Please lower the presser to perform the operation!
M-129	Can not perform right operation	
M-130	Can not find USB	Pleas insert U disk containing mp3 file

<b>No.</b>	<b>Name</b>	<b>Content</b>
M-131	No video files in vid.avi	Please put vid.avi file into pdat directory in U disk and then enter the update interface to update video files