

电控使用说明书

Operation  
Instructions

9820

圆头锁眼机

Eyelet Buttonhole Sewing Machine Controller

## 圆头锁眼机（触摸屏 E）

# Eyelet Buttonhole Sewing Machine Controller (Touch Panel E)

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## 1 基本操作

### ① 打开电源开关

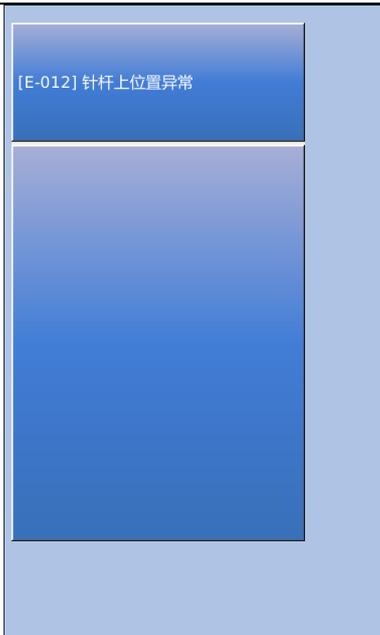
打开电源开关后，操作屏幕的花样数据显示区域依次显示：

欢迎使用SC511系列锁眼机→SC511-00  
(01或02)→创建数据→请按启动开关  
(显示图A)

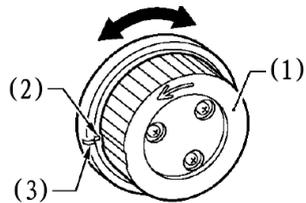
注：当打开电源之后，操作面板显示图(B)  
“E-012”时，请按图(C)所示方向转动手  
轮(1)，使手轮上的钢印(2)和缺口(3)  
一致。



(A)



(B)

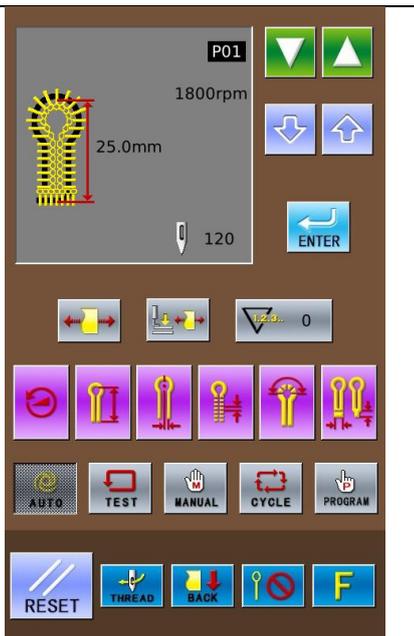


(C)

## ② 按下启动开关

踩下右侧脚踏板开关后，送布台移动到放置布料的位置。操作面板上显示前一次操作时的模式（自动模式、试送布模式、手动模式、循环程序模式、程序模式中的任何一个）的待机状态。

注：移动到各种模式后，在开始下一个动作前的状态称为“待机状态”。



## 2 花样程序的设定方法

### 2.1 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【表 1：按键说明表】。

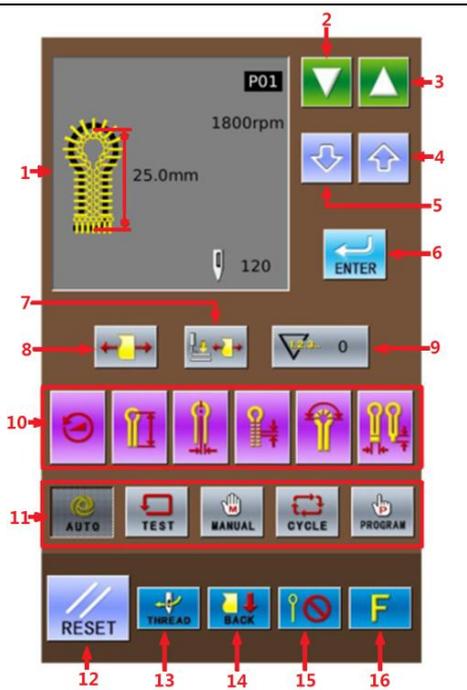


表 1: 按键说明表:

序号	图标	功能	备注
1		缝制形状显示	显示花样号, 花样形状, 花样长度, 花样针数, 缝制速度等信息
2		减小花样号码及参数号码	
3		增加花样号码及参数号码	
4		增大参数内容及数值键	
5		减小参数内容及数值键	
6		ENTER (确认) 键	确认参数及花样数据的内容
7		落压脚前绷布键: 落压脚后绷布键:	默认为落压脚后绷布, 如果设置成落压脚前绷布, 缝制完一个花样后自动恢复。
8		绷布开启键: 绷布禁止键:	默认为绷布开启, 如果设置成绷布禁止, 缝制完一个花样后自动恢复。
9		计数器数值显示	
10		快捷方式键	可快捷修改 6 个与花样相关的参数
11		缝制模式键	可切换至自动、手动、试送布、循环、程序 5 个缝制模式
12		RESET (复位) 键	清除错误信息显示
13		THREAD (穿线) 键	进入穿线模式
14		FRONT (前进) 键: BACK (后退) 键:	将布料放置从“前面”或是“后面”的位置进行交换
15		先切刀键: 后切刀键: 无切刀键:	设定切刀动作

## 2.2 花样程序的设定

建议在使用预先设定好经常要使用的花样数据参数，在以后的使用中只要选择花样号码就能调出已经设定好的花样，这样可以节省每次因重新设定花样参数所需花费的时间。

花样程序号可以登录 20 个，并随时可变更各项的数据参数。

出厂时，花样程序号 P01~P20 均保存着默认的花样程序内容。（程序号 P01~P20 全部是同样的内容。）



1) 按下试送布模式按键

2) 选择要更改内容的花样程序号 P01~P20 (1)。



3) 每按一次 键，花样号 (1) 就会按 P01 → P02 → … → P20 → C1 → C2 … → C9 的顺序切换（按



键则为相反方向切换。）

4) 按下程序模式键



在花样数据显示区域显示出前次选择的花样参数号 (2) 和其具体参数信息 (3)



5) 按 键选择想要变更的参数号 (2)

(具体参

6) 按 改变参数 (3) 的内容。

参数信息 (3) 闪烁表示其内容尚未确定。



7) 按 键确定已更改的内容。

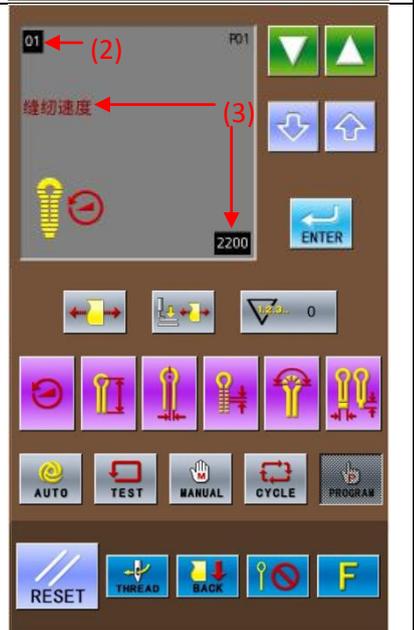
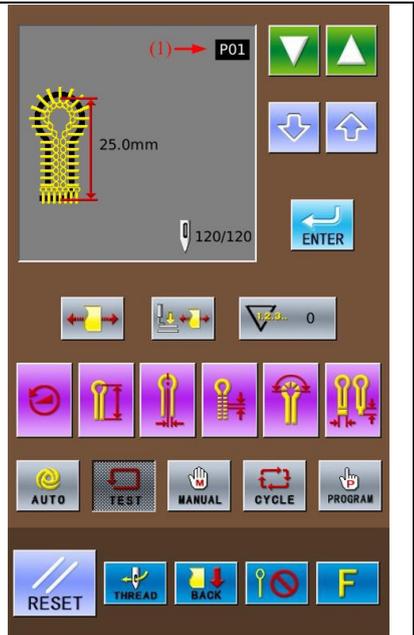
参数信息 (3) 从闪烁变为不闪表示其内容已被

确定。如果在闪烁时不按 键,而是按



键中的任何一种键，更改的参数 (3) 会被废除，恢复为更改前的数值。

8) 重复上述 4~6 步骤顺序,更改其他的参数。

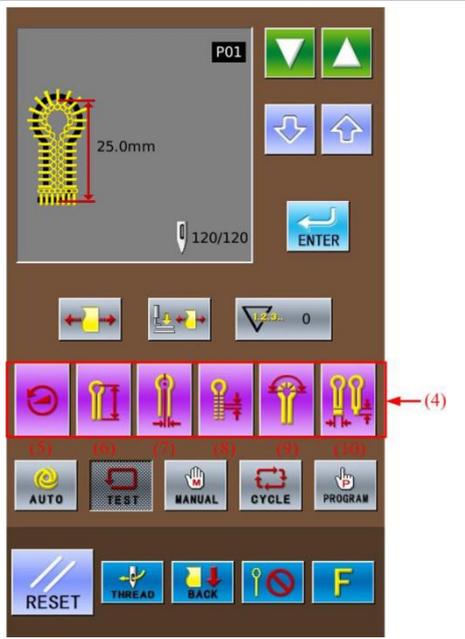


## 2.3 关于快捷方式键

在快捷方式键（4）中，登录了经常使用的以下6个参数。

- (5) 缝纫速度（参数号 No.01）
- (6) 钮孔锁缝长度（参数号 No.02）
- (7) 切刀间隔（参数号 No.03）
- (8) 针迹节距（参数号 No.04）
- (9) 圆头部针数（参数号 No.05）
- (10) 加固缝长度（参数号 No.06、No.08、No.10）

注：在参数号 No.40 中设定不同的加固缝样式，对应于不同的加固缝长度参数（10）。



## 3 缝制操作说明

### 3.1 自动模式

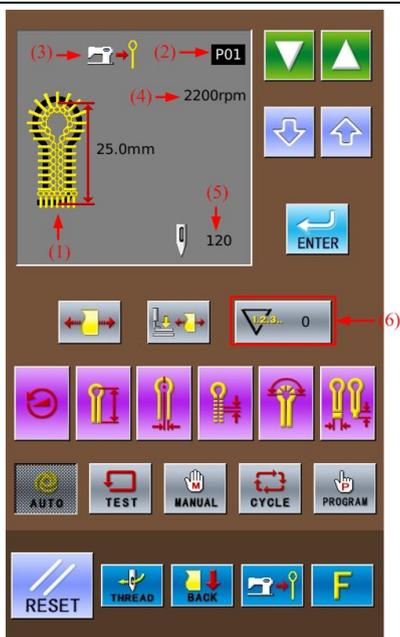
- 初次进行自动缝纫时，请务必进行试缝。
- 在气温较低的环境下使用 SC511 时，请进行多次试缝操作，以便使电机加温。

#### ① 按下自动模式键



按下自动模式键 **AUTO** 后，在花样数据显示区域显示缝纫针迹的形状及长度

- (1) 花样形状
- (2) 花样号码
- (3) 切刀动作 **方式**
- (4) 缝制转速
- (5) 当前花样总针数，
- (6) 生产计数器



- ② 按   键选择想要的花样程序号 (2)。每按一次  键, 花样程序号 (2) 就会按 P01→P02→…P20→C1→C2…C9 的顺序切换 (按  键则为相反方向切换。)
- ③ 选择希望的切刀动作 (无切刀/先切刀/后切刀)。
- ④ 在压脚下放入要缝制的布料后, 踩下压脚踏板开关 (7)。
- ⑤ 按启动踏板开关 (8), 缝纫开始。



如果要反复缝制时, 请重复操作上述的第④~⑤的步骤

### 3.2 手动模式

#### 注意



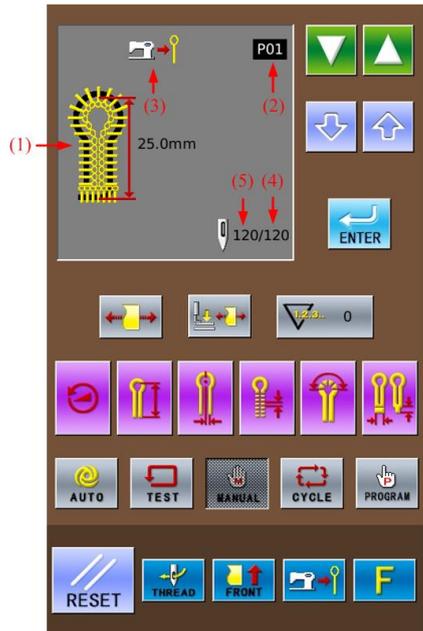
在手动缝纫中因切锤有动作, 请不要将手放在切锤旁边。有可能导致重伤。

在手动模式下, 用手转动手轮, 送布台能一针一针的移动。这对进行分纱器的同步调整时会比较方便。

- ① 按成手动模式  
在缝制数据显示区域显示缝制针迹的形状 (1), 花样程序号码 (2), 切刀动作 (3), 总针数 (4), 剩余针数 (5) 等。

- ② 按   键选择希望的花样程序号 (2)

每按一次  键, 花样程序号 (2) 就会按 P01→P02→…P20→C1→C2…C9 的顺序切换 (按  键则为相反方向切换。)

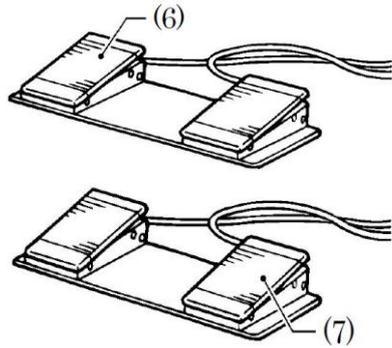


③ 在压脚的下面放入缝制布料，按下压脚开关（6），放下压脚

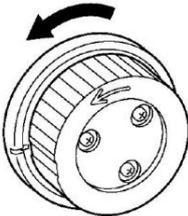
④ 按启动开关（7），将送布台移动到缝纫开始的位置。

注意：

将切刀动作设定为“先切刀”时，因切锤的移动请一定要注意安全。



⑤ 上轴手轮向左回转

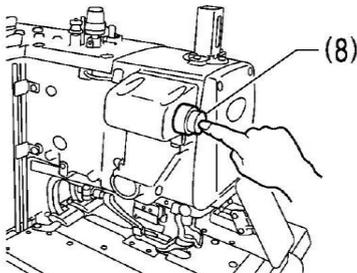


上轴手轮每转一圈，送布台会移动到下一针的缝纫位置，上轴手轮每回转半圈（针杆上下1次），缝制数据显示区域显示的剩余针数（5）就会减少1针。

注意：

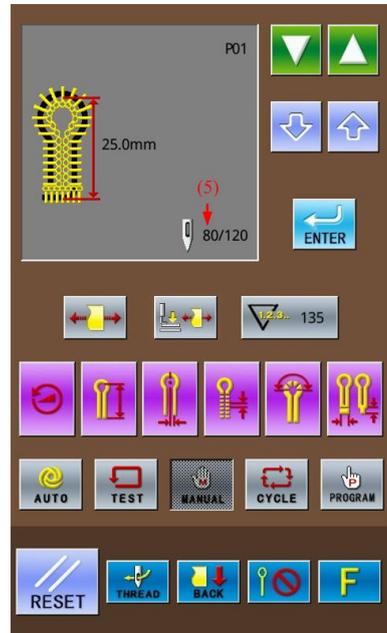
如上轴手轮逆方向转动的话，送布台将不会移动形成针迹的形状，请不要将手轮逆向转动。

⑥ 如想中止手动缝纫，送布台回到布料放置位置时按急停开关（8）

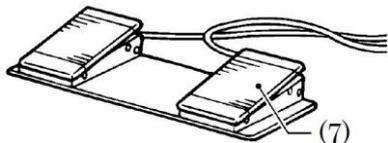


操作面板显示“缝纫中暂停开关被按下”，

按  键解除报警返回缝制画面，然后再按  键。



- ⑦ 在到达最后一针时  
针杆在针的上位置停止状态，按启动开关 (7)。



(一直按着，直到送布台回到布料放置位置为止。)

在进行切线动作，送布台回到布料放置位置之后，操作面板提示“手动操作结束”。

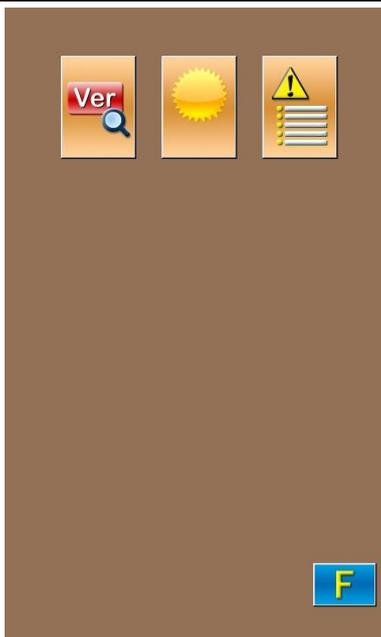
注意：  
将切刀动作设定为“后切刀”时，因切锤的动作，请一定要注意安全。



#### 4 参数设置模式界面

在缝制数据输入界面，按下  键可以切换数据输入界面和参数设置模式界面（如右图所示），在参数模式界面下可以进行一些详细的设置和编辑操作。

在缝制数据输入界面长按  键 3 秒可以进入设置模式等级 2 状态。



设置模式等级 1



设置模式等级 2

4.1 功能说明  
设置模式等级 2:

序号	图标	功能
1		软件版本查询
2		亮度调节
3		故障信息记录
4		通信模式
5		U 级参数
6		恢复出厂设置
7		参数备份还原

## 4.2 参数设置

### ① 进入参数设置



在设置模式等级 2 下，按  键进入 U 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：

输入型参数设置

选择型参数设置

## 4.3 通信功能模式

### 4.3.1 操作面板升级

#### ① 进入通信功能界面

插入U盘，在设置模式等级2下，按下  键进入通信功能模式（如右图所示）。



: 软件升级



: 批量选择升级开机画面



#### ② 进入软件升级界面

按下  键进入软件升级界面（如右图），在该界面下可以进入软件升级。

升级软件需要放在U盘「update」目录下，

点击需要升级的内容，然后按下  键即可。



### ③ 升级成功

升级成功后会显示提示信息，关机再上电即可。



### 4.3.2 参数导入导出

#### ① 显示通信界面



在设置模式等级2下，按下  键进入通信功能模式（如右图所示）。

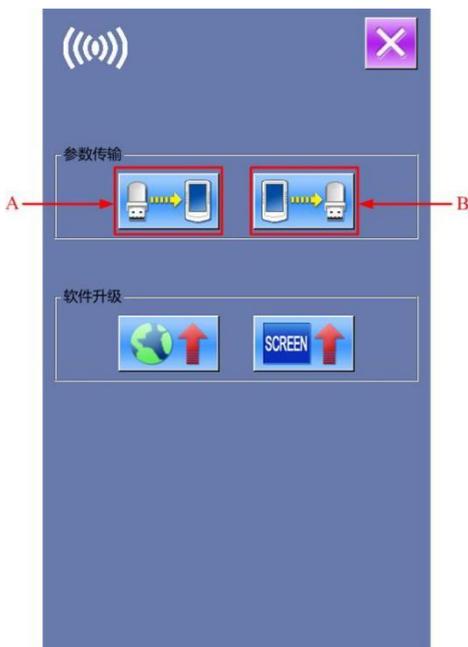
A: 从U盘中向操作面板导入参数

B: 把操作面板保存的参数导出到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：YS\_Param

※ 从操作面板导出参数时，导出的参数文件保存在U盘的DH\_PARA中，参数文件名命名为：YS\_Param

※ 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。



② 按A指示键，完成从U盘向操作面板导入参数

A、按回车键完成从 U 盘向操作面板导入参数并退出

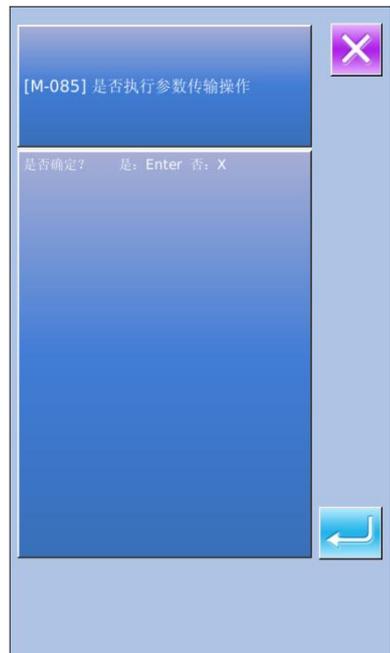
B、按退出键取消并退出



③ 按B指示键，完成操作面板的参数导出到U盘

A、按回车键完成从操作面板向 U 盘导出参数并退出

B、按退出键取消并退出



## 5 恢复出厂设置



① 在设置模式等级 2 下，按  键进入恢复出厂设置界面，如右图所示：

可以选择：

- (1) LEVEL1：花样和循环程序（包括 S 级花样参数及 C 花样循环程序）
- (2) LEVEL2：存储开关（包括 U 级参数）
- (3) LEVEL3：全部内部数据
- (4) LEVEL4：格式化 U 盘

具体初始化内容见下表：



1

2

3

4



初始化的级别及初始化的内容

	LEVEL1	LEVEL2	LEVEL3
程序内容	初始值	—	初始值
循环程序	清除	—	清除
存储开关	—	初始值	初始值
程序号	1	—	1
参数号码	1	—	1
生产计数器	—	—	0
模式	程序	—	程序
布料放置位置	里面放置	—	里面放置
切刀动作	OFF	—	OFF

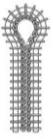
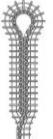
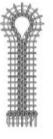
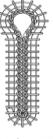
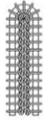
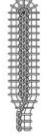
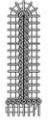
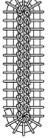
② 选择要初始化的参数后，按  键确认。

画面切换到如右图所示，按  键后执行初始化操作。



## 6 附录

### 6.1 轨迹形状

圆头锁眼			
			
无加固缝	锥形加固缝	直线加固缝	圆形加固缝
一字形锁眼			
			
无加固缝	锥形加固缝	直线加固缝	圆形加固缝
菊花眼			
			

# 1 Basic Operating

## ① Turn on Power

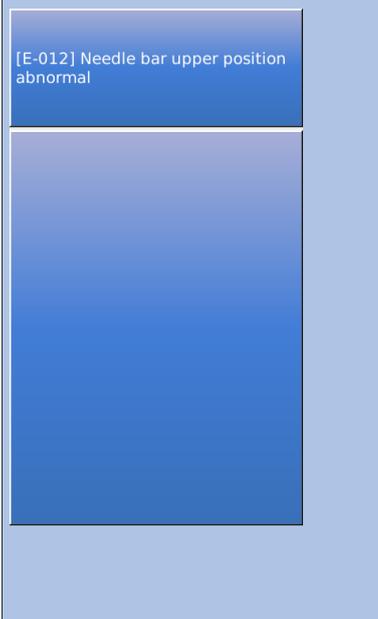
After user turns on the power, the system will display the contents at below in order at the Pattern Data Display Area:

Welcome to using SC511 Buttonhole  
Machine →SC511-00 (01 or 02) →Create Data→  
Please Start Switch.A

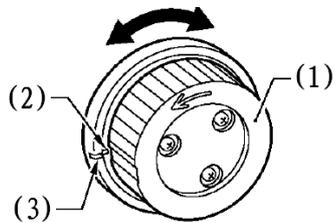
Note: If figure “E-012” is displayed on the operation panel B when user turns on the power supply, please turn the wheel (1) in the directions shown in figure C and make the print (2) face to the gap (3) directly



(A)



(B)

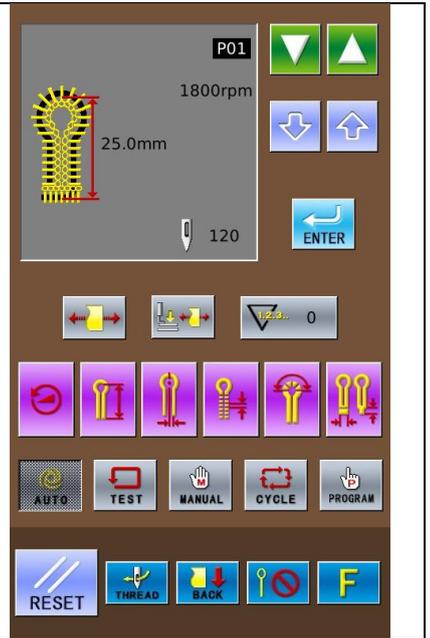


(C)

## ② Step Pedal for Start

After user stepped the right pedal for start, the feeding board will move to the position where the cloth is located. In the operation panel, the readiness status of the previous operation mode (it might be Auto Mode, Manual Mode, Test Mode, Cycle Mode or Program Mode) will be displayed.

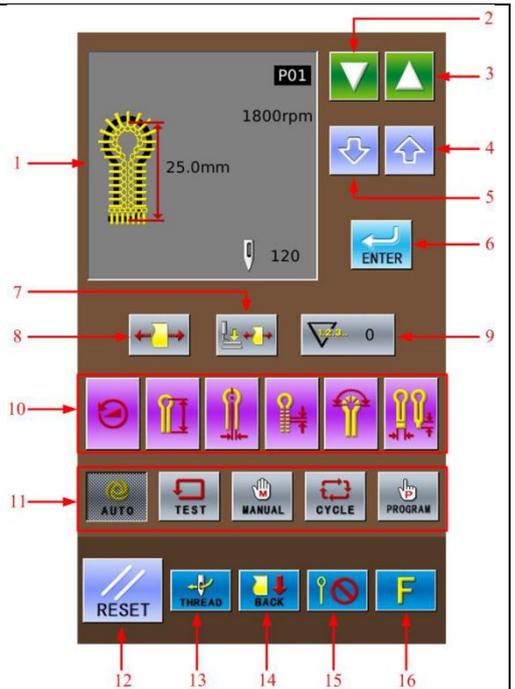
Note: The “Readiness Status” is the status before the next action when the system moves to a mode.



## 2 Setting Methods of Patten Program

### 2.1 Interface for Inputting Sewing Data

The data input interface is shown in the right figure. For detailed functional instructions, please refer to Table 1: Button Instruction Table.



**Table 1: Button Instruction Table:**

No.	Figure	Functions	Remarks
1		Display of Sewing Shape	Display the pattern number, patter shape, length, stitch number, sewing speed and so on.
2		Decrease Number of Software & Parameter	
3		Increase Number of Software & Parameter	
4		Increase Value & Parameter Content	
5		Decrease Value & Parameter Content	
6		ENTER (Confirmation) Key	Confirm the parameter and the pattern data.
7		Cloth-tightening before presser down: Cloth-tightening after presser down:	The default setting is the Cloth-tightening after Presser Down. If user sets it as Cloth-tightening before Presser Up, this parameter will return to default setting when one pattern is finished
8		Cloth-tightening Permitted: Cloth-tightening Forbidden:	The default setting is the Cloth-tightening Permitted. If user sets it as Cloth-tightening Forbidden, this parameter will return to default setting when one pattern is finished.
9		Display the value in Counter	
10		Hot Keys	Quickly change 6 parameter relating to the pattern
11		Sewing Mode	Five available sewing modes: Auto, Manual, Test, Cycle and Program
12		RESET	Release the display of incorrect information
13		THREAD	Have access to the threading mode
14		FRONT: BACK:	Shift the positions of the feeding board. Alternative positions: Front & Back.

No.	Figure	Functions	Remarks
15		Cut-before-Sewing :  Cut-after-Sewing :  Non-Cut: 	Set the actions of knife
16		Parameter Management	Have access to parameter setting

## 2.2 Setting of Pattern Program

It is advised to preset the pattern data parameters which are frequently used so that user would only need to select the pattern code to have access to the set pattern in the future usage, thus saves the time for resetting the parameters at each time.

The 20 patterns can be registered at most, whose parameters can be altered at any time.

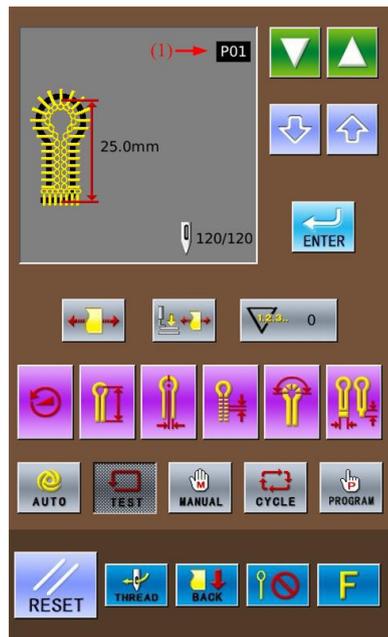
When leaving the factory, pattern codes from P01 ~P20 save the default pattern program (The patterns from P01 ~ P20 are all the same.)



- ① Press 
- ② Select a pattern code from P01~P20 (1) for changing the content.

Pattern code (1) will change in the following sequence: P01 → P02 → ... P20 → C1→C2...C9,

at each pressing . (press  to change the code in the contrary direction.)



③ Press  PROGRAM

The pattern data display area will display the parameter code (2) and the specific parameter information (3) at previous time.

④ Press   to select the parameter code(2)(具体参考【2.3.4 花样参数一览表】)

⑤ Press   to change the content of parameter(3).

The shining parameter information (3) means the content is uncertain

⑥ Press  ENTER to confirm the changed content. If the parameter information is still, that means it has been confirmed. If user presses any key among



instead of  at (3) shining, the changed parameter (3) will be abandoned and return to the original value.

⑦ Repeat the operation from 4 to 6 to change other parameters.



### 2.3 About Hot Keys

Among the Hot Keys (4), the following 6 parameters are registered for their frequent usage:

(5)Sewing Speed (Parameter code No.01)

(6)Length of Lockstitch Sewing at Buttonhole (Parameter code No.02)

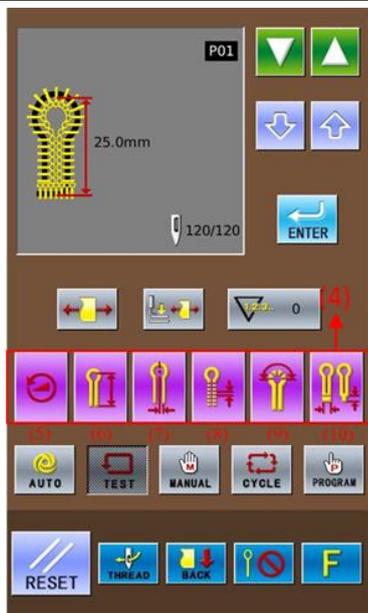
(7)Pitch of Knife (Parameter code No.03)

(8)Distance between Stitch Form (Parameter code No.04)

(9)Stitch Number at Eyelet Part (Parameter code No.05)

(10)Length of Bar-tacking (Parameter code No.06、No.08、 No.10)

Note: The different bar-tacking sewing types set in parameter code No.40 are corresponding to the various values of bar-tacking sewing length parameter (10).



### 3 Instructions on Sewing Operations

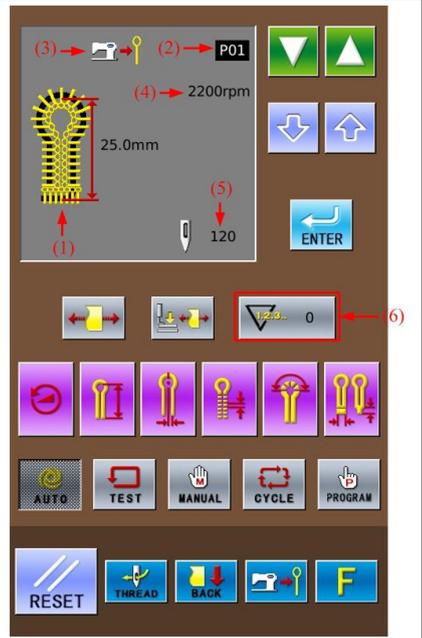
#### 3.1 Auto Mode

- For the automatic sewing at first time, do please perform the trial sewing.
- When using SC511 in the environment with low temperature, user shall perform the trial sewing for several times, so as to warm up the motor.

⑥ Press Auto Mode Key



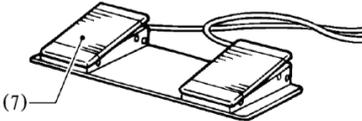
Press **AUTO** to show the Shape & Length of sewing stitch: Pattern Shape (1), Pattern Code (2), Knife Action (3), Sewing Speed (4) and Total Stitch Number of Existing Pattern (5) at pattern data display area, as well as the Number of Production (6) at Production Counter Key.



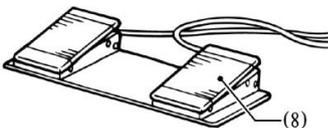
- ⑦ Press to select the wanted pattern code (2). The pattern code will change in the following sequence: P01→P02→...P20→C1→C2...C9 at each pressing on . Press to change the code in the contrary direction.

- ⑧ Select the wanted action of knife (Non-Cut/ Cut-before-Sewing/Cut-after-Sewing).  
 Note: For the detailed shift method of Knife Action, please refer to **【2.5 Shift of Knife Actions】**

- ⑨ Lay the fabric for sewing under the presser, step the presser pedal (7).



- ⑩ Step the start pedal (8) to start the sewing .



For sewing repetition, please repeat the operation in the 4<sup>th</sup> & 5<sup>th</sup> steps at above.

# ! Cauttion



**Due to the knife will act during the manual sewing, please keep hand away from the knife. Otherwise the operator may suffer serious injury.**

Under manual mode, turn the wheel to move the cloth-feeding board in stitch by stitch. This will simplify the operation in synchronizing adjustment of yarn-divider.

① Press Manual Mode

Shape of Sewing Stitch Form (1), Pattern Code (2), Knife Action (3), Total Stitch Number (4) and Leftover Stitch Number (5) are shown in the sewing data display area.



② Press to select the wanted pattern code (2).

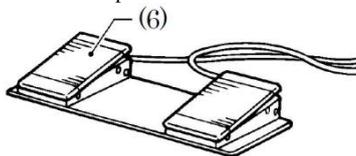
The pattern code (2) will change in the following sequence: P01→P02→... P20→

C1 →C2...C9 at each pressing on

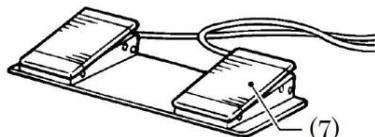


(Press to change the code in contrary direction.)

③ Lay the fabric for sewing under the presser, step the presser pedal (6) to lower the presser.

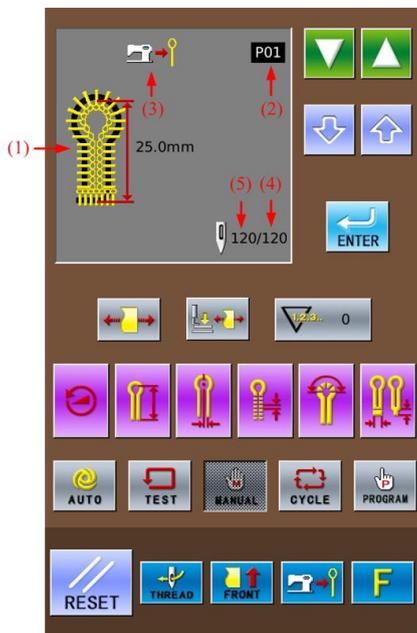


④ Step start pedal (7) to move the cloth-feeding board to the position of sewing start.

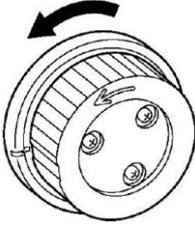


**Caution:**

When setting the knife action as “Cut-before-Sewing”, the operator shall look out for his hand at knife moving.



- ⑤ Turn Hand-wheel at Upper Axis to Left

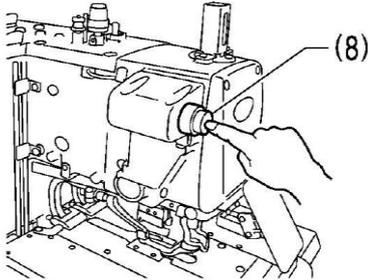


The cloth-feeding board will move to the sewing position of the next stitch at each turning round of upper axis hand-wheel. When the wheel reverses for half a cycle, the leftover stitch number (5) at sewing data display area will reduce 1 stitch

Caution:

If the upper axis hand-wheel turns reversely, the cloth-feeding board will not move the shape with the set stitch form. Please don't turn the wheel reversely.

- ⑥ For stopping the manual sewing, press emergence stop switch (8) when the cloth-feeding board returns to the position for laying cloth



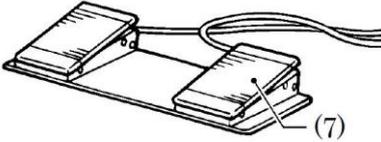
The “Pause Switch Is Pressed In Sewing” is displayed on operation board.

Press  to return to sewing interface and then press .



⑦ At Last Stitch

The needle rod stops at the upper position of needle. Step start pedal (7) at this time.



(Hold it until the cloth-feeding board returns to the position for laying cloth.)

In thread-trimming actions, when the cloth-feeding board returns to the position for laying cloth, the system will hint “END OF MANUAL MODE” in the operation panel.

Caution:

When setting knife action as “Cut-after-Sewing”, user shall look out the action of knife.



#### 4 Interface of Parameter Setting Mode

In the interface for inputting sewing data,

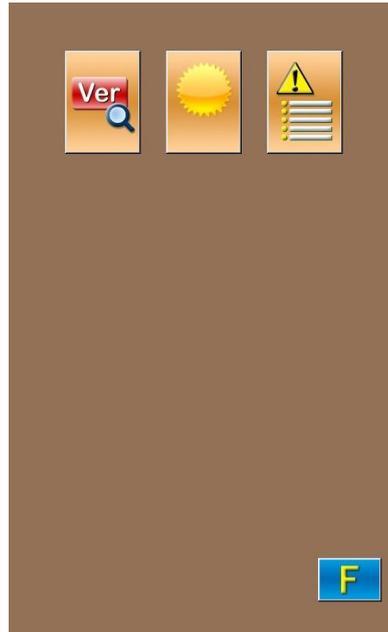


press  to shift the data input interface and parameter setting mode interface (as shown in right). In the interface of parameter mode, user can make some detailed settings and edition operations.

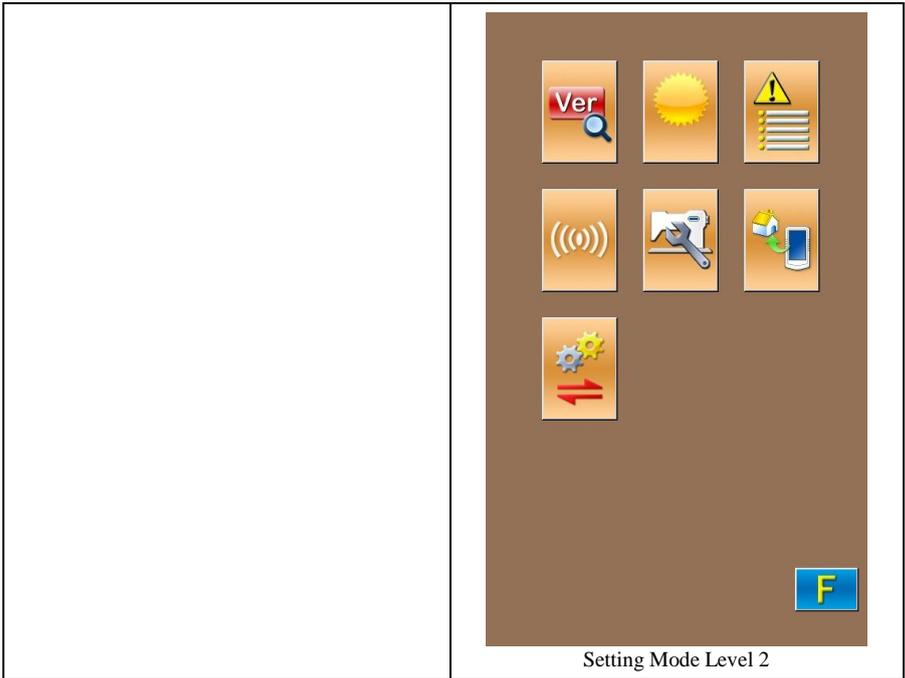
In the interface for inputting sewing data,



hold  for 3 seconds, then the system will have access to the setting mode Level 2.



Setting Mode Level 1



Setting Mode Level 2

#### 4.1 Description of Functions

##### Setting Mode Level 2:

No.	Figure	Functions
1		Inquiry of software version.
2		Lightness adjustment
3		Error information record
4		Communication mode
5		U level parameter
6		Recovery to default setting
7		Parameter back-up & recovery

## 4.2 Parameter Setting

### ② Have Access to Parameter Setting Interface



In Level 2 of Setting Mode, press  to have access to the interface for setting U level parameters (as shown in right picture).



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:

01/06 Encrypt 

U001	Pedal switch	2
U051	Delay time before cut	0
U056	Lower clamp when move front	ON
U057	Enable clamp at test	OFF
U058	Keep clamp down after sewing	UP
U150	Stop at n.up when suspended	ON
U152	Final stch spd main motor	800
U153	Last speed main motor	500
U156	Stop angle main motor	11.0
U256	Interval of origin detect	0

Modified  

U152 Final stch spd main motor

800

Range: 700 - 900 Step: 10

Final stch spd main motor

1

2

3

4

5

6

7

8

9

0

↑

↓

C





**Input Type**

U150 Stop at n.up when suspended 01/01

OFF At pause, the upper axis is in the status of emergency stop

ON At pause, the upper axis stop at needle upper position





**Selection Type**

### 4.3 Communication Function

#### 4.3.1 Operation Penal Update

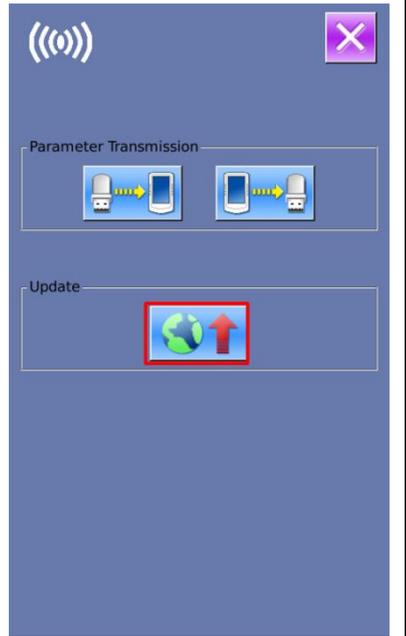
- ④ **Have access to the interface of communication function**  
Insert U disk, in Level 2 of Setting Mode, press



to have access to the communication function mode (as shown in the right figure).



: Software Update

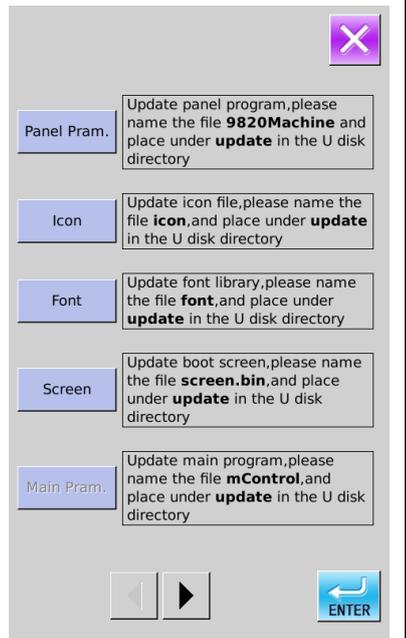


- ⑤ **Enter Software Update Interface**

Press  to enter the software update interface (as shown in right), where user can update the software

The updating software is located at 「update」 in U disk. Click the content for update, then please

press .



⑥ **Finish Updating**

After the update, the system will display the hint information. Please restart the machine.



**4.3.2 Input/ Output of Parameters**

**Display the Communication Interface**

Insert U disk. In the level 2 of Setting



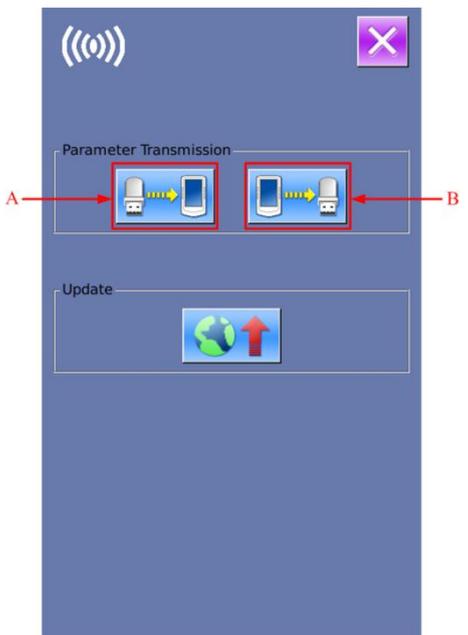
Mode, press to have access to the Communication function mode

A: Input Parameter from U disk to Panel  
B: Output Parameter from 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 9820Param**

※ **When outputting patterns from operation panel, user has to save the parameters into the DH\_PARA in the U disk with name 9820Param**

※ **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.**



④ **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.



⑤ **Press Button B to Output Parameters to U Disk**

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

B、 Press  to quit directly



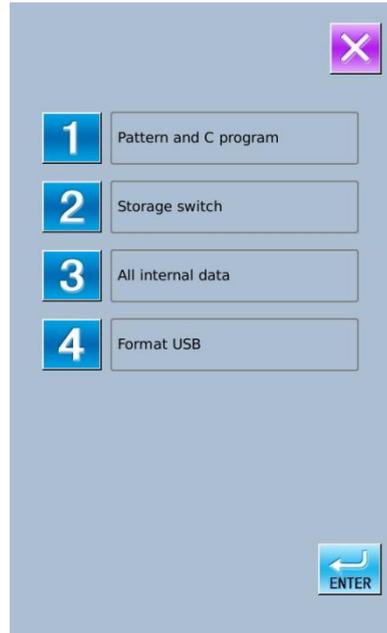
## 5 Initialization of Parameters

1 In level 2 of setting mode, press  to have access to interface of parameter initialization, as shown in right:

User can select:

- (1) LEVEL1: Para. And C Program ( Level S pattern parameter and C pattern cycle program)
- (2) LEVEL2: Storage Data (Including U level parameters)
- (3) LEVEL3: All Internal Data
- (4) LEVEL4: Initialize U disk

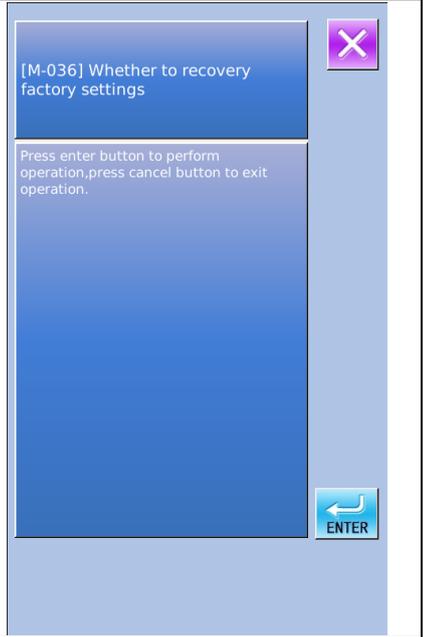
The detailed initialization content is at below



Level, Content & Clear of Initialization

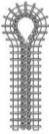
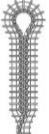
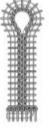
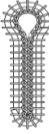
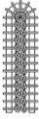
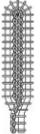
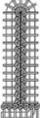
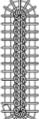
	LEVEL1	LEVEL2	LEVEL3
Program Content	Default value	—	Default value
Cycle program	Clear	—	Clear
Storage switch	—	Default value	Default value
Program code	1	—	1
Parameter code	1	—	1
Production counter	—	—	0
Mode	Program	—	Program
Position for locating cloth	Built-in	—	Built-in
Knife action	OFF	—	OFF

2 Select the parameter for initialization, then press  for confirmation. The right interface will be displayed on the screen, press  to initialize the parameter.



## 6 Appendix

### 6.1 Shape of Stitch Form

Eyelet Buttonhole			
			
No Bar-tacking	Taper Bar-tacking	Linear Bar-tacking	Round Bar-tacking
Linear Buttonhole			
			
No Bar-tacking	Taper Bar-tacking	Linear Bar-tacking	Round Bar-tacking
Radial Hole			
			
			00% recycled paper 00% 循环再造纸