

**LCD 显示（可打版）曲折缝电控系统  
Zigzag Stitching Machine  
Electronic Control System**

**用户手册**

**User Manual**

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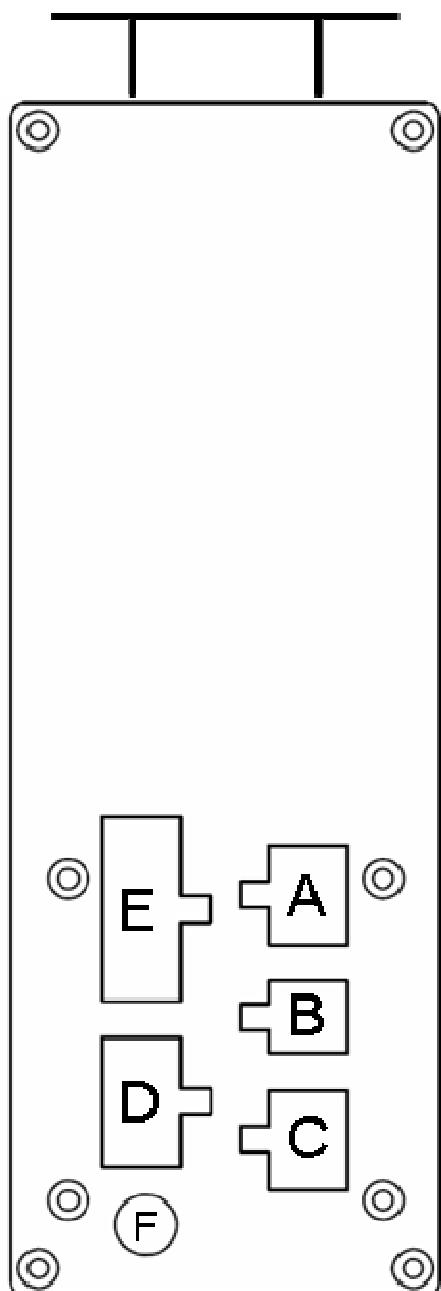
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# 1 控制箱硬件说明

## 1.1 控制箱的外部接口示意图



## 1.2 控制箱外部接口详细说明

### 1.2.1 操作盒接口

接口 A，蓝色 5557 型 2\*3 插座，用于连接 LCD 操作盒。

### 1.2.2 传感器接口

接口 E，白色 5557 型 2\*6 插座：

5V	
GND	(上停针)
GND	摆针同步
GND	送布同步
送布原点	摆针原点
5V	5V

注：对于单轴系统，送布回零及同步传感器定义是不存在的。

### 1.2.3 送步马达接口

接口 D，白色 5557 型 2\*4 插座：

红	
绿	
蓝	
黄	

注：对于单轴系统，该接口没有定义。

### 1.2.4 摆针马达接口

接口 C，白色 5557 型 2\*3 插座：

红	绿
	蓝
	黄

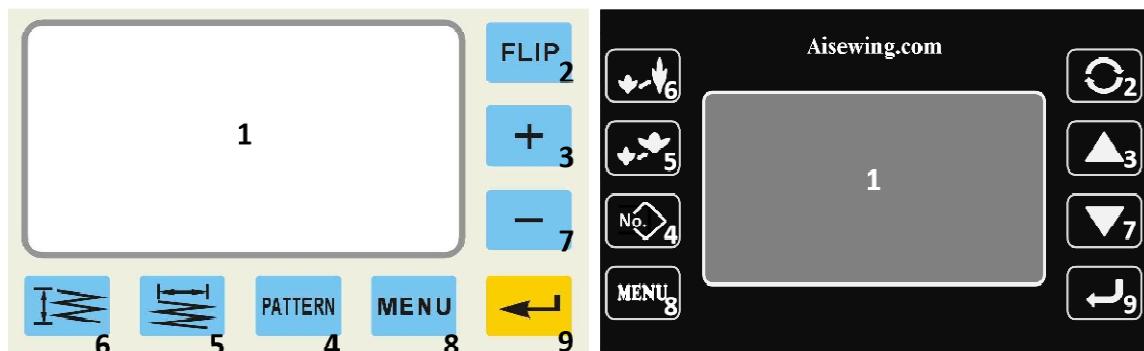
## 1.3 电源规格

电源电压：单相 **AC 100-240V**

工作电流：平均电流小于 1.5A，峰值电流小于 3A

## 2 操作界面和缝纫操作

### 2.1 操作按键



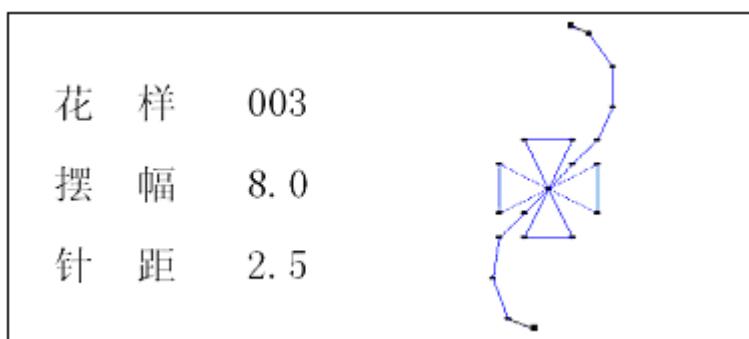
操作盒界面及按键定义

- |         |         |          |       |       |
|---------|---------|----------|-------|-------|
| 1 液晶显示器 | 2 切换/镜像 | 3 增加键    | 4 花样键 | 5 摆幅键 |
| 6 针距键   | 7 减少键   | 8 取消/菜单键 | 9 确认键 |       |

注意：在不同的操作界面，上述8个功能按钮，具有不同的含义。上述的定义是对主显示状态下各个按钮的功能描述。

### 2.2 启动

本机上电后，会自行启动。在启动过程中，先自动完成摆针、送布轴的回零动作，然后进入下图主显示界面。在开电过程中如果有故障存在，将以“摆针轴回零位失败”或“送布轴回零位失败”通知用户。



如果不需要修改花样的描述信息，可踩踏板，进入缝纫。如果对花样的信息（编号、摆幅、针距）进行修改，则暂停缝纫操作，直到修改被取消或确认，才恢复缝纫操作。

### 2.3 选择缝纫花样

- 1) 当界面处于主显示状态时，按“花样”键，当前花样的编号被反色显示，

这意味着主显示界面的修改状态是修改花样编号。

- 2) 按“+”键或“-”键对花样编号进行增加或减少。可调范围为0~999。此时在液晶屏显示区的左侧会给出该编号的花样信息，右侧是花样图案。
- 3) 按“确认”键选择当前花样，按“取消”键放弃操作。

## 2.4 设置缝纫宽度或针距

- 1) 当界面处于主显示状态时，按“摆幅”或“针距”键，当前花样的摆幅或针距被反色显示。
- 2) 按“+”键或“-”键对摆幅或针距进行增加或减少。摆幅的可调范围为0.0mm到9.0mm，针距的可调范围为0.0mm到3.0mm。按一次增/减键，变化0.1mm，连续按键，增/减幅度为0.5mm。
- 3) 保存修改按“确认”键，放弃修改按“取消”键。

## 2.5 主菜单

在操作盒上，“取消”键具有取消选择或进入菜单双重功能。当有其它功能键按下后，按“取消”键先取消它们的功能，再按“取消”键，进入主菜单；如果没有其它按键操作时，按“取消”键直接进入主菜单。主菜单如下图：

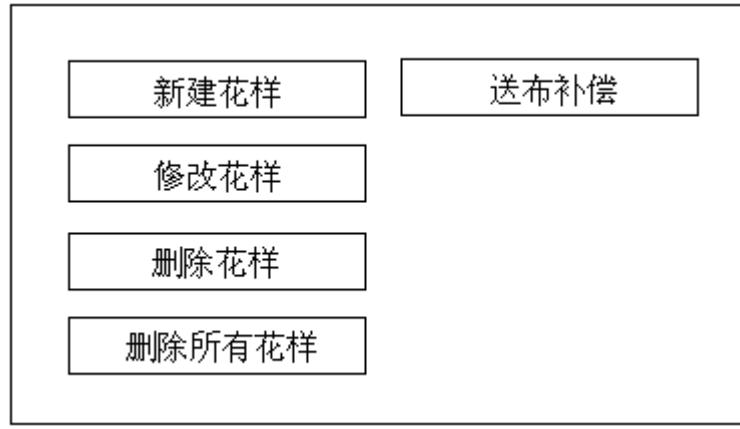


主菜单界面，按键功能描述：

- “+”键：将光标移到上一个菜单项
- “-”键：将光标移到下一个菜单项
- “取消”键：退出主菜单、返回到主界面
- “确认”键：执行所选菜单项的操作。

### 2.5.1 编辑花样

主要是完成对花样的增、删、改操作，如下图所示：



编辑花样界面，按键功能描述：

- “+”键：将光标移到上一个菜单项
- “-”键：将光标移到下一个菜单项
- “取消”键：退出主菜单、返回到主界面
- “确认”键：执行所选菜单项的操作。

### 2.5.1.1 新建花样

控制板上最多保留 999 个花样，其中基本花样最多 240 个，编号从 1 到 240，由我公司出厂时提供；用户花样编号从 241 到 999，由用户通过手编花设计或通过 PC 机下载。执行新建花样操作时，如果机内花样已有 999 个，将给出提示“请先删再建”。如果机内花样不足 999 个，且还有存储空间，则执行该项功能。在画图时，当前针点用实心方块表示，非当前针点用空心方块表示。

操作流程如下：

- 1) 在主显示界面，按“取消”键（菜单键），进入主菜单；
- 2) 按“-”键向下选择；按“+”键，向上选择；选择编辑花样；
- 3) 确认按“确认”键，取消按“取消”键；
- 4) 如果按确认键，进入编辑样式的子菜单界面；
- 5) 选择新建花样；
- 6) 确认按“确认”键，取消按“取消”键；
- 7) 如果按确认键，进入手工编花的界面，刚进界面时，已经插入第一个默认针点，此时可以按插入键（2号键），继续插入新点，也可以按摆幅键，修改摆幅（横向值）或按针距键修改针距（纵向值）。这两项功能都要增/减键的配合。

该界面所用到的按钮及其功能说明：

- 2号键[FLIP]：插入键，插入一个新点；
- “花样”键：针点键，属于功能键，须同增加、减少键配合使用，才能修改针点；
- “摆幅”键：属功能键，须同增加、减少键配合使用，才能修改摆幅；
- “针距”键：属功能键，须同增加、减少键配合使用，才能修改针距；
- “+”键：增加键，须同功能键配合使用；

“-”键：减少键，须同功能键配合使用；

“确认”键：确认、保存退出；

“取消”键：取消、不保存退出。

### 2.5.1.2 修改花样

对原有花样的针点进行增、删、改操作。即在原花样的某一针点之后插入一个新针点、删除当前针点或修改针点的横向、纵向坐标值。界面上按钮的定义同上所述。不存在的花样，此项操作无效。

### 2.5.1.3 删 除花样

指删除选定的某个用户花样。先进入花样选择界面，使用“+”和“-”按钮，预览花样；当选好需要删除的用户花样后，按“确认”键删除；若放弃则按“取消”键，操作结果将给予提示。对于厂家提供的基本花样，此项操作无效。

### 2.5.1.4 删 除所有花样

指删除所有的用户花样。对于厂家提供的基本花样，此项操作无效。

### 2.5.1.5 送布补偿

可以针对每个花样进行各自独立的送布补偿。它们的值分别保存在不同的存储单元中，默认情况下，均为0。

操作流程如下：

- 1) 在主显示界面，按“取消”键（菜单键），进入主菜单；
- 2) 按“-”键向下选择；按“+”键，向上选择；选择编辑花样；
- 3) 确认按“确认”键，取消按“取消”键；
- 4) 如果按确认键，进入编辑样式的子菜单界面；
- 5) 选择送布补偿；
- 6) 确认按“确认”键，取消按“取消”键；
- 7) 如果按确认键，进入送布补偿的参数修改界面：

在该界面中，调整所选样式的送布针距补偿值，范围为-20 ~ 20；确认按“确认”键，退出并保存修改值；如果按“取消”键，则放弃修改并退出。

## 2.5.2 IO 设备测试



将待测的传感器连接到电控箱上，开电进入上述界面

反复遮、放（感应、不感应）对应的传感器，看右边的数值变化，若在 0 与 1 之间变换，则该传感器及其连线时好的，若始终只显示固定的“0”或“1”值，则该传感器/连线、或主板有故障。

## 2.5.3 English/中文界面切换

控制操作界面的语言在中文、英文间切换。

## 2.5.4 初始化

软件初始化 恢复出厂设置。操作流程如下：

- 1) 进入主菜单；
- 2) 选择初始化；
- 3) 确认按“确认”键，取消按“取消”键；
- 4) 如果按确认键，显示屏将提示“软件初始化 恢复出厂设置”，几秒钟后初始化成功；返回到主显示界面。
- 5) 如果按取消键，放弃操作。

## 2.6 左右翻转缝纫

- 1) 电源为打开的状态，界面处于主显示状态；
- 2) 按 FLIP 键，设置左右翻转缝纫，花样号后显示“F”标志；再按一次，取消左右翻转缝纫；
- 3) 将踏板向前踩，按选定的方式开始缝纫。

# 3 花样设计 PC 软件的使用

本曲折缝系统既可以缝纫系统自带的花样，也可以缝纫用户自己设计的花样。用户可通过两种方法输入自己设计的花样：一种是用缝纫机的操作盒手工编辑/打版花样，一种是在电脑上使用花样设计编辑花样，并把它们下载到电控箱里。

## StyleEdit 软件运行环境

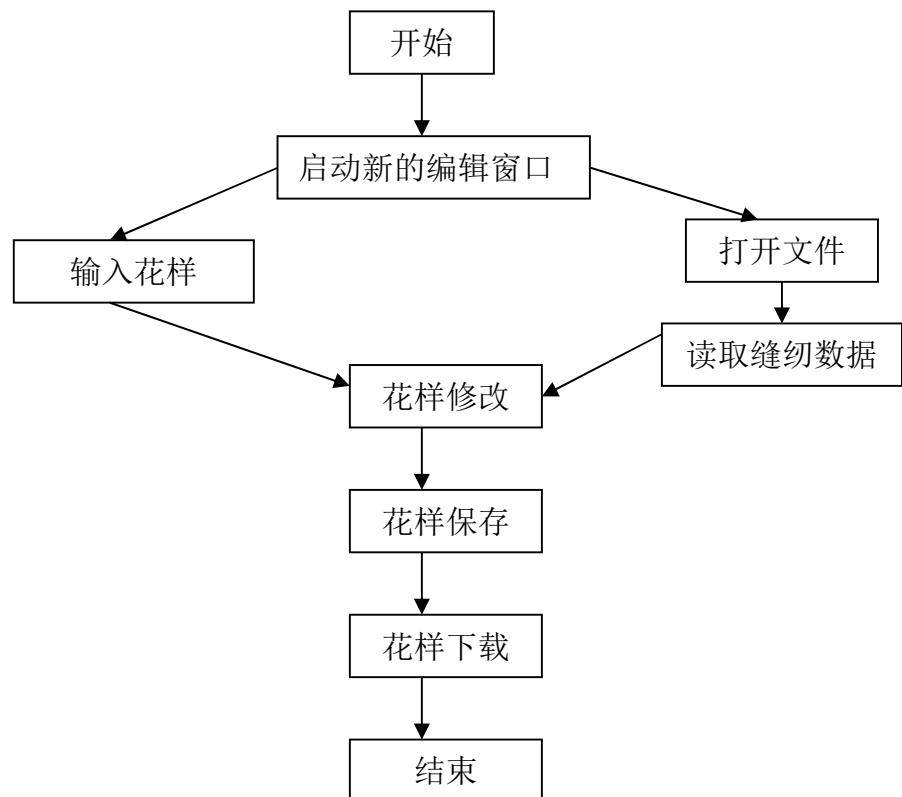
- CPU: 奔腾或以上
- 操作系统: windows XP
- 串口: COM1~COM5

软件的执行文件为 StyleEdit.exe。需要注意，它依赖**动态库 pcomm.dll**，用户应使该动态库文件处于 StyleEdit 所在的文件夹中。

鼠标双击 StyleEdit.exe，即可启动程序。

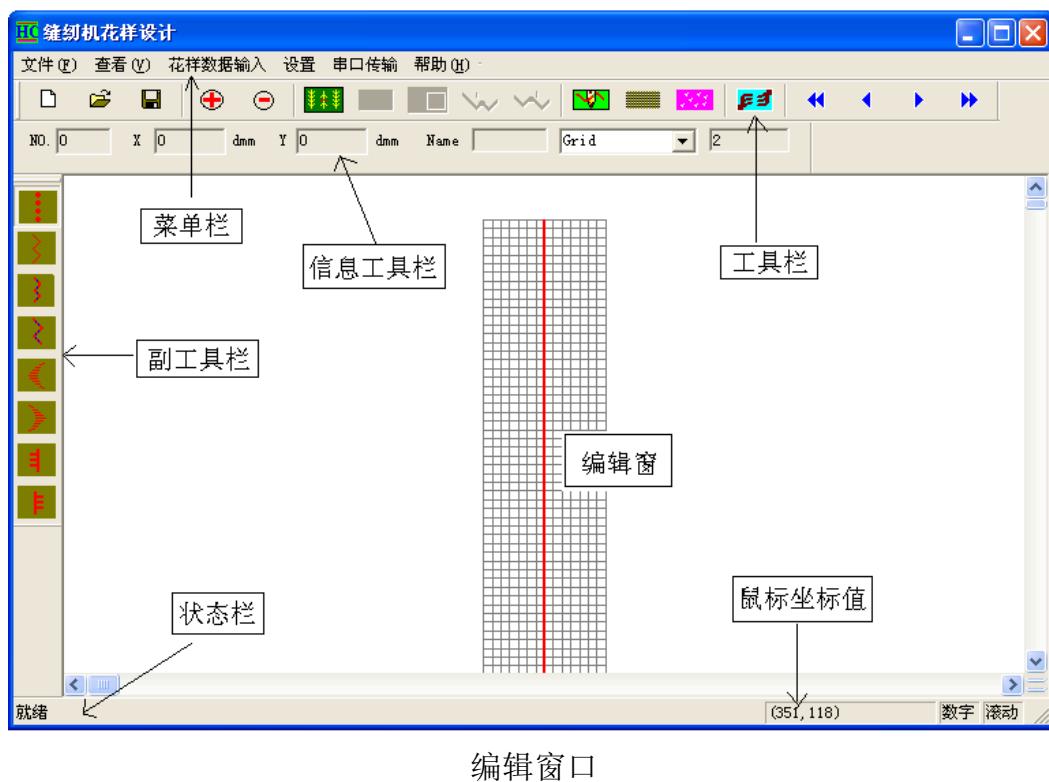
## 3.1 软件的操作

### 3.1.1 花样设计的一般流程



### 3.1.2 编辑视窗

下图表示软件结构及编辑视窗，所有输入或编辑工作都在这个窗口进行。



编辑窗口

## 菜单栏

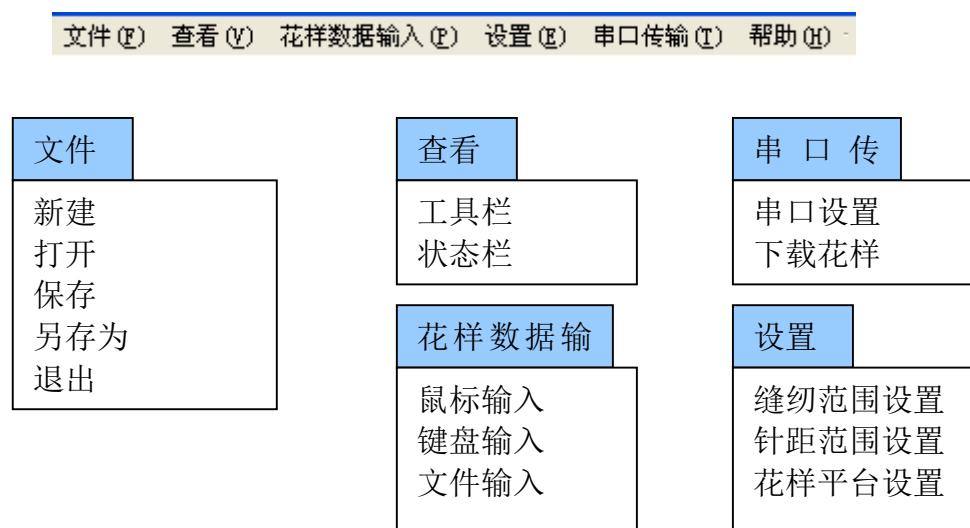


图 3 菜单项

## 工具栏



功能	图标	描述
新建		新建编辑窗口
打开		打开花样文件
保存		保存花样数据到文件 (.sss)
图形放大		放大正在编辑的花样
图形缩小		缩小正在编辑的花样
修改		进入或退出修改模式。在修改模式下，修改当前针点位置。
删除		在修改模式下，删除当前针点
移动		在修改模式下，移动整个花样到指定位置
前插入		在修改模式下，在当前针点之前插入新针点
后插入		在修改模式下，在当前针点之后插入新针点
下传		利用串口通讯线，下载花样文件到控制器或上载花样文件并保存
网格开关		编辑窗口中网格线的显示或隐藏
画图		进入或退出画图模式。在画图模式下，插入一个新针点。
刷新花样		更新样式的显示，清除加亮缓冲区
查找第一个针点		查找第一个针点，并设为当前针点
查找前一个针点		查找前一个针点，并设为当前针点
查找后一个针点		查找后一个针点，并设为当前针点
查找最后一个针点		查找最后一个针点，并设为当前针点

## 信息工具栏



信息工具栏反映当前针点的序号，横向、纵向坐标值（单位是十分毫米，十分毫米 = 十分之一毫米）以及花样名称等。组合框有两个选项：Grid 和 Snap\_to\_Grid。其中 Grid 表示设计花样时，针点在鼠标点击的位置。Snap\_to\_Grid

表示位置落在最近的网格交叉点上。最后的一个信息框是当前图像的放大系数。

## 状态栏

### 修改针点开关

状态栏位于编辑视窗左底端。使用软件时根据实际状况提供的信息。

上述内容是点击按钮  时，提供的信息。

## 鼠标坐标状态栏



位于编辑视窗右底端。当鼠标在编辑窗口内移动时，实时显示当前鼠标位置（单位是像素）。

## 副工具栏

其中：

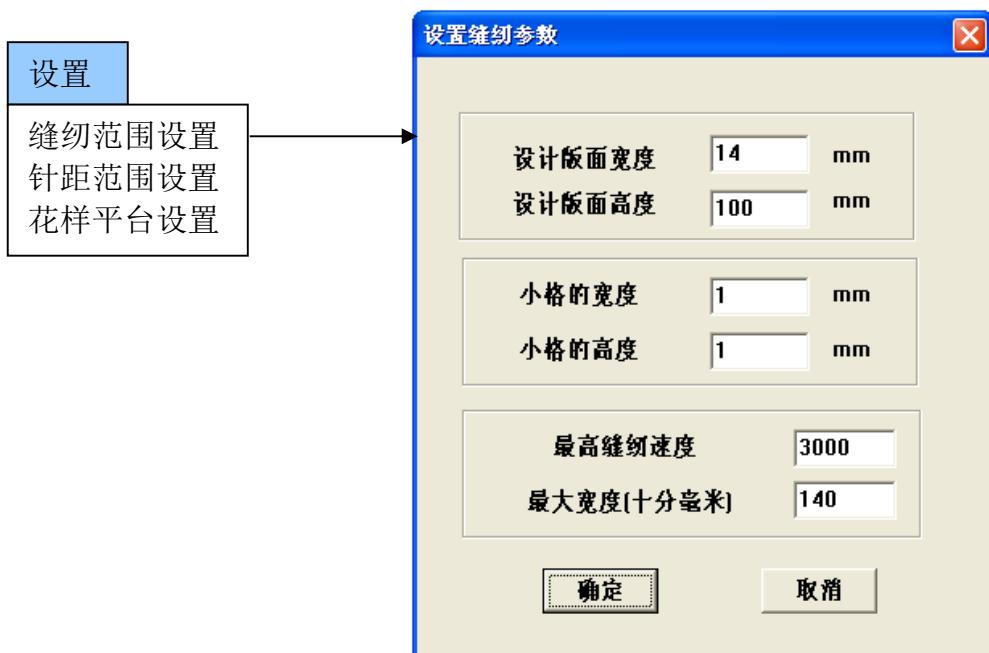


左月牙，有 4 种花型：5-1- 5-2- 5-3- 5-4-

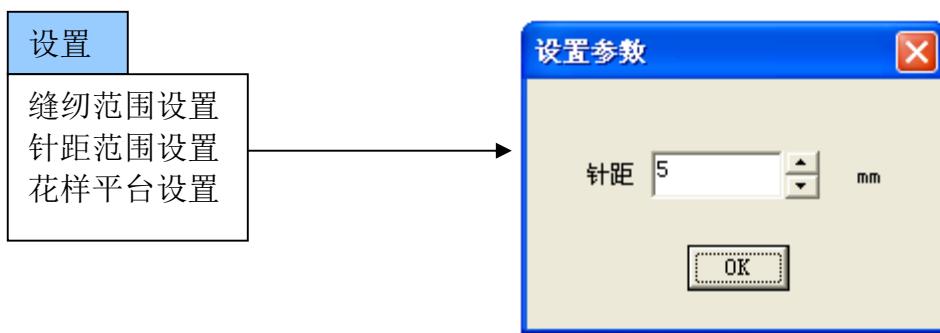


右月牙，有 4 种花型：6-1- 6-2- 6-3- 6-4-

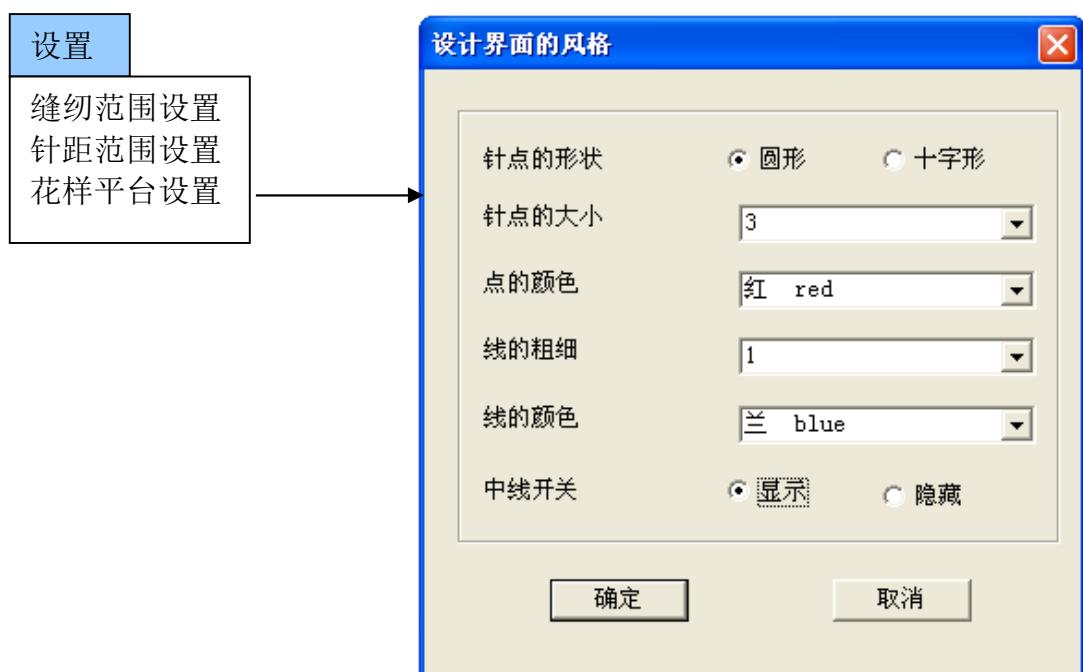
## 缝纫范围设置



## 针距范围设置



## 花样设计平台风格设置



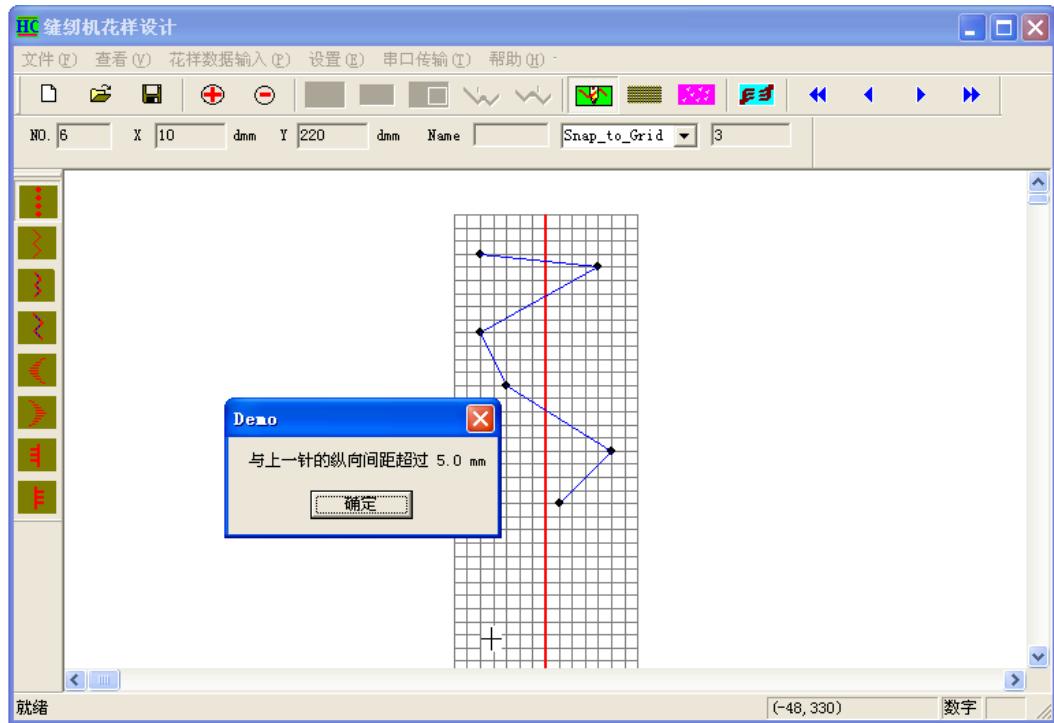
### 3.1.3 花样数据的输入

编辑窗口中花样数据有三种方式输入：鼠标输入、键盘输入、文件输入。通过输入菜单项，完成数据输入方式选择。

#### 3.1.3.1 鼠标输入

点击快捷按钮 ，选择鼠标输入方式。

在编辑窗口的花样范围（即下图的网格区域），鼠标点击的位置，被作为鼠标输入数据。两次点击的纵向间隔，不允许超过针距范围参数的设定值，这点由程序自动控制。



针点的输入和检查

### 3.1.3.2 键盘输入

在键盘输入界面，输入横向、纵向坐标数据，按确认键，刚才输入的一对数据显示在编辑窗口中。

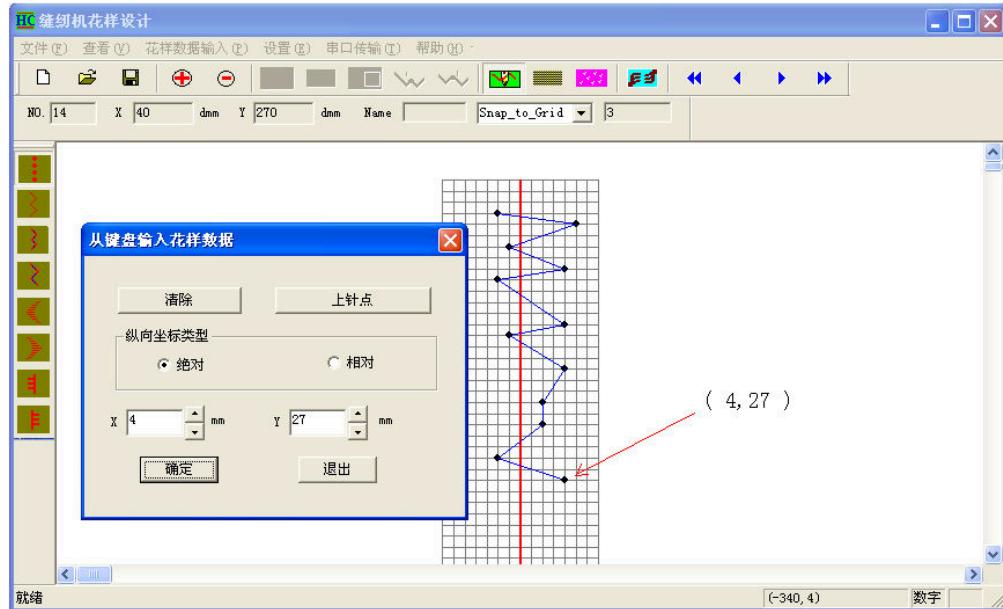
在键盘输入界面，按钮功能说明：

清除：清除编辑窗口中的所有针点；

上点：退回到上一点，当前点被自动删除；

确认：检验输入的数据，并实时显示到编辑窗口中；

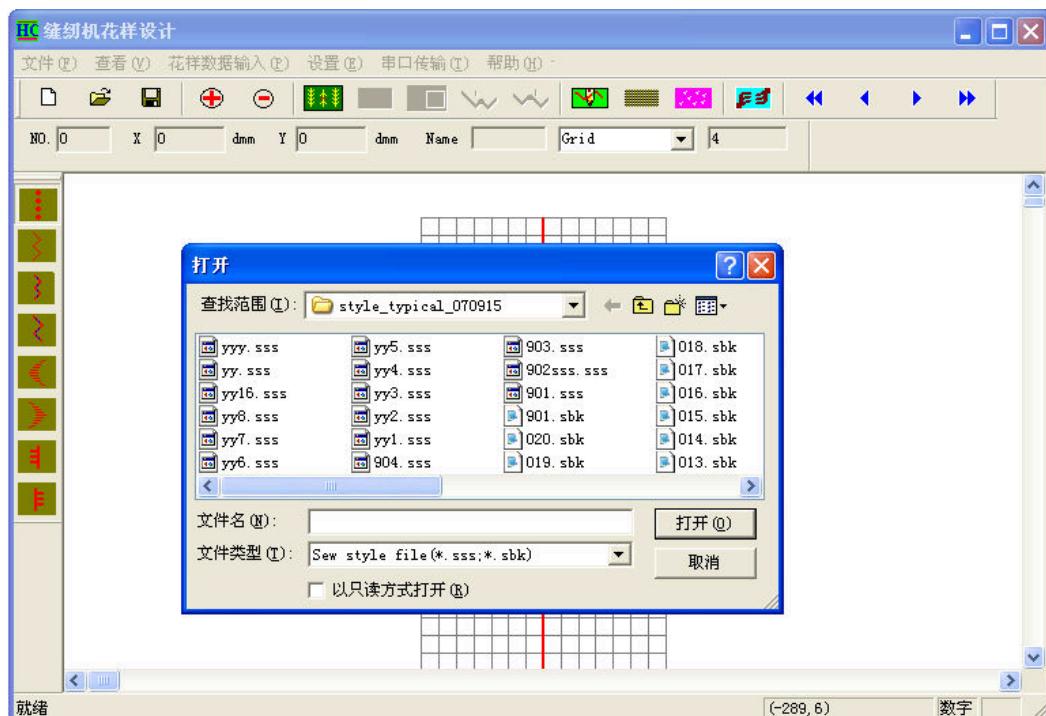
退出：关闭键盘输入界面，返回到编辑窗口。



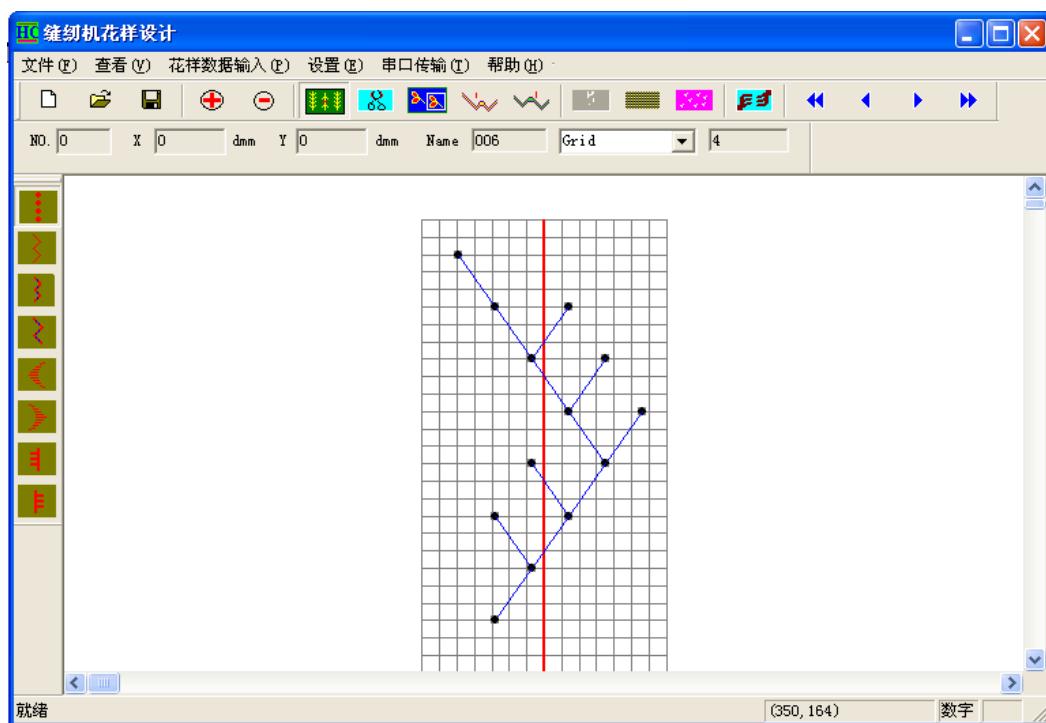
键盘的输入数据直接显示

### 3.1.3.3 文件输入

点击文件输入菜单项或快捷按钮 ，打开指定的花样文件，从中读入图形数据（数据的单位是十分毫米，即毫米的十分之一，dmm），经格式转化后，显示到编辑窗口。



选择文件输入



### 3.1.4 针点的查找



由上述四个快捷按钮分别完成：查找第一个针点、上一个针点、下一个针点、最后一个针点的任务，并将找到的针点加亮显示，该针点是当前针点。（如果只有一个针点，不用检索，该针点默认为当前针点）。用PC键盘的向上、向下两个方向键也可以完成上一个针点、下一个针点的查找。

特别是在修改模式下，用鼠标直接点击花样点，可以得到加亮的当前针点。如果要取消加亮点，点击 按钮即可，在修改模式下，在非工作区，点击鼠标左键，也可以取消加亮点。

### 3.1.5 花样数据的修改

数据修改由修改模式完成。在修改模式下，完成前插、后插、移动、删除等功能。

：进入或退出修改模式的开关。在修改模式下，选择当前针点（用鼠标直接点击某个针点或用查找键搜索，均可选择当前针点），然后在某个位置点击鼠标，当前针点自动移到鼠标点击处。图形的连线显示更新。

特别说明：如果修改的是花样文件，原始花样就在图像的下面，当某个针点被修改之后，就会露出该针点原始的位置。

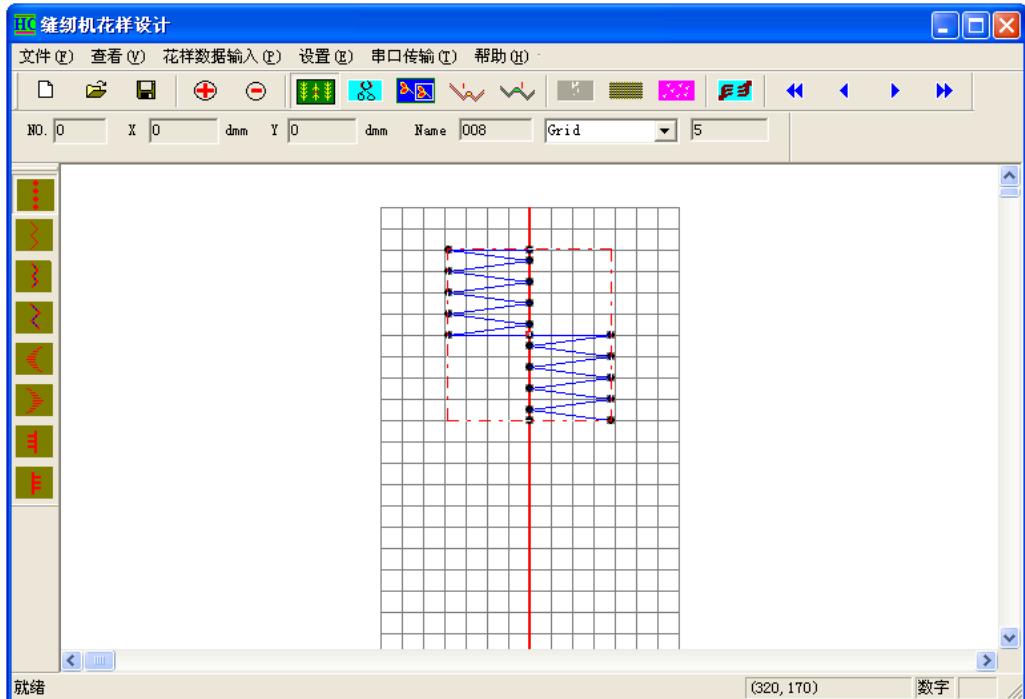
：在修改模式下，选择当前针点，点击该按钮删除当前针点。图形的连线显示更新。

：在修改模式下，点击该按钮，编辑窗口中的图形就被加亮框罩着。再点击网格中的某个位置，整个图像一起移动，图像移动后的中心就是该鼠标点击点。如果经过计算，图形移到新区后，会超过边界线，则本次操作无效。若取消移动操作，点击 按钮。

PC 键盘上的 4 个方向键，都可以一步一步地移动整个图形。

：在修改模式下，选择当前点并按该按钮，然后在某个位置点击鼠标，则鼠标点击点，自动加在当前点之前。图形的连线显示更新。

：在修改模式下，选择当前点并按该按钮，然后在某个位置点击鼠标，则鼠标点击点，自动加在当前点之后。图形的连线显示更新。



图形移动前的加亮

### 3.1.6 花样数据的保存

点击快捷按钮 ，保存花样到指定的文件（自动添加文件后缀.sss）中。

### 3.1.7 串口传输

通过串口传输，完成花样数据的下载或上载操作。

#### 3.1.7.1 串口设置

提供端口号的修改。因电控箱串口通讯的参数已固定，pc 机不为使用者提供其它通信参数的修改功能。



设置串口参数

### 3.1.7.2 下载花样

完成花样数据的下载或上载操作。

准备工作：使用串口通讯线，把pc机和电控箱连接起来。

点击  按钮或下载花样子菜单项，进入下载管理对话框，见图 13 pc 与电控箱联机操作界面。通过与电控箱的联机通讯，完成如下功能：

- 1、下载当前花样：对当前的已命名的花样进行下载；
- 2、选择多个花样（1~1000 个）并下载；
- 3、上载电控箱上的花样，并保存到 pc 机中；
- 4、删除电控箱上的所有花样。

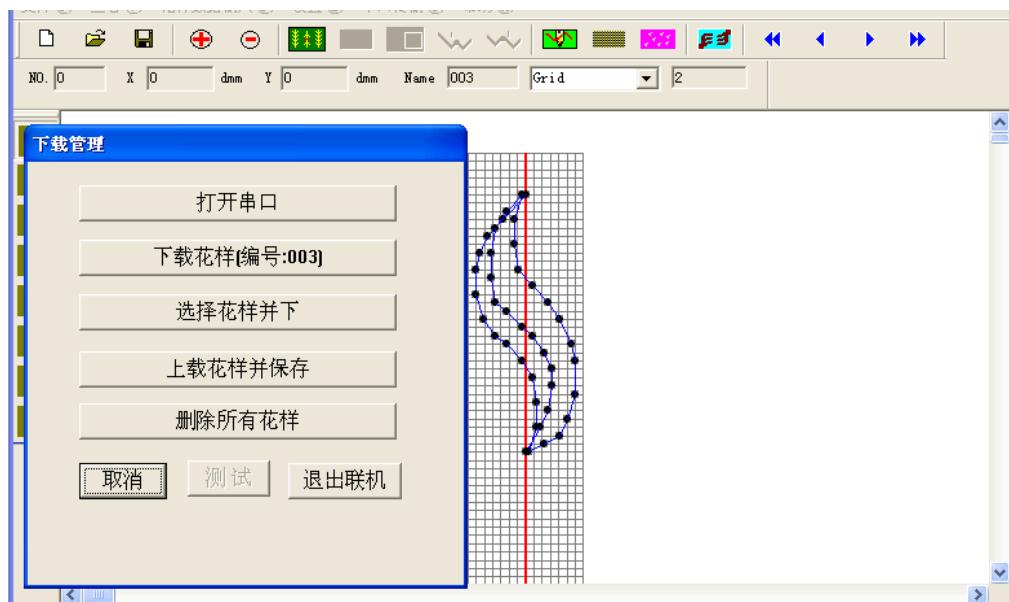
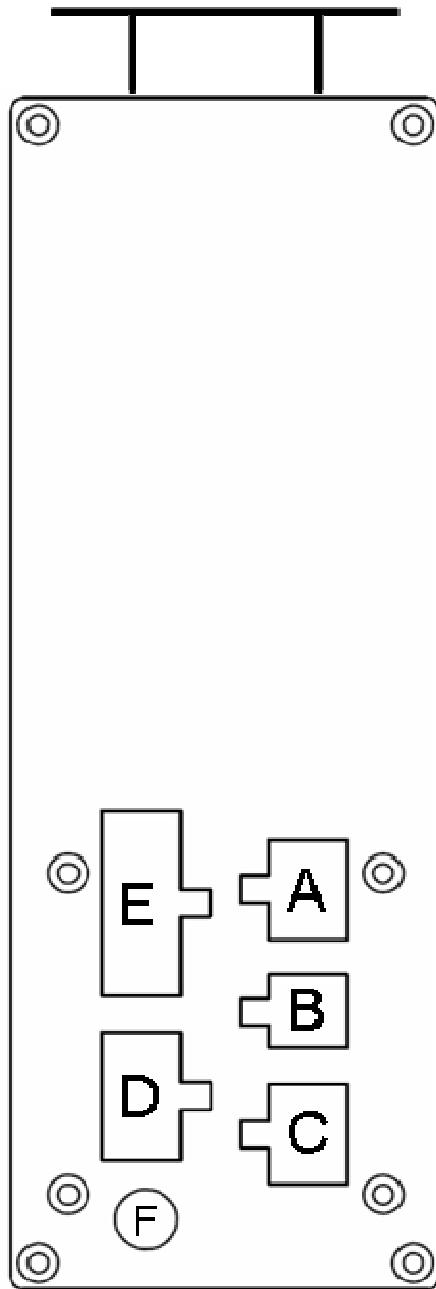


图 3-13 pc 与电控箱联机操作界面

## 4 Control Box Hardware Instruction

### 4.1 External interface of the control box



### 4.2 Control box's external interface detail specification

#### 4.2.1 Panel interface

Interface A, 5557 2\*3 style blue socket, to connect LCD panel.

## 4.2.2 Sensor interface

Interface E, 5557 2\*6 style white socket:

5V	
GND	
GND	X-Sync
GND	Y-Sync
Y-Zero	X-Zero
5V	5V

Note: For single-axis system, Y-Zero and Y-Sync do not exist.

## 4.2.3 Feeding motor interface

Interface D, 5557 2\*4 style white socket:

red	
green	
blue	
yellow	

Note: For single-axis system, this interface have no definition.

## 4.2.4 Cycloidal-pin motor interface

Interface C, 5557 2\*3 style white socket:

red	green
	blue
	yellow

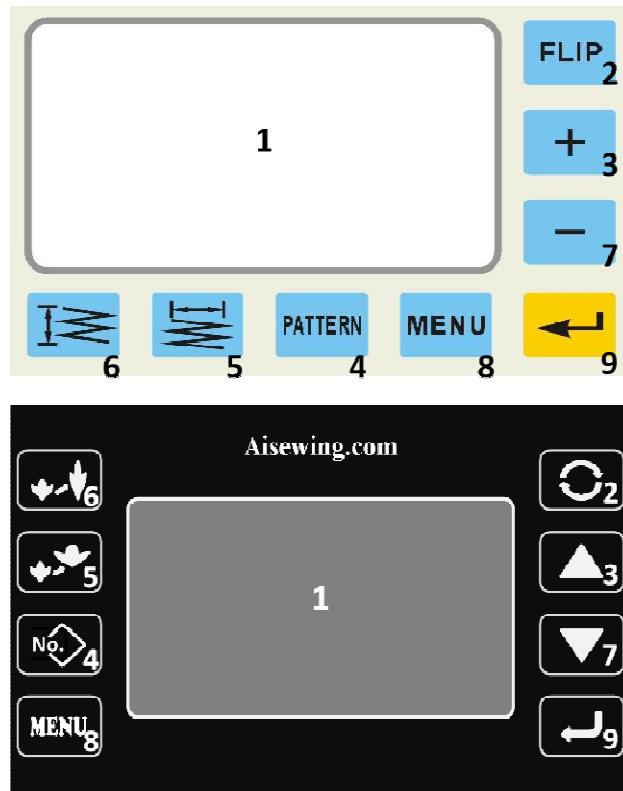
## 4.3 Power specification

Power voltage: Single phase AC 100V~240V

Working current: Average current is less than 1.5A. Peak current is less than 3A.

# 5 Interface and operation

## 5.1 Operation button



1 LCD monitor

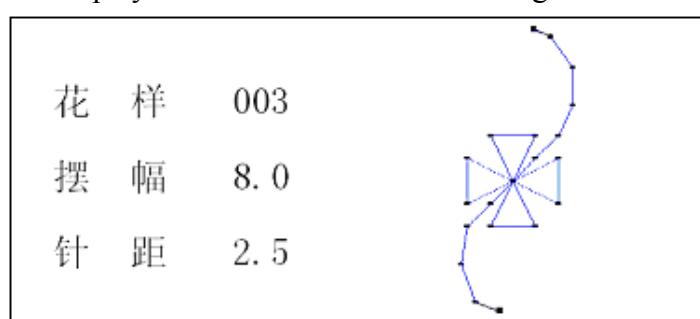
2 Tab/Flip    3 Multiply key    4 Pattern key    5 Width key

6 Needle pitch key    7 Decrease key    8 Cancel key/ Menu key    9 Confirm key

**Note: In the different operation interface, the above eight function buttons have different name.** The above definition is each button's function description during the main display situation.

## 5.2 Start-up

It's will auto-start when its power on. During the start process, its will automatic finish the cycloidal-pin, feeding spindle's initialization. If during the the process of the initialization, the tested stepper spindle has malfunction, it's will inform the user with "cycloidal-pin spindle return to zero position is failure" or "feeding spindle return to zero position is failure". After the initialization is success, operation box will enter into the main display condition. As shown in the Fig.2-3.



The left side of the LCD monitor display space is the description information of the pattern. The right side is the pattern drawing. If you don't need to edit the pattern description information, step forward the pedal and enter into the stitching. If you edit the pattern information (No.,Width, needle pitch), you have to stop the stitching until cancel or confirm the edit and then get back to the stitching operation.

### 5.3 Choose the stitch pattern

- 1) When the interface is on the main display condition, press "Pattern key". When the pattern No. is displayed in invert color, that means the main display interface's edit condition is to edit the pattern No.
- 2) Press "+" key or "-" key to increase or decrease the pattern No. The adjustable range is 0~999. Now the left side of the LCD monitor display space is these No.'s pattern information. And the right side is the pattern drawing.
- 3) Press "confirm" key to choose the present pattern. And press "cancel" key to give up the operation.

### 5.4 Setting the stitching width and feeding length

- 1) When the interface is on the main display condition, Press "Width" key or "Needle pitch" key, the present pattern's Width or Pitch is displayed in invert color.
- 2) Press "+" key or "-" key to increase or decrease the Width or Needle pitch. The adjustment range of the Width is from 0.0mm to 9.0mm, and Needle pitch is from 0.0mm to 3.0mm,
- 3) Press the "confirm" key to save the edit. Give up the edit, press the "cancel" key.

### 5.5 Main menu

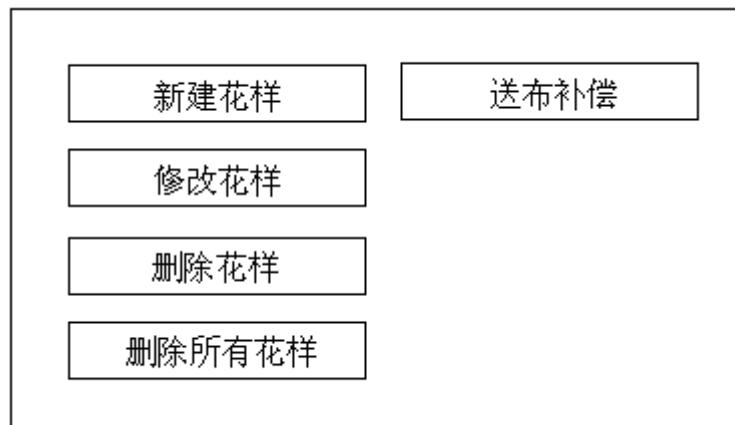
On the operation box, "cancel" key has two function. When you already pressed the other function key, now press the "cancel" key to cancel its function and press the "cancel" key to enter into the main menu. If no any function key has been pressed, now press the "cancel" key will straight enter into the main menu. The main menu is showed following:



Main menu interface, the button key's function description:  
“+” key: Move the cursor to the previous menu.  
“—” key: Move the cursor to the next menu.  
“Cancel” key: Exit to the main menu and return to the main interface.  
“Confirm” key: Carry out the selected menu items' operation.

### 5.5.1 Edit the pattern

The main action is to finish the pattern's add, delete and edit operation. As shown following:



Edit the pattern interface, the button key's function description:  
“+” key: Move the cursor to the previous menu.  
“—” key: Move the cursor to the next menu.  
“Cancel” key: Exit to the main menu and return to the main interface.  
“Confirm” key: Carry out the selected menu items' operation.

#### 5.5.1.1 Create new pattern

It's only can save 999 patterns on the control board at most. Thereinto, the basic patterns are 240. The No. is from 1 to 240, is provided by our company. The user patterns No. is from 241 to 999, is designed by the user or through the PC machine to download. When you create the new pattern, if already have 999 patterns in the machine, its will inform you with “delete before create”. If your machine patterns are less than 999 and have enough save space. It's will carry out this function. When you are drawing, the present needle point is use the solid block to indicate and the other needle points are use the hollow block to show.

The operation process are as follows:

- 1) On the main display interface, press “cancel” key (menu key) enter into the main menu;
- 2) Press “—” key to choose down. Press “+” key to choose up. Choose the edit menu;
- 3) Confirm by press the “confirm” key, Cancel by press the “cancel” key;
- 4) If you choose the confirm key, enter into the edit pattern's submenu interface;
- 5) Choose the create new pattern;
- 6) Confirm by press the “confirm” key, Cancel by press the “cancel” key;
- 7) If you press the confirm key, you'll enter into the handwork edit pattern interface. When you just enter into the interface, it's already insert the first default needle point, now you can press insert key (No.2 key) to continue insert the new point. Also you can press the Width key to

edit the Width (transverse value) or press needle pitch key to edit the needle pitch (longitudinal value). These two functions must cooperate with the increase/decrease key.

“Flip” key : Insert a new stitch.

“Width” key : It's the function key. Must cooperate with the increase/decrease key to edit the Width;

“Needle pitch” key: It's the function key. Must cooperate with the increase/decrease key to edit the needle pitch;

“+” key: Increase key. Must cooperate with the function key to use;

“—” key: Decrease key. Must cooperate with the function key to use;

“Confirm” key: Confirm,save and exit;

“Cancel” key: Cancel ,no save and exit.

### **5.5.1.2 Modify the pattern**

The operation of increase,delete or edit the original pattern's needle point is that insert a new needle point after the original pattern's any needle point,delete present needle point or edit the needle point's transverse,longitudinal coordinate value. The each button on the interface's definition is the same as above said.

No exist pattern,this operation is invalid.

### **5.5.1.3 Delete the pattern**

Delete the selected user pattern. First enter into the pattern choose interface. Use the “+” and “—” button to preview the user patterns. When you already choose the user patterns which need to delete, press “confirm” key to delete. If you want to give up,press “cancel” key. It's will inform you the operation result. For the basic patterns which is provided by the factory, this operation is invalid.

### **5.5.1.4 Delete all the patterns**

Its means delete all the user patterns. For the basic patterns which is provided by the factory, this operation is invalid.

### **5.5.1.5 Feeding compensation**

The each pattern can carry out the independence feeding compensation. They are value can save on the different memory cell. In the default condition,they are value are all zero. The operation process are as follows:

- 1) On the main display interface,press “cancel” key (menu key) enter into the main menu;
- 2) Press “—” key to choose down. Press “+” key to choose up. Choose the edit menu;
- 3) Confirm by press the “confirm” key , Cancel by press the “cancel” key;
- 4) If you choose the confirm key,enter into the edit pattern's submenu interface;
- 5) Choose the feeding compensation;
- 6) Confirm by press the “confirm” key , Cancel by press the “cancel” key;
- 7) If you press the confirm key, you'll enter into the feeding compensation's parameter edit interface.

During this interface,adjust selected pattern's feeding needle pitch compensation value. The range is from -20 to 20. If you confirm,press the “confirm” key, exit and save the edit value. If you press the “cancel” key,then give up edit and exit.

## **5.5.2 English/Chinese interface switching**

The language of the control operation interface is switching between the Chinese and English.

## **5.5.3 Initialization**

Software initialization, return to the default setting.

Operation process are as follows:

- 1) Enter into the main menu.
- 2) Choose the basic function.
- 3) Choose the initialization.
- 4) Confirm by press the “confirm” key , Cancel by press the “cancel” key;
- 5) If you press the confirm key, The display screen will inform with “software initialization return to the default setting” . After few seconds,the initialization is success,return to the main display interface.
- 6) If you press the cancel key, you’ll give up the operation.

## **5.6 Flip horizontally stitching**

- 1) Turn on the power,the interface is on the main display condition;
- 2) Press FLIP key, setting the flip horizontally stitching. After the pattern No.,it's display the “F” logo. Press one more time to cancel the flip horizontally stitching.
- 3) Step forward the pedal to beginning the stitching.

# **6 The PC software of pattern design**

This sewing machine is not only can stitching the default patterns but also can stitching the user design patterns. The user can through two methods to input the design patterns. The one method is use the sewing machine’s operation box to input the pattern by hand. The other one is use the pattern design program StyleEdit in the computer to input the pattern and then download it to the sewing machine’s electronic control box.

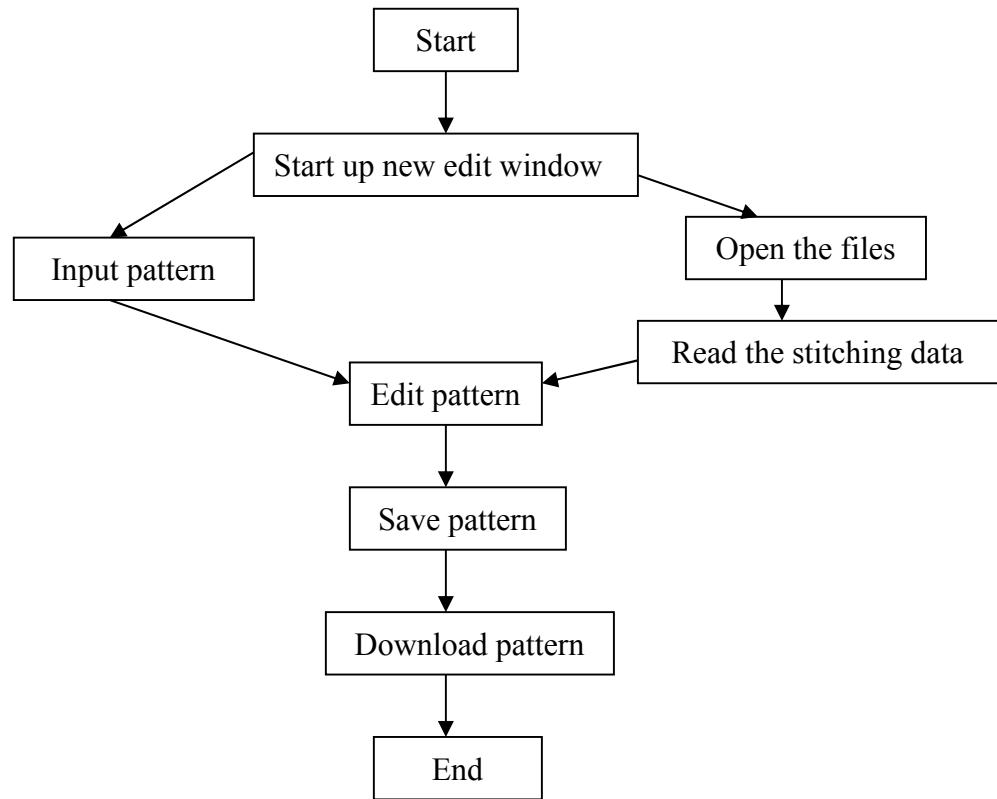
- CPU: Pentium PC or above
- Operation system: windows 2000 or XP
- Serial Port: COM1~COM5

This program’s execute file is StyleEdit.exe. You must pay attention that it’s dependent to the dynamic library pcomm.dll, so the user must make sure this dynamic library files is in the StyleEdit location’s folder.

Running the StyleEdit.exe in the PC machine, and then you can start up the pattern design program.

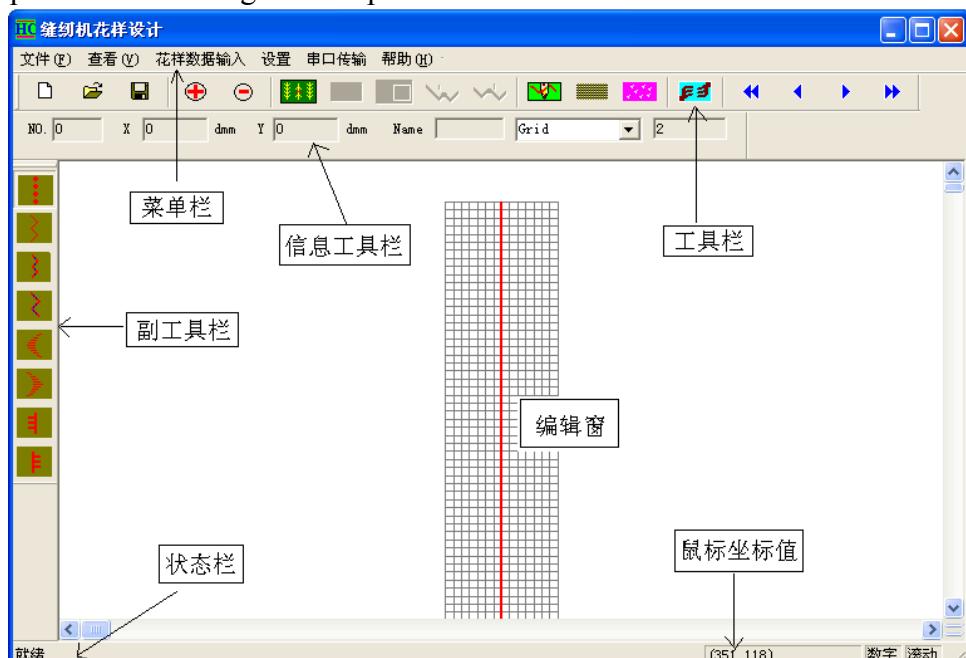
## 6.1 Software operation

### 6.1.1 Pattern design's general process



### 6.1.2 Edit the windows

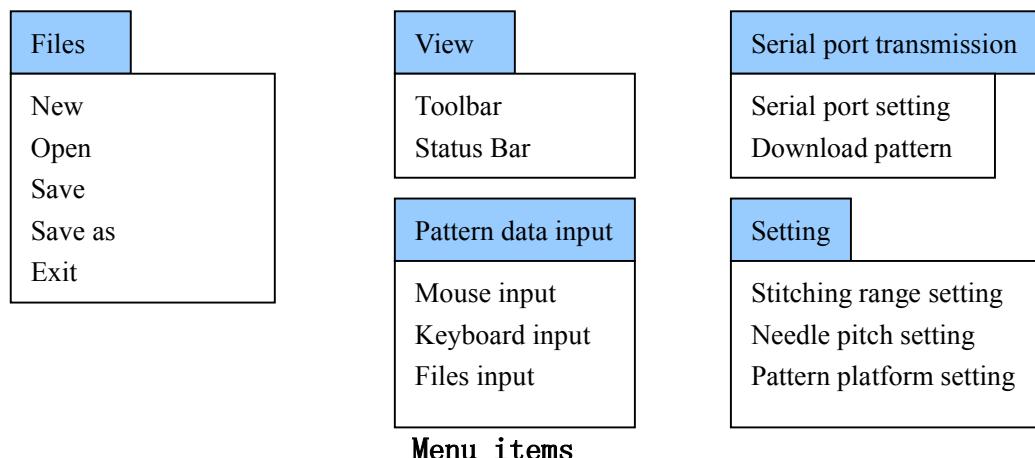
The below figure is indicate the software's overall organization and the edit windows. All input or edit working are all operation in this windows.



Edit windows

## Menu bar

文件(F) 查看(V) 花样数据输入(E) 设置(S) 串口传输(T) 帮助(H)



## Toolbar



Function	Logo	Description
New		Create an edit windows.
Open		Open the pattern files.
Save		Save the pattern data to files (.sss).
Enlarge		Enlarge the editing pattern.
Shorten		Shorten the editing pattern.
Edit		Enter or exit the edit mode. Under the edit mode, edit the present needle point position.
Delete		Under the edit mode, delete the present needle point position.
Move		Under the edit mode, move the whole pattern to the specify position.
Insertion at the front		Under the edit mode, insert the new needle point before the present needle point.
Insertion at the end		Under the edit mode, insert the new needle point after the present needle point.
Download		Use the serial port communication line to download the pattern files to the controller or upload the pattern files and save.
Network switch		Edit the windows gridlines' display or hide.

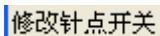
Drawing		Enter or exit the drawing mode.Under the drawing mode,insert a new needle point.
Refresh pattern		Update the new pattern's display.Clear and highlight the buffer.
Search the first needle point		Search the first needle point and setting it to be the present needle point.
Search the previous needle point		Search the previous needle point and setting it to be the present needle point.
Search the next needle point		Search the next needle point and setting it to be the present needle point.
Search the last needle point		Search the last needle point and setting it to be the present needle point.

### Information toolbar



The information toolbar is indicate the present needle point's No.,transverse and longitudinal coordinate values (Unit is ten point percent mm. The ten point percent mm=0.1 mm) and the pattern name etc., The combo box have two options: Grid and Snap\_to\_Grid. Thereinto,Grid indicate that when you design the pattern,the needle point is on the mouse click position. Snap\_to\_Grip means the needle point is on the network intersection point which is nearest to the mouse click position. The last information box is the present drawing's amplification coefficient.

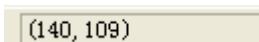
### Status bar



The status bar is on the bottom of the edit windows' left side. According to the actual condition to supply the information for each buttons or use the software.

The above contents is that when you click the button , you'll receive the information.

### Mouse coordinate status bar



It's on the bottom of the edit windows' right side. When the mouse is moving in the edit windows,it's will live display the present mouse's position (The unit is pixel).

### Sub-toolbar

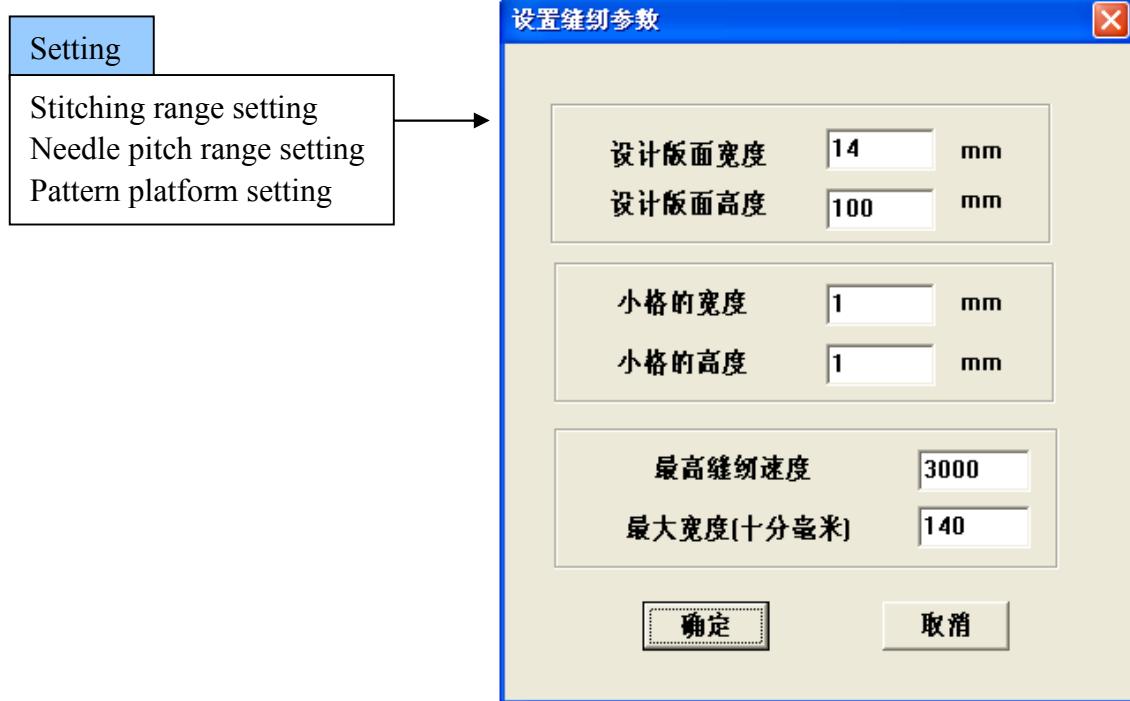


Crescent scallop (left) . Have 4 type patterns: 5-1- 5-2- 5-3- 5-4-

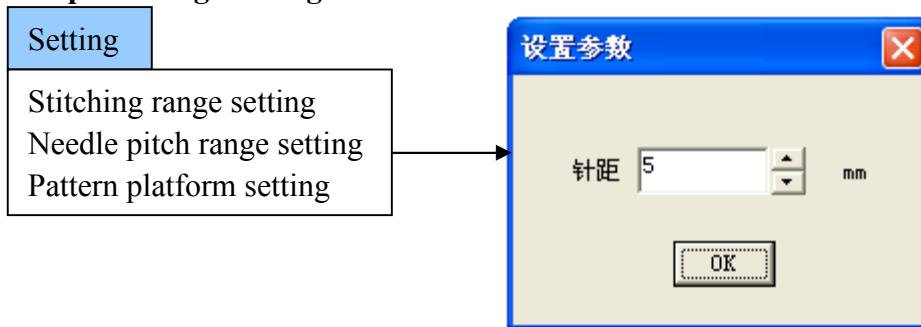


Crescent scallop (right) . Have 4 type patterns: 6-1- 6-2- 6-3- 6-4-

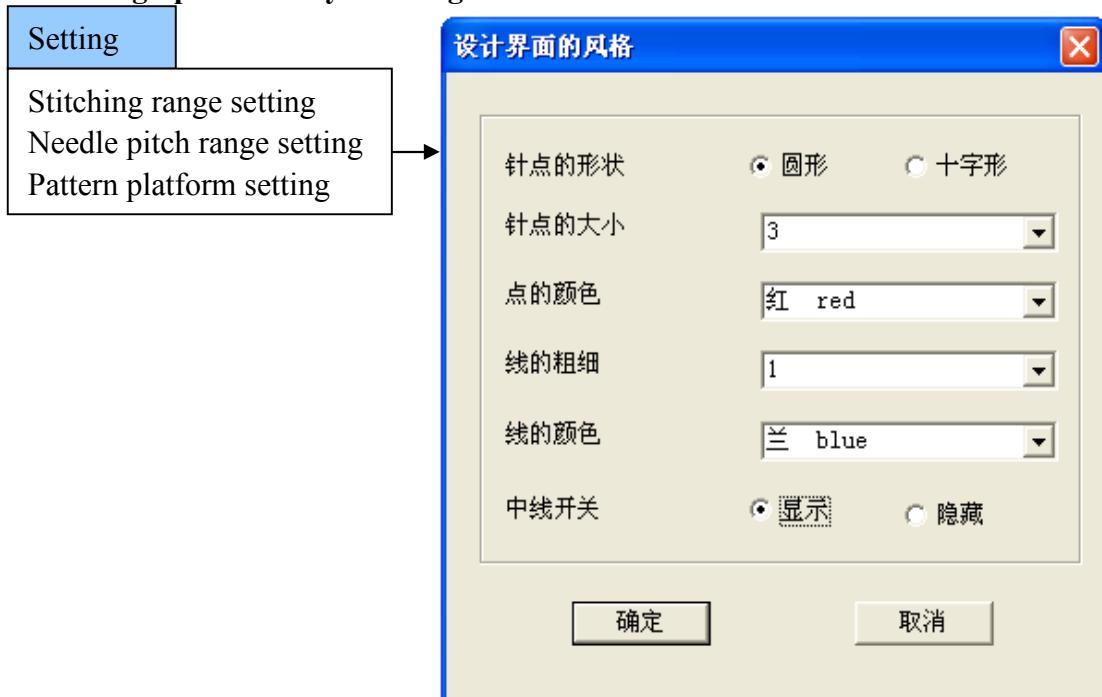
### Setting stitching range



### Needle pitch range setting



### Pattern design platform style setting



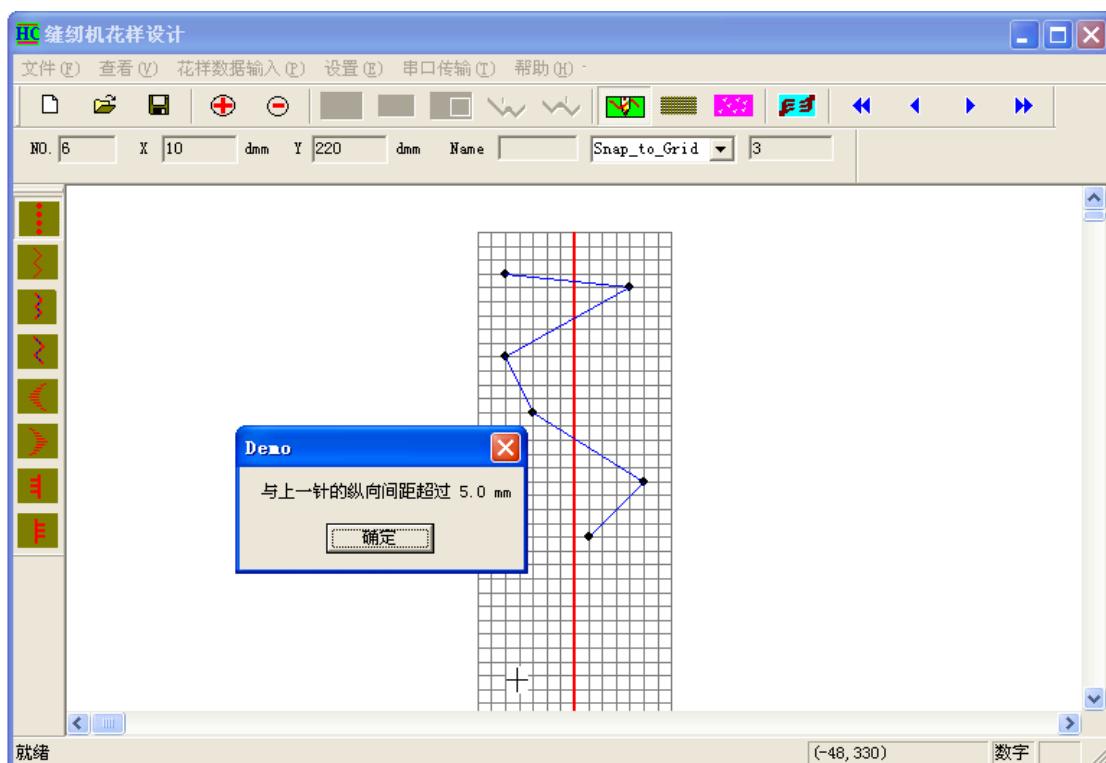
### 6.1.3 Input the pattern data

There are three types to input the pattern datas in the edit windows. Mouse input,keyboard input and files input. Through the input menu items to finish choose the input types.

#### 6.1.3.1 Mouse input

Click the shortcut button  to choose the mouse input type.

Edit the windows' pattern range (namely the mesh region as below). The mouse click position is regard as the mouse input data.The transverse distance between the two times clicking should not more than the needle pitch range parameter's setting value which is automatic controlled by the program.



Input and check the needle point

#### 6.1.3.2 Keyboard input

In the keyboard input interface to input the tranverse and longitudinal coordinate data and press the confirm key,then the just input data will display in the edit windows.

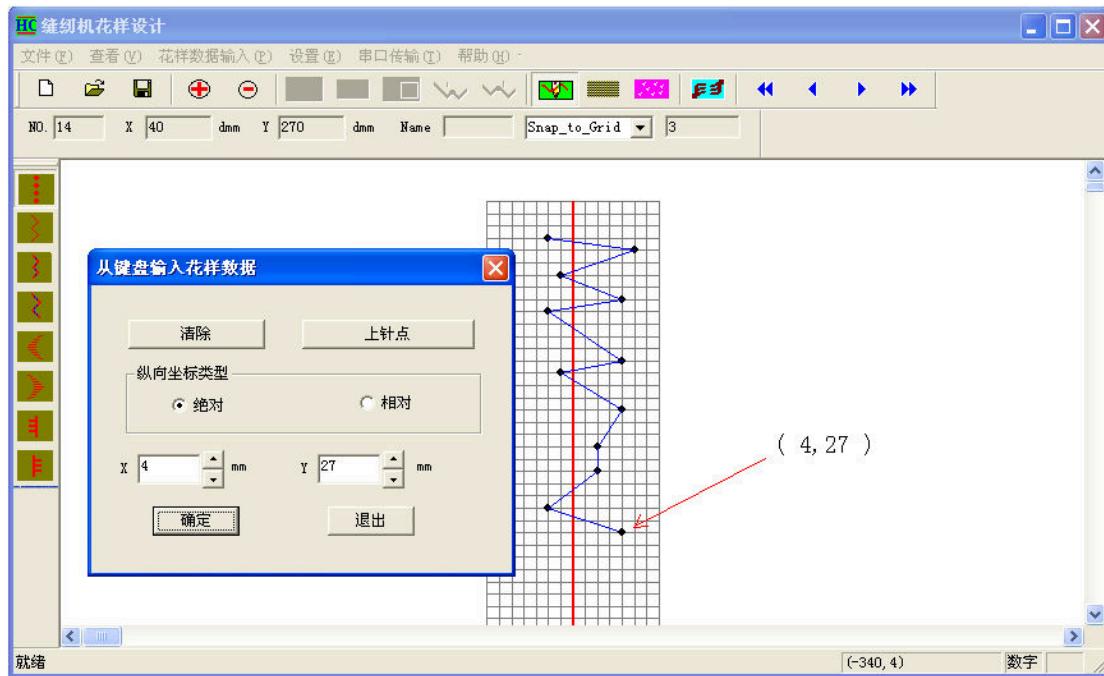
In the keyboard input interface,the button function instruction:

Clear: Clear all of the needle points in the edit windows.

Previous point: Back to the previous point and the present point will be automatic delete.

Confirm: Inspection the input data and live display the data in the edit windows.

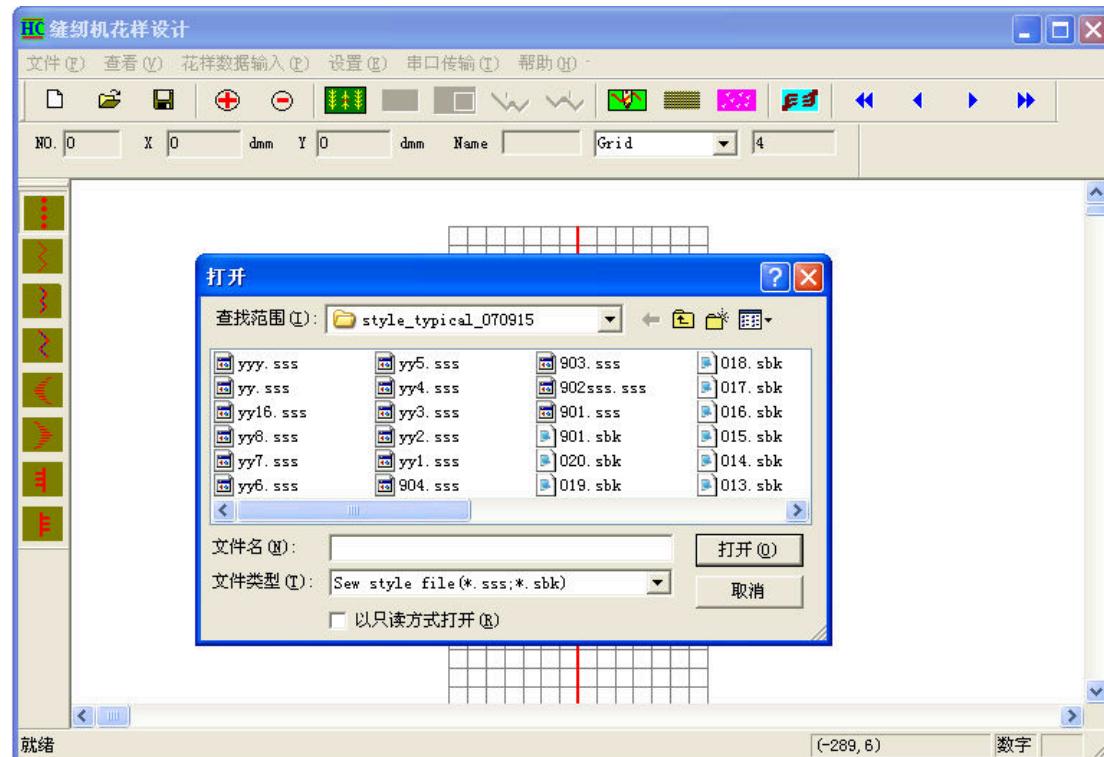
Exit: Close the keyboard input interface and return to the edit windows.



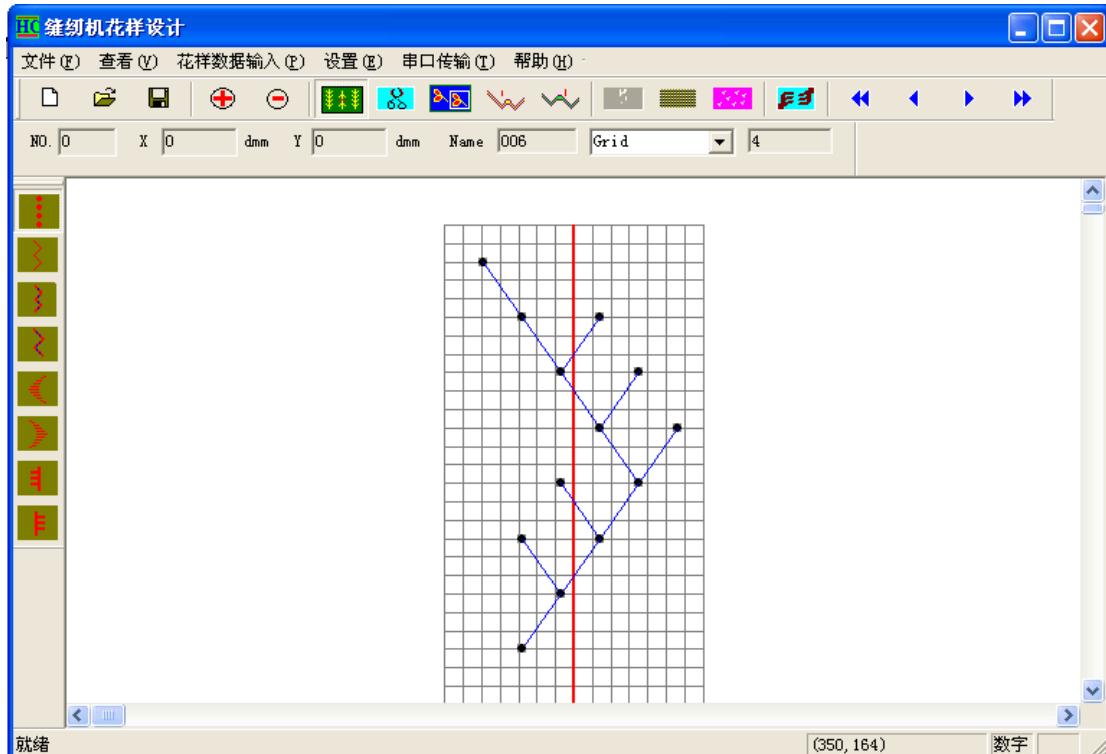
Straightly display the keyboard input data

### 6.1.3.3 Files input

Click the files input menu items or shortcuts button ,open the specify pattern files and then read the drawing data (the data unit is ten point percent of the mm, dmm). Through the format conversion and then display in the edit windows.

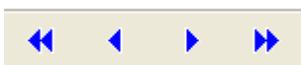


Choose the files to input



Display the pattern files' drawing

#### 6.1.4 Search for the needle point



Through the above four shortcut buttons to separate finish. The task is to search for the first needle point, previous needle point, next needle point, the last needle point and highlight display the find out needle point which is the present needle point. (If only have one needle point, so you don't need to search and the default needle point is the present needle point). Use the PC keyboard's up and down two direction key to search the previous and the next needle point.

Especially, under the edit mode, use the mouse to click the pattern point straightly and you'll see a highlight present needle point. If you want to cancel the highlight

point, please click the button. Under the edit mode and non-working area to click the left mouse button to cancel the highlight point.

#### 6.1.5 Edit the pattern data

Use the edit mode to edit the data. Under the edit mode to finish the forward insertion, back insertion, move, delete and so on function.



: Enter or exit the edit mode. Under the edit mode, choose the present needle point (straightly use the mouse to click any needle point or use the seek key to search which are all can choose the present needle point). And then click the mouse at any position, the present needle point will automatic move to the mouse click position. The

drawing's line track display the update.

Special instruction: If you edit the pattern files, the original pattern is below the drawing. When you edit any needle point, it's will display this needle point's original position.

 : Under the edit mode, chose the present needle point and click this button to delete the present needle point. The drawing's line track display the update.

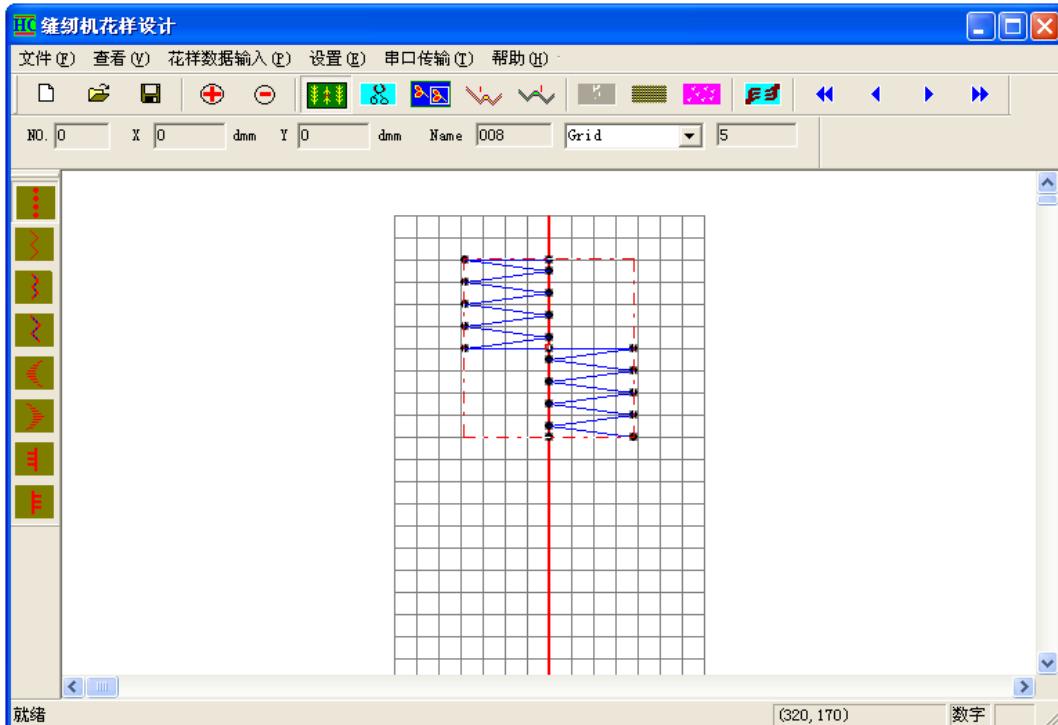
 : Under the edit mode, click this button and the drawing which in the edit windows will cover by the highlight box. And then click any position in the grid, the whole drawing will move. Now, the mouse click point is the center of the drawing. If calculate that the drawing move to the new area will exceed the boundary line, so

this operation is ineffective. Cancel this moving operation, press  button.

The four direction keys of keyboard will move the whole drawing step by step.

 : Under the edit mode, choose the present point and press this button, then click the mouse at any position, now the mouse click point will automatic before the present point. The drawing's line track display the update.

 : Under the edit mode, choose the present point and press this button, then click the mouse at any position, now the mouse click point will automatic after the present point. The drawing's line track display the update.



Highlight the drawing before moving

## 6.1.6 Save the pattern data

Click the shortcut button  to save the pattern data to the specify files. (And

automatic add the file suffixes .sss)

## 6.1.7 Serial port transmission

Through the serial port transmission to finish the pattern data's download or upload operation.

### 6.1.7.1 Serial port setting

Supply the port No. edit because of the electronic controller's serial port communication parameters are already fixed.



Setting serial port parameters

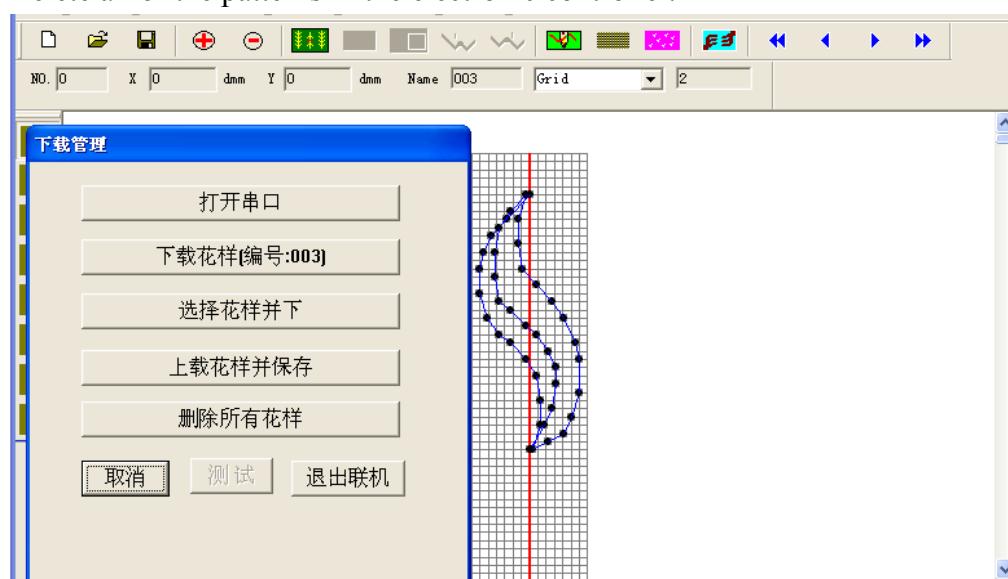
### 6.1.7.2 Download pattern

Finish the operation of download or upload the pattern data.

Preparation work: Use the serial port communication line to connect the PC machine with the electronic controller.

Press button or download the pattern submenu items and enter into the download administration dialog box. See figure 13. It's the operation interface when the PC machine and the electronic controller are connection. Through the connection communication to finish the functions as below:

- 1: Download the present pattern: Download the present named patterns.
- 2: Choose many patterns (from 1 to 1000 pcs) and download.
- 3: Upload the patterns in the electronic controller and save to the PC machine.
- 4: Delete all of the patterns in the electronic controller.



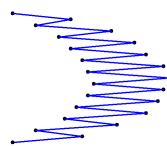
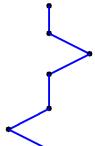
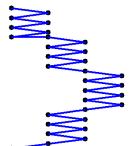
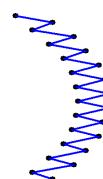
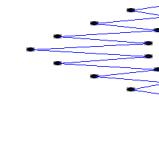
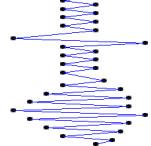
PC and electronic controller's connection operation interface

## 附录 1：单轴系统花样(基本版)

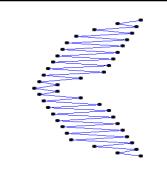
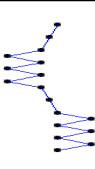
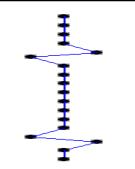
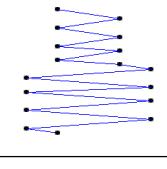
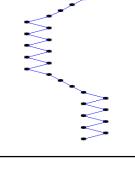
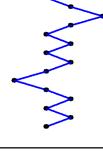
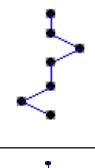
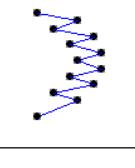
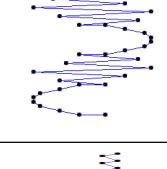
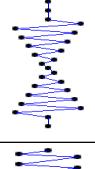
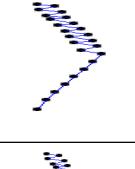
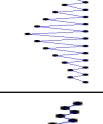
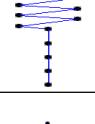
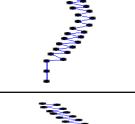
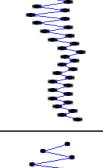
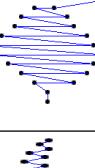
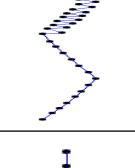
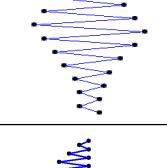
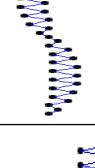
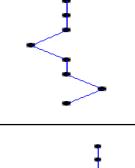
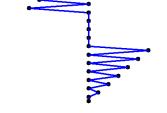
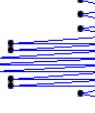
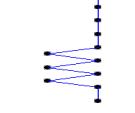
### Appendix 1: Single-axis System Pattern (Basic Ver.)

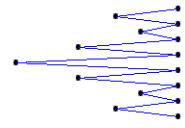
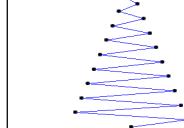
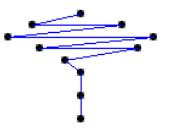
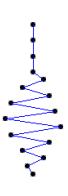
单轴系统花样 (1)  
Single-axis System Pattern (1)

花样号 Pattern No	花样图案 Pattern Figure	花样号 Pattern No	花样图案 Pattern Figure	花样号 Pattern No	花样图案 Pattern Figure
1		11		21	
2		12		22	
3		13		23	
4		14		24	
5		15		25	
6		16		26	
7		17		27	
8		18		28	

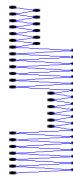
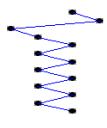
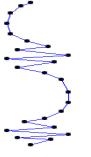
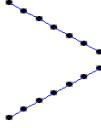
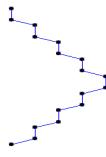
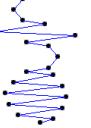
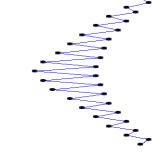
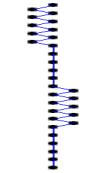
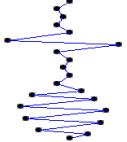
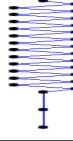
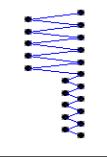
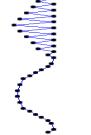
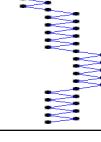
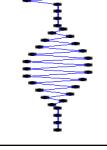
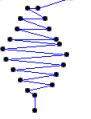
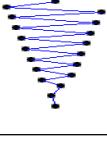
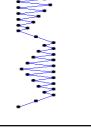
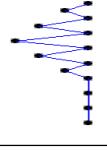
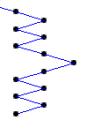
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10		20		30	

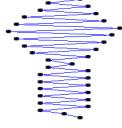
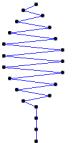
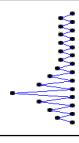
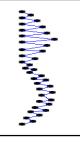
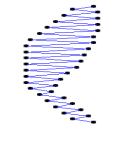
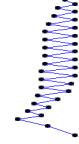
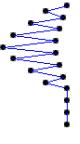
单轴系统花样 (2)  
Single-axis System Pattern (2)

花样号 Pattern No	花样图案 Pattern Figure	花样号 Pattern No	花样图案 Pattern Figure	花样号 Pattern No	花样图案 Pattern Figure
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32		42		52	
33		43		53	
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35		45		55	
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37		47		57	
38		48		58	

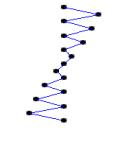
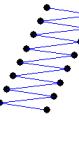
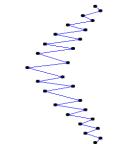
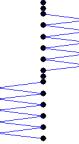
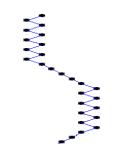
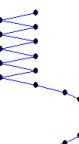
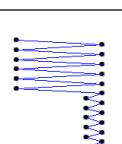
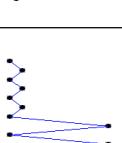
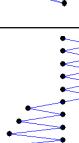
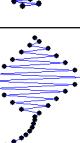
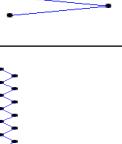
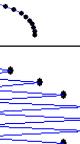
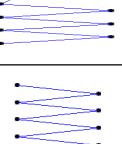
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40		50		60	

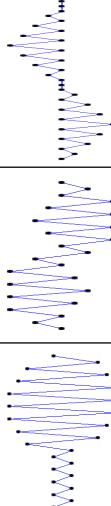
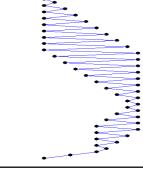
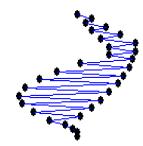
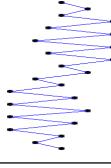
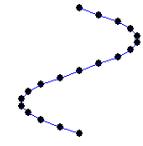
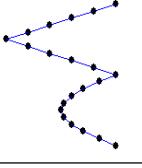
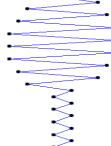
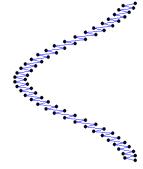
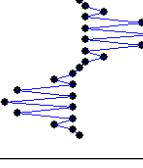
单轴系统花样 (3)  
Single-axis System Pattern (3)

花样号 Pattern No	花样图案 Pattern Figure	花样号 Pattern No	花样图案 Pattern Figure	花样号 Pattern No	花样图案 Pattern Figure
61		71		81	
62		72		82	
63		73		83	
64		74		84	
65		75		85	
66		76		86	
67		77		87	

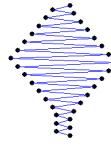
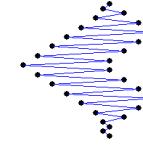
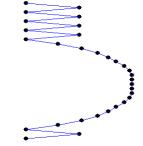
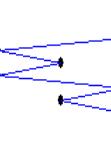
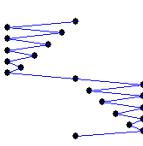
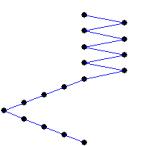
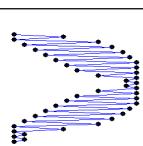
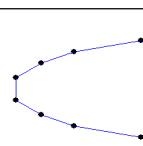
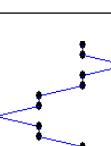
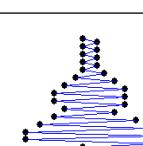
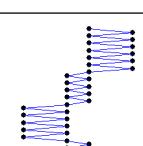
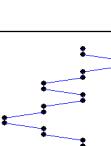
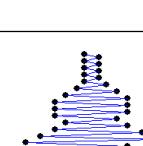
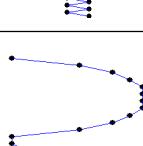
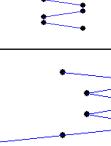
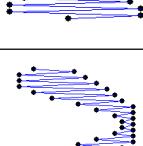
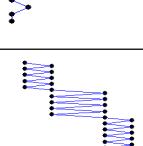
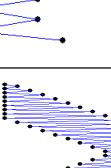
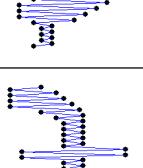
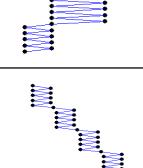
68		78		88	
69		79		89	
70		80		90	

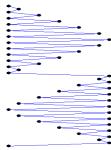
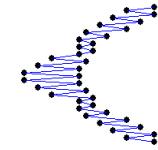
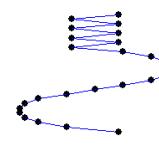
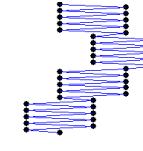
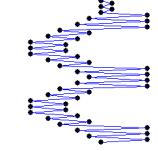
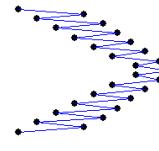
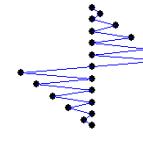
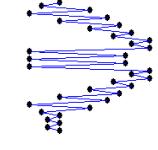
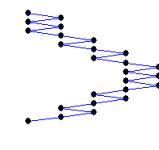
单轴系统花样 (4)  
Single-axis System Pattern (4)

花样号 Pattern No	花样图案 Pattern Figure	花样号 Pattern No	花样图案 Pattern Figure	花样号 Pattern No	花样图案 Pattern Figure
91		101		111	
92		102		112	
93		103		113	
94		104		114	
95		105		115	
96		106		116	
97		107		117	

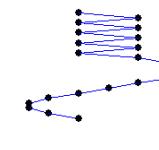
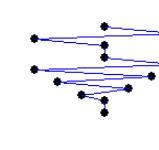
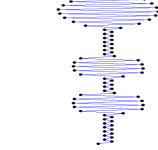
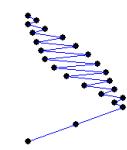
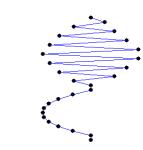
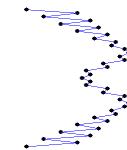
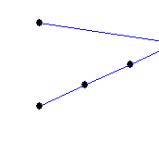
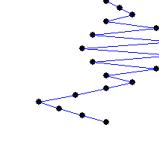
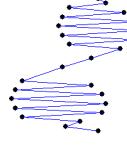
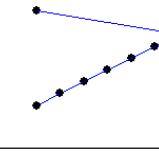
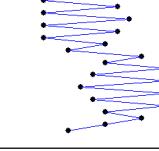
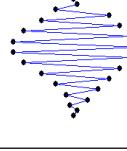
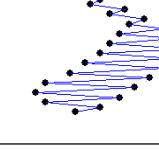
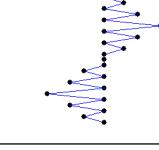
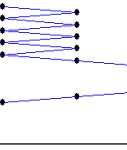
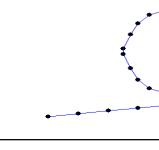
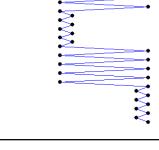
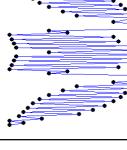
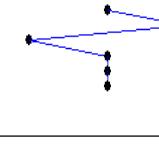
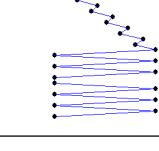
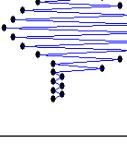
98		108		118	
99		109		119	
100		110		120	

单轴系统花样 (5)  
Single-axis System Pattern (5)

花样号 Pattern No	花样图案 Pattern Figure	花样号 Pattern No	花样图案 Pattern Figure	花样号 Pattern No	花样图案 Pattern Figure
121		131		141	
122		132		142	
123		133		143	
124		134		144	
125		135		145	
126		136		146	
127		137		147	

128		138		148	
129		139		149	
130		140		150	

单轴系统花样 (6)  
Single-axis System Pattern (6)

花样号 Pattern No	花样图案 Pattern Figure	花样号 Pattern No	花样图案 Pattern Figure	花样号 Pattern No	花样图案 Pattern Figure
151		161		171	
152		162		172	
153		163		173	
154		164		174	
155		165		175	
156		166		176	
157		167		177	

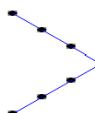
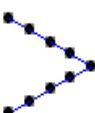
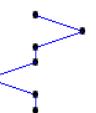
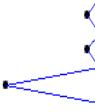
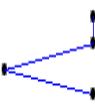
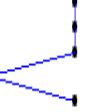
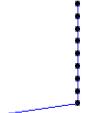
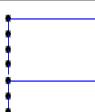
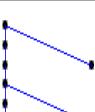
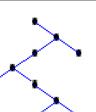
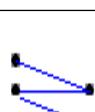
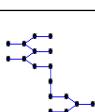
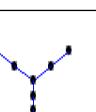
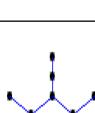
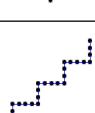
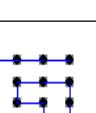
158		168		178	
159		169		179	
160		170		180	
181		182		183	
184		185		186	
187		188		189	
190					

## 附录 2：双轴系统花样(基本版)

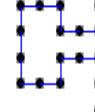
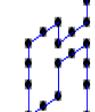
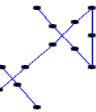
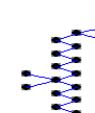
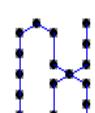
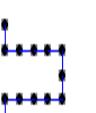
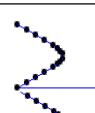
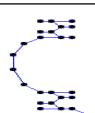
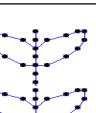
### Appendix 2: Double-axis System Pattern (Basic Ver.)

双轴系统花样（1）  
Double-axis System Pattern (1)

花样号 Pattern No	花样图案 Pattern Figure	花样号 Pattern No	花样图案 Pattern Figure	花样号 Pattern No	花样图案 Pattern Figure
1		2		3	

4		5		6	
7		8		9	
10		11		12	
13		14		15	
16		17		18	
19		20		21	
22		23		24	

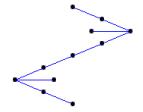
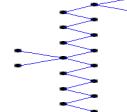
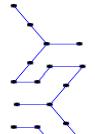
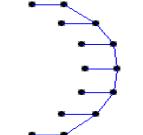
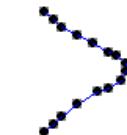
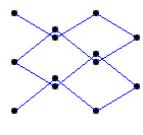
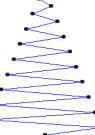
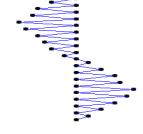
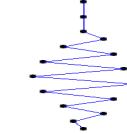
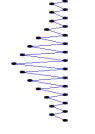
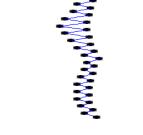
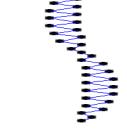
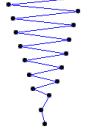
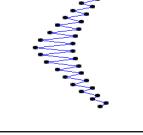
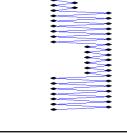
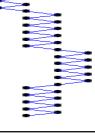
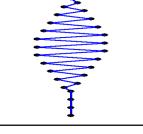
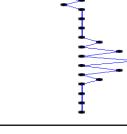
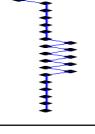
双轴系统花样 (2)  
Double-axis System Pattern (2)

花样号 Pattern No	花样图案 Pattern Figure	花样号 Pattern No	花样图案 Pattern Figure	花样号 Pattern No	花样图案 Pattern Figure
25		26		27	
28		29		30	
31		32		33	

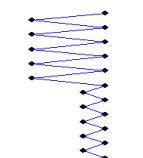
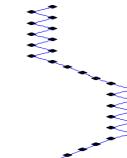
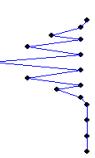
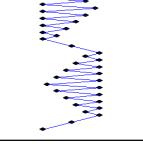
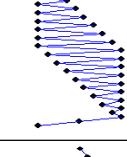
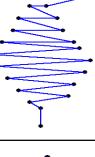
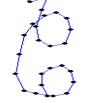
34		35		36	
37		38		39	
40		41		42	
43		44		45	
46		47		48	
49		50		51	
52		53		54	

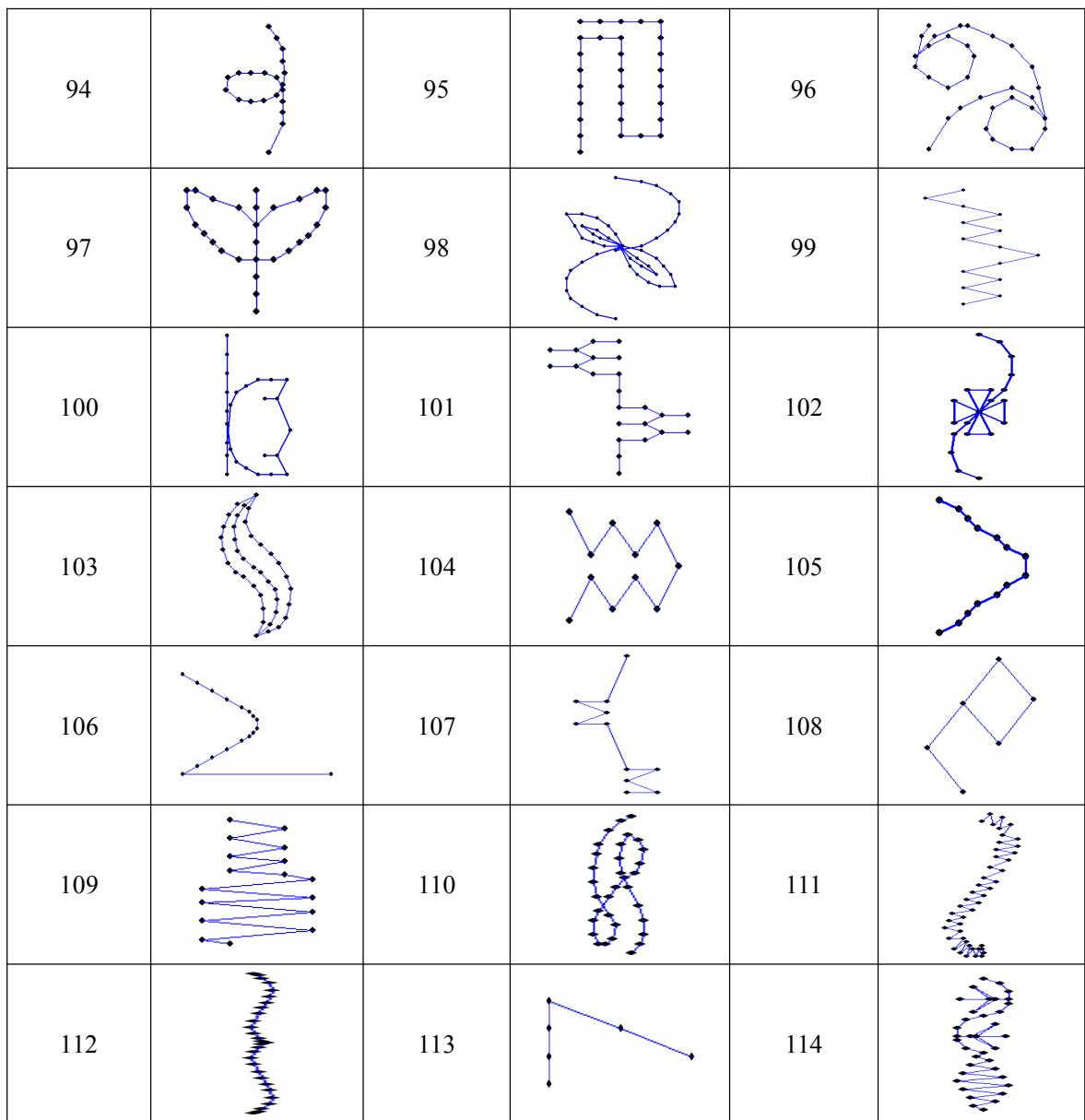
双轴系统花样 (3)  
Double-axis System Pattern (3)

花样号 Pattern No	花样图案 Pattern Figure	花样号 Pattern No	花样图案 Pattern Figure	花样号 Pattern No	花样图案 Pattern Figure
55		56		57	
58		59		60	
61		62		63	

64		65		66	
67		68		69	
70		71		72	
73		74		75	
76		77		78	
79		80		81	
82		83		84	

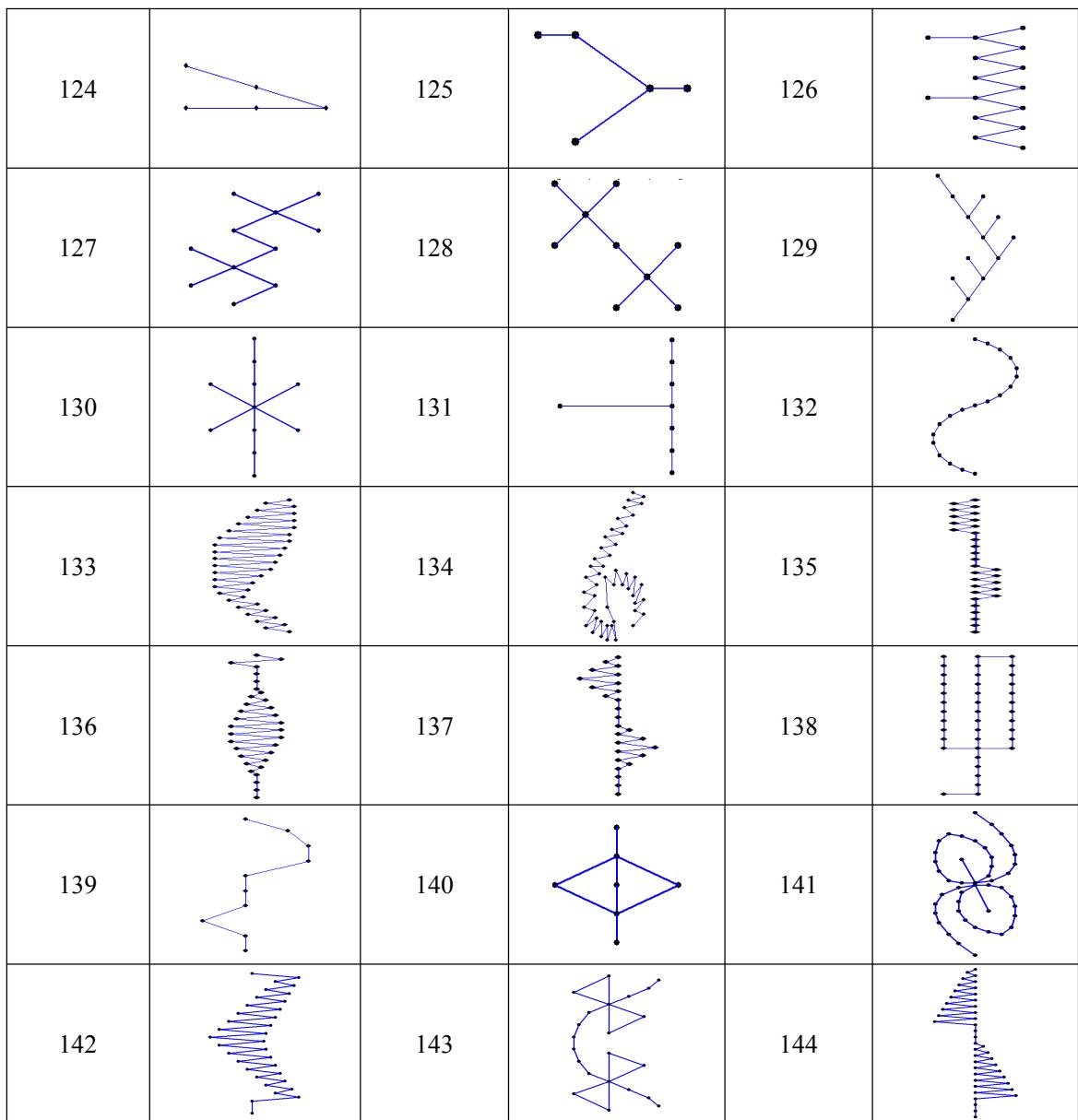
双轴系统花样 (4)  
Double-axis System Pattern (4)

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85		86		87	
88		89		90	
91		92		93	



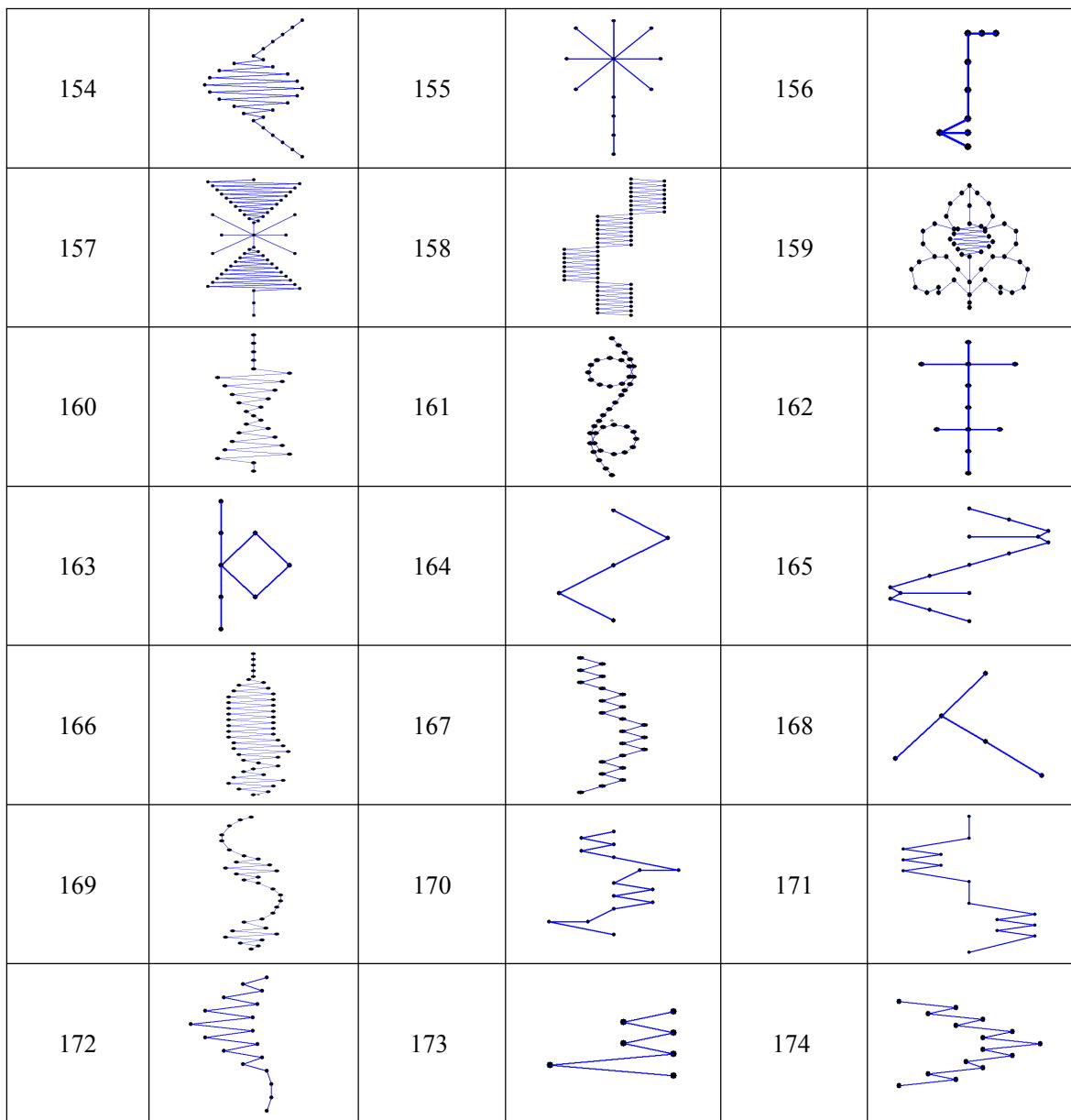
双轴系统花样 (5)  
Double-axis System Pattern (5)

花样号 Pattern No	花样图案 Pattern Figure	花样号 Pattern No	花样图案 Pattern Figure	花样号 Pattern No	花样图案 Pattern Figure
115		116		117	
118		119		120	
121		122		123	



双轴系统花样 (6)  
Double-axis System Pattern (6)

花样号 Pattern No	花样图案 Pattern Figure	花样号 Pattern No	花样图案 Pattern Figure	花样号 Pattern No	花样图案 Pattern Figure
145		146		147	
148		149		150	
151		152		153	



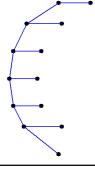
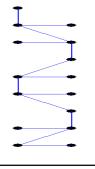
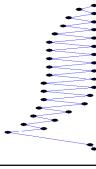
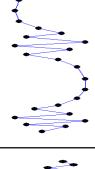
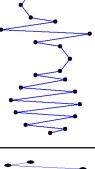
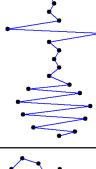
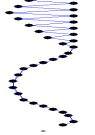
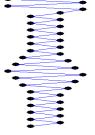
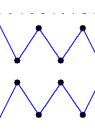
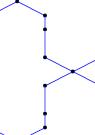
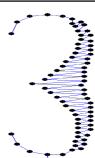
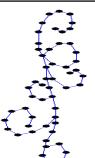
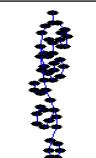
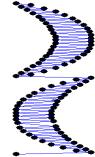
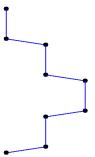
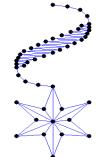
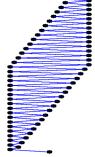
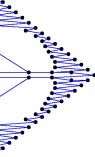
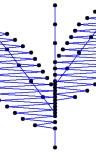
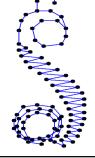
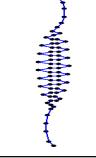
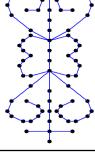
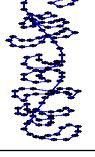
双轴系统花样 (7)  
Double-axis System Pattern (7)

花样号 Pattern No	花样图案 Pattern Figure	花样号 Pattern No	花样图案 Pattern Figure	花样号 Pattern No	花样图案 Pattern Figure
175		176		177	
178		179		180	
181		182		183	

184		185		186	
187		188		189	
190		191		192	
193		194		195	
196		197		198	
199		200		201	
202		203		204	

双轴系统花样 (8)  
Double-axis System Pattern (8)

花样号 Pattern No	花样图案 Pattern Figure	花样号 Pattern No	花样图案 Pattern Figure	花样号 Pattern No	花样图案 Pattern Figure
205		206		207	
208		209		210	
211		212		213	

214		215		216	
217		218		219	
220		221		222	
223		224		225	
226		227		228	
229		230		231	
232		233		234	
235		236		237	
238		239		240	

### 附录 3：配件测试及常见故障排查

#### 1、马达是否能正常运行？

- A. 按菜单键进入菜单、再按“+”、“—”键到“设备测试”并确认；
- B. 按切换键选择要测试的马达选项；

- C. 连续按“+”键，观察马达是否转动；
- D. 连续按“-”键，观察马达是否反向转动；
- E. 上述 C、D 步都正常，说明马达可以正常工作。

## 2、传感器是否能正常工作？

- A. 在关电状态下，把马达插头拔掉，再开电；
- B. 再按菜单键进入菜单，按“+”、“-”键到“设备测试”并确认；
- C. 左右推动针杆，观察“X 零点”是否有“L”、“H”交替；
- D. 前后推动送布马达曲柄，观察“Y 零点”是否有“L”、“H”交替；
- E. 连续顺转手盘，观察“X 同步”、“Y 同步”是否有“L”、“H”交替；
- F. 上述 B、C、D 步都正常，说明对应的传感器信号输入正常。

## 3、摆针回原点失败怎么排查？

- A. 按照上述 2，判断摆针轴的马达回零传感器信号是否正常；
- B. 若 A 步不正常，把机器上盖打开观察，左右推动针杆时传感器能否有亮有灭。若没有变化，确认一下感应铁片的距离、位置是否合适；
- C. 若上述都没问题，按照上述 1，判断摆针轴的马达是否正常；
- D. 若 C 步不正常，请检查马达插头是否插好、插头端子是否可靠、马达前轴螺丝是否拧紧、马达的连线是否被压断；
- E. 若 D 步都没有问题，在开电状态下确认马达前轴是否能锁住；
- F. 若 A—>F 都没有问题，按菜单键进入菜单—>系统参数，按“+”、“-”键到 3 号参数“X 传感器极性”，按切换键跳到参数值项，按“+”、“-”键改变值后并确认；
- G. 送布轴回零失败排查方法类似摆针轴。

## 4、传感器指示灯感应不亮怎么排查？

- A. 确认一下感应铁片的距离、位置是否合适；
- B. 检查一下传感线是否被压断，插头端子是否连接可靠。
- C. 若 B 步没有问题打开电控箱，把电控箱内的互联线插头及端子仔细检查一遍；
- D. 若 A—>C 都没问题，用万用表测量一下传感器的 5V 供电是否正常。

## 5、开电后马达锁不住怎么排查？

- A. 按照上述 3—>D 步检查，若没有问题打开电控箱；
- B. 把电控箱内的互联线插头及端子仔细检查一遍；
- C. 开电状况下，观察电源板的两个指示灯是否都是亮的；
- D. 若 B、C 步没问题，观察步进板上是否有元件损坏现象。

## 6、马达只能单向动作？

- A. 检查一下机械有没有卡住，或限位偏了；
- B. 按照上述 3—>D 步检查，若没有问题打开电控箱；
- C. 把电控箱内的互联线插头及端子仔细检查一遍，特别要检查一下从主板到步进板的 3 线排线。

## 7、马达失步怎么排查？

- A. 检查一下机械有没有卡住，或限位偏了，以及马达的负载重不重；
- B. 按照上述 3—>D 步检查，若没有问题打开电控箱；
- C. 把电控箱内的互联线插头及端子仔细检查一遍；
- D. 若 A—>C 步没有问题，按菜单键进入菜单—>系统参数，按“+”、“-”键到对应轴的“马达速度”参数，按切换键跳到参数值项，按“+”、“-”键改变值为“-10”以下再确认；

## 8、马达只走直线怎么排查？

- A. 按照上述 5 检查一下马达是否开电后锁不住；
- B. 若 A 步没有问题，按照上述 2 检查下 X、Y 同步传感器是否都正常；
- C. 若 B 步不正常，把机器上盖打开，连续顺转手盘观察 X、Y 同步传感器指示灯是否能交替亮灭；

D. 若 C 步有一个或两个灯不能有亮有灭，将传感器电路板与磁环的位置对正、并尽量靠近。

## 9、如何减少操作屏出现白屏现象？

- A. 严禁操作盒插头插反、插错；
- B. 避免静电：a、机壳及电控箱良好接地；b、干燥环境下尽量带防静电手套操作；c、没有必要时，避免无关的触摸电控箱及箱外连线；
- C. 避免强电磁干扰，影响操作屏与电控箱之间通信。

## 附录 4：XinJunYe 电控系统产品分类与选型

表1 曲折缝/266/马克车/帮面 电控系统产品

序号	系统产品型号	适合机型
1	XJY-8508A	2290A-SR/SS 型曲折缝
2	XJY-8508D	2284/457 改进型曲折缝
3	XJY-20ULCD	外置手编花 20U曲折缝
4	SSC-8508B	856D/2070 型曲折缝
5	XJY-20UE	内置嵌入式 20U曲折缝
6	XJY-1530F	2530/1530 型曲折缝
7	XJY-1530S/SL	1530 曲折缝经济型(替代常见花盘)
8	XJY-8200G	鞋帮/帮面 曲折缝
9	XJY-2685D	皮革/鞋机(266、马克车、DY车等)
10	XJY-8488B	牛仔/服装类(双针旋转同步)

表2 套结机/钉扣机/渔网绳/渔网浮/冲帽眼 电控系统产品

序号	系统产品型号	适合机型
1	SSC-9500A	1900A/1903A/1906A 型套结机/钉扣机
2	XJY-9508B	430D/438D 型套结机/钉扣机
3	XJY-9500B1/B3	430D型渔网机/渔网结机
4	SSC-9500B2	430D型气动压脚
5	SSC-9500C	430FS/438FS 型套结机/钉扣机
6	XJY-9500B4	437D/G直驱电脑平缝椅垫机
7	XJY-9500B5	自动帽眼冲孔打结机
8	XJY-9500B6	439D自动子母扣钉扣机
9	XJY-9550A	渔网浮标机机
10	SSC-9600A	1900A/1903A 兼容重机型套结机/钉扣机
11	SSC-9800	2516/3020/5030电子花样机
12	XJY-8300A/B/C	特厚料电子花样机、帆绳机

表3 珠边机/暗缝/小烫/上袖/卷带机/口罩 电控系统产品

序号	系统产品型号	适合机型
1	XJY-7500A/B	781/785 珠边机
2	XJY-7800A/B	电子暗缝/双面呢系统
3	XJY-7600A/B/C	小烫机控制系统
4	XJY-7700A	揉边、拉毛控制系统
5	XJY-7900A	热风机、防护服封胶系统
6	XJY-6680A/B	自动卷带机系统
7	XJY-7650A	上袖机控制系统
8	XJY-6880A/B	自动超声波切带机系统
9	XJY-5000A/B/C	缝制伴侣单元（断线、底线、布料等检测）
10	XJY-8780A/B	口罩自动封口系统

表4 拖布轮/运模/打折机/省缝/袋贴/驳头机/袋口 电控系统产品

序号	系统产品型号	适合机型
1	XJY-8850A/B/C	通用电子拖布轮
2	XJY-8870A/B	辘脚、埋夹大动力高速电子拖布轮
3	XJY-9010A/B	自动省缝系统
4	XJY-9020A	自动驳头机系统
5	XJY-9000A/B	自动贴袋机系统
6	XJY-8890A/B	运模机、小模板机
7	XJY-8680A/B	气动/可编花打折机(窗帘)系统
8	XJY-9040A	(裤腰)自动合缝系统
9	XJY-9030A/B	单双向包缝/包边自动控制系统
10	XJY-9050A	袋口自动缝制控制系统
11	XJY-9060A/B	全自动拷边机
12	XJY-9070A	全自动下摆机系统
13	XJY-9075A	全自动辘角机系统

表5 自动化改造平台/定制平台 电控系统产品

序号	系统产品型号	适合机型
1	SAI-2025A/B	自动化改造控制平台，量身订制系统！
2	SAI-2540A	与重机/兄弟/贺欣/琦星/鲍麦对接的辅助系统

技术支持 86-755-27513737

