

# Industrial Highspeed Overlock Sewing Machine Auto-trimming System

## 工业高速包缝机 自动剪线系统

### User Manual

### 用户手册

为了安全地使用本产品，请您在使用前仔细阅读本说明书。

In order to operate this product safely, please make sure to read this manual carefully before use.

# 前言

## Foreword

欢迎使用本公司产品，制衣行的正确投资选择！

Welcome to use the products of our company and it's the right investment choices of clothing industry!

本说明书为本公司新研发的“吸风剪线”产品参考手册，请认真阅读此手册以更好的运用本公司产品！

This is the product reference manual of the company's newly developed "suction line cut". Please carefully read this manual to better use the company's products!

● 阅读本说明前，请注意以下要求说明：

1. 用户使用作业前必须**可靠接地（接地电阻 $<4\Omega$ ）**，保证人身安全！
2. 非专业人士请勿拆卸控制箱；
3. 请在室温  $5^{\circ}\text{C}$  以上,  $45^{\circ}\text{C}$  以下场所使用；
4. 请在 30%~90%相对潮湿环境中作业；
5. 220V 电控：额定电压  $220\text{V}\pm 10\%$ ，频率 50/60HZ； 110V 电控：额定电压  $110\text{V}\pm 10\%$ ，频率 50/60HZ；请根据对应型号输入相应电压。
6. 每日使用前使用软棉布清洁上、下光眼；

● **Before reading this manual, please note the following requirements:**

1. Before practicing, the user must be grounded to ensure personal safety! (Ground resistance :  $< 4\Omega$ )
2. Non-professionals do not disassemble the control box;
3. Please use at room temperature above  $5^{\circ}\text{C}$ , below  $45^{\circ}\text{C}$ ;
4. Please work in 30% to 90% of the relatively humid environment;
5. **220V electronic control:** Rated voltage  $220\text{V}\pm 10\%$ , frequency 50/60HZ; **110V electronic control:** Rated voltage  $110\text{V}\pm 10\%$ , frequency 50/60HZ. Please enter the proper voltage according to the matched model.
6. Use soft cotton cloth to clean the upper and lower infrared light before daily use.

- **安全须知：**

1. 电控电源接通时请不要把脚放在脚踏板上；
2. 本产品请专业人士安装调试；
3. 严禁在通电时打开控制箱；
4. 换针，穿线或更换底线时请关闭电源；
5. 安装，拆卸维修时请关闭电源；
6. 翻抬缝纫机时请关闭电源；
7. 使用本产品请远离高频电磁波和电波发射器等，以免所产生的电磁波干扰伺服驱动器而发生错误动作。

- **Safety Precautions:**

1. Do not put your feet on the pedal when the power is connected;
2. This product requires professional installation and commissioning;
3. Do not open the control box when power is on;
4. Turn off the power when changing the needle, threading or replacing the bottom thread;
5. Turn off the power when installing, removing and repairing;
6. Turn off the power when turning or lifting the sewing machine;
7. Away from high-frequency electromagnetic waves and radio waves, etc, in order to avoid the servo drive being interference by the electromagnetic waves and leading to the wrong action.

- **保修策略：**

1. 保修期内除人为损坏外出现的任何质量问题可免费维修；
2. 未经本公司同意自行拆卸，改装造成损坏将不给予保修；
3. 若出现无法解决的问题可以联系本公司；
4. 本公司对此说明书有最终解释权。

- **warranty strategy:**

1. Any quality problems other than man-made damage during the warranty period may be free of charge;
2. Without the consent of the company to disassemble, modification damage will not give the warranty;
3. If you can't solve a problem, you can contact the company;
4. The company has the final interpretation of this manual.

# 目录

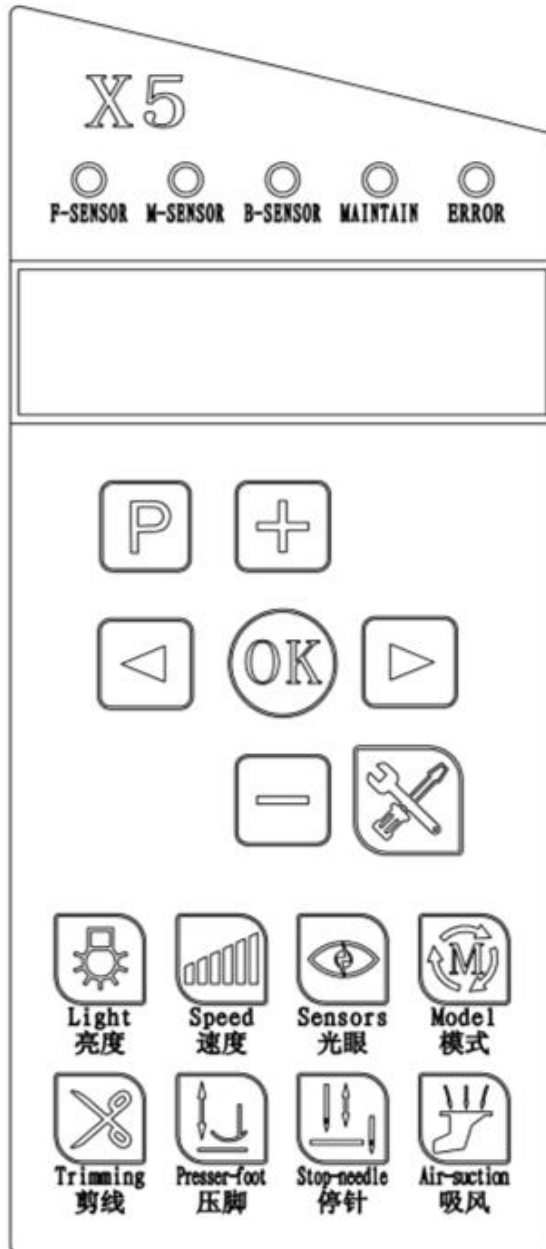
- 1: 显示屏常用操作介绍**
- 2: 如何进入参数与如何修改参数**
- 3: 操作参数说明表**
  - 3.1 技术员系统参数列表
  - 3.2 工人系统参数列表
- 4: 控制箱端口说明**
- 5: 故障代码解析**













## Catalogue












- 1: Introduction to the common operation of the display**
- 2: How to enter and modify parameters**
- 3: Operation parameters description table**
  - 3.1 technician system parameter list
  - 3.2 Workers system parameter list
- 4: Control box port description**
- 5: fault code analysis**

# 1: 显示屏常用操作介绍

## 1: Introduction to the common operation of the display



序号	图标	功能描述
1		<p>模式切换键：切换当前缝纫模式，会在全手工、自由缝、半自动、全自动、全手工之间循环切换。</p> <p>Mode switch key: to switch the current sewing mode, will be in cycle between the free seam, semi-automatic, fully automatic, and normal sewing.</p>
2		<p>光眼功能键：光眼开启与关闭，长按 2 秒进入光眼灵敏度调整。</p> <p>Infrared light function key: open and close the infrared light, long press 2 seconds into the light eye sensitivity adjustment.</p> <p>在光眼灵敏度调整界面，单击 , ,  自动调节光眼强度对应薄料，中料，厚料。调节完成后按  键保存。</p> <p>In the light eye sensitivity adjustment interface, click, , ,  to automatically adjust the light eye intensity corresponding to thin material, medium material, thick material. After the adjustment is completed, press the  button to save.</p>
3		<p>压脚功能键：选择缝制时的压脚方式，连续按下依次可以选择前抬压脚、后抬压脚、前后抬压脚、关闭。</p> <p>Presser-foot function key: Select the ways of the presser-foot when sewing mode, you can continuously press to successively select before presser-foot, after the presser-foot, before and after the presser-foot, or closed.</p>
4		<p>剪刀功能键：选择缝制时的剪刀方式，连续按下依次可以选择前剪线、后剪线、前后剪线、关闭。</p> <p>Trimming function key: select the ways of trimming when sewing mode, continuously press in turn can choose the front cut line, after the cut line, before and after the cut line, or close.</p>







5		<p>吸风功能键（需要安装吸风装置）：选择缝制时的吸风方式，连续按下依次可以选择前吸风、后吸风、前后吸风、关闭。</p> <p>Air-suction function key (need to install the suction device): select the method of suction when sewing, continuously press can be selected before the suction, after the suction, before and after the suction, or closed.</p>
6		<p>停针位调整键：可以选择上停针或者下停针。</p> <p>Stop-needle adjustment key: used to change over the needle bar stop position at the time of stopping sewing between up and down.</p>
7		<p>速度调整键：查看当前的缝纫速度，通过 、 键调整需要的转速，转速自动保存。</p> <p>Speed adjustment key: View the current sewing speed, through ,  to adjust the required speed, speed automatically saved.</p>
8		<p>机头灯调整键：亮度 1，亮度 2，亮度关。</p> <p>Head light adjustment key: brightness 1, brightness 2, or brightness off.</p>
9		<p>菜单键：进入用户参数，长按 2 秒进入系统参数（需要密码）。</p> <p>Menu key: enter the user parameters, long press 2 seconds to enter the system parameters (need a password).</p>
10		<p>确认键：参数确认键。</p> <p>Confirm key: parameter confirmation key.</p>
11		<p>数值调整键：修改数据时加键。</p> <p>Numeric adjustment key: used to modify the data.</p>
12		<p>数值调整键：修改数据时减键。</p> <p>Numeric adjustment key: used to modify the data.</p>
13		<p>左移键：修改参数时，光标左移。</p> <p>Left key: When the parameter is modified, the cursor moves left.</p>







14		右移键：修改参数时，光标右移。 Right key: When the parameter is modified, the cursor moves right.	
15		维修键：当机器出现异常需要进行调整时，请按下此键或关闭电源进行维修。 Maintenance key: When the machine need to be adjusted when an exception occurs, press this button or turn off the power for maintenance.	
16	F-SENSOR	前光眼指示灯 The front infrared sensor indicator light	当前光眼有布料挡住时， F-SENSOR 灯亮， 否则灯灭。 When the front infrared sensor is blocked by a cloth, F-SENSOR light on, else light off.
17	M-SENSOR	中光眼指示灯 The middle infrared sensor indicator light	当中光眼有布料挡住时， M-SENSOR 灯亮， 否则灯灭。 When the middle infrared sensor is blocked by a cloth, M-SENSOR light on, else light off.
18	B-SENSOR	后光眼指示灯 The Behind infrared sensor indicator light	当后光眼有布料挡住时， B-SENSOR 灯亮， 否则灯灭。 When the behind infrared sensor is blocked by a cloth, B-SENSOR light on, else light off.
19	ERROR	安全开关指示灯 Safety switch indicator light	断开时闪烁， 正常合闭时灭 Flashing when disconnecting, light off under normal circumstances
20	MAINTAIN	维修指示灯 Maintenance indicator light	当按下维修键时， 灯闪烁， 退出维修模式后灯灭。 When the maintenance key is pressed, the lamp flashes and the lamp is turned off after exiting the service mode.



## 2: 如何进入参数与如何修改参数

### 2: How to enter parameters and how to modify the parameters

系统参数进入解析: 长按 (  ) 键持续 2 秒钟进入“系统参数”列表 (需要密码进入调整)。 (  ) (  ) 键将选取修改的是参数值还是菜单值, 选取的地方将会出现闪烁。 (  ) (  ) 键将增加或减少闪烁区的数值。 修改完毕参数后需要按 (  ) 键保存参数并退出系统参数。

The analysis to enter System parameters: long press (  ) button for 2 seconds into the "system parameters" list (need the password to enter adjustment). (  ) , (  ) Keys be used to select to modify the parameter value or menu value, the selected place will be flashing. (  ) (  ) Keys will increase or decrease the value of the flashing area. After editing the parameters, press the (  ) key to save the parameters and exit the system parameters.

## 3: 操作参数说明表

### 3.1 技术员系统参数列表:

### 3: Operating Parameter Description Table

#### 3.1 List of system parameters for technicians

序号	功能说明	默认值	参数范围	参数说明
S02	前光眼检测针数 Check the number of needles after living the first infrared light	20	1~50	设定两个光眼之间的针数 Set the number of needles between two infrared light

S03	前剪线延迟针数 Delay before trimming the number of stitches	4	0~50	后面光眼感应到后延迟剪线的针数 After the behind infrared light sensing, the number of stitches to delay trim
S04	后剪线延迟针数 Delay after trimming the number of stitches	0	0~50	后面光眼离开后延迟剪线的针数 After the behind infrared light leaving, the number of stitches to delay trim
S05	前吸气开启针数 Front suction open needle number	2	1~50	感应到第一个光眼后从第几针开始吸气 Induction of the first infrared light from which needles began to inhale
S06	前吸气关闭针数 Front suction close needle number	14	1~50	打开后, 计数几针后关闭吸气 When opened, the count after a few stitches to close the intake
S07	后吸气开启针数 Behind suction open needle number	2	1~50	离开后光眼后第几针开始吸气 leaving the behind infrared light from which needles began to inhale
S08	后吸气关闭延迟 Behind suction close delay	200	50~5000ms	离开光眼后, 计数几毫秒后关闭吸气 After leaving the light eye, count how much milliseconds to close the inhale
S12	停车延迟针数 Stop delay pin number	2	1~99	剪完线后多少针自动停车 After How many needles , it automatically stops after the cut line
S13	中吸气开启针数 The suction opening pin number	50	1~247	离开前光眼多少针后吸气 Suction after how many needles leave eye light
S14	中吸气关闭针数 Suction close pin number	20	1~100	吸气针数 Number of suction pins

S15	后剪光眼延迟针数 Back cut light eye	25	1~100	离开中光眼后经过多少针后没检测到第三光眼信号就开始剪线 After leaving the light in eyes for how many needle not detected the third eye light signal to begin to cut the line
S16	前传感器响应时间 Back sensor response time	40	1~100ms	前面光眼感应到后响应的的时间 The front eye light' s response time after the induction
S17	前光眼灵敏度 Front light eye sensitivity	170	5~500%	为适应不同布料设定前光眼的透布强度，数值越大穿透力越强 In order to adapt to different fabric cloth strength setting the front light eyes, the greater the value the stronger air-penetration
S18	中光眼灵敏度 Middle light eye sensitivity	200	5~500%	为适应不同布料设定后光眼的透布强度，数值越大穿透力越强 In order to adapt to different fabric cloth strength setting the back light eyes, the greater the value the stronger air-penetration
S19	前抬压脚保留时间 The front presser foot retaining time	220	100~2000ms	抬压脚抬起后持续的时间(毫秒) The duration after the presser foot lift(ms)
S20	剪线全力功率 Trimming full power	88	0—100%	剪线功率调整 Trimming action full power adjustment
S21	抬压脚保护时间 Presser foot protection time	4	1~120S	手动抬压脚持续多少时间后关闭(秒) how much time before manual presser foot turn off (s)
S22	放压脚保护时间 the presser foot protection time	20	20~800ms	放压脚时间(毫秒) The time of putting the presser foot (ms)

S23	连续送布吸气剪线 Continuous feed, suction, and shear line	0	0~1	0: 关闭 1: 开启 0: close 1: open
S24	手动剪线开关 Manual trimming switch	1	0~1	0: 电机运转时按手动剪线不剪, 1: 可以剪 0: When the motor is running, manual trimming doesn't work. 1: It works
S25	安全开关 Safety switch	3	0~3	0: 关闭安全开关 1: 缝台安全开关 2: 压脚安全开关 3: 开启安全开关 0: closed safety switch 1: sewing station safety switch 2: presser foot safety switch 3: open safety switch
S26	剪刀保留时间 Scissors keep time	35	10~1000ms	切刀动作时间 (基本不用调整) Cutting time (no need adjust in principle)
S27	界面恢复时间 Interface recovery time	5	5~99s	控制面板在进入菜单后多少时间跳 回主界面 (秒) The time does the control panel go back to the main interface (seconds) after entering the menu
S28	光眼模式 Infrared light pattern	2	1~2	1: 单光眼 2: 双光眼 1: single light 2: double lights
S29	前光眼极性 Front light eye polarity	0	0~1	前光眼反射极性相反 front light eye reflex reverse polarity
S30	后光眼极性 Back light eye polarity	0	0~1	后光眼反射极性相反 back light eye reflex reverse polarity
S31	压脚全力时间 Presser foot full time	180	10~990ms	压脚全功率工作时的时间 Presser foot work full power time

S32	压脚全力功率 Presser foot full power	100	20~100%	压脚开始动作时，瞬间的输出功率 presser foot start action, instantaneous power output
S33	压脚保持功率 Presser foot keep power	39	10~90%	压脚抬起后维持住后的功率（不能超过 50%） presser foot lift after maintain power(no more than 50%)
S34	后光眼灵敏度 Back eye light sensitivity	220	5~500%	为适应不同布料设定后光眼的透布强度，数值越大穿透力越强 In order to adapt to different fabric setting back light eye through cloth strength, the greater the value the stronger air-penetration
S35	后剪光眼开启 Back cut light eyes	1	0~1	0: 关闭 1: 开启 0: close 1: open
S37	语言 Language	0	0~1	0: 中文 1: English 0: Chinese 1: English
S38	最大速度锁定 Maximum speed lock	5000	300~6500	限制电机的最大可调速度 Limit the maximum adjustable speed of the motor
S39	恢复出厂参数 Restore factory parameters	0	0~1	调到 1 长按 OK 键复位有效 Adjusted to 1 and long press OK key to reset valid
S43	压脚感应级数 Presser foot sensing level	0	0-3	压脚厚度感应开启级数 Presser foot thickness sensing opening number
S44	压脚感应一级速度 Presser foot sensing first speed		300~6500	
S45	压脚感应二级速度 Presser foot sensing secondary level speed		300~6500	
S46	压脚感应三级速度 Presser foot		300~6500	

	sensing third level speed			
S47	压脚感应一级高度 Presser foot sensing first height		0-99.99MM	
S48	压脚感应二级高度 Presser foot sensing secondary level height		0-99.99MM	
S49	压脚感应三级高度 Presser foot sensing third level height		0-99.99MM	
S50	压脚当前高度 Current height of the presser foot			查看当前压脚高度 View current presser height
S51	压脚零点设置 Presser foot zero setting			在此参数短按压脚按键进行零点校准 In this parameter, press the foot button to perform zero calibration.

### 3.2 工人系统参数列表（短按 键进入）

### 3.2 Workers system parameter list (press to enter)

序号 Number	功能说明 Function declaration	默认值 default	参数范围 Reference range	参数说明 Parameter specification
P-01	操作模式 Operator schema	0	0~1	0: 半自动 1: 全自动 0:semi-automatic 1:full automatic
P-02	光眼开关 Infrared Sensor switch	0	0~1	0: 关闭 1: 开启 0:off 1:on
P-03	剪线 trimming	3	0~3	0: 关闭 1: 前剪线 2: 后剪线 3: 前后剪线 0:off 1:front trimming 2:back trimming 3:front and back trimming

P-04	吸气 suction	3	0~3	0: 关闭 1: 前吸气 2: 后吸气 3: 前后吸气 0:off 1:front suction 2:back suction 3:front and back suction
P-06	压脚 Presser foot	3	0~3	0: 无抬压脚 1: 前抬压脚 2: 后抬压脚 3: 前后抬压脚 0:no presser foot 1:front presser foot 2:back presser foot 3:front and back presser foot
P-07	启动速度模式 Start mode of velocity	1	0~1	0: 自动 1: 脚踏板 0:automatic 1:pedal
P-08	停针位 Needle position	1	0~1	0: 下针位 1: 上针位 0:below needle position 1: up needle position
P-09	停车自动抬压脚 Parking automatic presser foot	0	0~1	0: 关闭 1: 开启 0:off 1:on
P-10	手动吸气 Hand-operated suction	1	0~1	0: 关闭 1: 开启 0:off 1:on
P-11	启缝速度 Start sewing speed	5000	300~6500	
P-12	最大速度 Maximum speed	5000	300~6500	
P-13	工作灯亮度 Work lamp brightness	2	0~2	
P-14	背光灯亮度 Back-light brightness	1	0~1	0: 关闭 1: 开启 0:off 1:on
P-15	自由缝连续缝制 Free for sewing	0	0~1	0: 关闭 1: 开启 0:off 1:on
P-16	半自动恒速剪线 Semi-automatic constant speed trimming	0	0~1	0: 关闭 1: 开启 0:off 1:on
P-17	前放压脚 Front presser foot	0	0~1	0: 自动模式 1: 手工模式 0:Automatic mode 1:hand-operated mode

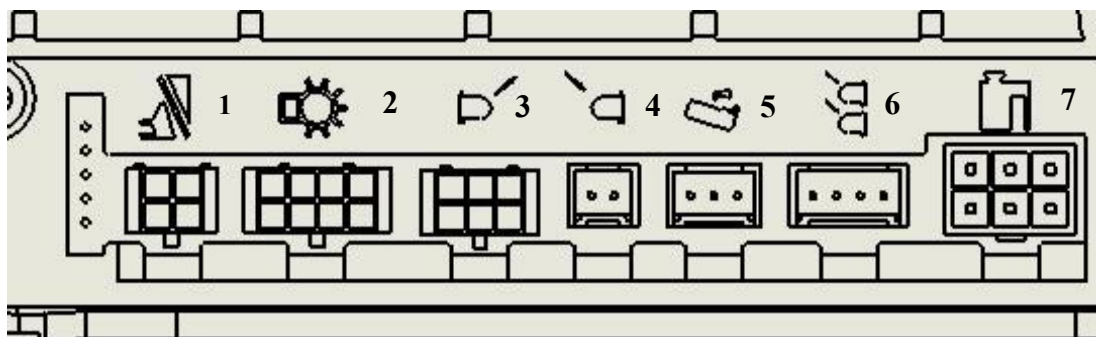
P-18	脚控剪线 Foot control trimming	1	0~1	0:关闭 1:全手工 0:off 1:all hand-operated
P-19	中吸气 Medium suction	1	0~1	0:关闭 1:开启 0:off 1:on
P-20	半后踏抬压脚 Half back presser foot	0	0~1	0:关闭 1:开启 0:off 1:on
P-21	剪线后抬压脚 The presser foot after trimming	0	0~1	0:关闭 1:开启 0:off 1:on
P-22	关闭后踏抬压脚 Turn off back presser foot	0	0~1	0:关闭 1:开启 0:off 1:on
P-23	自由缝开启 Start free sewing	0	0~1	0:关闭 1:开启 0:off 1:on
P-24	后剪光眼延迟检测 Back cut light eyes delay detection	1	0~1	0:关闭 1:开启 0:off 1:on
P-25	网布模式针数 Mesh pattern stitch number	0	0-10	根据网布空的尺寸调节合适的针数。 Adjust the appropriate number of stitches according to the size of the mesh hole.
P-26	跑合开关 The running-in switch	0	0~1	0:关闭 1:开启 0:off 1:on
P-27	跑合运行时间 Running-in running time	4	3~20	时间单位为:秒 Unit of time for Second
P-28	跑合暂停时间 Running-in pause time	2	2~20	时间单位为:秒 Unit of time for Second
P-29	电控版本 Electric control version	V1.XX		



P-30	显示屏版本 Display screen version	V1.XX		
P-31	提示音 Prompt tone	2	0~2	0: 静音 1: 蜂鸣器 2: 语音 0:Mute 1:Buzzer 2:Voice
P-32	音量 The volume	3	0~3	

## 4: 控制箱端口说明

## 4: control box's port illustration



端口号码	端口连接的器件名称
1	调速器端口
2	机头灯端口
3	抬压脚安全开关和后光眼发射管端口
4	后光眼接收管端口
5	连接缝台安全开关
6	前、中光眼接收管端口
7	电磁铁端口: 剪线电磁铁, 吸风电磁铁或电磁阀, 抬压脚电磁铁

The port number	The name of the device port
1	Speed controller port
2	Head lamp port
3	Presser foot safety switch and behind infrared light launch tube port
4	Behind infrared light receiver tube port
5	Connecting Sewing table safety switch
6	Front middle infrared light receiver tube port
7	Electromagnet: trimming electromagnet, suck wind magnet or magnetic value, pressure foot lifer electromagnet

## 5: 故障代码解析

### 5: fault code analysis

故障代码	故障描述	故障产生原因	故障的解决方法
ER-01	停针信号错误	1: 停针霍尔线接触不良 2: 手轮上的永磁体装反或退磁	1: 检查停针霍尔线 2: 检查永磁体有无装反 3: 更换手轮
ER-02	调速器信号错误	1: 开机时没插调速器 2: 调速器插反 3: 调速器线断开 4: 调速器损坏	1: 检查调速器信号线 2: 更换调速器 3: 更换控制器
ER-03	电机信号错误	1: 插头接触不良 2: 电机安装时霍尔和转子存在大偏差 3: 电机霍尔坏	1: 打开电机上的橡皮盖通过孔看电机转子与定子是否在同一平面, 保障误差不得超过 1MM 2: 更换电机 3: 更换控制器
ER-04	电机堵转	1: 缝纫机过重或堵死 2: 电机过载 3: 电机 4 线驱动线没连接好或插反	1: 检查电机 4P 线 2: 检查缝纫机是否过重 3: 更换控制器

ER-05	硬件过流	1: 缝纫机过重或堵死 2: 电机过载	1: 检查缝纫机是否过重 2: 更换控制器 3: 重新开关机
ER-07	通讯超时	1: 显示屏连接主板线连接不良 2: 主板芯片损坏	1: 检查显示屏与控制器连接线 2: 检查控制器是否还可运行, 如不能运行就是控制器损坏 3: 检查机器旁是否有高频机器干扰 4: 更换显示屏
ER-11	安全开关 1 断开	1: 抬压脚安全开关机构没有回到正确位置 2: 抬压脚安全开关连接线接触不良 3: 抬压脚安全开关霍尔元器件损坏	1: 检查抬压脚安全开关连接线是否异常 2: 检查抬压脚安全开关对应的磁铁是否回到正确位置 3: 更换霍尔元器件
ER-12	安全开关 2 断开	1: 缝台安全开关没有安装到位或损坏 2: 线路故障	1: 检查缝台安全开关是否损坏 2: 检查缝台是否掀开 3: 插座是否异常

<b>Fault code</b>	<b>Fault description</b>	<b>Fault reason</b>	<b>Fault solution</b>
ER-01	The signal of the needle is wrong	1: the contact between the needle and Moore thread is bad 2: the permanent magnet on the hand wheel is at wrong position or is demagnetized.	1: check the needle and Moore thread 2: check whether the permanent magnet is at the wrong position 3: change the hand wheel
ER-02	The signal of the speed controller is wrong	1: didn't plug the speed controller in when the machine is on. 2: the speed controller is plugged in at the wrong position.	1: check the signal line of the speed controller 2: change the speed controller 3: change the controller

		<p>3: the speed controller is disconnected.</p> <p>4: the speed controller is broken</p>	
ER-03	The signal of the motor is wrong	<p>1: the contact between plugs is bad</p> <p>2: Moore and rotator have some big deviations when install the motor</p> <p>3: the motor and Moore is broken</p>	<p>1: open the rubber cap and check whether the motor rotator and stator is at the same level, make sure the deviation is less than 1MM</p> <p>2: change the motor</p> <p>3: change the controller</p>
ER-04	The motor stops rolling	<p>1: the sewing machine is too heavy or is stuck</p> <p>2: the motor is overloaded</p> <p>3: the motor's 4 drive lines didn't connect or were plugged at the wrong position</p>	<p>1: check the motor's 4P thread</p> <p>2: check whether the sewing machine is too heavy.</p> <p>3: change the controller</p>
ER-05	Hardware overcurrent	<p>1: The sewing machine is too heavy or blocked</p> <p>2: Motor overload</p>	<p>1: Check if the sewing machine is too heavy</p> <p>2: Replace the controller</p> <p>3: Restart the machine</p>
ER-07	Communication timeout	<p>1: display connection board line connection is bad</p> <p>2: the main board chip is broken</p>	<p>1: check the connection line between the screen and the controller</p> <p>2: check whether the controller can still function. if not, then it's the controller that's broken</p> <p>3: check whether there are some high frequency machines interfering</p> <p>4: change the screen</p>

ER-11	Safety switch 1 is disconnected	<p>1: press foot safety switch didn't go back to the right position</p> <p>2: the contact of the connection lines of press foot is bad</p> <p>3: the Moore component of the press foot is broken.</p>	<p>1: check whether the connection line of the press foot safety switch is abnormal</p> <p>2: check whether the magnet of the press foot safety switch has gone back to the right position.</p> <p>3: change the Moore component</p>
ER-12	Safety switch 2 is disconnected	<p>1: sewing platform's safety switch isn't installed right or is broken</p> <p>2: line fault</p>	<p>1: check whether the sewing platform's safety switch is broken</p> <p>2: check whether the sewing machine is lifted</p> <p>3: check whether the plug base is abnormal</p>