

一体机自动吸风剪线说明书 (V:5.13)

ALL-IN-ONE AUTO TRIMMER AND SUCTION MANUAL BOOK(V:5.13)

前言

Preface

欢迎使用本公司产品，制衣行的正确投资选择！

Welcome to use the our products, it is the right investment choices in garment industry!

本说明书为本公司新研发的“一体机自动吸风剪控制箱”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 user manual is for our newly developed “All-in-one control box” products reference manual, Please read this manual carefully, hope it can give you useful help!



阅读本说明前以下要求说明请注意

Before reading the manual, please note the following requirements:

1: 用户使用作业前必须可靠接地，保证人生安全！

The user must be reliably grounded before operating to ensure the safety of life!

2: 非专业人士请勿拆卸控制箱

Non-professionals do not disassemble the control box

3: 控制箱与电机远离强磁高辐射环境

The control box and motor away from the magnetic high radiation environment

4: 不要在过热环境中作业（请在室温 5° C 以上、45° C 以下的场所操作）

Do not work in hot environment (Please operate at room temperature above 5 °C and below 45 °C)

5: 不要在过于潮湿环境中作业（请保持 30 % ~ 95 % 相对湿度（无凝露）

Do not work in humid environments (Please maintain 30% ~ 95% relative humidity (no condensation))

6: 供电电压范围如下：

The supply voltage ranges are as follows:

220V 电控：【220V 接入供电时电压稳定在（AC200V~240 单相）之间】

220V control box: [220V access power supply voltage stability in (AC200V ~ 240V single-phase)]

电源供电电压 Power supply Voltage	220V±15%	单相 single phase
频率 Frequency	50~60HZ	
电机转速 motor speed	200-6500RPM	
电机扭矩 motor torque	≤2.2N.M	

110V 电控：【110V 接入供电时电压稳定在（AC100V~130/单相）之间】

110V control box: [110V access power supply voltage stability in (AC100V ~ 130V single-phase)]

电源供电电压 Power supply Voltage	110V±15%	单相 single phase
频率 Frequency	50~60HZ	
电机转速 motor speed	200-6500RPM	
电机扭矩 motor torque	≤2.2N.M	

安全叮嘱：

Safety requirement:

1: 电机电控接通电源时（开机状态）请不要把脚放在脚踏板上

Do not put your feet on the pedals when the control box and motor is switched on (boot status)

2: 本产品请专业人士安装调试

Let professionals to install and debug this product

3: 严禁在通电时打开控制箱与电机端盖

Do not open the control box and the motor cover when energized

4: 换针，穿线或更换底线时请关闭电源

Please turn off the power when changing the needle,threading or replacing the bottom line

5: 安装，拆卸维修时请拔掉电源插头

During installation and removal service,please turn off the power and pull the plug

6: 翻抬缝纫机时请关闭电源

Please turn off the power when turn lift sewing machine

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。

When use this product, please stay away from high-frequency electromagnetic waves and radio wave transmitters, etc., in case the electromagnetic waves generated interfere with the servo drive to occur wrong action .

8: 禁止在日光直接照射的场所或室外运作

Do not operate in direct sunlight or outdoors

郑重声明:

Solemnly Declare:

1: 不遵守安全使用说明操作规章，发生意外后果自负。

Do not comply with the manual book operating regulations and the safety requirements, all accidental occurrence should be taken by yourself.

2: 未经本公司授权，请勿擅自改动产品，由此而引起的后果本公司不负任何责任。

Without our authorization, please do not alter our products, our company is not liable for any consequences arising therefrom.

保修策略:

1: 本产品自购买起免费保修___年，终身维护。保修期内除人为损坏外出现的任何质量问题可免费修

Since from the purchase of this product,the free 2-year warranty,lifetime maintenance. During the warranty period,any quality problems the product will be free repaired,except artificial damage.

2: 未经本公司同意自行拆卸，改装造成损坏将不给予保修

Without our consent disassemble or modify,the damaged will not give in warranty.

3: 但凡出现无法解决的问题可以联系本公司

Whenever find the problem can not be solved,you can contact with our company.

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1: 显示屏常用操作介绍 Introduction of display screen common Operation




1.1、显示屏介绍：由两大部分组成（显示区域、操作界面）。














Display introduce: consist of two aspects(display area、operating interface)




























1.2、操作界面功能键介绍: operating interface function button introduction












、序号 The serial number	按键图标 Parameters of the code	功能说明 function instruction
1	 (模式切换键) Mode switch	<p>点按  键: 全手工→自由缝→半自动→全自动, 之间切换;</p> <p>Press  key: full manual→free sewing→semi-auto→automatic</p> <p>全自动: 当布料盖住第一光眼时, 机器会自动启动工作不需用脚去踩踏调速器踏板; Automatic: the machine running itself without pushing the pedal when the cloth cover the first sensor</p> <p>半自动: 布料遮住第一光眼, 脚踏调速器才能驱动机器工作; Semi-auto: pushing the pedal when the cloth cover the first sensor to run the machine</p> <p>自由缝: 无布料遮住第一光眼, 脚踏调速器一样也能驱动机器工作; Free sewing: pushing the pedal without cover the first sensor to run the machine</p> <p>全手工: 剪线、抬压脚等所以动作需要人工去完成; Full manual: the action of trimming and lifting presser foot should be done by person</p> <p>※: 全自动、半自动、自由缝等安全开关断开情况下脚踏调速器无法驱动机器工作; The machine will not run when the safety switch is off under the mode of automatic, semi-auto or free sewing</p> <p>全手工: 安全开关断开情况下一样能使用脚踏调速器启动机器工作)。 Full manual: pushing the pedal to run the machine even the safety switch is off</p>

		<p>长按模式键（需要密码）： Long press the mode key(enter password) S28 光眼模式 2 S28 sensor mode 2 S29 前光眼极性 0 S29 front sensor polarity 0 S30 后光眼极性 0 S30 rear sensor polarity 0 S35 后光眼开启 2 S35 rear sensor turn on 2 S43 网孔针数 06 S43 Mesh needle</p>
2	 （光眼功能键） Sensor function key	<p>1. 如何进入布料选择：点按键时进入布料选择；A:厚料、B:普通、C:薄料、D:透明、E:大网、F:小网；（选择厚料、普通、薄料时可以使用快捷按键（ ），也可以使用上下左右移动键选择布料模式，选择好布料按键确认并退出布料选择）。</p> <p>How to enter cloth selection: press  key to enter cloth selection: A thick material, B normal material, C thin material, D transparent material, E big net, F small net (using the shortcut key   to select the thick material, normal material and the thin material), or select the cloth mode with up, down, left and right key, press S key to confirm)</p> <p>2. 如何进入光眼微调：在布料选择页面时，点按键进入当前光眼灵敏度和微调灵敏度参数；</p> <p>How to enter sensor fine-tune: press  key to enter the current sensor sensitivity and fine-tune sensitivity parameters on the cloth selection interface</p> <p>如何进入光眼粗调：在布料选择页面时，按一下键、此时会出现“<u>****</u>布料选择****”，点按键进入当前光眼灵敏度和微调、粗调灵敏度参数；</p> <p>How to enter sensor adjusting: Press  key on the cloth selection interface, the</p>

			 <p>display shows ****cloth choose***, press  key to enter the sensor sensitivities, fine-tune it or rough adjust.</p>
3	 <p>(松线/压脚功能键) Presser foot /loose wire function key</p>	<p>点按键时进入压脚调整, 重复点动切换: <u>前抬压脚、后抬压脚、前后抬压脚、抬压脚关闭</u></p> <p>Press  to switch presser foot sensor in turn :front lift,rear lift,fort rear and off lift.</p>	<p>长按键进入压脚参数调整 (需密码: 2014):</p> <p>Long press  key to enter presser foot parameter adjustment(enter password 2014):</p> <p>S19 前抬压脚保留时间 0220 S19 front press foot holding time 0220 S20 后抬压脚延迟启动 0000 S20 rear press foot delay start 0000 S21 抬压脚保留时间 006 S21 press foot holding time 006 S22 放压脚保护时间 020 S22 pressure foot protection time 020 S31 压脚全力时间 180 S31 press foot full effort time 180 S32 压脚全力功率 100 S32 press foot full power 100 S33 压脚保持功率 20 S33 press foot maintain power 20 P22 关闭手动抬压脚 0 P22 turn off the manual press foot 0 S64 步进电机抬压脚角度 760 S64 the stepping motor press foot angle 760</p>
	<p>砍刀 Knife</p>  <p>(松线/压脚功能键) Presser foot/loose wire function key</p>	<p>点按键时进入吸风调整, 重复点动切换: <u>前松线、后松线、前后松线、松线关闭</u></p> <p>Press  to switch suction device in turn:front suction,rear suction,fro+rear suction and off suction.</p>	

	<p>侧吸 (KS)</p>  <p>(松线/压脚功能键) Presser foot/loose wire function key</p>	<p>点按键时进入吸风调整, 重复点动切换: <u>前松线、后松线、前后松线、松线关闭</u></p> <p>Press  to switch suction device in turn: front suction, rear suction, fro+rear suction and off suction.</p>	<p>长按键进入吸风参数调整:</p> <p>Long press  to enter suction parameter adjustment:</p> <p>S03 前松线延迟开启针数 0 S03 front loose delay open stitches 0 S04 后松线延迟开启针数 06 S04 rear loose delay open stitches 06 S09 前松线延迟关闭针数 2 S09 front loose delay close stitches 2 S10 后松线延迟关闭针数 38 S10 rear loose delay close stitches 38 S11 后吸气关闭针数 45 S11 rear suction close stitches 45</p>
4	<p>砍刀 Knife</p>  <p>(剪刀/吸风功能键) Trimmer/suction function key</p>	<p>点按键时进入剪线调整, 重复点动切换: <u>前剪线、后剪线、前后剪线、剪线关闭</u></p> <p>Press  key to switch trimming in turn: front trimming, rear trimming, fro+rear trimming and off trimming.</p>	<p>长按键进入剪线参数调整:</p> <p>Long press  key to enter trimming parameter adjustment:</p> <p>S03 前剪线延迟针数 22 S03 front trimmer delay stitches 22 S04 前吸线延迟针数 06 S04 front suction delay stitches 06 S24 手动剪线 1 S24 manual wire trimmer 1 S25 安全开关 3 S25 safe sw 3 S26 切刀保留时间 25 S26 cutter retention time 25 S59 步进剪线角度 370 S59 step the cutting line angle 370</p>
	<p>侧吸 (KS)</p>  <p>(剪刀/吸风功能键) Trimmer/Suction function key</p>	<p>点按键时进入剪线调整, 重复点动切换: <u>前剪线、后剪线、前后剪线、剪线关闭</u></p> <p>Press  key to switch trimming in turn: front trimming, rear trimming, fro+rear trimming and off trimming.</p>	<p>长按键进入剪线参数调整:</p> <p>Long press  key to enter trimming parameter adjustment:</p> <p>S24 手动剪线 1 S24 manual wire trimmer 1 S25 安全开关 3 S25 safe sw 3 S26 切刀保留时间 25 S26 cutter retention time 25</p>






	 (剪刀/吸风功能键) Trimmer/Suction function key	 点按  键时进入吸风调整, 重复点动切换: <u>前吸气、后吸气、前后吸气、吸气关闭</u>  Press  button to enter the suction adjustment , repeat the point switch: front suction、back suction、front and back suction.	 长按  键进入吸风参数调整: Long press  to enter suction parameter adjustment: S05 前吸延迟开启针数 02 S05 front suction delay open stitches 02 S06 前吸气关闭针数 14 S06 front suction delay close stitches 14 S07 后吸气延迟开启针数 02 S07 rear suction delay open stitches 02 S08 后吸气延时关闭针数 0200 S08 rear suction delay close stitches 0200 S13 中吸气延时开启针数 050 S13 mid suction delay open stitches 050 S14 中吸气关闭针数 020 S14 mid suction delay close stitches 020
5	 (菜单键) Menu key	点按进入用户参数 Press to enter user parameters	长按进入系统参数 (需要密码) Long press to enter system parameters (password required)
6	 (确认键) Confirm button	参数确定键 Parameter confirm button	
7	 (数值调整键) Numerical adjustment key	向上键 (修改数据时加) Up key (when increasing value)	
8	 (数值调整键) Numerical adjustment key	向下键 (修改数据时减) Up key (when increasing value)	
9	 (左移键) Left shift key	向左键 (在进入参数项时光标向左移) Left key (when adjusting items)  点动  键时进入短线头模式切换: 开启、关闭  Press  to enter the short-term head mode switch: on、off	 长按  键进入参数调整:  Long press  to enter parameter adjustment: S84 前短针数 020 S84 front short stitches 020 S85 后短针数 000 S85 rear short stitches 000

		向右键（在进入参数项时光标向右移） Right key (when adjusting items)	
10	 （右移键） Right shift key	 点按  键时切换上针位、下停针位和下针位不回针、下停针自动回针  Press  to switch up needle stop position, down needle stop position	 长按  键进入针位参数调整：  Long press  to enter needle position parameter: S80 电机角度检测
11	F-SENSOR	前光眼指示灯 Indicator lamp of front sensor	当光眼被挡住时，此灯亮、未挡住时不亮；如未被挡住时，此灯亮起；则需要检查光眼灵敏度或发射是否损坏。 Light on when the sensor is covered, check the sensor sensitivity or the emitters if it light on without covered.
12	M-SENSOR	中光眼指示灯 Indicator lamp of middle sensor	当光眼被挡住时，此灯亮、未挡住时不亮；如未被挡住时，此灯亮起；则需要检查光眼灵敏度或发射是否损坏。 Light on when the sensor is covered, check the sensor sensitivity or the emitters if it light on without covered.
13	B-SENSOR	后光眼指示灯 Indicator lamp of rear sensor	当光眼被挡住时，此灯亮、未挡住时不亮；如未被挡住时，此灯亮起；则需要检查光眼灵敏度或发射是否损坏。 Light on when the sensor is covered, check the sensor sensitivity or the emitters if it light on without covered.
14	SAFE	安全指示灯 Safety switch indicator lamp	当安全开关断开时，SAFE 灯亮起时，则检查一下安全开关是否与感应磁感应到或感应磁极性反了。 Light on when the safety switch is off, check the interaction between the sensor and the houle.

2: 如何进入参数与如何修改参数 :

How to enter parameters and how modify the parameters







技术员系统参数列表如表 1:

2.1、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, 点动后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。







注: 以上是进入方法, 具体参数号代表的参数意思详情如下:

出厂值密码: 2014

工人参数列表如表 2:

2.2、点动 () 键直接进入参数, () () 键将选取修改的是参数值还是菜单值, 点动后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。

System parameter entering analysis:

2.1、Long press () button for 2seconds to enter “System Parameter” list (requires a password to enter the adjustment).() () key to select to modify parameter value or menu value. Then,the selected value will be flashing .() () key to increase or decrease the value.After completing modification,press () button to save parameters and quit system parameters.

技术员系统参数列表: Technician system parameter list

表 1

序号 System parameter list	功能说明 Function description		参数默认值 Parameter default values	参数范围 Parameter Adjustment range	参数说明 Parameter description
S01	针迹 Thread track		3	1~4	
S02	两传感器间针数 Stitch number between two sensors		20	1~50	设定两个光眼之间的针数 Set stitch number between two sensors
S03	电磁铁/步进 Electromagnet /step	前剪线延时针数 Delay stitch number to cut thread after front sensors	28	0~50	后面光眼感应到后延迟剪线的针数 Set delay stitch number after passing front sensors.Auto cut thread after stitches
	侧吸 (KS)	前松线延迟开启针数 Front thread releasing delay start stitches no.	0	0~50	后面光眼感应到后延迟开启松线的针数 The stitches no. of delay thread releasing when the rear sensor sensing the cloth
S04	电磁铁/步进 Electromagnet /step	双光眼模式 后剪线延迟针数 Delay stitch number to cut thread after two sensors	14	0~100	离开第二光眼离开后延迟剪线的针数 Set delay stitch number after passing two sensors.Auto cut thread after stitches
		三光眼模式 前剪线延迟针数 Delay stitch number to cut thread after three sensors	2	0~100	离开第三光眼离开后延迟剪线的针数 Set delay stitch number after passing two sensors.Auto cut thread after stitches
	侧吸 (KS)	后松线延迟开启针数 Rear thread releasing delay start stitches no.	06	0~50	布离开后面光眼后延迟开启松线的针数 The stitches no. Of delay thread releasing when the cloth leave the cloth
S05	前吸延迟气开启针数 Delay stitch number for starting front air suction		2	1~50	感应到第一个光眼后从第几针开始吸气 Set delay stitch number for starting front air suction after triggering first sensor
S06	前吸气针数 Front suction close stitches no.		14	1~50	打开后, 计数几针后关闭吸气 Account how many stitches begin to close former suction
S07	后吸延迟气开启针数 back suction start stitches no.		2	1~50	离开后光眼后第几针开始吸气 After leaving latter photo-eye,how many stitches begin suck
S08	后吸气延时关闭 the delay of back suction close	电磁铁 electromagnet	200	100~5000 MS	离开光眼后, 计数几毫秒后关闭吸气 After leaving latter photo-eyes,count how many milliseconds off suction
		侧吸 (KS)	300		

S09	电磁铁 electromagnet	前松线延迟开启针数 front thread loose delay	00		
	侧吸 (KS)	前松线延迟关闭针数 Front thread loose close	2		
S10	电磁铁 electromagnet	前松线针数 Front thread loose stitches	12		
	侧吸 (KS)	后松线延迟关闭针数 Rear thread loose close	38		
S11	电磁铁 electromagnet	后松线延迟开启针数 Rear thread loose start	00		
	侧吸 (KS)	后吸气关闭针数 Rear suction close	45		
S12	停车延迟针数 machine stop delay stitches no.	电磁铁 electromagnet	2	1~99	剪完线后多少针自动停车 How much stitches auto parking after trimmer
		侧吸 (KS)	35		
S13	中吸气延迟开启针数 middle suction start stitches no.		50	1~250	中吸气间隔针数 middle suction interval stitches
S14	中吸气延迟关闭针数 middle suction close stitches no.		20	1~100	中吸气针数 Middle suction stitches
S15	后剪光眼 (第三光眼) 延迟检测针数 the needle no. of the delay of back cutting line		25	1~100	三光眼模式: 布离开中光眼经过多少针后没检测到第三光眼信号就开始剪线 Leave in the light eye after much after the needle cannot detect the third eye signal begins to cut the line
S16	前传感器响应时间 front sensor respond time		40	1~100MS	前面光眼感应到后响应的的时间 The response time when former photo-eye sense
S17	前传感器灵敏度 front sensor sensitivity degree		55%	20~175	为适应不同布料设定前光眼的发射强度 Setting photo-eye through the fabric strength,to adapt to different fabrics
S18	后传感器灵敏度 Back sensor sensitivity degree		55%	20~175	为适应不同布料设定后光眼的发射强度 Setting photo-eye through the fabric strength,to adapt to different fabrics
S19	前抬压脚保留时间 front foot presser lift retaining time		220	100~2000 MS	前光眼感应到布时压脚自动抬起维持时间 when front sensor feel the cloth, the foot presser lifter maintain time
S20	后抬压脚延迟启动 back foot presser lift start time		0	0~2000MS	脚踏板后踏压脚响应的的时间 (毫秒) The lift foot response time after latter foot pedal(millisecond)
S21	抬压脚保护时间 foot presser protection time		6	1~120S	手动抬压脚持续多少时间后自动关闭压脚输出 (秒) Lifter the foot presser by hand some time then Auto close foot presser output(second)
S22	放压脚保护时间 release foot presser protection time		20	20~800MS	压脚释放保护时间 (毫秒) the foot presser release protection time (millisecond)

S23	连续送布吸气剪线 continue feed cloth suction cutting line		0	0~1	0: 关闭 1: 开启 0:Close 1:Open
S24	运转中手动开关动作 operate manual switch action		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, touch manual switch no cutting, 1:Have cutting
S25	安全开关选择 safe switch choice		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: 缝台+压脚安全开关开启 0:off safety switch 1:Seam safety switch 2:Foot safety switch 3:
S26	切刀保留时间 the knife retaining time	步进 step	35	1~1000MS	切刀动作时间 (基本不用调整) Cutting action time (basically no adjustment)
		电磁铁 electromagnet	135		
S27	界面恢复时间 recover time		5	5~100S	控制面板在进入菜单后多少时间跳回主界面 After entering the control panel ,how much time to jump back to the main menu interface
S28	光眼模式 (数量选择) sensor mode (number choice)		2	1~2	1:单光眼 2:双光眼 (※:第三光眼需要单独开启 S35) 1:single photo-eye 2:double photo-eye
S29	前光眼极性选择 front sensor polarity		0	0~1	反射光眼用 Opposite polarity opposite
S30	后光眼极性选择 back sensor polarity		0	0~1	反射光眼用 Opposite polarity opposite
S31	压脚全力间 foot presser full power time		160	10~990MS	压脚全功率工作时的时间 Time of full power operation
S32	压脚全力功率 foot presser full power	步进 step	85	20~100%	压脚开始动作时, 瞬间的输出功率 When the foot starts to move, the instantaneous output power
		电磁铁 electromagnet	100		
S33	压脚保持功率 foot presser retaining power	步进 step	35	10~90%	压脚抬起后维持住后的功率 (不能超过 50) Pressure foot lift after the maintenance of the power to live (not more than 50)
		电磁铁 electromagnet	20		
S34	后剪光眼灵敏度 (剪刀边上) 第三光眼 back cutting line sensor sensitivity degree		55	5~99%	第三光眼发射强度 the third sensor Emission intensity
S35	后剪光眼开启 (剪刀边上) back cutting line sensor start	电磁铁/步进 Electromagnet /step	2	0~2	0: 关闭 2: 开启 0: closed 2: open
		侧吸 (KS)	0		
S36	预留 obligate		01		
S37	语言选择 language choice		0	0~2	0: 中文 1: 英文 2: 土耳其 3: 越南文 0:Chinese 1:English 2: Turkish 3.Vietnamese
S38	最大速度锁定 the max speed locked		5500	250~6500	电机的最大可调速度限制 Maximum adjustable speed limit for motor

S39	参数复位 parameter reset	0	0~1	调到 1 长按 OK 键有效 Transferred to 1 long-press the OK button to effective
S40	参数密码 Parameter password	2014		注：如记不住密码，切记勿修改；如修改密码忘记，需寄回厂家从新解密。 Attention:If you can't remember the password,please don't modify;if you forget to change your password ,it needs to be sent back to the manufacturer for decryption
S41	预留 obligate	2500	250-4500	
S42	预留 obligate	008	1-100	
S43	网孔针数 Mesh needle	06	0-15	
S44	布料选择 Cloth choose	1	0-7	0:厚料 1:普通 2:薄料 3:透明 4:大网 5:小网 0:thick 1:ordinary 2:thin 3:transparent 4:big net 5:small net
S45	前光眼动作阈值 Front sensor action threshold	50	5-200	
S46	中光眼动作阈值 Medium sensor action threshold	50	5-200	
S47	后光眼动作阈值 Back sensor action threshold	50	5-200	
S48	电机运转方向 Motor running direction	1	0-1	0: 电机反转 1: 电机正传 0:motor inversion 1:motor forward transmission
S49	加速曲线 Acceleration curve	70	10-100	
S50	加速灵敏度 Acceleration sensitivity	6	1-6	
S51	光眼粗调启用 Sensor rough tuning enabled	0	0-1	0: 关闭 1: 开启 0: closed 1: open
S52	强自动剪线 Strong automatic thread cutting	4	0-4	0:剪线最强保护 1:剪线强保护 2:剪线一般保护 3:剪线弱保护 4:剪线无保护 0:strongest thread cutting protection 1:strong thread cutting protection 2:general thread cutting protection 3:weak thread cutting protection 4:no thread cutting protection
S53	光眼感应时间 Sensor sensing time	6	3-150	

S54	光眼解除感应时间 Sensor dis-induction time	20	3-150	
S55	步进方向 Step into the direction	0	0-1	0:正向 1: 反向 0: forward 1:reverse
S56	步进原点偏移量 Step origin offset	010		调整步进电机原点位置 Adjust the origin position of stepping motor
S57	步进原点力矩 Step origin moment	002		步进电机找原点的力量大小 Step motor to find the origin of the force size
S58	步进剪线力矩 Step trimming force moment	075		步进电机剪线的力量（数值越大剪线声音大、数值越小剪线声音小） Thread cutting force of stepping motor(the higher the value is,the louder the sound is:the smaller the value is,the smaller the sound is)
S59	步进剪线角度 Step thread cutting angle	240		微调步进剪线角度（数值大刀口闭合量越深、数值小刀口闭合量越浅）（数值不能调的过高、达到高度限位的角度值就好、以免步进电机没动作到位电机失步） Fine tuning of stepping line cutting angle(the deeper the numerical large knife edge closure is,the shallower the numerical small knife edge closure is)(the value cannot be adjusted too high,and the angle value that reaches the height limit is good,so as to avoid the motor losing step if the stepping motor does not move in place)
S60	步进进刀速度 Step forward knife speed	550		数值越大剪线速度越快、数值越小速度越慢 The higher the value,the faster the cutting speed,while the smaller the value,the slower the speed
S61	步进退刀速度 Step backward knife speed	350		数值越大剪线后退刀速度越快、数值越小速度越慢 The higher the value is,the faster the backward knife cutting speed is,while the smaller the value is,the slower the speed is
S62	步进进刀角度 Step motor in the knife angle	03		
S63	步进退刀角度 Step motor out the knife angle	00		
S64	步进抬压脚角度 Step motor presser foot lift angle	0390		数值越大抬压脚越高、数值越小抬压脚越低（数值不能调的过高、达到高度限位的角度值就好、以免步进电机没动作到位电机失步） The larger the value,the higher the presser foot,and the smaller the value,the lower the presser foot (the value can not be adjusted too high,and it is good to reach the angle value of the height limit,so as to avoid the stepping motor does not move in place and the motor loses its step)

S65	步进抬压脚速度 Step motor presser foot lift speed	520		数值越大剪线速度越快、数值越小速度越慢 The higher the value,the faster the cutting speed,while the smaller the value,the slower the speed
S66	步进放压脚速度 Step motor release presser foot speed	350		数值越大剪线速度越快、数值越小速度越慢 The higher the value,the faster the cutting speed,while the smaller the value,the slower the speed
S67	步进抬压脚力度 Step motor presser foot lift power	000		
S68	步进放压脚力度 Step motor release presser foot power	000		
S69	步进微抬压脚 Step motor tiny lift presser foot	3	0-3	
S70	步进微抬角度 Step motor tiny lift presser foot angle	330	1-800	
S71	步进微抬速度 Step motor tiny lift presser foot speed	95	0-100	
S72	步进微放速度 Step motor tiny release presser foot speed	045	0-100	
S73	步进释放时间 Step motor tiny release presser foot time	10	0-6000	
S74	停针信号选择 Needle stop signal selection	1	0-1	
S75	上停角度 Up needle stop angle	60	0-359	
S76	下停角度 Down needle stop angle	180	0-359	
S77	上下停针角度差 Up and down needle stop angle difference	180	90-270	
S78	禁止电压掉电检测 Prohibit voltage power down detection	0	0-3	
S79	最大电流 Maximum current	350		
S80	电机编码器角度检测 Angle detection	0	0-1	
S81	机型选择 Model selection	0	0-1	
S82	厚料参数 Thick material parameters	0	0-1	调用数度默认参数（未启用） Default parameters(Not enabled)
S83	短线头模式 Short line mode	0	0-1	0: 关闭 1: 开启 0:off 1:on
S84	前短针数 Front short needle	022	0-150	
S85	后短针数 Rear short needle	003	0-150	

工人系参数列表: The workers system parameter list

表 2

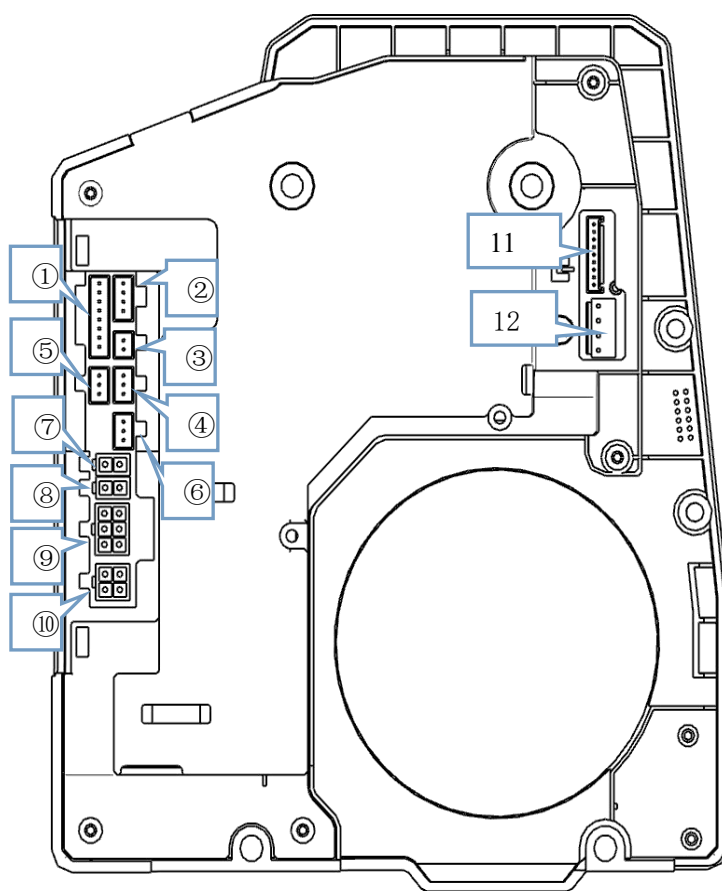
序号 System parameter list	功能说明 Function description		参数默认值 Parameter default values	参数范围 Parameter Adjustment range	参数说明 Parameter description
P-01	操作模式 Operate mode		0	0~1	0: 半自动 1: 全自动 0: semi automatic 1: fully automatic
P-02	电眼开关 sensor switch		1	0~1	0: 关闭 1: 开启 0:Closed 1:Open
P-03	剪线 cutting line		3	0~3	0: 关闭 1: 前剪线 2: 后剪线 3: 前后剪线 0: close 1: before the cut line 2: after the cut line 3: before and after the shear line
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: closed 1: before the inspiration 2: after the inspiration of 3: before and after the inspiration
P-05	后拉布轮 back pulley wheel		0	0~2	0: 关闭 1: 缝制中 2: 缝制后 0: close 1: sewing in 2: after sewing
P-06	自动压脚 foot presser		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 lifting of the foot 1: front lifting foot 2: after the lifting of the foot 3: before and after the lifting of the foot
P-07	启动速度模式 start speed mode		1	0~1	0: 自动 1: 脚踏板 0: automatic 1: pedal
P-08	停车针位 needle positio		0	0~1	0: 上针位 1: 下针位 0:Upper pin position 1: a needle
P-09	停车自动抬压脚 machine stop auto foot presser lifting		0	0~1	0: 关闭 1: 开启 0:Closed 1:Open
P-10	电磁铁/ 气动	手动吸气 suction by hand	1	0~1	0: 关闭 1: 开启 0:Closed 1:Open
	侧吸 (KS)	电机点动 手动吸气	3	0~3	0: 关闭 1: 电机点动 关闭 手动吸气 开启 2: 电机点动 开启 手动吸气 关闭 3: 电机点动 开启 手动吸气 开启
P-11	启缝速度 start sewing speed		4800	200~5500	
P-12	最大速度 Max speed		5000	200~5500	
P-13	工作灯亮度 the degree of the working LED light		4	0~5	

P-14	背光灯亮度 the backlight degree	1	0~1	0: 关闭 1: 开启 0:Closed 1:Open
P-15	半自动连续缝制 semi-auto continue sewing	0	0~1	0: 关闭 1: 开启 0:Closed 1:Open
P-16	半自动恒速剪线 semi-auto constant sewing	0	0~1	0: 关闭 1: 开启 0:Closed 1:Open
P-17	前放压脚 front foot presser lift	0	0~1	0: 自动模式 1: 手工模式 0: automatic mode 1: manual mode
P-18	脚控剪线 foot controller cutting line	0	0~2	0:关闭 1: 全手工 2: 自由缝半自动 0: closed 1: full manual 2: free stitch semi-automatic
P-19	中吸气 middle suction	1	0~1	0:关闭 1: 开启 0:Closed 1:Open
P-20	半后踏抬压脚 half back foot presser lift	0	0~1	0: 关闭 1: 开启 0:Closed 1:Open
P-21	剪线后抬压脚 foot presser lift after cutting	0	0~1	0: 关闭 1: 开启 0:Closed 1:Open
P-22	关闭手动抬压脚 close manual foot presser lift	0	0~1	0: 关闭 1: 开启 0:Closed 1:Open
P-23	自由缝开启 start free sewing	0	0~1	0: 关闭 1: 开启 0:Closed 1:Open
P-24	后剪线光眼延迟检测 back cutting line sensor delay check	1	0~1	0: 关闭 1: 开启 0:Closed 1:Open
P-25	松线 thread tension releasing	3	0~3	0:关闭: 1: 前松线 2: 后松线 3: 前后松线 0: close 1: front thread tension releasing 2: back thread tension releasing 3: front and back thread tension releasing
P-26	自动运行 auto running	0	0~1	0: 关闭 1: 开启 0:Closed 1:Open
P-27	自动跑合运行时间 auto running time	6	3~20	时间单位为: 秒 The time unit is: Second
P-28	自动跑合运行停止时间 auto running stop time	2	2~20	时间单位为: 秒 The time unit is: Second
P-29	电控版本			
P-30	显示屏版本			
P-31	音量调节 volume adjustment	020	020	
P-32	关闭开机语音 close the start voice	0	0~1	0: 关闭 1: 开启 0: close 1: open
P-33	网布模式 Net cloth mode	0	0-1	0: 关闭 1: 开启 0: close 1: open
P-34	禁止上停车 Forbid upper needle stop position	0	0-1	0: 关闭 1: 开启 0: close 1: open
P-35	剪线计数	0		

	Count of thread trimming times			
P-36	止缝速度 Stop sewing speed	5500	200-6500	
P-37	恒线模式 Constant speed thread trimming mode	1	0-3	
P-38	自动控制模式 Automatic control mode	0	0-1	
P-39	开机自动上停针 Automatic up needle position after starting	0	0-1	
P-40	最低速度 Minimum speed	250	250-6500	
P-41	光眼版本 Sensor version			

3: 控制箱端口说明

Control box port description:



	端口名称	端口说明	序号	端口名称	端口说明
1	上光眼 端口	GND	6	预留端口 Obligate port	

		12V	7	吸风端口 Suction output	信号	34V
		GND	8	预留端口 Obligate port		
		剪线信号 Trimmer signal	9	步进电机信号端口 Stepper motor signal port	/	/
		IR2 发射 send			/	/
		IR3 发射 send			/	/
		IR1 发射 send			/	/
		5V			/	/
2	下光眼（一、二）端口 Down sensor wire	5V	10	步进电机相线端口 Stepper motor phase line port		/
		IR2 接收 receive				/
		5V	11	电机信号线端口 Motor signal line port		/
		IR1 接收 receive				/
3	下光眼（三）端口 The third sensor wire	5V				/
		IR3 接收 receive				/
4	压脚安全开关端口 The foot Presser safe switch wire	5V				/
		信号 signal				/
		GND	12	电机相线端口 Motor wire port		PE
5	缝台安全开关端口 Sewing plate secure fully open light port	5V				
		信号 signal				
		GND				

4: 故障代码解析 Error Code Resolution

故障代码 Error Code	故障描述 Error Description	故障产生原因 the reason of the Error	故障的解决方法 the resolution of the error
Er01	找不到停针位 not find needle position	电机信号线端子头接触不良 Poor connection of the motor signal wire	断电后检查电机信号线是否松动，然后重新上电，如果还不能解决，请联系售后服务人员 Turn off the controller and check the motor signal plug if it is poor connected, restart the controller. Contact with the after sales if the problem still occur.
Er02	调速器信号错误 Foot controller signal error	1: 开机时没插调速器 The pedal do not connect when boot on 2: 控速器线接触不良 Poor connection of the pedal wire 3: 后踩住控速器开机 Backward push the pedal when boot on	断电后检查控速器连接或插头是否接触不良，然后重新上电，如果还不能解决，请联系售后服务人员 Turn off the controller and check the connection between the pedal and the controller, restart the controller. Contact with the after sales if the problem still occur.
Er03	电机相位信号错误 Motor phase signal error	电机信号线插头接触不良 Motor phase signal error	断电后检查电机信号线是否松动，然后重新上电，如果还不能解决，请联系售后服务人员 Turn off the controller and check the connection between the motor and the controller, restart the controller. Contact with the after sales if the problem still occur.

Er04	电机堵转保护 Motor locked rotor protection	1: 缝纫机过重或堵死 sewing machine is overweight or blocked 2: 电机过载 Overload of the motor 3: 电机 4 线驱动线没连接好或插反 Poor connection of the motor power wire	断电后检查: Turn off the controller 1、请检查机头是否被卡住 Check the machine if stuck 2、请检查电机是否被卡住 Check the motor if stuck 3、电机电源端子脱落或松动, 然后重新上电, 如果还不能解决, 请联系售后服务人员 Poor connection of the motor power plug, restart the controller. Contact with the after sales if the problem still occur.
Er05	硬件过流保护 Hardware overload protection	1: 电机过载 Overload of the motor 2: 电机相位信号线没接好 Poor connection of the motor signal wire	断电后检查: Turn off the controller 1、请检查机头是否被卡住 Check the machine if stuck 2、请检查电机是否被卡住 Check the motor if stuck 3、电机电源端子脱落或松动, 然后重新上电, 如果还不能解决, 请联系售后服务人员 Poor connection of the motor power plug, restart the controller. Contact with the after sales if the problem still occur.
Er07	显示屏和主板通讯超时 Serial communication timeout	1: 显示屏连接主板线连接不良 Poor connection of the display 2: 主板芯片损坏 Damage of the controller mainchip	1: 检查显示屏与控制器连接线 Check the wire between the display and controller 2: 检查控制器是否还可运行, 如不能运行就是控制器损坏 Check if the pedal is good or not 3: 检查机器旁是否有高频机器干扰 Check if there is high frequency machine interference 4: 更换显示屏 Change the display
Er09	存储器不良 memory error	主板存储器损坏或不良 Memory on mainboard damage or error	控制器损坏, 请联系售后服务人员 Contact with the after sales for the controller problem
Er10	光眼控制线路故障 Sensor control line error	显示屏连接光眼线路不良 Poor connection between the display and the controller	1: 显示屏损坏 The damage of the display 2: 显示屏背部光眼连接线接触不良, 请联系售后服务人员 Poor connection of the sensor wire, contact with the after sales.
Er15	编码器故障 the motor board error		请联系售后服务人员 Contact with the after sales
Er16	过压 Over load	电压超出限制范围 The voltage is higher than limited	请检查输入电源电压是否在额定范围内 (AC260V), 若上述无法解决, 请联系技术人员 Check if the voltage is higher than AV260V, contact with the after sales if the problem can not be solved
Er17	A 相电流检测故障 A current checking error		请联系售后服务人员 Contact with the after sales 员
Er18	B 相电流检测故障 B current checking error		请联系售后服务人员 Contact with the after sales

Er19	AB 相电流检测故障 A&B current checking error		请联系售后服务人员 Contact with the after sales
Er20	欠压故障 Less volt error	电压低于限制范围 The voltage is lower than limited	请检查输入电源电压是否在额定范围内 (AC 180V), 若上述无法解决, 请联系技术人员 Check if the voltage is lower than AV180V, contact with the after sales if the problem can not be solved
Er22	控速器故障 Pedal error	前踩控速器开机 Pushing the pedal when boot on 控速器数值不对 The wrong value of the pedal	重新前踏控速器解除 Push the pedal again to disengage 按 P 键+剪刀剪进入维护参数, 再按 OK 键查看 (200±15%), 数值大于则更换控速器 Press P and trimmer key to enter the maintenance parameters, press OK when on the pedal interface, check the value if it is 200±15% when the pedal do not work, change it if the value is abnormal
ER-35	步进电机硬件过流保护 Stepping motor hardware over current protection	1: 检查步进电机信号线是否松动; Check the connection of the stepper motor signal wire 2: 检查步进电机电源线是否松动 Check the connection of the stepper motor power wire	若不能解决, 请联系售后服务人员 Contact with the afters sales if can not solve the problem
ER-37	步进电机相 A 电流检测故障 Stepping motor phase A current detection failure	主板芯片损坏 Damage of the controller main chip	请联系售后服务人员 Contact with the after sales
ER-38	步进电机相 B 电流检测故障 Stepping motor phase B current detection failure	主板芯片损坏 Damage of the controller main chip	请联系售后服务人员 Contact with the after sales
ER-39	步进电机相 AB 电流检测故障 Stepping motor phase A B current detection failure	主板芯片损坏 Damage of the controller main chip	请联系售后服务人员 Contact with the after sales
ER-45	步进电机编码器故障 .Stepping motor encoder failure	检查步进电机信号线是否松动 Check if the stepper motor signal wire is poor connected	若不能解决, 请联系售后服务人员 Contact with the afters sales if can not solve the problem