



安全指示

1. 在安装或使用本产品时，使用者必须彻底并仔细研读本操作手册。
2. 所有标上 符号之指示，必须特别注意或执行，否则可能会导致身体伤害。
3. 本产品须由受过正确训练的人员来安装或操作。
4. 为安全起见，禁止以延长线作电源座供应二项以上的电器产品使用。
5. 当连接电源线到电源座时，必须确定此电压低于 AC 250V，且符合标在马达铭牌上的指定电压。
 ※注意：电控箱电源规格如为 AC220V 时，请勿插接至 AC380V 的电源插座上，否则将出现异常且电机将无法动作。此时请立即关闭电源开关，重新检查电源。持续供应 380V 超过五分钟以上，将可能烧损电控箱上的保险丝 F2、电解电容（C58、C59）及电源模块 U14，而危及人身安全。
6. 请不要在日光直接照射的场所、室外及室温 45℃ 以上或 5℃ 以下的场所操作。
7. 请不要在暖气（电热器）旁、有露水的场所及在相对湿度 30% 以下或 95% 以上的场所操作。
8. 请不要在灰尘多的场所、具有腐蚀性物质的场所及有挥发性气体的场所操作。
9. 请注意电源线不要受压或过度扭曲。
10. 电源线的接地线须以适当大小的导线和接头连接到生产工厂的系统地线，此连接必须被永久固定。
11. 所有可转动的部分，必须以所提供的零件加以防范露出。
12. 在第一次开电后，先以低速操作缝纫机并检查转动方向是否正确。
13. 在操作以下动作前，请先关闭电源：
 - 1) 在控制箱与马达上插或拔任何连接插头时。
 - 2) 穿针线时。
 - 3) 翻抬车头时。
 - 4) 修理或作任何机械上的调整时。
 - 5) 机器休息不用时。
14. 修理或高层次的保养工作，仅能由受过适当训练的机电技师来执行。
15. 所有维修用的零件，须由本公司提供认可，方可使用。
16. 请不要以不适当物体来敲击或撞击本产品及各装置。

保修期限

本产品保修期限为购买日期起一年内或出厂月份起两年内。

保修内容

本产品在正常情况且无人为失误的操作下，于保修期间无偿的为客户维修使能正常操作。

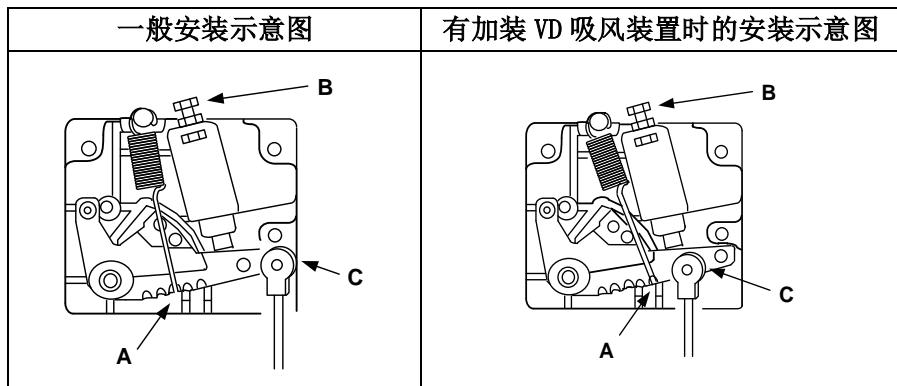
但以下情况于保修期间将收取维修费用：

- 1、不当使用包括误接高压电源、将产品移做其它用途、自行拆卸、维修、更改、或不依规格范围使用、进水进油及插入异物于本产品。
- 2、火灾、地震、闪电、风灾、水灾、盐蚀、潮湿、异常电压及其它天灾或不当场所造成的损害。
- 3、客户购买后摔落本产品，或客户自行运输（或托付运输公司）造成的损害。

* 本产品在生产及测试上皆尽最大努力和严格控制使其达到高品质及高稳定的标准，但外部的电磁或静电干扰或不稳定的供应电源，仍可能对本产品造成影响或损害，因此操作场所的接地系统一定要确实做好，并建议用户安装故障安全防护装置（如漏电保护器）

1 安装

1.1：控速器踏板拉力的调整



- A: 前踏拉力弹簧
B: 后踏紧度制退的调整螺丝组
C: 踏板旋臂拨杆挂钩孔
∴踏板连接器有加装VD吸风系列装置时，建议将A与C改变安装如右图所示

2 操作

2.1 恢复出厂模式



2.2 参数保存



2.3 按键界面

2.3.1 选针盒按键功能说明

功能	按键	车缝动作说明
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功能	按键	车缝动作说明
进入和确定存储内容值		进入参数内容值，其内容值如经调整变更后，需按下【S】键予以储存确认。
进入参数区功能键		1.一般模式下按下【P】进入参数模式用户区 2.按住【P】开机进入参数模式技术员区
停车抬压脚		1、按住 LED 灯亮时，切完线后压脚自动抬起。 2、按住 LED 灯不亮时，无自动抬压脚功能。
剪线抬压脚		1、按住 LED 灯亮时，车缝中马达停止时压脚自动抬起。 2、按住 LED 灯不亮时，无自动抬压脚功能。
慢速启动		1：指示灯亮了表示慢速起缝打开 2：指示灯不亮表示慢速启动关闭
上下停针设置		1：指示灯亮了表示停车时在上停针位 2：指示灯亮表示停车时在下停针位
设置数值递增/参数递增		1、A、B、C、D、的设定数增加。 2、参数选择区内当参数递增键。 3、参数内容区内当设定数值递增键。
设置数值递减/参数递减		1、A、B、C、D 的设定数减少。 2、参数选择区内当参数递减键。 3、参数内容区内当设定数值递减键。
A 位数调整		在修改参数情况下、按下该按键时 A 位数码管开始闪烁，表示可以修改该位数值。
B 位数调整		在修改参数情况下、按下该按键时 B 位数码管开始闪烁，表示可以修改该位数值。
C 位数调整		在修改参数情况下、按下该按键时 C 位数码管开始闪烁，表示可以修改该位数值。
D 位数调整		在修改参数情况下、按下该按键时 D 位数码管开始闪烁，表示可以修改该位数值。

2.3.2 液晶显示字体与实际字体对照表

数字字体部分：

实际数值	0	1	2	3	4	5	6	7	8	9
液晶显示	0	1	2	3	4	5	6	7	8	9

液晶画面的显示模式：

英文字体部分：

英文字母	A	B	C	D	E	F	G	H	I	J
液晶显示	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ	Ⓗ	Ⓘ	Ⓛ
英文字母	K	L	M	N	O	P	Q	R	S	T
液晶显示	Ⓛ	Ⓛ	Ⓜ	Ⓝ	Ⓞ	Ⓟ	Ⓠ	Ⓡ	Ⓢ	Ⓣ
英文字母	U	V	W	X	Y	Z				
液晶显示	Ⓤ	Ⓤ	Ⓤ	Ⓤ	Ⓨ	Ⓩ				

3. 用户参数&技术员参数

3.1 用户参数

参数项目内容	中文说明	范围	初始值	设定键别	内容值名称说明与备注
P01	最高转速 (spm)	100~7500	4500	⊕⊖	车缝时的最高转速设定
P02	加速曲线调整 (%)	1~100%	10	⊕⊖	控速器爬升斜率设定 斜率值愈大，速度愈陡；斜率值愈小，速度愈慢
P03	针停定位选择 UP: 上 DN: 下	UP / DN	UP	⊕⊖	同按键面板上之快速功能键 UP: 上停针 DN: 下停针
P07	慢速起缝速度 (spm)	200~1500	400	⊕⊖	慢速起缝时的速度设定
P08	慢速起缝针数 (针)	0~99	4	⊕⊖	慢速起缝时的针数设定，每一单位代表半针（在无选针盒下，设置 0 为关闭慢速启缝）
P11	吸风功能选择项	J / B	J	⊕⊖	J: 关闭吸风功能 B: 打开吸风功能
P14	慢速启动	ON / OFF	OFF	⊕⊖	ON: 慢速启动功能开启 OFF: 慢速启动功能关闭
P20	电磁铁、气阀选择项	A/M	M	⊕⊖	A: 气阀驱动 M: 电磁铁驱动
P37	上刀切线出力功能设定	ON / OFF	ON	⊕⊖	ON: 有上刀切线动作 OFF: 无上刀切线动作
P38	下刀切线出力功能设定	ON / OFF	ON	⊕⊖	ON: 有下刀切线动作 OFF: 无下刀切线动作
P39	车缝途中停止时，压脚出力选择	UP / DN	DN	⊕⊖	同按键面板上之快速功能键 UP: 车缝停止时，自动抬起压脚 DN: 车缝停止时，无自动抬压脚（由踏板后踏控制）
P40	下刀停止时，压脚出力选择	UP / DN	DN	⊕⊖	同按键面板上之快速功能键 UP: 下刀切线后，自动抬起压脚 DN: 下刀切线后，无自动抬压脚（由踏板后踏控制）
P41	车缝完成件数显示	0~9999	0	⊕⊖	自动累计完成件数
P42	车缝速度显示		0	⊕⊖	自动显示车缝时的转速状况（速度值仅供参考）
P43	马达转动方向设定（正反转）	CW / CCW	CW	⊕⊖	CW: 顺时针方向 CCW: 逆时针方向

3.2 技术员参数内容表

参数项目内容	中文说明	范围	初始值	设定键别	内容值名称说明与备注
P44	车头皮带轮之尺寸 (mm)	0~31	8	⊕⊖	随车头机型码之设定，已预置车头皮带轮尺寸
P45	马达皮带轮之尺寸 (mm)	1~100	65	⊕⊖	随车头机型码之设定，已预置马达皮带轮尺寸
P47	切线后，反转提针角度的调整	50~200	160	⊕⊖	切完线后，由针上算起以反向运转作提针的角度调整
P48	低速（定位速度）(spm)	200~400	230	⊕⊖	定位速度设定
P50	压脚全额初始出力的动作时间 (ms)	10~990	100	⊕⊖	压脚开始动作时，全额出力的动作时间
P51	压脚出力动作的周期信号 (%)	10~90	20	⊕⊖	压脚动作时，以周期性省电输出，避免压脚发烫

参数项目内容	中文说明	范围	初始值	设定键别	内容值名称说明与备注
P52	延迟马达起动，保护压脚下放时间	10~990	120	⊕⊖	踩下时延迟起动时间，以配合压脚放下之确认
P53	取消半反踏时抬压脚功能	0-2	0	⊕⊖	0: 半后踏时，有抬压脚出力 1: 半后踏时，无抬压脚出力 2: 半、全反踏抬压脚出力
P54	下刀切线动作时间 (ms)	10~990	80	⊕⊖	下刀切线时序所需的动作时间
P55	上刀切线动作时间 (ms)	10~990	100	⊕⊖	上刀切线时序所需的动作时间
P56	开电后自动找上定位	ON / OFF	ON	⊕⊖	ON: 开启电源后，自动找到上定位信号后停止 OFF: 无作用
P57	抬压脚保护时间 (s)	1~120	10	⊕⊖	压脚连续抬起超过设置时间自动落下
P58	上定位调整	40~180	80	⊕⊖	上定位调整，数值减少时会提前停针，数值增加时会延迟停针
P59	下定位调整	40~180	75	⊕⊖	下定位调整，数值减少时会提前停针，数值增加时会延迟停针
P60	测试速度 (spm)	100~7500	2000	⊕⊖	设置测试速度
P61	A 项测试	ON / OFF	OFF	⊕⊖	A 项测试选项，设定后将按【P60.TV】所设定之速度持续运行
P62	B 项测试	ON / OFF	OFF	⊕⊖	B 项测试选项，设定后将按【P60.TV】所设定之速度执行启动-车缝-停车-剪线的循环
P63	C 项测试	ON / OFF	OFF	⊕⊖	C 项测试选项，设定后将按【P60.TV】所设定之速度执行无定位功能的启动-车缝-停车的循环
P64	测试 B、C 导通时间	1~250	20	⊕⊖	B、C 项测试中，设置导通时间
P65	测试 B、C 停车时间	1~250	20	⊕⊖	B、C 项测试中，设置停车时间
P66	机头保护开关检测	0~2	0	⊕⊖	0: 不检测，1: 检测零信号，2: 检测正信号
P67	剪线保护开关检测	ON / OFF	ON	⊕⊖	0: 不检测，1: 检测
P69	上刀片启动前延迟时间	10~990	50	⊕⊖	下刀剪线后，多少时间，上刀片开始动作

4 错误代码表:

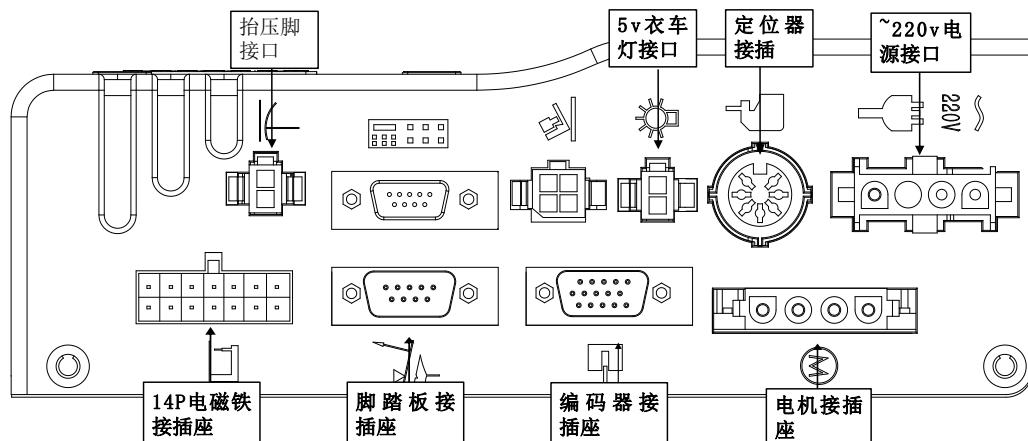
4.1 错误信息显示码一览表

错误码	内容	对策
E1	电力模块错误代码 不正常过电流或过电压发生 刹车用铝壳电阻或 F1 保险丝异常发生	模块驱动出力与机头出力将全部关闭 等待电源重新开启/复位 (请仔细检查电源板各项机能)
E7	a) 马达插头配线接触不良导致不转。 b) 定位器信号异常。 c) 车头机构死锁或马达皮带异物卷入卡死。 d) 加工物过厚，马达扭力不足无法贯穿。 e) 模块驱动出力异常。	模块驱动出力与车头出力将全部关闭。 等待电源重新开启/复位。 (请检查车头是否卡住或定位器、马达、模块驱动等信号是否异常)
E8	连续手动倒缝超过 15 秒	模块驱动出力与车头出力将全部关闭。 等待电源重新开启/复位。
E9	定位器信号异常	检查上下定位信号是否正常，或皮带轮是否太松了

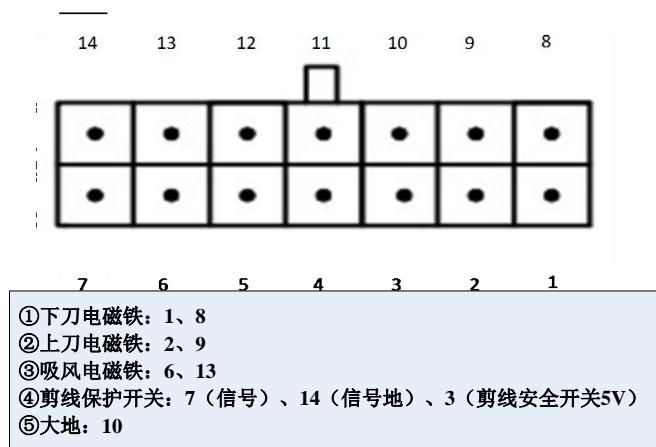
E11	电源开启即自动找上定位，但定位器有插入控制箱，针上信号无法输出。	自动进入无定位器模式，且切线、扫线、上定位等以及所有定针缝样式缝制功能亦无效。 马达可正常操作（请检查定位器是否异常）。
E12	电源开启时，未插入定位器。	自动进入无定位器模式运作，且切线、扫线、上定位等以及所有定针缝样式缝制功能亦无效。马达可正常操作。 (请检查定位器是否忘记插入或异常)
E14	编码器信号异常	检测编码器信号是否正常，或更换编码器
E15	电力模块不正常过流保护	模块驱动出力与机头出力将全部关闭。 等待电源重新开启/复位。(请仔细检查电源板各项机能)
E16	剪线开关没到正确位置	检查剪线机构是否回到正确位置
E17	机头保护开关没到正确位置	检查机头是否掀开，机头开关是否损坏

5 端口示意图

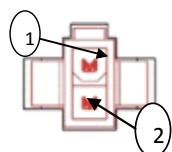
5.1 缝纫机接插口说明：



5.4.2 14P 功能端口对应表



5.2 衣车灯接插口说明表



衣车灯接口
1 (+5V)
2(0V)

Safety Instruction

1. Users are required to read the operation manual completely and carefully before installation or operation.
 2. All the instruction marked with sign  must be observed or executed; otherwise, bodily injuries might occur.
 3. The product should be installed and pre-operated by well trained persons.
 4. For perfect operation and safety, it is prohibited that using extension cable with multi-outlet for power connection.
 5. When connecting power supply cords to power sources, it is necessary to make sure that the power voltage is lower than 250 VAC and matches the rated voltage indicated on the motor's name plate.
-  **※Attention:** If the Control Box is AC 220V system, please don't connect the Control Box to AC 380V power outlet. Otherwise, the error will occur and motor will not work. If that happens, please turn off the power immediately and check the power voltage.
6. Don't operate in direct sun light, outdoors area and where the room temperature is over 45°C or below 5°C.
 7. Please avoid operating near the heater at dew area or at the humidity below 30% or above 95%.
 8. Don't operate in area with heavy dust, corrosive substance or volatile gas.
 9. Avoid power cord being applied by heavy objects or excessive force, or over bend.
 10. The earth wire of power cord must be connected to the system ground of the production plant by proper size of conductors and terminals. This connection should be fixed permanently.
 11. All the moving portions must be prevented to be exposed by the parts provided.
 12. Turning on the machine in the first time, operate the sewing machine at low speed and check the correct rotation direction.
 13. Turn off the power before the following operation:
 - 1) Connecting or disconnecting any connectors on the control box or motor.
 - 2) Threading needle.
 - 3) Raising the machine head.
 - 4) Repairing or doing any mechanical adjustment.
 - 5) Machines idling.
 14. Repairs and high level maintenance work should only be carried out by electronic technicians with appropriate training.
 15. All the spare parts for repair must be provided or approved by the manufacturer.
 16. Don't use any objects or force to hit or ram the product.

Guarantee Time

Warranty period of this product is 1 year dated from purchasing, or within 2 years from ex-factory date.

Warranty Detail:

Any trouble found within warranty period under normal operation, it will be repaired free of charge. However, maintenance cost will be charged in the following cases even if within warranty period:

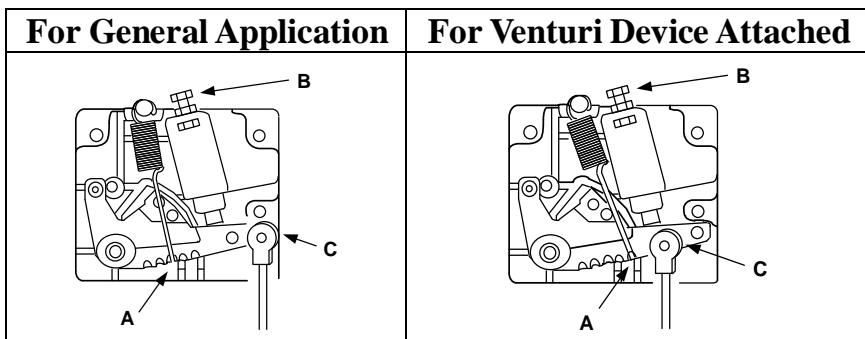
1. Inappropriate use, including: wrong connecting high voltage, wrong application, disassemble, repair, modification by incompetent personnel, or operation without the precaution, or operation out of its specification range, or inserting other objects or liquids into the product.
2. Damage by fire, Earth quake, lighting, wind, flood, salt corrosive, moisture, abnormal power voltage and any other damage cause by the natural disaster or by the inappropriate environments.
3. Dropping after purchasing or damage in transportation by customer himself or by customer's shipping agency

Note: We make our best effort to test and manufacture the product for assuring the quality. However, it is possible that this product can be damaged due to external magnetic interference and electronic static or noise or unstable power source more than expected; therefore the grounding system of operate area must guarantee the good earth and it's also recommended to install a failsafe device. (Such as residual current breaker).

1 Installation

1.1: Speed Control Unit Adjustment

Spring A: Downward force adjustment



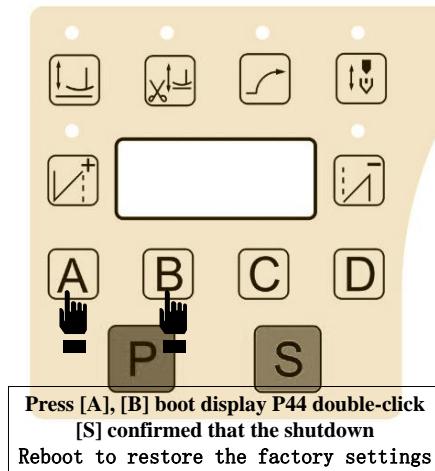
Bolt B: Heeling back force adjustment

Hole C : Pedal stroke adjustment

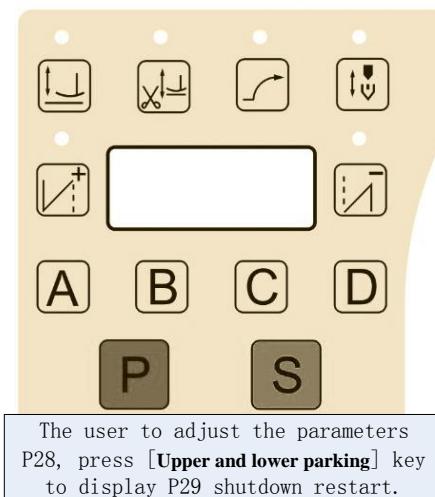
In case of connecting with an air switch on the pedal rod to activate a Venturi Device, please shift the position for A and C as shown below.

2 Operation

2.1 Reset Factory Defaults (all the operation panels have the same process, take QD286 for example)



2.2 Parameter Saving



2.3 Operation Panel Display

2.3.1 Operation Panel Keys Function

Function	Key	OPERATION OF SEWING MACHINE
Enter and save the value		Enter to the parameter value, press 【S】 key for confirmation and save if the parameter value adjustment.

Function	Key	OPERATION OF SEWING MACHINE
Enter parameter value Selection		1. Under normal mode by pressing [P] [enter parameter mode user area 2 .Hold down the [P] boot into parameter mode Technician area
Trimming presser foot		1, hold down the LED lights when the cut line after the completion of the automatic presser foot lift. 2, press and hold the LED is not lit, no automatic presser foot lift function.
Stop presser foot		1, hold down the LED lights when the motor is stopped when sewing presser foot lift automatically. 2, press and hold the LED is not lit, no automatic presser foot lift function.
Soft Start		1、The related LED ON, the soft start is turn on. 2、the related LED OFF without soft start function.
Upper and lower parking		The related LED ON indicate stopping machine at the upper stop needle position. The related LED OFF indicate stopping machine at the lower stop needle position.
A median adjusted		In the case of modifying parameters, when you press the button A digital control starts flashing, which means that you can modify the bit value .
B median adjusted		In the case of modifying parameters, when you press the button B digital control starts flashing, which means that you can modify the bit value .
C median adjusted		In the case of modifying parameters, when you press the button C digital control starts flashing, which means that you can modify the bit value .
D median adjusted		In the case of modifying parameters, when you press the button D digital control starts flashing, which means that you can modify the bit value .

2.3.2 Comparison Table of LCD Display Fonts and Actual Fonts

Arabic Numerals:

Actual	0	1	2	3	4	5	6	7	8	9
Display										

LCD Screen Display Mode:

English Alphabet:

Actual	A	B	C	D	E	F	G	H	I	J
Display										
Actual	K	L	M	N	O	P	Q	R	S	T
Display										
Actual	U	V	W	X	Y	Z				
Display										

3 Control System (Users' parameter & Technician parameter)

3.1 Users' Parameter

Parameter Code	Parameter Function	Range/ unit	Default	Key	Description
P01	Maximum Sewing Speed (spm)	100~7500	4500		Maximum speed of machine sewing
P02	Speed Curve Adjustment (%)	1~100%	10		The speed controller climbing slope setting. The large of slope value = the fast of the speed. The small of slope value = the slow of the speed.

Parameter Code	Parameter Function	Range/ unit	Default	Key	Description
P03	Needle UP/ DOWN	UP / DN	UP	<input checked="" type="checkbox"/> <input type="checkbox"/>	UP: Needle Stops at Up Position DN: Needle Stops at Down Position
P07	Soft Start Speed (spm)	200~1500	400	<input checked="" type="checkbox"/> <input type="checkbox"/>	Soft Start Speed Adjustment
P08	Stitch Numbers for Soft Start (SLS)	0~99	4	<input checked="" type="checkbox"/> <input type="checkbox"/>	Soft Start Stitches Setting (one unit = half stitch)
P11	Air suction feature selection	J / B	B	<input checked="" type="checkbox"/> <input type="checkbox"/>	J: Close Air suction function B: Open the Air suction function
P14	Soft Start	ON / OFF	OFF	<input checked="" type="checkbox"/> <input type="checkbox"/>	ON: Soft start function is turn on. OFF: Soft start function is turn off.
P20	Solenoid, air valve selection	A/M	M	<input checked="" type="checkbox"/> <input type="checkbox"/>	A: air valve drive M: Solenoid Driver
P37	(upper blade) tangent output of function setting	ON / OFF	ON	<input checked="" type="checkbox"/> <input type="checkbox"/>	ON: There are lines on the knife movement OFF: No action on knife-line
P38	(lower blade) tangent output of function setting	ON / OFF	ON	<input checked="" type="checkbox"/> <input type="checkbox"/>	ON: There are actions under the knife line OFF: No action line under the knife
P39	Presser Foot UP / Down at intermediate stop	UP / DN	DN	<input checked="" type="checkbox"/> <input type="checkbox"/>	UP: Presser foot goes up automatically DN: Presser foot keeps down (Controlled by heeling pedal)
P40	When the knife is stopped, select the presser foot output	UP / DN	DN	<input checked="" type="checkbox"/> <input type="checkbox"/>	UP: Presser foot goes up automatically DN: Presser foot keeps down (Controlled by heeling pedal)
P41	Display the sewing finished quantity	0~9999	0	<input checked="" type="checkbox"/> <input type="checkbox"/>	Counting the finished-sewing quantity
P42	Sewing Speed Display		0	<input checked="" type="checkbox"/> <input type="checkbox"/>	Displaying the current sewing speed (the speed only for reference)
P43	Setting Direction of Motor Rotation	CW / CCW	CW	<input checked="" type="checkbox"/> <input type="checkbox"/>	CW: Clockwise CCW: Counter Clockwise

3.2 Technician Parameter Table

Parameter Code	Parameter Function	Range/ unit	Default	Key	Description
P44	Machine's Pulley Dimension (mm)	0~31	8	<input checked="" type="checkbox"/> <input type="checkbox"/>	Setting machine pulley size
P45	Motor's Pulley Dimension (mm)	1~100	65	<input checked="" type="checkbox"/> <input type="checkbox"/>	Setting motor pulley size
P47	Adjustment of reverse angles after trimming	50~200	160	<input checked="" type="checkbox"/> <input type="checkbox"/>	Adjusting at reverse direction after trimming
P48	Low (Positioning) Speed (spm)	200~400	230	<input checked="" type="checkbox"/> <input type="checkbox"/>	Setting Positioning Speed
P50	Full-On Time Setting for Foot Lifter (ms)	10~990	100	<input checked="" type="checkbox"/> <input type="checkbox"/>	Timing adjustment for Full-On time of Automatic Foot Lifter actives.
P51	Duty-Cycle Setting for Foot Lifter (%)	10~90	20	<input checked="" type="checkbox"/> <input type="checkbox"/>	Adjustment for Duty-Cycle of Foot Lifter (Fine tuning can reduce the over-heating)
P52	Running-Delay Time Setting	10~990	120	<input checked="" type="checkbox"/> <input type="checkbox"/>	Running-Delay time adjustment for Automatic Foot Lifter
P53	Cancellations (half-pedal) function of presser foot	0-2	0	<input checked="" type="checkbox"/> <input type="checkbox"/>	0: When a half pedal, there presser foot lift output of 1: When pedal a half later, no presser foot lift output of 2: a half, all-trans pedal presser foot output of
P54	(lower blade) tangential action time (ms)	10~990	80	<input checked="" type="checkbox"/> <input type="checkbox"/>	Under the knife line timing required action time (ms)
P55	r(upper blade) tangential action time (ms)	10~990	100	<input checked="" type="checkbox"/> <input type="checkbox"/>	The knife-line timing required action time (ms)
P56	Needles Goes Up Automatically as Power turned on	ON / OFF	ON	<input checked="" type="checkbox"/> <input type="checkbox"/>	ON: Power turned on, needle goes up position automatically OFF: No Function.

P57	Presser foot protection time (s)	1~120	10	<input type="button" value="+"/> <input type="button" value="-"/>	Presser foot lift over a continuous set time automatically fall
P58	Up Position Adjustment	40~180	80	<input type="button" value="+"/> <input type="button" value="-"/>	Up Position Adjustment The needle will advance stop when the value decreased. The needle will delay stop when the value increased.
P59	Down Position Adjustment	40~180	75	<input type="button" value="+"/> <input type="button" value="-"/>	Down Position Adjustment The needle will advance stop when the value decreased. The needle will delay stop when the value increased.
P60	Testing Speed (spm)	100~7500	2000	<input type="button" value="+"/> <input type="button" value="-"/>	Setting testing speed
P61	Testing A	ON / OFF	OFF	<input type="button" value="+"/> <input type="button" value="-"/>	Option of Testing A, after setting press 【P60. TV】 to set the speed keep running.
P62	Testing B	ON / OFF	OFF	<input type="button" value="+"/> <input type="button" value=""/>	Option of Testing B, after setting press 【P60. TV】 to set the speed execute the cycle of Start – Sewing –Stop - Trimming
P63	Testing C	ON / OFF	OFF	<input type="button" value="+"/> <input type="button" value="-"/>	Option of Testing C, after setting press 【P60. TV】 to set the speed execute the cycle of Start – Sewing –Stop without positioning function
P64	Running Time of Testing B and C	1~250	20	<input type="button" value="+"/> <input type="button" value="-"/>	Setting running time of testing B and C
P65	Stop Time of Testing B and C	1~250	20	<input type="button" value="+"/> <input type="button" value="-"/>	Setting stop time of testing B and C
P66	Machine Protection Switch Testing	0~2	0	<input type="button" value="+"/> <input type="button" value="-"/>	0: Disable, 1: Testing zero signal, 2: Testing positive signal
P67	Trimming Protection Switch Testing	ON / OFF	ON	<input type="button" value="+"/> <input type="button" value="-"/>	0: Disable, 1: Enable
P69	Start delay time upper blade	10~990	50	<input type="button" value="+"/> <input type="button" value="-"/>	The lower blade cut line, how much time, upper blade starts to operate

4 Error Code List:

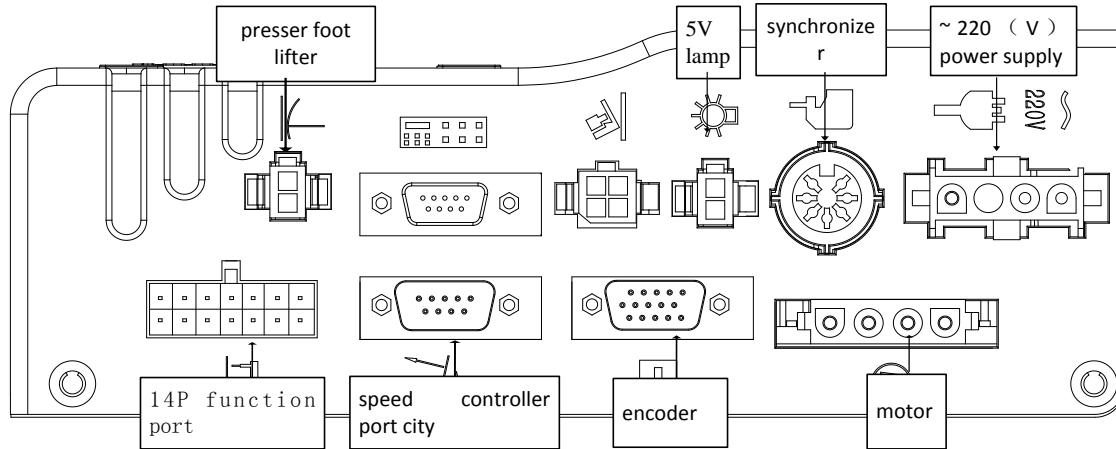
4.1 Error Code and Measurement

Error Code	Problem	STATUS / MEASUREMENT
E1	Power Module is faulty. Abnormal over current or voltage. Resistor is damaged or F1 fuse is blown.	System will be shut down until the power resets on. Please check the power board in detail.
E7	a) Bad connection at the motor connector. b) Synchronizer signal error c) Machine locked or object stuck in the motor pulley. d) Sewing material is too thick. e) Module output is abnormal.	System will be shut down until the power resets on. Please check the motor connectors, synchronizer situation and machine situation.
E8	Manual Back-Tacking lasts for 15 sec.	System will be shut down until the power resets on.
E9	Synchronizer signal error.	Please check the positioning signal or the condition of pulley.
E11	Auto Needle Up is malfunction as power on.	Motor still can run, but it automatically starts the clutch mode. All constant-stitch sewing pattern and trimmer /wiper function is invalid. Please check the synchronizer.
E12	Power is turned on without the synchronizer signal.	Motor still can run, but it automatically starts the clutch mode. All constant-stitch sewing pattern and trimmer /wiper function is invalid. Please check the synchronizer.

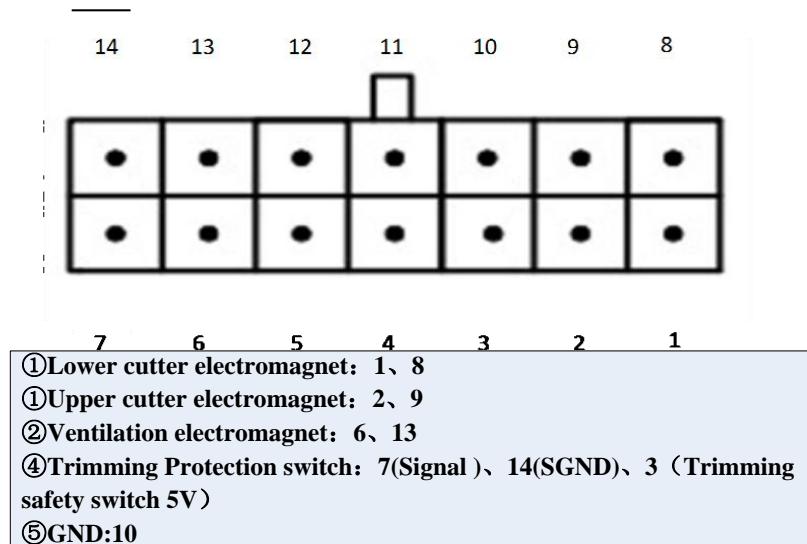
E14	Encoder signal error.	Please check the encoder signal or change the encoder.
E15	Abnormal over current protection for Power Module.	System will be shut down until the power resets on. Please check the power board in detail.
E16	Trimmer switch error.	Please check the trimmer switch whether turn in the correct position.
E17	Machine head switch error.	Please check if the machine head whether raised or if the machine head switch is damaged.

5 Port Outline Diagram

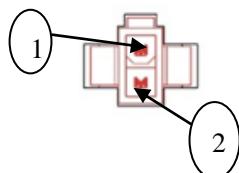
5. 1 Flat seaming machine connector illustration:



5. 2 14P Function Port Table



5.3 Sewing machine lamp Socket illustration



Sewing machine lamp connector
1 (+5V)
2(0V)