CONTROL PANEL MANUAL

TRONIC 1F

Industrial lockstitch sewing machine

texi

⚠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 conductions and terminals. This connection should be fixed permanently.
11. All the moving portions must be prevented to be exposed by the parts provided.
12. Turing 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：

a) Connecting or disconnecting any connectors on the control box or motor.
b) Threading needle.
c) Raising the machine head.
d) Repairing or doing any mechanical adjustment.
e) 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 commended to install a failsafe device. (Such as residual current breaker)

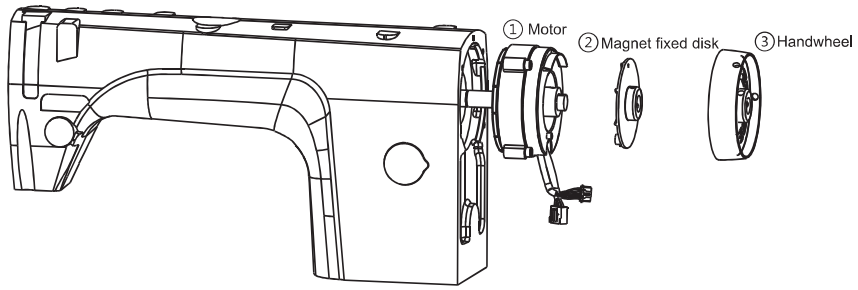
1 Installation

1.1 Power Connection

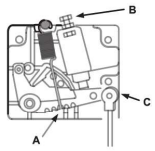
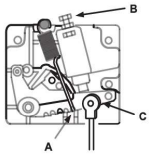
⚠ **For countries or regions with unstable power supply, it is proposed to install a power stabilizer.**

1.2 Motor Installation:

Installation of Internal Motor



1.3 Adjust The Force Required To Operate The Foot Pedal

For General Application	For Venturi Device Attached
	

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.

1.4 Comparison Table of LCD Display Fonts and Actual Fonts

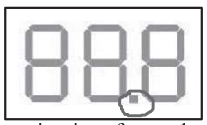
Arabic Numerals:

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

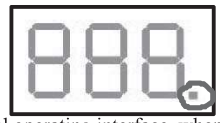
English Alphabet

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

1. 5 Upper and lower stop debugging, Slow start joint debugging



In normal operating interface, when the button on the screen the indicating lamp was lit in the parking position, the indicator light is off the time parking for lower needle stop



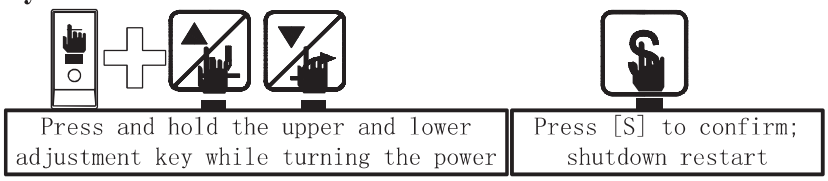
In normal operating interface, when the button on the screen the indication lamp is lit up the slow play slot open, the indicating lamp is off the slow play off the seam.

2:Keysfunction

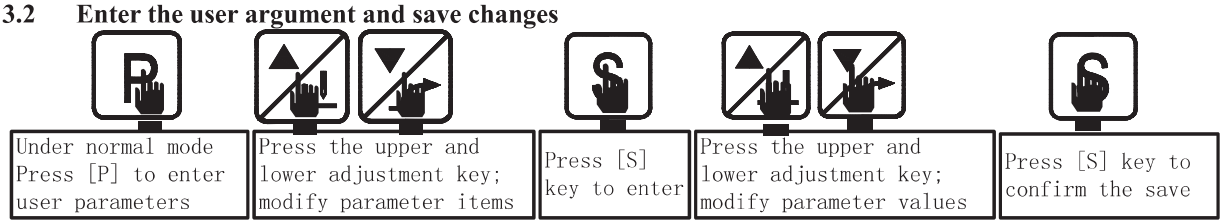
Setting Parameter Check And Save	S	After setting the funtion code ,press this key to check the preset parameter and then can edit the parameter accordingly; When the parameter is fixed,press key to savethe stetting and quit.
Entering the parameter mode	P	1.Press key P to enter into user parameter setting mode. 2. ong press key P,in the same time turn on the power switch from off to enter into system parameter setting mode.
On the adjustment key/ Select the shortcut needle position		1. Choose the region parameter items incrementing key 2. Parameter setting value incrementing key 3. Select the shortcut needle position
Under the adjustment key/ Slow play seam selection shortcuts		1. Choose the region parameter items of diminishing key 2.Is decremented key parameter settings 3. Slow play seam selection shortcuts

3 Operating instructions

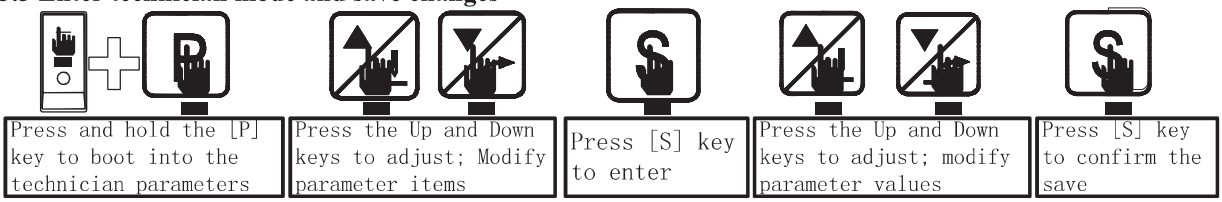
3.1： Reset the system



3.2 Enter the user argument and save changes



3.3 Enter technician mode and save changes



4： User Parameter &Technician Parameter

4.1 User Parameter

Parameters	Parameter Function	Range	Default	Description
P01	Maximum speed	010-500	450	set the max sewing speed (show the actual number *10= speed)
P02	needle stop position selection	000-001	000	Set the needle stop position(0: needle up 1:needle down)
P03	soft start switch	000-001	000	soft start switch setting(0:OFF 1: ON)
P04	soft start sewing speed	010-150	040	soft start sewing speed setting(show the actual number *10= speed)
P05	stitches number of soft start	001-099	004	set the stitches number of soft start, each unit is half stitch
P06	Minimum speed	020-600	500	set the minimum speed (show the actual number *10= speed)

4.2 Technician Parameter

Parameters	Parameter Function	Range	Default	Description
P07	Up Position Adjustment	000-024	000	
P08	Down Position Adjustment	000-024	012	
P09	Needles Goes Up Automatically as Power turned on	000-001	001	0：No Function. 1：Power turned on, needle goes up position automatically
P11	Speed Curve Adjustment (%)	001-100	032	The Lager the value, the faster to increase speed
P15	Stitch Correction Mode	000-003	000	0: Half stitch 1: One stitch 2. Continuous correct half stitch Continuous correct stitch and quickly stop machine.
P21	motor rotate direction	000-001	000	motor rotate direction setting (0:clockwise 1:counter-clockwise)
P22	auto running speed	020-500	350	auto running speed setting(show the actual number *10= speed)
P23	auto running time	010-250	020	set the auto running time in testing
P24	auto running stop time	010-250	020	set the auto running stop time in testing
P25	Item A test	000-001	000	Item A test setting(continue running with constant speed)
P26	Item B test	000-001	000	Item B test setting(carry out the set loop running)
P36	Type	000-010		

5 Error Code Table：

Error	Problem	Measurement
E01	1）When power on, detected main voltage too high. 2）When the supply voltage is too high	Turn off the system power supply, and detect whether the supply voltage is correct. (Or exceed the rated voltage.) If correct, please replace the control box and inform the factory
E07	a)Bad connection at the motor connector. b)Machine locked or object stuck in the motor pulley c)Sewing material is too thick. d)Module output is abnormal.	Please check the machine head to see if objects stuck in the motor pulley. If stuck it is not the machine head machinery fault. If normal running, please check the encoder connector and motor power cord connector if loose. If loose please tight connection. If connection well, please check supply voltage whether abnormal or setting speed too high. If have please modify. If normal, please replace the control box and notify the manufacturer.
E09 E11	Synchronizer signal error.	Turn off the system power supply, please check motor encoder connector if loose or fall off, renew to normal then restart system. If still not work, please replace the motor and notify the manufacture.
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.	Turn off the system power supply, please check motor encoder connector if loose or fall off, renew to normal then restart system. If still not work, please replace the motor and notify the manufacture.
E15	Power module abnormal over current protection	Module driver output and head output will close all. Waiting for the power to open / reset. (please carefully check power supply board each function)
E17	The sewing table safety switch is not in the correct position	Please check sewing table is open or not, the sewing table safety switch is damage or not, the socket is abnormal or not.

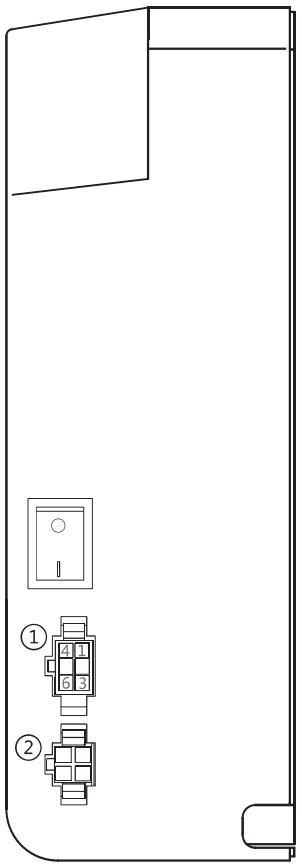
6：Schematic diagram of port

6.1.1： Each port name：

① Function Interface

Function Interface
Clothing lights: 1(GND)、 4（+5V）
Jog fill needle: 3(GND)、 6（signal）

② Pedals Interface



单剪线一体式平车说明书

一、安全上的注意事项

使用前请详细阅读本技术资料与所搭配的缝制机械说明书，配合正确使用。

1.1 ⑴电源电压与工作频率：请遵照马达与控制箱铭牌所标之规格。

⑵电磁波干扰：请远离高频磁波机器或电波发射器等，以免所产生的电磁波干扰本驱动装置因而发生错误动作。

⑶接地：为防止杂讯干扰或漏电事故，请做好接地工程（包括缝纫机、马达、控制箱）。

1.2 拆卸马达或控制箱时，勿带电拔插；控制箱里面有危险高压电，所以关闭电源后要等 1 分钟以上方可打开控制箱盖。

1.3 为保证人身安全，请在维修机械或进行穿针作业时关闭电源。

1.4 ⚠这个标志符号表示机器安装时，如有错误恐会伤害到人体或机器会受到损坏。所以机器方面有危险性的地方会有此标志。

⚠这个标志符号表示有高压电等，电气方面有危险性的地方会有此标志。

1.5 本装置保证在正常工作情况且无人为失误的操作下，保修期为一年。

二、操作说明

2.1 恢复出厂设置

在关机状态下，同时按住▲▼键开机，再按 S 键确认即可恢复。

2.2 监控模式

长按 S 键进入到监控状态，按▲▼键进行变更监控序号，按 S 键查看。

2.3 出厂调试模式

长按剪线键进入调试模式，按▲▼键选择调试项目，按 S 键进入对应模式。

1-dJ 电机测试模式，按剪线键开始测试，完成后显示测试结果。

2-bJ 手轮位置校准，转手轮到上停针定位位置，运行后再次确认位置。

2.4 老化模式

同时按住 P 键和 S 键开机，可直接进入老化 P26 参数，选择开始老化。

2.5 二级参数模式

按 P 键开机，直接进入二级参数模式，可查看 P21-P40 参数。

长按 P 键，输入密码 111，也可进入二级参数模式。

2.6 三级参数模式

长按 P 键，输入密码 824，进入三级参数模式，可查看 P41-P60 参数。

三、监控模式

显示序号	项目名称	单位
JJ	计件	件
SPd	速度	RPM
CUr	电流	0.1A
UdC	电压	V
PdL	踏板	/

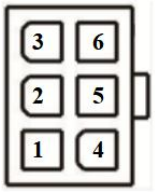
显示序号	项目名称	单位
PoS	角度	度
dJ	电机	/
id	机型	/
vEr	版本	/

注：在计件数显示界面长按剪线键可复位计件数。

四、按键说明

功能参数编辑键		进入或退出功能参数的编辑。
参数查看保存键		对所选参数号内容进行查看和保存：选择好参数号后按此键可以进行查看和修改操作，修改参数值后按此键则退出并保存参数
上选择键		1、参数选择区内参数项递增键 2、参数内容区内设定数值递增键
下选择键		1、参数选择区内参数项递减键 2、参数内容区内设定数值递减键
慢速起缝键		设定使用或取消慢速起缝功能。
剪线选择键		设定使用或取消剪线功能。
停针位选择键		切换缝制后机针的停止位置（上停针位/下停针位）。

五、电控接口定义



定义	信号（衣车灯）	地线（点动补针）	32V(电磁铁)
脚位	6PIN	5PIN	4PIN
定义	5V（衣车灯）	信号（点动补针）	剪线（电磁铁）
脚位	3PIN	2PIN	1PIN

六、故障说明

错误码	故障内容	故障原因	检查项目、处理
E-01	系统电压过高	实际电压偏高 电压检测有误	系统进线电压是否过高 系统电压检测回路是否工作正常
E-02	系统电压过低	实际电压偏低 电压检测有误	系统进线电压是否过低 系统电压检测回路是否工作正常
E-05	踏板 ID 故障	踏板辨识故障	踏板接头松动
E-07 E-08	电机超负荷	电机堵转 电机超负荷	电机插头是否接触良好 机头或剪线机构是否卡死 是否缝制规格厚度以上布料 电流检测信号是否正常
E-09 E-11	电机信号故障	电机定位信号故障	电机编码器接口是否接触良好
E-15	硬件过流	电流检测非正常 电机运转非正常	系统电流检测回路是否工作正常 硬件驱动器件是否工作正常
E-17	翻抬开关故障	翻抬开关有效	放下机头或者检查翻抬开关
E-18	软件过流	电机持续大电流运行	系统电流检测回路是否工作正常
E-19	电机超载	电机长时间超负荷运行	检查机头电机是否适配
E-20	参数读写故障	参数读出或者保存故障	操作盒插头是否接触良好 操作盒器件是否损坏
E-21	电流检测回路故障	电流检测异常	系统电流回路检测是否正常
E-22	OZ 回路故障	OZ 回路检测异常	检查 OZ 回路是否正常
E-23 E-24	电机转速异常	电机运转转速非正常	电机编码器接口是否接触良好 电机初始角是否异常

七、参数列表

参数项	中文说明	范围	初始值	内容值名称说明与备注
P-01	最高转速	200～3700	3700	车缝时的最高转速设定
P-02	停针位选择	0～2	1	0：上停针；1：下停针；2：无定位
P-03	软启动开关	0～1	1	0：关；1：开
P-04	软启动速度	200～1500	400	软启动速度
P-05	软启动针数	1～15	1	软启动针数
P-06	最低转速	200～500	200	车缝时的最低转速设定
P-07	上针位微调	-20～20	0	上针位调节
P-08	下针位调节	0～240	175	下针位调节
P-09	开机找上针位	0～1	0	0：无效；1：开机找上针位
P-10	机头保护开关检测	0～2	1	0：无效；1：检测零信号；2：检测正信号
P-11	加速曲线调整	0～4	1	控速器的加速爬升斜率设定
P-12	反转提针开关	0～1	0	0：关；1：开
P-13	反转提针角度	0～45	20	反转提针角度
P-14	衣车灯亮度调节	0～100	100	衣车灯亮度调节
P-15	补针方式	0～3	3	0：半针；1:一针；2：连续补半针；3：连续补一针
P-16	剪线功能开关	0～1	1	0：关闭； 1：开启；
P-17	剪线速度	100～400	280	剪线速度
P-18	计件倍率	0～20	0	0：无计件功能 1-20：每设定次剪线计件值加 1
P-19	计件初值设定	0～1000	100	计件减的初值
P-20	计件方向设定	0～1	0	0：计件加；1：计件减
P-21	马达运转方向	0～1	1	0：顺时针；1：逆时针
P-22	自动跑合速度	200～3700	3500	跑合速度的设置
P-23	自动跑合跑时间	1～250	20	自动跑合跑时间
P-24	自动跑合停时间	1～250	20	自动跑合停时间
P-25	A 项测试	0～1	0	速度持续运行
P-26	B 项测试	0～1	0	执行定位循环运行
P-30	机针位置调整	0～240	0	机针位置调整
P-33	过厚加力大小	0～15	0	过厚加力大小
P-34	剪线加力大小	0～15	0	剪线加力大小
P-35	剪线吸合角度	150～200	175	剪线吸合角度
P-36	剪线加力角度	200～300	260	剪线加力角度
P-37	剪线释放角度	300～360	346	剪线释放角度
P-40	机型选择	预留	预留	预留

NOTES

Dealer: