

GC200-D1简易一体式平缝车说明书 V1.1

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 (1)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。
 (2)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。
 (3)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 重新安装马达时，注意定子和转子之间需有一定的间隙，不可有接触。
- 1.4 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。
- 1.5 Δ 这个标示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。
 Δ 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。
- 1.6 本装置保证在正常工作情况且无人失误的操作下，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▲▼开机，再按S键确认即可恢复。

2.2 监控模式

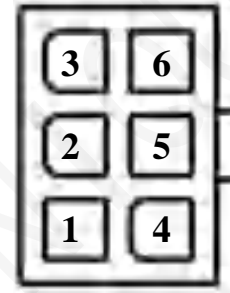
长按S键2秒，进入到监控状态，按▲▼键进行变更监控序号，监控值不能修改。具体监控界面见下表。

显示序号	项目名称	单位	显示序号	项目名称	单位
SPd	速度	10rpm	HAL	霍尔	/
CUr	电流	0.1A	id	机型	/
UdC	电压	V	vEr	版本	/
PdL	踏板	/			

三、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		1、设定开启或取消慢速起缝功能 2、若此键和‘下选择键’为组合键，则长按1秒开启或取消慢速起缝功能
停针位选择键		1、切换缝制后机针的停止位置（上停针位/下停针位）。 2、若此键和‘上选择键’为组合键，则长按1秒切换停针位置

四、电控接口定义



定义	信号（点动补针）	预留	5V(衣车灯)
脚位	6PIN	5PIN	4PIN
定义	地线（点动补针）	预留	地线（衣车灯）
脚位	3PIN	2PIN	1PIN

五、故障说明

错误码	故障内容	故障原因	检查项目、处理
E01	系统电压过高	实际电压偏高；制动回路故障 电压检测有误	系统进线电压是否过高；制动电阻是否工作正常 系统电压检测回路是否工作正常
E02	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
E03	操作盒通讯不良	机头操作盒通讯数据丢失	操作盒插头是否接触良好；操作盒器件是否损坏 操作盒程序是否烧录完成
E05	踏板 ID 故障	踏板辨识故障	踏板接头松动
E07	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
E09 E11	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；停针基片是否安装到位
E14	编码器信号异常	电机传感器信号故障 电机电源线损坏	电机编码器接口是否接触良好；电机接口是否接触良好
E15	电机电流过大	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；电机信号是否正常
E17	翻抬开关故障	翻抬开关有效	放下机头或者检查翻抬开关
E22	OZ 回路故障	OZ 回路检测异常	检查 OZ 回路是否正常

注：若以上故障按检查项目不能排除，请寻求技术支持。

六、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
P01	最高转速	200-3700	3700	车缝时的最高转速设定
P02	停针位选择	0-2	1	0: 上停针; 1: 下停针; 2: 无定位
P03	软启动开关	0-1	0	0: 关; 1: 开
P04	软启动速度	200-1500	400	软启动功能速度设置
P05	软启动针数	1-15	1	1~15: 软启动针数
P06	最低转速	200-500	200	车缝时的最低转速设定
P07	上停位调节	0-23	0	机头基准位置调整
P08	下停位调节	0-23	12	下停针位位置调整
P09	开机自动找上针位	0-1	1	0: 开机不找上针位; 1: 开机找上针位
P10	机头保护开关检测	0-2	1	0: 不检测; 1: 检测零信号; 2: 检测正信号
P11	加速曲线调整	0-4	1	控制器的加速爬升斜率设定
P15	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
P21	马达运转方向	0-1	1	0: 顺时针; 1: 逆时针
P22	自动跑合速度	200-3700	3500	自动跑合速度的设定
P23	自动跑合跑时间	1-250	20	自动跑合运行时间设定
P24	自动跑合停时间	1-250	20	自动跑合停顿时间设定
P25	连续跑合测试	0-1	0	速度持续运行 0: 关闭 1: 开启
P26	间断跑合测试	0-1	0	执行定位循环运行 0: 关闭 1: 开启
P36	机型选择	1	1	机型更换

GC200-D1 Manual of Simple integrated system for lockstitch sewing machine V1.1

1.Safety precautions

Before use, please read this manual and lockstitch machine's manual at the same time, thanks for your cooperation.

- 1.1 (1) The voltage and working frequency: please according the name plate of motor and controlling box.
- (2)Electromagnetic interference:Please stay away from high-frequency magnetic wave machines or Radio wave transmitter etc.In order to prevent the generated electromagnetic waves from interfering with the drive device and causing wrong action
- (3)Grounded:To prevent noise interference or leakage accidents,Please do grounding works including sewing machine, motor and control box.
- 1.2 If Disassemble motor and controlling box,please Turn off the power in advance.Dangerous high voltage electricity in the electric control box, so please waiting more than 1 mins after Turn off the power, then to disassemble the control box
- 1.3 When reinstalling the motor,Note that there is a certain gap between the stator and the rotor, it's untouchable.
- 1.4 To ensure the safety of life,Please turn off the power when repair the machine or threading needles.
- 1.5 This symbol indicates when the machine is installed,if made a mistake,the human body or the machine may be damaged,Therefore, there will be this mark in the dangerous place of the machine.
This symbol indicates that there is high voltage, etc.Electrically dangerous places have this mark.
- 1.6 This products guarantees a one-year warranty under normal working conditions and no-one error operation

2.Instructions

2.1 Reset







In the shutdown state, press ▲▼ at the same time to turn on, then press the "S" key to confirm to recover

2.2 Monitoring mode

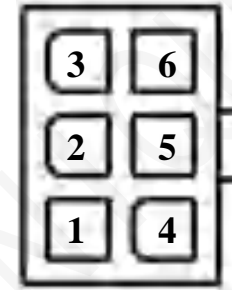
Press the S key for 2 seconds to enter the monitoring state, press ▲▼ to change the monitoring serial number, the monitoring value cannot be modified. The specific monitoring interface is shown in the table below.

Display No:	Item number	unit	Display No:	Item number	unit
SPd	Speed	10rp	HAL	HAL	/
CUr	Current	0.1A	id	model	/
UdC	Voltage	V	vEr	version	/
PdL	Pedal	/			

3.Key Description

Function parameter edit key		Enter or exit the editing of function parameters
Parameter view save key		View and save the content of the selected parameter number: After selecting the parameter number, press this key to view and modify the operation, after modifying the parameter value, press this key to exit and save the parameter
Up selection key		1.Increment key for parameter item in parameter selection area 2. Set the value increment key in the parameter content area
Down Select key		1.Decrease key of parameter item in parameter selection area 2.Set the value decreasing key in the parameter content area
Slow start key		1.To setting open or cancel the slow start sewing function 2.If this key and the 'down selection key' are combination to one key, press and hold for 1 second to turn on or cancel the slow start sewing function
Stop needle position selection key		1.Switch the stop position of the needle after sewing (upper position/down position) 2.If this key and the 'up selection key' are combination to one key, press it for 1 second to switch the needle position

4. Electrical control interface definition



Definition	Model(Jog needle)	Reserved	5V(Sewing lights)
Foot position	6PIN	5PIN	4PIN
Definition	Ground wire(Jog needle)	Reserved	Ground wire(Sewing lights)
Foot position	3PIN	2PIN	1PIN

5. Failure description

Error code	Fault content	Reason	Inspection items and how to fix
E-01	System voltage is too high	Actual voltage is too high Brake circuit failure Incorrect voltage detection	Whether the incoming line voltage of the system is too high Whether the braking resistor is working properly Whether the system voltage detection circuit works normally
E-02	System voltage is too low	Actual voltage is low Incorrect voltage detection	Whether the incoming line voltage of the system is too low Whether the system voltage detection circuit works normally
E-03	Operation box communication is poor	The communication data of the head operation box is lost	Whether the operation box plug is in good contact Whether the operation box device is damaged Whether the operation box program has been burned
E-05	Pedal ID failure	Pedal recognition failure	Loose pedal joint
E-07	Motor overload	Motor blocked, Motor overload	Whether the motor plug is in good contact Whether the machine head or trimming mechanism is stuck Whether to sew fabrics above the specification thickness Whether the current detection signal is normal
E-09,E11	Motor signal failure	Motor positioning signal failure	Whether the motor encoder interface is in good contact Whether the needle stop substrate is installed in place
E-14	Encoder signal is abnormal	Motor sensor signal failure Motor power cable is damaged	Whether the motor encoder interface is in good contact Whether the motor interface is in good contact
E-15	Motor current is too large	Current detection is abnormal The motor is running abnormally	Whether the system current detection circuit is working normally Whether the motor signal is normal
E-17	Flip switch failure	Flip switch effective	Put down the machine head or check the flip switch
E-22	OZ loop failure	OZ loop detection abnormal	Check whether the OZ circuit is normal

Note: If the above faults cannot be eliminated according to the inspection items, please apply technical support.

6. Parameter list

Parameter item	Description	Range	Initial value	Content value name description and remarks
P01	Maximum speed	200-3700 RPM	3700 RPM	Maximum speed setting during sewing
P02	Synchronizer selection	0-2	1	"0" mean Needle up, "1" mean Needle down, "2" mean without signal
P03	Soft start switch	0-1	0	"0" mean open, "1" mean turn off
P04	Soft start Speed	200-1500 RPM	400	Soft start speed function setting
P05	Number of soft start pins	1-15	1	1-15 Number of soft start pins
P06	Minimum speed	200-500 RPM	200	Minimum speed setting during sewing
P07	Upper needle position adjustment	0-23	0	machine head position adjustment
P08	Down needle position adjustment	0-23	12	Position adjustment of lower needle stop
P09	Automatically find the needle position when starting up	0-1	1	"0" mean can't find upper needle position adjustment, "1" mean find upper needle position adjustment
P10	Machine head protection switch detection	0-2	1	"0" mean no detection, "1" Detect zero signal, "2" mean Detect positive signal
P11	Acceleration curve adjustment	1-100	32	Speed controller acceleration and climb slope setting
P15	Needle supplement method	0-3	3	"0" mean Half stitch, "1" mean One stitch, "2" mean Continuous half stitch, "3" Continuous one stitch
P21	Motor running direction	0-1	1	"0" mean Clockwise, "1" mean Counterclockwise
P22	Automatically running speed	200-3700 RPM	3500 RPM	Setting automatically check speed
P23	Automatic running time	1-250	20	Automatic running-in time setting
P24	Automatic stop time	1-250	20	Automatic running-in pause time setting
P25	Continuous running test	0-1	0	Speed continuous operation "0" mean turn off, "1" open
P26	Intermittent running and testing	0-1	0	Perform positioning cycle operation, "0" mean turn off, "1" open
P36	Model selection	1	1	Model replacement

Note: If the above parameters do not match the actual parameters, please according the machine parameters