

GC200-1SB HL787T2 使用说明书 v1.3

1. 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) 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：请远离高频微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、定位器）。
- 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。
 - 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。
 - 4 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。

2. 操作盒按键说明

图标	说明
	前固缝
	后固缝
	短按：w 缝/自由缝循环 长按：1. 自由缝模式下，调试模式快捷键（长按 3 秒以上） 2. 定长缝模式下，试教模式（长按 1 秒以上）
	短按：剪刀功能开关 长按：夹线功能开关，开启后电子夹线启用
	短按：上下停针位选择键 长按：软启动功能开关
	1. 速度加减键。连续按下，缝制速度升高/降低，显示屏自动切换为速度设定值。 2. 显示数位数增减 3. 参数数值增减 4. 花样编辑数值增减
	短按：中间停顿压脚/剪线后拍压脚/中间停顿剪线后拍压脚/关闭循环 长按：1. 定长缝模式下有效（开/关）（一段缝、多段缝、花样多段缝） 2. w 模式下自动打开
	进入不同参数级别（参数分为 3 级） 缝制设定界面下短按 P 键进入【参数界面】，此时显示参数列表中级别为 I 的参数。 缝制设定界面下长按 P 键进入【密码输入界面】，输入正确维修密码后按 P 键进入【参数界面】，此时显示参数列表表级别为 I 和 II 的参数，二级密码：1111
	1. 确认键 2. 对于带夹线功能机型，长按此按键可显示夹线力度，液晶显示 "[3]"，再次按该键退出
	缝制界面下可左右调节“3333”
	缝制界面下，针距大小调节
	缝制界面下，中途拍压脚高度调节
	循环：一段缝/多段缝/花样多段缝/自由缝
	密针缝开/关
	短按：进入件件（JJ）模式 待机界面下，长按 1.5 秒 Reset 键进入恢复出厂设置界面，按“加减键”调到“yes”，再按“S”键
	拍压脚开/关
	短按：缝制界面下可切换成花样模式（d1-d9） 长按：自由缝界面下，可进入花样编辑模式

3. 模式设置

停针位调整模式：长按“T”键，显示“1-dj”，按“+”键，显示“2-bj”，按“S”键，显示“P-75”，此时按“S”键会显示一个数值，再踩一下踏板，再转动手轮到上针位位置，按“S”键保存，上针位调整完成。

零位调整模式：长按“T”键，显示“1-dj”，按“+”键，显示“2-bj”，按“S”键，显示“P-75”，在“P-75”界面按“+”键，显示“P-6”，按“S”键，会显示一个数值，在此界面调整零位，若零位有轻微偏差，可以微调数值直至零位准确，调整完成后按“S”保存。

正缝针距调整模式：长按“T”键，显示“1-dj”，按“+”键，显示“2-bj”，按“S”键，显示“P-75”，再按“+”键两次会显示“P-7”，按“S”显示数值，可调整正缝针距，针距偏大减小数值，针距偏小加大数值。

倒缝针距调整模式：长按“T”键，显示“1-dj”，按“+”键，显示“2-bj”，按“S”键，显示“P-75”，再按“+”键三次会显示“P-8”，按“S”显示数值，可调整倒缝针距，针距偏大减小数值，针距偏小加大数值。

恢复出厂设置：1：参数恢复出厂设置；2：快捷键恢复出厂设置

- 1、长按“P”键进入参数界面，进入“P79”参数时会显示“0”，再按“加减键”调到“3”，按“S”键后会显示“no”，再按“加减键”调到“yes”，再按“S”键。
- 2、待机界面下，长按 1.5 秒 Reset 键进入恢复出厂设置界面，按“加减键”调到“yes”，再按“S”键

花样编辑设置界面：自由缝界面下长按“PATT”键 2 秒，液晶屏显示“d1”，按“+”键切换 d1-d9 花样，选定要设置的花样号按“S”键进入设置，液晶屏显示“1 3.0 01”，此时可以进行第一段的针数和针距值，按左右键选择要设置的项闪烁；一段设置完成，按左右键切换到最左侧数字闪烁，按加减键切换到其他的段数设置，若当前段数的针数为零，不能进行下一段的设置；所有段针数和针数设置完成按“S”键保存并返回到“d1”界面，按“P”键退出保存。若要从该模式返回到正常模式，按“P”键退出进入正常模式。

4. 故障说明

故障显示	故障内容	故障可能原因	检查项目、处理
E011、E012	电机信号故障	电机位置传感器信号故障	电机插头是否接触良好；电机信号检测器件是否损坏；缝制机手轮是否安装到位
E021	电机超负荷	电机堵转	电机插头是否接触良好；机头或剪线机构是否卡死
E023	电机超负荷	电机超负荷	是否缝制规格厚度以上布料；电流检测信号是否正常
E022	剪线卡刀	剪线卡刀	检查机头或剪线机构是否卡死；检查剪线时序和位置是否正确
E101	硬件驱动故障	电流检测非正常；驱动器直通	系统电流检测回路是否工作正常；驱动器是否损坏
E111、E112	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
E121、E122	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
E131	电流检测回路故障	电流检测非正常	系统电流检测回路是否工作正常
E133	OZ 回路故障	OZ 回路非正常	系统 OZ 回路是否工作正常
E134	DBFLT 故障	自动电阻回路非正常	自动电阻插头是否接触良好；自动电阻是否损坏
E201	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
E211、E212	电机运转非正常	电机运转非正常	电机插头是否接触良好；电机信号是否匹配
E301	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
E302	操作盒 E2PROM 故障	操作盒内部故障	检查操作盒器件是否损坏
E303	SPI 通讯故障	操作盒内部故障	检查主控板器件是否损坏
E304	HMI 主从芯片通信故障	操作盒内部故障	检查操作盒器件是否损坏
E402	踏板 ID 故障	踏板辨识故障	踏板接头松动
E403	踏板零位校正故障	踏板零位校正正值超出范围	踏板损坏或者校正时踏板不是停止状态
E501	翻抬开关故障	翻抬开关有效	放下机头或者检查翻抬开关
E502	油量报警故障	油量报警故障	加油提示
E601	硬件过流故障	针距压脚电机硬件过流	系统电流检测回路是否工作正常；驱动器是否损坏
E602	软件过流故障	针距压脚电机软件过流	系统电流检测回路是否工作正常；驱动器是否损坏
E603	电流检测回路故障	针距压脚电机电流检测回路	系统电流检测回路是否工作正常；驱动器是否损坏
E604	机械找零位故障	针距压脚电机初始机械角度	针距压脚电机插头是否接触良好；
E605	电机堵转	针距压脚电机堵转	针距压脚电机插头是否接触良好；机械是否有卡点
E606	电机开路故障	针距压脚电机绕组回路	系统电流检测回路是否工作正常；驱动器是否损坏
E607	硬件过流故障	剪线电机硬件过流	系统电流检测回路是否工作正常；驱动器是否损坏
E608	软件过流故障	剪线电机软件过流	系统电流检测回路是否工作正常；驱动器是否损坏
E609	电流检测回路故障	剪线电机电流检测回路	系统电流检测回路是否工作正常；驱动器是否损坏
E610	机械找零位信号故障	剪线电机初始机械角度	剪线电机插头是否接触良好
E611	电机堵转	剪线电机堵转	剪线电机插头是否接触良好；机械是否有卡点
E612	电机开路故障	剪线电机绕组回路	系统电流检测回路是否工作正常；驱动器是否损坏
E701	底线检测报警	底线传感器未检测到底线	更换底线或检查底线传感器
P.oFF	掉电显示	电源关闭	等待电源重新开启
Eval	试用保护故障	试用时间到	联系代理商
L.bob	底线提示	底线计数值为负	更换底线后长按 S 键取消提示状态
P.bob	计件提示	计数值为零	按 S 键进入界面，长按“前固缝”键 2 秒以上取消提示状态 如需关闭计件功能，将 P35 参数数值更改为 0



5. 系统参数表：

编号	项目	内容	设定范围	步距	默认值	级别
P-01	踏板最高速度	设定踏板的最高转速	200-5000(rpm)	100	3700	I
P-02	软启动功能	开始踏板时低速缝纫几针的功能，1-9；软启动针数	0-9	1	2	I
P-04	定长缝最高速度	设定定长缝最高速度	200-4000(rpm)	100	3000	I
P-06	零位针距修正值	针距设为 0mm 时微调该值使实际缝制针距为 0	50-150	1	100	I
P-07	正缝针距修正值	正缝针距放大比例（固缝针迹）	50-150%	1	100	I
P-08	倒缝针距修正值	倒缝针距放大比例（固缝针迹）	50-150%	1	100	I
P-09	倒缝开关限速速度	倒缝开关限速速度	500-1500(rpm)	50	800	I
P-10	定长缝自编针距数设定模式	0: 设定各段针数即设定数值 1: 定长缝设定自编时，设定数值为花样的个数，即总针数为花样针数×设定数值	0/1	1	1	I
P-12	拍压脚第一段角度	拍压脚第一段角度	0-100	1	29	I
P-13	压脚最大抬升高度（步进有效）	剪线后压脚最大高度设置	0-100	1	65	II
P-14	压脚抬升速度（步进有效）	压脚抬升的步进速度	20-500(rpm)	10	300	II
P-15	压脚释放速度（步进有效）	压脚释放的步进速度	20-500(rpm)	10	300	II
P-16	放压脚第一段角度	放压脚第一段角度	0-100	1	31	I
P-17	剪线松线占空比	剪线为电磁铁时；剪线松线占空比（太小会影响剪线电磁铁吸合力） 剪线为步进时；松线力度调节	0-100	1	50	II
P-18	前固缝衔接后固缝动作设定	前固缝结束后立即踩剪线不带后固缝功能设定；0：无效 1：有效	0/1	1	0	I
P-19	前固缝结束后停止	前固缝结束后停止设定 0：无效 1：有效	0/1	1	0	I
P-20	机头按钮附件功能选择	0：无效 1：待机时手动剪线 2：剪线后手动压脚	0/1/2	1	0	I
P-21	软启动速度 1	软启动第 1 针速度	100-3000(rpm)	50	400	I
P-22	软启动速度 2	软启动第 2 针速度	100-3000(rpm)	50	1000	I
P-23	软启动速度 3	软启动第 3-9 针速度	100-3000(rpm)	50	1500	I
P-24	压脚软下降功能	防止损伤布料减缓压脚下降速度的设定	0/1	1	1	I
P-25	拍压脚开关	拍压脚开关设定 0：无效 1：有效 2：剪线后有效	0/1/2	1	1	I
P-26	过厚功能	过厚功能设定 0：无效 1：有效	0/1	1	0	I
P-27	上电位设定	上电时机头自动找上针位的功能设定 0：无效 1：有效	0/1	1	0	I
P-28	安全开关信号模式	机头安全开关信号模式设定 0：常开 1：常闭 2：禁止保护	0/1/2	1	0	I
P-29	压脚软下降时间	压脚软下降时间设定，时间越长压脚下降越慢	100-500 (ms)	5	50	II
P-30	底线计数开关	0: 无效 1: 有效	0/1	1	0	I


















编号	项目	内容	设定范围	步距	默认值	级别
P-31	底线初值设定	底线初值设定	200-4000 (0.1m)	20	1600	I
P-33	前固缝 ABA 模式选择	0：无效 1：有效	0/1	1	0	I
P-34	标准固缝速度模式选择	0 自动；1 踏板控制	0/1	1	0	II
P-35	计件数倍率	计件数倍率设定	0-50	1	0	I
P-36	计件数初值设定	计件数初值设定	0-1000	5	100	I
P-37	接线动作时间	接线动作时间	0-800 (ms)	10	40	II
P-38	计件选择设定	0：计件加 1：计件减	0/1	1	0	I
P-39	压脚下降关断时间	压脚下降关断时间	0-50	1	0	II
P-40	电子松线保持时间	电子松线保持时间	0-10	1	5	III
P-41	低速速度	踏板最低速度	100-500(rpm)	10	200	I
P-42	踏板曲线选择	踏板调速功能调整 0：正常 1：加速慢 2：加速快	0/1/2	1	0	I
P-44	剪线速度	剪线速度	100-500(rpm)	10	300	I
P-45	倒缝限速开关	倒缝开关限速处理 0：防止倒缝断针 1：无限速 2：一直限速	0/1/2	1	0	I
P-46	放压脚延迟缝制时间	为确认压脚已放下的延时	0-800(ms)	10	100	II
P-47	运行时膝靠压脚判断速度	运行时膝靠压脚判断速度	200-1000(rpm)	50	500	II
P-48	运行时膝靠压脚抬升高度	运行时膝靠压脚抬升高度	1-100	1	0	II
P-49	拍压脚保持时间	拍压脚保持时间后强制关断	1-60(s)	1	25	II
P-50	拍压脚全压输出时间	拍压脚全压输出时间	0-800(ms)	10	150	II
P-51	拍压脚输出占空比	拍压脚输出占空比	0-100	1	40	II
P-53	前固缝速度	前加固缝速度	100-3000(rpm)	50	2200	I
P-54	前固缝正缝补偿	前固缝正缝补偿系数	80-120	1	100	I
P-55	前固缝倒缝补偿	前固缝倒缝补偿系数	80-120	1	100	I
P-56	后固缝速度	后加固缝速度	100-3000(rpm)	50	2200	I
P-57	后固缝正缝补偿	后固缝正缝补偿系数	100-3000(rpm)	50	2200	I
P-58	后固缝倒缝补偿	后固缝倒缝补偿系数	100-3000(rpm)	50	2200	I
P-59	连续固缝速度	连续加固缝速度	100-3000(rpm)	50	2200	I
P-60	固缝取消限速开关	0：软件有限速 1：软件不限速（大针距速度高时转速可能不稳定）	0/1	1	0	I
P-61	机头按钮变针距取消角度限制开关	0：在限制角度内变针距 1：任意角度变针距（针距可能不重合，也可能断针）	0/1	1	0	I
P-62	开始运行的踏板行程	开始运行的踏板位置(相对于踏板中立时的行程)	10-50(0.1度)	1	15	II
P-63	开始加速的踏板行程	开始加速运行的踏板位置(相对于踏板中立时的行程)	10-100(0.1度)	1	45	II
P-64	运行高速的踏板行程	运行到最高速的踏板位置(相对于踏板中立时的行程)	10-150(0.1度)	1	100	II
P-65	压脚抬起的踏板行程	压脚抬起动作的踏板位置(相对于踏板中立时的行程)	-100-100(0.1度)	1	-25	II
P-67	剪线动作的踏板行程 1	无拍压脚功能时，开始剪线的踏板位置（相对于踏板中立时的行程）	-100-100(0.1度)	1	-50	II
P-68	剪线动作的踏板行程 2	有拍压脚功能时，开始剪线的踏板位置（相对于踏板中立时的行程）	-100-100(0.1度)	1	-60	II
P-69	下停针位	下停针位	0-240	1	175	I
P-70	缝制变针距模式	0: 常规模式 1: 起缝变针距模式 2: 0 点起缝模式（开启反转）	0-3	1	0	I
P-71	反转提针角度	反转提针角度	260-360(度)	1	326	I
P-72	夹线力度调整	调整夹线力度大小 0：夹线功能无效 1-9：力度调节	0-9	1	3	I
P-73	夹线吸合角度	夹线吸合角度	10-150(度)	5	100	I
P-74	夹线释放角度	夹线释放角度	160-300(度)	5	270	I
P-75	上停针位	上停针位位置调整	0-240	1	33	I
P-77	密针缝功能设置	0：无效 1：有效	0/1	1	0	I
P-78	密针缝模式设定	1：起缝密针 2：结尾密针 3：首尾密针	1/2/3	1	2	II
P-79	恢复出厂参数	特殊功能参数 5/8；恢复出厂参数	0-15	1	0	I
P-80	缝制最高速度	缝制最高转速	300-5000(rpm)	100	4000	II
P-81	踏板速度百分比	踏板速度百分比	50-100	1	100	II
P-82	试用时间	试用功能 0：试用功能无效；10-1000：上电试用时间	0-1000(小时)	10	0	III
P-83	加重功能	机针穿不透布时试用；0：无效；1-15：力度调整	0-15	1	0	II
P-84	剪线加力功能	剪线为电磁铁时有效；0：无效；1-15：力度调整	0-15	1	0	II
P-85	剪线吸合角度	剪线吸合角度设定	150-200	2	174	III
P-86	剪线加力角度	剪线加力角度设定	200-300	2	260	III
P-87	剪线释放角度	剪线释放角度设定	300-360	2	340	III
P-88	松线吸合角度	松线吸合角度	0-360	2	180	II
P-89	松线释放角度	松线释放角度	0-360	2	350	II
P-90	语言选择设定	语言选择设定；0：关闭 1：中文 2：英文	0-2	1	1	II
P-91	针距是否更改选择设定	针距是否更改选择设定 0：允许更改 1：不允许更改	0-1	1	0	II
P-92	踏板拍压脚命令时间	踏板踩下后，拍压脚命令有效时确认时间	10-300(ms)	10	80	II
P-93	踏板中立位置	踏板中立位置微调	-15-15(0.1度)	1	0	II
P-95	防鸟巢功能选择	防鸟巢功能选择；0：夹线机型 1：防鸟巢机型 2：接线机型	0/1/2	1	0	II
P-99	机型选择	机型模式选择	/	/	/	III
P-100	膝靠功能设置	膝靠功能设置；0：无效 1：有效	0/1	1	0	II
P-101	膝靠压脚零位电压	膝靠压脚零位电压值（单位 0.01V）	0-500	5	270	II
P-102	膝靠传感器最大行程电压	膝靠传感器最大行程电压值（单位 0.01V）	0-500	5	60	II
P-103	张力/松线功能切换	0: 张力控制 1: 普通松线电磁铁控制	0/1	1	1	II
P-104	花样停针功能开关	0：无效 1：停针需走完当前花样针数	0/1	1	0	II
P-105	压脚高度传感器功能设定	压脚高度传感器功能设定 0：无效 1：有效	0/1	1	1	II
P-106	压脚高度传感器零位电压调整	压脚高度传感器零位电压调整（单位 0.01V）（压脚落下、送料牙在台下）	0-250	1	215	II
P-107	过厚检测灵敏度设定	过厚检测的压脚高度传感器电压设定（单位 mv）（相对于零位电压）	0-500	5	100	II
P-108	剪线全压占空比	剪线全压占空比（剪线吸合时缓冲）	50-100	1	98	II
P-109	压脚全压占空比	压脚全压占空比（压脚吸合时缓冲）	50-100	1	80	II
P-110	布料厚度与张力控制	布料厚度适当加大张力	0-10	1	0	II
P-111	过厚限制速度	过厚限制速度	500-3000(rpm)	50	1500	II
P-112	过厚针距补偿系数	过厚针距补偿处理	50-150(%)	1	120	II
P-113	补针针距模式	补针针距模式；0：无效 1：有效（按 P114 设定针距）	0/1	1	0	I
P-114	补针针距设定	针距 5mm 机型参数范围(1.0mm~5.0mm) 针距 7mm 机型参数范围(1.0mm~7.0mm)	10-50 (70)	1	35	I
P-115	倒缝按钮功能设定	倒缝按钮功能设定；0：倒缝 1：密缝 2：补针 3：倒缝+补针	0-3	1	0	II
P-116	补针按钮功能设定	补针按钮功能设定；0：倒缝 1：密缝 2：补针 3：倒缝+补针	0-3	1	2	II
P-117	密缝针距设定	机头按钮密缝针距设定	50-150	1	110	II
P-118	前密针针数设定	前密针缝制针数设定	-1-10	1	1	II
P-119	前密针针距设定	前密针缝制针距设定	50-150	1	110	II
P-121	剪线第 1 段开始角度	剪线第 1 段开始角度设定	200-300	2	230	II
P-122	剪线第 1 段行程	剪线第 1 段行程设定	0-100	1	55	II
P-123	剪线第 2 段开始角度	剪线第 2 段开始角度设定	250-360	2	330	II
P-124	剪线第 2 段行程	剪线第 2 段行程设定	0-100	1	75	II
P-125	定长缝中途停车剪线模式	0：无效 1：有效	0/1	1	0	II
P-126	起缝松线开关	0：无效 1：有效	0/1	1	1	II
P-127	起缝松线前延时	起缝松线前延时	0-1000	10	100	II
P-128	起缝松线动作时间	起缝松线动作时间	0-1000	10	200	II
P-129	显示屏背光亮度设定	显示屏背光亮度设定	0-10	1	5	I
P-135	中途倒缝功能选择	0: 无效 1: 有效	0-1	1	0	I
P-136	中途倒缝针数设定	针数设定 1-50 针	1-50	1	4	I
P-137	中途倒缝来回次数设定	次数设定 1-				

GC200-1SB HL78T2 Instructions v1.3

1. Safety instruction

- Please read the operation manual and related sewing machinery datasheet carefully before correct use.
- (1) Power voltage and frequency: please refer to motor and control box nameplate.
- (2) Interference from electromagnetic wave: please keep far away strong magnetic or high radiation environment in order to avoid obstructions and make to misoperation.
- (3) Grounding: to avoid the noise obstructions or leakage of electricity accident (including sewing machine, motor, control box and positioner).
- 1.2 Please make sure power off at least 1min and then can open control box cover, because there are dangerous high voltage.
- 1.3 Please turn off the power while repairing or wearing needle in order to protect operator's safety.
- 1.4  Used where potential dangers exist.
-  Used where high voltage and electric danger exist.

2. Operation box use

Function	Symbol	Description
Front Reinforcing-sewing		circulation: front/Reinforcing-sewing / front double/Reinforcing-sewing / front Four solid Reinforcing-sewing / turn off
Back Reinforcing-sewing		circulation: back/Reinforcing-sewing / back double/Reinforcing-sewing / back Four solid Reinforcing-sewing / turn off
Continuous Reinforcing-sewing / debug		short press: circulation w sewing Free seam long press: 1. Debug mode shortcut key in free seam mode (long press for more than 3 seconds) 2. In fixed-length seam mode, try teaching mode (press for longer than 1 second)
Scissors function key/Thread clamp function		short press: Scissors function on and off. long press: Thread clamp function on and off.
Stop needle selection key/soft start		short press: Up and down needle selection key long press: starting function on and off
add-subtract key		1. Speed adjustment key. Press continuously to increase/decrease the sewing speed, and the display screen will automatically switch to the speed setting value. 2. According to several numerical and subtract 3. The parameter value plus or minus 4. Pattern edit value add and subtract
Presser foot function cycle key/ Trigger function key Settings		short press: Foot presser function cycle: middle stop lifting foot/cutting line after lifting foot/middle stop cutting line after lifting foot/closing long press: 1. Effective (on/off) in fixed-length seam mode (one-section seam, multi-section seam, multi-section seam self-knitting pattern) 2. W seam mode Open automatically
Parameters setting key		Enter the level of different parameters (parameters are divided into 2) sewing set interface under short press P into the parameter interface, the level for the 1 parameter display parameter list. Long press the "P" button in the sewing setting interface to enter the "password input interface". After entering the correct maintenance password, press the "P" button to enter the "parameters interface". At this time, the parameters of level 1 and 2 in the parameter list are displayed. password: 1111
Identify key		1. identify key 2. for the belt clip line function model, the strength of long press this button to display the thread clamp, LCD display "[_3]"), press the key again to exit
Left or right key		Under the sewing interface, "3333" can be adjusted left and right.
Needle pitch adjustment key		Under the sewing interface, adjust the needle pitch
Midway press foot height key		Under the sewing interface, adjust the height of the press foot midway
Fixed length sewing mode key		Loop: Single seam/Multi seam/Pattern Multi seam/Free seam
beauty stitch		beauty stitch on and off.
Reset setting		Short press: Enter piece rate (JJ) mode Under the standby interface, press Reset key 1.5 seconds to enter the "restoration of the factory setting interface", press the "add-subtract key" to "yes", and then press "S" to confirm
Press foot lift switch		Open/Off the foot lift function
Pattern sewing switch key		Short press: Under the sewing interface, switch the pattern mode (d1-d9) Long Press: Under the free sewing interface, enter the pattern editing mode

Notw: The parameters in the table are standardized. If have any discrepancy, based on reality

3. Mode Settings

Mode	Operation
Debug mode:	1. After entering the normal sewing mode, press the right side 4 seconds "T", enter 2. debug mode. If you want this pattern to return to normal mode, press "P" key to exit into normal mode
Stitch length Adjustment Mode:	After entering sewing mode normally, long press "T" 3 seconds, Entering debug mode, press "+" or "-", switch to parameter P-6, press S, then the machine can be zero position correction, switch to parameter P-7, press S can correct the go-stitch length; switch to parameter P-8, press S can correct the reverse-stitch length, all the corrections are saved to exit by press S.
Restore Factory settings:	1. Long press "P" enter parameter interface, enter "P79" will displays "0". Press "+/-" to "3", press "S" display "no". Then press "+/-" to "yes", press "S" 2. Under the standby interface, press Reset key 1.5 seconds to enter the "restoration of the factory setting interface", press the "add-subtract key" to "yes", and then press "S" to confirm
Pattern editing settings interface:	After entering the normal sewing mode, press the "P" Key for 2 seconds, screen display "d1", press "+" toggle the d1-d9 pattern. Select the pattern to be set Press "S" to enter the setting, screen display "1 3.0 01". In this case, the number of stitches and the stitch length of the first stage can be carried out in this case, the number of stitches and the stitch length of the first stage can be carried out. Press left or right to select the item to set: The first parameter is set up. Press left or right to switch to the left, the number flashes. Press the plus or minus key to switch to other segments settings. If the current number of stitches is zero, the next setting can not be made. After all the needle distance and frame count settings are complete, press the "S" key to save and return to the "d1" screen. Press the "P" key to exit without saving. If you want this pattern to return to normal mode, press "P" key to exit into normal mode.

4. Error codes

Error Code	Contents	Possible reasons	Checking and treatment
E011 E012	Motor signal error	Motor position sensor signal failure	If electric engine plug is well contacted; if electric engine signal detecting device has been broken; if sewing machine handwheel correctly installed.
E021 E023	Motor overload	motor stall motor overload	If electric engine plug is well contacted; if machine head or thread-cutting mechanism has been blocked completely; if materials are too thick; Electrical signal detection signal whether the normal.
E022	Thread cutter stuck	Thread cutter stuck	Check whether the head or cutting mechanism is stuck Check whether the timing and location of the Thread trimming are correct
E101	Hardware drivers fault	Current detection abnormal Driving hardware error	Current detection loop system is working properly. Whether the damage to the device driver.
E111 E112	Voltage too high	High input voltage Brake circuit fault Voltage detection error	System into line voltage is too high; Braking resistance are working properly; System voltage detection circuit are working properly.
E121 E122	Voltage too low	Actual low voltage Voltage detection is wrong	If the voltage on the inlet wire is too low Whether the system voltage detection circuit is normal work.
E131	Current circuit fault	Current detection abnormal	Current detection loop system is working properly.
E133	Oz circuit fault	Oz circuit fault	Oz circuit system is working properly.
E134	DBFLT malfunction	Automatic resistance circuit failure	Brake resistor plug is in good contact Brake resistance is damaged
E201	Over current	Current detection error	Current detection loop system is working properly Electrical signal is normal.
E211 E212	Abnormal motor operation	Current or voltage detection error	If electric engine plug is well contacted If electric engine signal
E301	Communication error	Sci circuit error	if operation box plug is well contacted; if operation box components are damaged.
E302	Operation inner failure	Sci circuit error	check whether the operating box is damaged.
E303	SPI Communication breakdown	Sci circuit error	check whether the main control board is damaged.
E304	HMI From the main chip communication failure	Sci circuit error	check whether the operating box is damaged.
E402	Pedal ID fault	Pedal verification fault	Pedal connection is loosen.
E403	Pedal zero position fault	The pedal zero position over range	The pedal is damaged or it is not under stop state when correction
E501	Safety switch fault	Safety switch effective	Put down the head or check turned up switch.
E502	Fuel fault alarm	Fuel fault alarm	Add oil tips
E601	Hardware overcurrent failure	Needle distance presser foot motor hardware overcurrent	Current detection loop system is working properly Whether the damage to the device driver.
E602	Software overcurrent failure	Needle distance presser foot motor software overcurrent	Current detection loop system is working properly Whether the damage to the device driver.
E603	Current detection loop fault	Needle distance presser foot motor current detection circuit overcurrent	Current detection loop system is working properly Whether the damage to the device driver.
E604	Mechanical zero position finding fault	Initial mechanical angle of needle distance presser foot motor	Check if the needle distance presser foot motor plug is in good connected
E605	Motor stall	Needle distance presser foot motor stall	Check if the needle distance presser foot motor plug is in good contact Is there any sticking point in the machinery
E606	Motor open circuit failure	Needle distance presser foot motor winding circuit	Current detection loop system is working properly Whether the damage to the device driver.
E607	Hardware overcurrent failure	Thread trimming motor hardware overcurrent	Current detection loop system is working properly Whether the damage to the device driver.
E608	Software overcurrent failure	Thread trimming motor software overcurrent	Current detection loop system is working properly Whether the damage to the device driver.
E609	Current detection loop fault	Thread trimming motor current detection loop failure	Current detection loop system is working properly Whether the damage to the device driver.
E610	Mechanical zero position finding fault	The Initial mechanical angle of thread trimming motor failure	Check if the thread trimming motor plug is in good connected
E611	Motor stall	Thread trimming motor stall	Check if the thread trimming motor plug is in good contact; Is there any sticking point in the machinery
E612	Motor open circuit failure	Thread trimming motor winding circuit	Current detection loop system is working properly Whether the damage to the device driver.
E701	Bottom line detection alarm	The bottom line sensor does not detect the bottom line	Replace the bottom line or check the bottom line sensor
PaFF	Power off Display	Power off	Wait for power supply to resume.
EAVAL	Trial expired	Trial expired	Contact the dealer processing
L.bob	The bottom line tips	The bottom line count value is negative	After replacing the bottom line, press P to cancel the Alert Status
Pbob	Piece rate reminder	The number of counting is 0	Press S key to enter the interface, and long press "front seam" button for more than 2 seconds to cancel the prompt state To disable the piece rate function, change the P35 parameter value to 0

5. System Parameter Table:

Parameter code	Project	Content	Setting range	step pitch	The default value	Level
P-01	Sewing speed	Set sewing speed	200-5000(rpm)	100	3700	1
P-02	Soft-start function	1-9: Soft start stitches	0-9	1	2	1
P-04	Fixed-length seam sewing speed	Set fixed-length seam sewing speed	200-4000(rpm)	100	3000	1
P-06	Zero pitch correction value	When the needle pitch is set to 0mm, fine the value so that the actual sewing needle pitch is zero	50-150	1	100	1
P-07	Positive needle distance correction value	Magnification positive sewing distance (Sewing needle fixed distance)	50-150(%)	1	100	1
P-08	Anti-needle distance correction value	Enlarge reverse stitches. Distance Scale (Sewing needle fixed distance)	50-150(%)	1	100	1
P-09	Back stitch speed limitation	can keep needle from breaking while backstitching	500-1500(rpm)	50	800	1
P-10	Set the length of the stitch from the set number	0: Set the number of stitches to set the value 1: When the length is set to self-made, the number is the number of the pattern, that is, the total number of stitches is the number of stitches × set the value	0/1	1	1	1
P-12	The first section angle of the presser foot lift	The first section angle of the presser foot lift	0-100	1	29	II
P-13	Maximum height of presser foot lifting (valid stepping)	Setting Maximum height of presser foot lifting after trimming	0-100	1	65	II
P-14	Speed of presser foot lifting (valid stepping)	Stepping speed of presser foot lifting	20-500(rpm)	10	400	II
P-15	Speed of presser foot releasing (valid stepping)	Stepping speed of presser foot releasing	20-500(rpm)	10	400	II
P-16	The first section angle of the presser foot down	The first section angle of the presser foot down	0-100	1	31	II
P-17	Cut and loosen duty cycle	Cutting line for electromagnet: When the shear line loose line duty ratio (too small will affect the shear line electromagnet suction strength) Cutting line for step: Loose line efforts to adjust the (light)	0-100	1	50	II
P-18	Front reinforcing-sewing setting after the front fixed joint is connected	Immediately after the end of front reinforcing-sewing, step on the cutting line without the function setting of back reinforcing-sewing 0: unavailable 1: available	0/1	1	0	1
P-19	Solid after before sewing stop	0: unavailable 1: available	0/1	1	0	1
P-20	Function selection of machine head button	0: in valid 1: Manual thread cutting while standby 2: Manual presser foot after trimming	0/1/2	1	0	1
P-21	soft start speed 1	speed of the 1 st needle of soft start	100-300(rpm)	50	400	1
P-22	soft start speed 2	speed of the 2 nd needle of soft start	100-300(rpm)	50	1000	1
P-23	soft start speed 3	speed of the 3 rd-9 th needle of soft start	100-300(rpm)	50	1500	1
P-24	Presser foot soft lowering function	Setting to protect damaged the fabric to slow down the presser foot lowering speed	0/1	1	1	1
P-25	Presser foot lift function	0: unavailable 1: available	0/1/2	1	1	1
P-26	Function of over thickness	Setting the function of over thickness 0: unavailable 1: available	0/1	1	0	1

Parameter code	Project	Content	Setting range	step pitch	The default value	Level
P-27	Power on and positioning	The function setting of automatically finding the needle position when the power is on 0: unavailable 1: available	0/1	1	0	1
P-28	signal mode for turn/lift switch	Setting of signal mode of turn/lift switch of machine head 0: always open 1: always close 2: forbid a protection To set presser foot soft lowering time The longer time the lower speed of the presser foot	0/1/2	1	0	1
P-29	Presser foot soft lowering time	0: unavailable 1: available	100-500 (ms)	5	50	II
P-30	Bottom line counting	0: unavailable 1: available	0/1	1	0	1
P-31	Bottom line initial value setting	Bottom line initial value setting	200-4000 (0.1m)	20	1600	1
P-33	Front fixed sewing ABA mode selection	0: unavailable 1: available	0/1	1	0	1
P-34	Standard joint speed mode selection	Select 0 automatic for standard joint speed mode; 1 pedal control	0/1	1	0	II
P-35	multiple ratio of counting by piece	Setting of multiple ratio of counting by piece	0-50	1	0	1
P-36	Setting initial value of counting by piece	Setting initial value of counting by piece	0-1000	5	100	1
P-37	Time of thread wiper	Time of thread wiper	0-800 (ms)	10	40	II
P-38	Setting function of choosing counting by piece	0: add 1: subtract	0/1	1	0	1
P-39	Turn off time before presser foot soft drop	Turn off time before presser foot soft drop	0-50	1	12	1
P-40	Electronic loose wire holding time	Electronic loose wire holding time	0-10	1	5	III
P-41	Low speed	The lowest speed of pedal	100-500(rpm)	10	200	1
P-42	Pedal curve selection	Pedal speed adjustment 0: normal 1: Slow acceleration 2: Quick acceleration	0/1/2	1	0	1
P-44	thread-cutting speed	thread-cutting speed	100-500(rpm)	10	100	1
P-45	Back-tracking speed limit function	Back-tracking speed processing can prevent reverse sewing needle breakage 0:1: infinite speed limit 2: the speed limit delay with presser foot lowered	0/1/2	1	0	1
P-46	presser foot lifting delays sewing	0-800(ms)	10	100	II	
P-47	When running, the knee presses the foot to judge the speed.	When running, the knee presses the foot to judge the speed	200-1000(rpm)	50	500	II
P-48	When running the knee is raised by the foot	When running the knee is raised by the foot	1-100	1	0	II
P-49	Press foot holding time	Lift the pressure foot after holding time to force off	1-60(s)	1	8	II
P-50	output time of total pressure of presser foot lifting	output time of total pressure of presser foot lifting	0-800(ms)	10	150	II
P-51	output duty cycle of presser foot lifting hold time of presser foot lifting	output duty cycle of presser foot lifting hold time of presser foot lifting	0-100	1	40	II
P-53	starting reinforcing-sewing speed	starting reinforcing-sewing speed	100-3000(rpm)	50	2000	1
P-54	Compensation coefficient of front tacking sewing	Compensation coefficient of front tacking sewing	80-120	1	100	1
P-55	Compensation coefficient of front back tacking sewing	Compensation coefficient of front back tacking sewing	80-120	1	100	1
P-56	ending reinforcing-sewing speed	ending reinforcing-sewing speed	100-3000(rpm)	50	2000	1
P-57	starting reinforcing-sewing of front tacking sewing	starting reinforcing-sewing of front tacking sewing	80-120	1	100	1
P-58	starting reinforcing-sewing of front back tacking sewing	starting reinforcing-sewing of front back tacking sewing	80-120	1	100	1
P-59	Continuous reinforcing-sewing speed	Continuous reinforcing-sewing speed	100-3000(rpm)	50	2000	1
P-60	Bartack stitch cancel speed limit	0: The software has speed limited 1: No speedlimited	0/1	1	0	1
P-61	A switch to cancel the angle limit when change stitch length	0: Change the stitch length within the limiting angle 1: Vhange stitch length at any angle (The stitch length may not coincide, or the needle may break)	0/1	1	0	1
P-62	Pedal travel upon start	Pedal position upon start (Travel relative to medium pedal)	10-50(0.1°)	1	15	II
P-63	Pedal travel upon acceleration	Pedal position upon start acceleration (Travel relative to medium pedal)	10-100(0.1°)	1	45	II
P-64	Pedal travel at highest rotation speed	Pedal position at highest rotating speed (Travel relative to medium pedal)	10-150(0.1°)	1	100	II
P-65	Pedal travel upon presser foot lift	Pedal position upon pedal lift (Travel relative to medium pedal)	-100-10(0.1°)	1	-25	II
P-67	Pedal travel 1 upon thread trimming	Pedal position upon start trimming without presser foot function Travel relative to medium pedal	-100-10(0.1°)	1	-50	II
P-68	Pedal travel 2 upon thread trimming	Pedal position upon start thread trimming with presser foot function (Travel relative to medium pedal)	-100-10(0.1°)	1	-60	II
P-69	Down needle positioning position	To adjust down needle position	0-240	1	175	1
P-70	Sewing variable needle pitch mode	Selection of sewing needle pitch mode: 0: Normal mode 1: Starting sewing with varying needle pitch mode 2: Starting sewing at 0 point mode (enabling reverse)	0-2	1	0	1
P-71	Reversal of needle lift angle	Reversal of needle lift angle	260-360°	1	340	1
P-72	Thread clamp strength adjustment	Adjust the thread clamp strength size 0: Cli p line function is invalid 1-9: Three Intensity Adjustment	0-9	1	3	1
P-73	Thread pressing actuation angle	Thread pressing actuation angle	10-150°	5	100	1
P-74	Thread pressing release angle	Thread pressing release angle	160-300°	5	270	1
P-75	Upper stop position	Upper stop pin position adjustment	0-240	1	33	1
P-77	Setting of beauty sewing	0: unavailable 1: available	0/1	1	0	1
P-78	Beauty sewing (close sewing) mode setting	1: Close stitch on start sewing 2: Close stitch on end-sewing 3: Close stitch on both start and end sewing	1/2/3	1	2	II
P-79	return to factory-set parameter	Special functional parameters 5/8: Restore factory parameters	0-15	1	0	1
P-80	Maximum sewing speed	The highest sewing speed	300-5000(rpm)	100	4000	II
P-81	Pedal speed percentage	Pedal speed percentage	50-100	1	100	II
P-82	Trial period	Trial function 0: Invalid trial function 10-1000: Power on trial time	0-1000(hour)	10	0	III
P-83	Strength function	Try if the needle can't penetrate the cloth. 0: invalid; 1-15: intensity adjustment	0-15	1	0	II
P-84	Function of cutting line and adding force	Effective when the cutting wire is an electromagnet; 0: invalid; 1-15: intensity adjustment	0-15	1	0	II
P-85	Thread cutting and suction angle	Setting the angle of thread cutting and suction	150-200	2	174	III
P-86	Cutting and applying force angle	Setting the angle of thread cutting and force application	200-300	2	260	III
P-87	Thread cutting release angle	Setting the angle of thread trimming release	300-360	2	340	III
P-88	Loose line suction Angle	Loose line suction Angle	0-360	2	180	II
P-89	Loose line release Angle	Loose line release Angle	0-360	2	350	II
P-90	Language selection setting	Setting of language: 0: turn off 1: Chinese 2: English	0-2	1	1	II
P-91	Change pitch selection	Change pitch selection 0: Changes Allowed 1: Allowed to change	0-1	1	0	II
P-92	Pedal presser foot lift confirm time	Pedal presser foot lift confirm time	10-300(ms)	10	80	II
P-93	The neutral position of the pedal	Trimming the neutral position of the pedal	-15-15(0.1degree)	1	0	II
P-95	Anti-nest function selection	Anti-nest function selection; 0: hread clamp type 1: Anti-nest type 2: thread wiper type	0/1/2	1	0	II
P-99	Machine mode selection	Machine mode selection	/	/	/	III
P-100						