

HL707 简易包缝说明书 V1.0

(C0123)

一、安全上的注意事项

- 1、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 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。

二、按键说明

停针位选择键			按下“P”键，上灯孔亮，为上停针;下灯孔亮，为下停针;两个灯孔都不亮，为自由停针
机头灯开关键			按下“S”键，当“S”键上的小灯亮为打开机头灯，灭为关掉机头灯。
提高缝纫速度			1、缝纫速度增加键 2、参数数值增加键
减小缝纫速度			1、缝纫速度减小键 2、参数数值减小键

三、故障说明

错误码	故障内容	故障原因	检查项目、处理
Er01	找不到停针位	手轮靠的不够近 间限在 25mm 内 九针插头接触不良 电机霍尔损坏 手轮上的磁铁掉落	手轮与电机之间的间隙是否合适 九针插头接触是否良好 电机霍尔是否良好 手轮磁铁是否掉落
Er02	开机没有检测到调速器	调速器插头没有插 调速器线断了或接触不良	调速器插头是否插紧 调速器线是否接触良好
Er03	电机霍尔或相位线错误	九针插头接触不良 电机没有安装好 电机霍尔损坏	九针插头是否接触良好 电机是否安装正常 电机霍尔是否良好
Er04	堵转保护	电机过载 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
Er05	硬件过流保护	电机过载	系统电流检测回路是否工作正常 驱动器件是否损坏
Er10	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
Er11	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
Er18	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 驱动器件是否损坏
Er19	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
Er20	参数读写故障	参数读出或者保存故障	
Er21	电流回路故障	电控电流检测硬件电路故障	
Er22	OZ 回路故障	OZ 回路检测异常	检查 OZ 回路是否正常
POFF	断电	电源关闭	等待电源重新开通

四、操作说明

4.1 进入参数的操作方式

- a.按“P”键不放，同时按“+”键，此时屏幕会显示 P-00
- b.按“+”或“－”键，选择需要调节的参数号
- c.按“P”键进入当前参数，屏幕会显示当前参数数值
- d.按“+”或“－”键，选择需要调节的参数数值
- e.按“S”键确认保存并退出

4.2 恢复出厂设置

- a.先按“P”键不放，同时按“+”号键，此时画面会显示 P-00，再长按“S”键约 3 秒即可

4.3 高级参数模式

- a.P23 项开始为高级参数，在 P22 项界面下，长按 S 键，密码 824

五、监控模式

显示序号	项目名称	单位		显示序号	项目名称	单位
CUr	电流	0.1A		id	机型	/
UdC	电压	V		vEr	版本	/
PdL	踏板	/				

六、参数列表

参数项	中文说明	范围	初始值
P01	最高转速	200-6500	4500
P02	电机转向：0 顺时针，1 逆时针	0-1	0
P04	起缝速度	200-800	250
P05	加减速时间	10-200	20
P06	定针缝针数	0-999	0
P10	自动跑合：0 普通缝纫；1 自动跑合	0-1	0
P14	最大电流限制	3-15	5
P15	开机找定位：0 开机不找定位；1 开机找定位	0-1	1
P16	停针位选择：0 下停针位；1 上停针位；2 无定义	0-2	1
P17	衣车灯亮度	0-100	100
P20	上针位调整	0-23	1
P21	下针位调整	0-23	12
P22	踏板曲线	0-4	1
P23	最高缝纫速度	2000-6500	5000
P24	踏板抬针（剪线）	0-90	75
P25	踏板运行（启动）	110-150	120
P26	踏板加速	110-200	150
P27	踏板高速	110-250	180
P28	踏板零位	85-115	100
P31	恢复出厂设置：0 不恢复；1 恢复普通参数；2 恢复所有参数	0-2	0
P32	E5 错误允许;0 关闭；1 允许报	0-1	1
P34	老化运行时间	1-250	20
P35	老化停顿时间	1-250	20
P37	速度环比例增益	5-80	20
P39	电机减速时间调节	10-200	30
P40	停针速度 1	200-1000	700
P41	停针速度 2	200-500	300

注：表内参数为标准化，如有不符，以实际为主。

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I、Safety precautions

- 1、Read the technical documentation and sewing machine manual before use.
- 1.1 (1) Power voltage and frequency: Follow the specifications on the motor and control box nameplate.
 - (2) Electromagnetic interference: Avoid high-frequency magnetic or radio wave emitters to prevent interference.
 - (3) Grounding: Ensure proper grounding to prevent noise interference or electrical accidents.
- 1.2 When disassembling the motor or control box, do not unplug while powered on. Wait for at least 1 minute after turning off the power before opening the control box cover.
- 1.3 For personal safety, turn off the power when repairing or threading the machine.
- 1.4  This symbol indicates potential risks to humans or machine damage during machine installation. Pay attention to areas marked with this symbol.

II、Key Description

Needle position selection key			Press "P" key, upper light hole on for upper needle position, lower light hole on for lower needle position, both light holes off for free needle position.
Headlight switch key			Press "S" key, the small light on "S" key indicates the machine head light status (on/off).
Increase sewing speed			1. Sewing speed increase key 2. Parameter value increase key
Decrease sewing speed			1. Sewing speed decrease key 2. Parameter value decrease key

III、Troubleshooting

Error Code	Fault Content	Fault Reason	Check and Solution
Er01	Cannot find needle position	Handwheel not close enough within 25mm limit Poor contact of 9-pin plug Motor hall sensor damage Fallen magnet on handwheel	Check if there is appropriate gap between handwheel and motor; Check if there is good contact of 9-pin plug Check if the motor hall sensor is good; Check if the handwheel magnet fallen off
Er02	Speed controller not detected when starting up	Speed controller plug not inserted Broken or poor contact of speed controller wire	Check the speed controller plug inserted; Check if there is good contact of the speed controller wire
Er03	Motor hall or phase line error	Poor contact of 9-pin plug Motor not properly installed Motor hall sensor damage	Check if there is good contact of 9-pin plug Check if the motor is installed correctly; Check if the motor hall sensor is good
Er04	Overload protection	Motor overload Motor overloaded	Check the contact of motor plug; Check if the machine head or thread cutting mechanism is stuck; Check if sewing fabric thicker than specified; If the current detection signal is normal
Er05	Hardware overcurrent protection	Motor overload	Check if the system current detection circuit is working properly; Check if the drive components are damaged
Er10	System voltage too high	Actual voltage is too high Brake circuit failure Voltage detection error	Check if the system incoming voltage high; If the brake resistor is working properly; If the system voltage detection circuit is working properly
Er11	System voltage too low	Actual voltage is too low voltage detection error	If the system incoming voltage is too low; Check if the system voltage detection circuit is working properly
Er18	Software overcurrent	Motor continue running with high current	Check if the system current detection circuit is working properly; If the drive components are damaged
Er19	Motor overload	Motor stuck Motor overloaded	Check if motor plug contact well ; Check if the machine head or thread cutting mechanism is stuck; If sewing fabric thicker than specified If the current detection signal is normal

Er20	Parameter read/write failure	Parameter read or save failure	
Er21	Current loop failure	Current control hardware circuit failure	
Er22	OZ loop failure	OZ loop abnormal detection	Check the OZ loop
POFF	Power off	Turn off the power	Turn on switch

IV. Operation instructions

4.1 Accessing parameter settings

- a. Press and hold the "P" key, simultaneously press the "+" key, the screen will display P-00.
- b. Use the "+" or "-" keys to select the parameter number to be adjusted.
- c. Press the "P" key to enter the current parameter, the screen will display the current parameter value.
- d. Use the "+" or "-" keys to select the desired parameter value to be adjusted.
- e. Press "S" to confirm, save, and exit.

4.2 Restoring factory settings

- a. Long press "P", simultaneously press "+", the screen will display P-00, then press and hold "S" 3 seconds.

4.3 Advanced parameter mode

- a. from P23 are advanced parameters. In the P22 interface, long press "S", enter the password 824.

V. Monitoring mode

Display Number	Item name	Unit		Display Number	Item name	Unit
CUr	Current	0.1A		id	Model	/
UdC	Voltage	V		vEr	Version	/
PdL	Pedal	/				

VI. Parameter list

Parameter	Description	Range	Initial Value
P01	Maximum speed	200-6500	4500
P02	Motor rotation direction: 0 clockwise, 1 counterclockwise	0-1	0
P04	Starting sewing speed	200-800	250
P05	Acceleration/deceleration time	10-200	20
P06	Fixed stitch count	0-999	0
P10	Automatic run-in: 0 normal sewing; 1 automatic run-in	0-1	0
P14	Maximum current limit	3-15	5
P15	Positioning at startup: 0 no positioning; 1 positioning at startup	0-1	1
P16	Needle position selection: 0 lower needle stop; 1 upper needle stop; 2 undefined	0-2	1
P17	Sewing light brightness	0-100	100
P20	Upper needle position adjustment	0-23	1
P21	Lower needle position adjustment	0-23	12
P22	Pedal curve	0-4	1
P23	Maximum sewing speed	2000-6500	5000
P24	Pedal lift (thread cutting)	0-90	75
P25	Pedal running (start)	110-150	120
P26	Pedal acceleration	110-200	150
P27	Pedal high speed	110-250	180
P28	Pedal zero position	85-115	100
P31	Restore factory settings: 0 no restore; 1 restore normal parameters; 2 restore all parameters	0-2	0
P32	E5 error permission: 0 closed; 1 enable reporting	0-1	1
P34	Aging running time	1-250	20
P35	Aging pause time	1-250	20
P37	Speed loop proportional gain	5-80	20
P39	Motor deceleration time adjustment	10-200	30
P40	Stop needle speed 1	200-1000	700
P41	Stop needle speed 2	200-500	300

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