

## 电控操作 Six Electric control box operation

### 1、W4-D 电控操作 W4-D Electric control box operation

#### Instructions of K4 Interlock sewing machine panel operation

本控制器使用双位数码管显示实现参数调整。在 P 主界面, 第一个数码管显示“P”, 第二个数码管显示当前设定的停针位置, 上、下停针如图所示(图 1)。

In P interface, the first digit display “P”, the second digit display shows the current needle position, picture 1 shows the upper and lower needle position.



图 1 上、下停针显示界面

In figure 1, upper and down needle position display interface

#### 1.转速的修改 Modify speed

在待机 P 界面按+键或者-键, 显示当前转速, 按▲键速度递增 100RPM (数值递增 1), 按▼键速度递减 100RPM (数值递减 1), 长按▲键 (▼键) 可实现快速递增 (递减), 停止按▲键或者▼键后约 3 秒, 自动保存设定的速度参数, 并回退到 P 界面。

The panel shows “P”. Then press ▲ or ▼ to adjust speed up and down, short-press ▲ or ▼ to adjust speed up 100RPM and down 100RPM, long-press ▲ (▼) speed rapidly up (down). After 3 seconds, the parameter saved and the panel back to the “P” .

#### 2.停针位修改 Needle Position Adjust

在 P 界面下, 长按▲键约 3 秒不松开, 可以调节上下停针位。

The panel shows “P”, press ▲ for 3 seconds, then set the position up or down.

#### 3.恢复出厂设置 Factory reset

在 P 界面，长按▼键 3 秒，参数将恢复出厂设置。（J4、J5、 J6 的监控数据除外）

In the P interface, long ▼ button for 3 seconds, parameter will restore factory Settings.(J4, J5, except for the monitoring data of J6)

#### 4.操作参数说明表 Parameter description

| 序号<br>NO.  | 参数定义 parameter                       | 范围<br>range  | 默认<br>值<br>Defau<br>lt | 参数说明<br>Description                               |
|--|--------------------------------------|--|------------------------|---|
| 在 P 界面，长按▲和▼组合键 3s，可进入技术员界面，并显示 F<br>The panel shows "P" , press ▲and ▼ for 3 seconds, inter engineers interface, and it shows "F" |                                      |  |                        |   |
| K  | 机头灯亮度调节<br>LED light adjustment      | 0 - 3  | 2                      | 0: 灭 off<br>1~3: 亮度 1~3 level<br>1~3              |
| L  | 缝纫限制速<br>Speed limitation            | 05 - 55  | 50                     | 以 500rpm 为单位递减<br>Decline by 500rpm<br>every time |
| M  | 停针位开关<br>needle position<br>function | 0 - 1  | 1                      | 0: 关闭 off 1: 开启<br>on                             |
| H  | 休眠时间 Dormancy<br>time                | 0 - 6  | 3                      | 0: 关闭 off unit:<br>10min                          |
| V  | 速度显示使能 Speed<br>display              | 0 - 1  | 0                      | 0: 关闭 off 1: 开启<br>on                             |
| 在 F 界面，长按▼键 3s，进入监控参数，并显示 J<br>The panel shows "P" , press ▼ for 3 seconds, inter monitoring parameter, and it shows "J"           |                                      |  |                        |   |
| J1   | 实时速度 Real-time<br>Speed              | 显示的数×100=实际速度 the showing<br>number multiples by 100 equal to the<br>real speed. |                        |   |
| J2   | 实时功率 Real-time<br>Power              | 显示的数×10=实际功率 the showing<br>number multiples by 10 equal to the<br>real power.   |                        |   |

|    |                                |   |
|----|--------------------------------|---|
| J3 | 输入电压 Input Voltage             | 显示的数 $\times 10$ =实际电压 the showing number multiples by 10 equal to the real voltage.            |
| J4 | 历史电压 Historical Voltage        | 显示历史输入最低电压和最高电压 Display the historical lowest input voltage and highest input voltage.          |
| J5 | 历史错误代码 Historical Error        | 显示最新的 5 个错误代码 Display historical error code(only show the latest 5 ).                           |
| J6 | 累计运行时间 Cumulative Running Time | 显示的数 $\times 100$ =实际时间 (Hour) the showing number multiples by 10 equal to the real time(hour). |

## 5.错误码说明表 Error code description

| 错误<br>Error<br>code | 内容<br>Reasons                                       | 对策 Solutions  |
|---------------------|---|---|
| E1                  | 电机堵转<br>Motor<br>stuck                              | <p>请转动手轮检查机头是否卡住或者干涩转动困难；请检查电机插件是否松动或者脱落；请检查加工物料是否过厚，电机因扭力不足而无法贯穿；请检查机器是否缺少润滑油。</p> <p>The motor run out of load capacity, please reduce the load capacity for the motor and then restart the motor;</p> <p>Please check if the plug of motor loose or drop;</p> <p>Please check if the sewing material is too heavy;</p> <p>Please check if the machine needs lubrication.</p>             |
| E2                  | 软件过流<br>software<br>over-<br>current                | <p>请关电后重新上电，如果不能消除报警，请检查：电机负荷过大，请减轻负荷后重启电机；Motor used too much, Restart machine after several minutes, then please check if the fabric much too heavy.</p>  |
| E3                  | 参数保存异常<br>Parameter<br>save<br>abnormal             | <p>出现此种状况，需要关闭电源，稍后再打开电源开关即可；</p> <p>恢复出厂设置（长按键约 3s 不松开）；</p> <p>若重启或者恢复出厂设置后也不能解决，建议联系经销商解决。Restart machine after several minutes or reset machine(press  3s ); If the problem unsolved, please contact dealers.</p> |
| E4                  | 电机霍尔信号异常<br>Hall<br>of the<br>motor with<br>problem | <p>请检查电机编码器插头连接是否可靠，编码器信号线是否有断线，插针是否退出或者变形。Please check if the 10 core line connect well or not, please check if the connect line of hall is well or not.</p>   |

|    |   |   |
|----|---|---|
| E5 | 定位器信号异常<br>The synchronizer signal              | <p>请检查定位器是否连接电控；请检查上下定位信号是否正常。</p> <p>Forget to insert the synchronizer cable before turn on the machine To check the both up needle position signal and the down needle position signal is working.</p>  |
| E6 | 调速器异常<br>Speed governor abnormal                | <p>请检查压脚机构是否回到正确位置，压脚安全开关是否损坏，插座是否正常。To check if the presser foot back to the correct position or not , to check if the safety switch button is damaged or not, the outlet is abnormal or not.</p>  |
| E7 | 电流检测电路故障<br>Current detection and circuit fault | <p>请检查电路板是否干净清洁；请检测电源电压是否正常；</p> <p>请等待电源重新开启/复位（请仔细检查电源板各项机能）。Please check whether the circuit board is clean;</p> <p>Please check whether the power voltage is normal;</p> <p>Please wait after restarting the power or reset(please carefully check each function of the power board).</p> |
| EA | 硬件过流<br>Hardware over-current                   | <p>请关电后重新上电；请检查供电电压是否正常；请尝试恢复出厂设置。Please switch off the power and restart;Please check whether the supply voltage is normal; Please try to restore factory defaults.</p>  |
| Eb | 系统过电压<br>System over-voltage                    | <p>立即切断电源，并检查供电电压是否过高，如果是，请调整供电电压到额定电压后再开机工作(额定电压：220V)。Immediately switch off the power, and check whether the supply voltage is too high, if yes, please adjust the rated voltage, then start to work(rated voltage:220v).</p>  |

|    |                                     |   |
|----|-------------------------------------|---|
| EC | 系统欠电压<br>System under-voltage       | <p>请检查供电电压是否正常；请等待电源重新开启/复位（请仔细检查电源板各项机能）。Mean the voltage abnormal, please check if the voltage is normal or not; Means waiting for the power, and need to restart again or recover to the factory reset.</p>                |
| Ed | 刹车电阻保护<br>Brake resistor protection | <p>请检查刹车电阻插头是否松动或脱落；请检查供电电压是否正常；请尝试恢复出厂设置或将电源重启；Please check whether the plug of brake resistor is loose or drop off;Please check whether the supply voltage is normal;Please try to restore factory defaults or restart.</p> |