Electronic control operation manual B2

1. Basic operation

"P", "S" keys to set parameters or other functions;
When standby mode, press the "P" key to set the function of " needle up", " needle down" and "no stop needle".
When standby mode, press "+" and "-" to quickly adjust the setting speed;Press "S" button, the needle light is on, press again and light off.

2. Parameter mode

Press "P key" and "+ key" to enter parameter mode and display "P00";
Press "+" and "-" to change the serial number of the parameter, press "P" to display the corresponding parameter, press "+" and "-" to modify the specific value, press "S" to exit the parameter mode and return to normal standby mode;
When the operation box is set, even if the pedal is pressed, it will not run until it returns to standby mode.
The specific parameters are as follows:

Parameter ordinal	Parameter specifies	Default	Range	Step size
P1(advanced parameter)	Sewing speed limit	4000	1000-7000rpm	50
P2	Motor direction	0	0-1	1
P3	Angle of down needle position	12	10-14	1
P4	Start speed	250	200-800rpm	50
P5	Accelerate speed	3200	1200-4000	200
P6	Automatic find the needle position	1	0-1（1：SEARCH）	1
P7	Aging speed	3700	1000-4500rpm	50
P8	Aging running time	3000	500-5000ms	100
P9	Aging pause time	2000	100-5000ms	100

P10	Needle position the parameter adjust	195	90-210	5
P11	Foot control (electromagnet)	40	20-70	1
	Foot control (pneumatic)	1	0-1（1：option）	1
P12	Pressure foot down delay running	0	0-200ms	20
P13	Suction option	1	0：No suction	1
			1： Long suction	
			2-250needles： suction intervals (Air suction will be done once every set needle number during operation, and no air suction when the machine is shut down	
P14	Interval suction maintenance time	1	1-5s(P13 is set to 2-250 when valid)	1
P15	Number of soft start stitches	0	0-15（0：No soft start，1 for half stitch, 2 for 1 stitch, etc.)	1
P16	Number of soft start stitches	400	200-1500rpm	50
P17	Reserved	0	0-1	1

Note:

P10: It is related to the head. The larger the load inertia is, the value can be reduced appropriately.Default is overlock parameter.

P11: For the electromagnet type, please set this parameter reasonably. If the setting value is too small, the electromagnet cannot be lifted up. If the electromagnet is too large, it is easy to overheat.When the foot is lifted, it will close by itself after 15 seconds.

P12: This parameter is to ensure that the lifting foot is put down reliably before sewing.When the lifting foot is not connected, the parameter is set to 0; otherwise, there will be a delay when stepping backward and then stepping forward.

P15: The soft start function is only effective when setting the upper and lower needle position.When it is set to the upper needle position, after the pedal stops to the upper needle position during operation, there will be soft start at the next start stitch..When set to the lower needle postion, after stepping on the upper needle postion after stopping or running, there will be soft start at the next start stitch.

3. Restore factory parameters

Method 1. Enter parameter setting, display "P00", long press "S" for 3 seconds, and the parameters will be automatically restored;Method 2. Press The P key to power on, its restore all parameters.

4. Password mode

Press "P key" and "-key" to enter the password mode and display "0000"
Press "P" key to move left and right, the current number will flash, press "+" "-" key to adjust the value;After setting, press "S" to confirm;If the password is wrong, it will switch to standby mode.If correct, display "P00", adjust to "P01" and set the maximum speed.

5. Monitoring mode

Press "P key" + "S key" to enter the monitoring mode, c-XX will be displayed. Press P key to display the corresponding monitoring value. Long press S key to return to standby mode.
C-01: Actual motor speed
C-02: AC incoming voltage (for reference only when shut down)

6. Plant aging mode

Press S to power on, the system enters the aging mode;
Method 1. In this mode, press "S" and "+" to start the motor running, and press "S" and "-" to stop the motor;Method 2. Click on the pedal once to start aging, and then click on the pedal again to stop;
Pay attention do not mix to the panel start stop and pedal start stop.

7. Failure mode

Fault code	Error content	Possible cause	Remarks
Er01	Can't find stop needle position.	The needle position plug is not properly plugged.	It can be restored without affecting the operation. • If the needle position is set, it will automatic turn into no needle position, and alarm Er01 no needle position signal. • If the panel is changed to no needle position setting the alarm fault will disappear automatically.
Er02	Pedal signal cannot be found when starting the machine.	The pedal plug is not plugged in or the wire is broken.	Recoverable, plug in and run
Er03	Motor hall wire error	Check plug	Recoverable, plug in and run
Er04/Er11	motor is overload or locked-rotor	Check if the machine is jammed.	When the pedal is in position, it will resume.
Er05	Hardware over current protection	Excessive load or circuit board problem.	Unrecoverable, need to lose power.
Er06	Operation box communication error	Plug loose between operation box and motherboard or bad signal line	Recoverable, does not affect the operation.

Er07	The speed ratio difference is large	The wheel deviation is too large for hanging applications.	Recoverable, does not affect the operation, but will affect the effect of needle position.
Er08	Hardware circuit problem	Check circuit board	Unrecoverable, need to lose power.
Er09	Motor does not run	Motor wire is not connected or board problem	Unrecoverable, need to lose power.
Er10	Over voltage fault	Check if incoming voltage is too high	When the voltage is normal, it can be restored without affecting the operation.
U-Lo	Under voltage alarm	Check if incoming voltage is too low	When the voltage is normal, it can be restored without affecting the operation.

8.Others

This electric control supports direct drive and belt hanging products. For belt hanging products, the wheel ratio system automatically calculates the lower needle position through the upper needle position sensor. As the belt slips, the lower stop needle error will be larger, which is a normal phenomenon.