

Manual of Simple integrated system for lockstitch sewing machine V1.0

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 contorlling 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

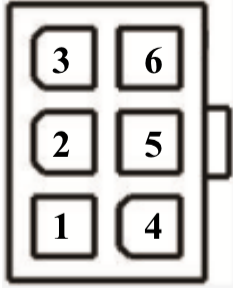
Press the S key for 2 seconds to enter the monitoring state, press ▲▼ to change the monitoring serial number, the monitoring value cannot be modified. The specific monitoring interface is shown in the table below.

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
Down Select key		2. Set the value increment key in the parameter content area
Slow start key		1.Increment key for parameter item in parameter selection area
Stop needle position selection key		2. Set the value increment key in the parameter content area

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 applicate technical support.

6、Parameter list

Paramet er 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	mahcine 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 paremeters