

⚠ Safety Instruction

- Users are required to read the operation manual completely and carefully before installation or operation.
- All the instruction marked with sign ⚠ must be observed or executed; otherwise, bodily injuries might occur.
- The product should be installed and pre-operated by well-trained persons.
- For perfect operation and safety, it is prohibited that using extension cable with multi-outlet for power connection.
- When connecting power supply cords to power sources, it is necessary to make sure that the power voltage matches the rated voltage indicated on the motor's name plate.
- Don't operate in direct sun light, outdoors area and where the room temperature is over 45°C or below 5°C.
- Please avoid operating near the heater at dew area or at the humidity below 30% or above 95%.
- Don't operate in area with heavy dust, corrosive substance or volatile gas.
- Avoid power cord being applied by heavy objects or excessive force, or over bend.
- The earth wire of power cord must be connected to the system ground of the production plant by proper size of conduction and terminals. This connection should be fixed permanently.
- All the moving portions must be prevented to be exposed by the parts provided.
- Turing on the machine in the first time, operate the sewing machine at low speed and check the correct rotation direction.
- Turn off the power before the following operation:
 - Connecting or disconnecting any connectors on the control box or motor.
 - Threading needle.
 - Raising the machine head.
 - Repairing or doing any mechanical adjustment.
 - Machines idling.
- Repairs and high level maintenance work should only be carried out by electronic technicians with appropriate training.
- All the spare parts for repair must be provided or approved by the manufacturer.
- Don't use any objects or force to hit or ram the product.

Guarantee Time

Warranty period of this product is 1 year dated from purchasing, or within 2 years from ex-factory date.

Warranty Detail:

Any trouble found within warranty period under normal operation, it will be repaired free of charge. However, maintenance cost will be charged in the following cases even if within warranty period:

- Inappropriate use, including: wrong connecting high voltage, wrong application, disassemble, repair, modification by incompetent personnel, or operation without the precaution, or operation out of its specification range, or inserting other objects or liquids into the product.
- Damage by fire, Earth quake, lighting, wind, flood, salt corrosive, moisture, abnormal power voltage and any other damage cause by the natural disaster or by the inappropriate environments.
- Dropping after purchasing or damage in transportation by customer himself or by customer's shipping agency

Note: We make our best effort to test and manufacture the product for assuring the quality. However, it is possible that this product can be damaged due to external magnetic interference and electronic static or noise or unstable power source more than expected; therefore the grounding system of operate area must guarantee the good earth and it's also recommended to install a failsafe device. (Such as residual current breaker)

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1 Key Description

Name	Key	Indicate
Function Parameter Edit	P	Press this key to enter or exit function parameter edit mode.
Setting Parameter Check and Save	S	For the content of the selected parameters check and save: after select parameter press this key to check and modify operation, after modified parameter value press this key to exit and save the parameter.
On the Adjustment Key	▲	1. Choose the region parameter items of incrementing key 2. Parameter setting value incrementing key
Under the Adjustment Key	▼	1. Choose the region parameter items of diminishing key 2. Parameter setting value decrementing key
LED Brightness Adjustment	💡	If click, it can adjust LED brightness.
Select the Shortcut Needle Position	↕	If click, the needle stop position after shift the sewing mode (Up position / Down position).
Restore Factory	RESET	On the boot screen, long-press 3s can restore factory setting.

2 Operating Instructions

2.1 Reset the System

- Under the shutdown state, hold on the "up" key and "down" key to boot, then double-click the S key to confirm it, shutdown restart.
- On the boot screen, long-press "RESET" 3s can restore factory setting.

2.2 Enter the User Argument and Save Changes

- Under normal mode, press key P enter to 【Use Parameter Area】
- Press S key enter to parameter content value; changed the value through "up" "down" key

2.3 Enter Technician Mode and Save Changes

- In the shutdown state, hold on key P to turn on machine and enter 【Technical Parameter Area】
- Press S key enter to parameter content value, changed the value through "up" "down" key, and then press S key to save the value.

3 User Parameter

Parameters	Parameter Function	Range	Default	Description
P01	Maximum speed	200-5500	5000	Set the max sewing speed.
P02	Needle stop position selection	0-2	0	0: Needle up 1: Needle down 2: OFF
P03	Soft start switch	0-1	0	0: OFF 1: ON
P04	Soft start sewing speed	200-1500	400	
P05	Stitches number of soft start	1-15	1	
P06	Minimum speed	200-500	200	Set the minimum speed
P07	Up position adjustment	0-23		
P08	Down position adjustment	0-23		
P09	Needle goes up automatically as	0-1	1	0: No Function 1: Power turned on, needle goes up position

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Parameters	Parameter Function	Range	Default	Description
	power turned on			automatically
P11	Speed curve adjustment (%)	1-100	32	The lager the value, the faster to increase speed
P16	Machine head lamp brightness	0-4	4	0: OFF 1-4: The brightness grade, the more value the more brightness.
P21	Motor rotate direction		0	0: clockwise
P22	Auto running speed	200-5000	3500	Auto running speed setting
P23	Auto running time	1-250	20	
P24	Auto running stop time	1-250	20	
P25	Item A test	0-1	0	Continue running with constant speed
P26	Item B test	0-1	0	Carry out the set loop running
P29	Suction function selection	0-2	1	0: OFF 1: ON 2: Half anti-pedaling pneumatic foot lift presser function
P36	Type	1-15		
P40	Information display			N01 The control system version number N03 Speed N04 The pedal AD

Note: the initial value of parameters is for reference only, and the actual value of parameters is subject to the real object.

4 Error Code List

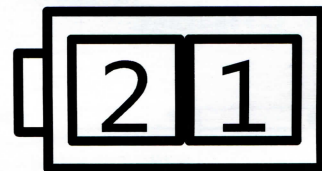
Error Code	Problem description	Measure
E01	Over-voltage	Turn off the machine, check the power supply voltage. (Or whether exceed the rated voltage of use). If there are still errors, please replace the control box and call for customer service.
E02	Low-voltage	Turn off the machine, check the power supply voltage. (Or whether under the rated voltage of use). If there are still errors, please replace the control box and call for customer service.
E05	Pedal connection error	Turn off the machine, please check if the pedal in bad connection or is too loose. To get it right and turn on. If there are still errors, please replace the control box and call for customer service.
E07	Motor locked-rotor error	Turn the machine handwheel, check if it is stuck. If it is stuck, you have to rule out the mechanical failure. If turn normal, check if the encoder and motor in bad connection or is too loose. If yes, please correct. If connection well, check if the power supply voltage is abnormal or sewing speed is too high. If yes, please adjust. If there are still errors, please replace the control box and call for customer service.
E09 E11	Positioning signal error	Turn off the machine, please check if the encoder in bad connection or is too loose. To get it right and turn on. If there are still errors, please replace the control box and call for customer service.

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E14	Encoder error	Turn off the machine, please check if the encoder in bad connection or is too loose. To get it right and turn on. If there are still errors, please replace the control box and call for customer service.
E15	Power supply module abnormal over-current	Turn off the machine, then turn on again. If there are still errors, please replace the control box and call for customer service.

5 Schematic Diagram of Port

5.1 Each Port Name



LED Lamp: 1(GND), 2(+5V)

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