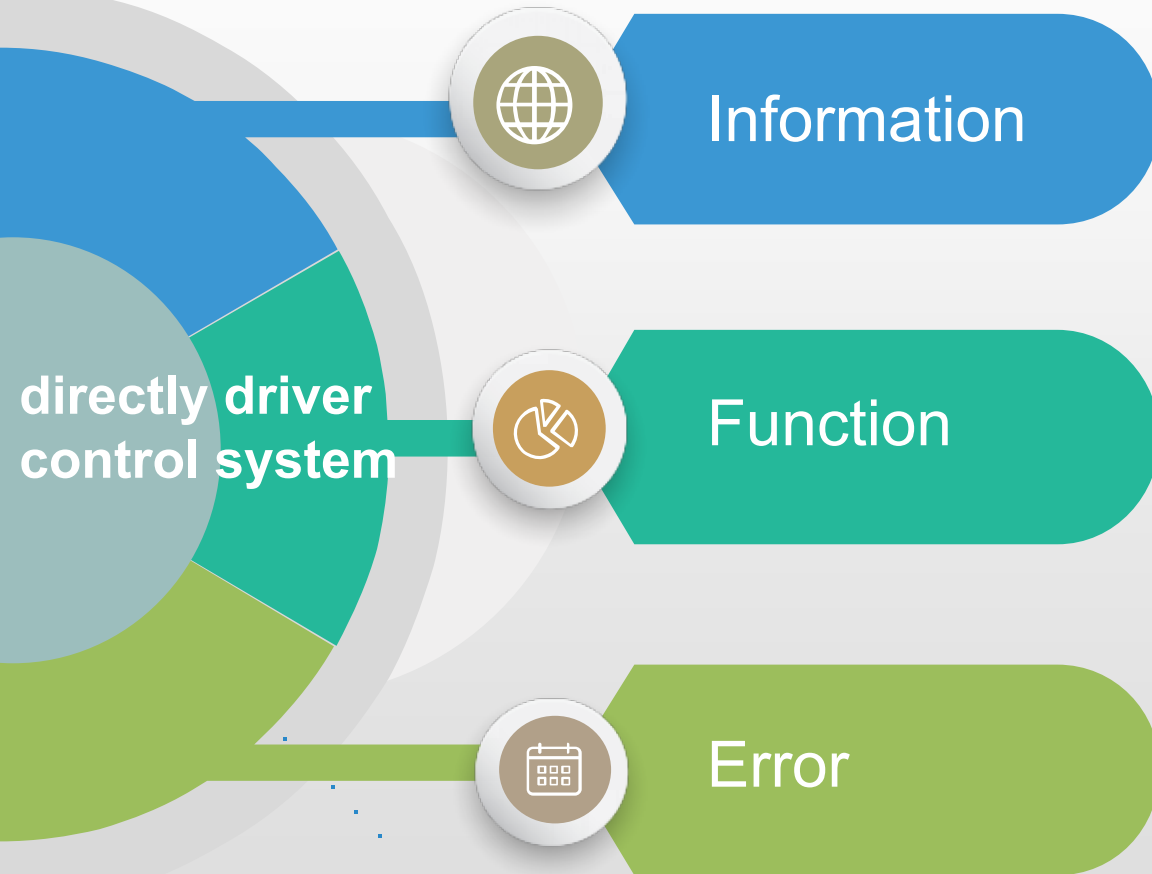

ZOJE
A6000-R

WR580FE Control box manual

WR580FS



- + 1. Product composition
- + 2. Interface definition
- + 3. Monitoring interface
- + 4. Parameter

- + 1. Motor function
- + 2. Pedal control

- + 1. Motor driving error
- + 2. Monitoring error
- + 3. Communication error
- + 4. Pedal error
- + 5. Others error



CONTROL BOX

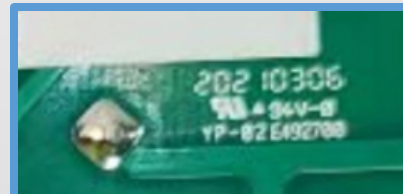
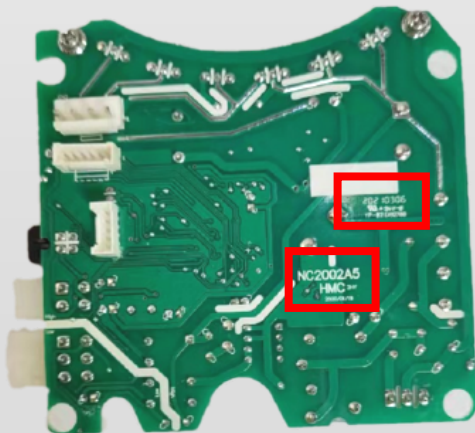


Control box information



WR580FE	control box model
BY	Machine factory
A6	control box type
GD	Main CPU type
V108	program version
2021.07.09	control box date of manufacture

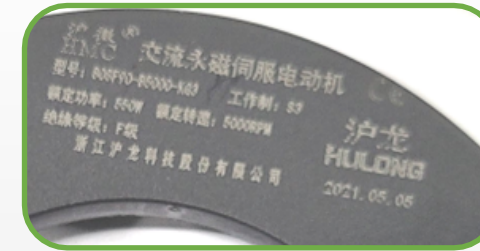
PCB information



20210306	PCB date of manufacture
NC2002A5	PCB type
20200119	PCB design date

If facing the problem of PCB and control box, please provide the above accurate information for service personnel to make judgment

MOTOR



Motor model : **80SF90-B5000-KG3**

Motor speed : **5000RPM**

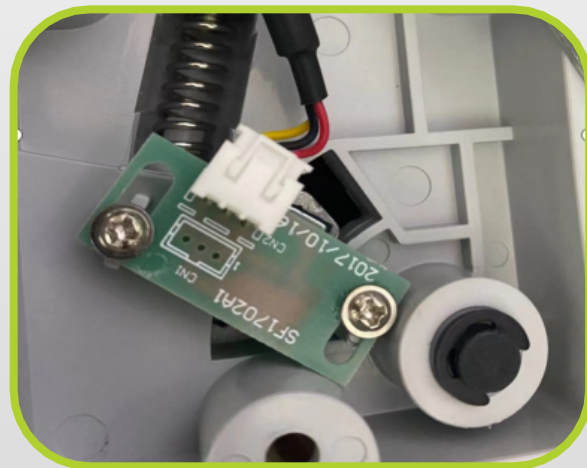


Motor Encoder model : **SE2002A2**

PEDAL

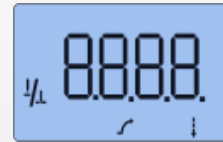


Pedal model:
PL-317



Pedal PCB model:
SF17024A1

PANEL



Panel model:
WR580FE



Panel PCB model:
SH2019A4

Definition

1) Program interface: 43025-4AW

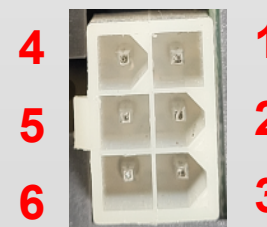
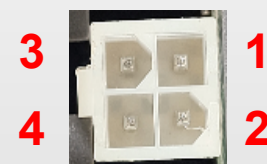
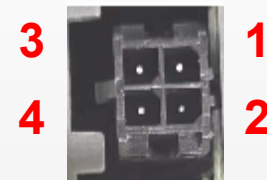
PIN	definition	PIN	definition
1PIN	PGND (power ground)	3PIN	SWCLK (clock)
2PIN	+5V	4PIN	SWDIO (date)

2) Pedal interface: 5566-2*2Pin

PIN	definition	PIN	definition
1PIN	PEDAL (signal)	3PIN	PGND (power ground)
2PIN	Blank	4PIN	+5V

3) Stitches button interface: 5566-2*3Pin

PIN	definition	PIN	definition
1PIN	GND(ground)	4PIN	+5V
2PIN	Blank	5PIN	Blank
3PIN	GND(ground)	6PIN	NEEDLE (Stitches button)

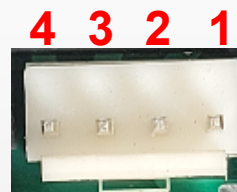


220V AC~

Definition

4) Motor interface: VH-4P

PIN	definition	PIN	definition
1PIN	A phase	3PIN	C phase
2PIN	B phase	4PIN	GND(ground)



5) Motor encoder interface: SMH200-5P

PIN	definition	PIN	definition
1PIN	+5V	4PIN	HALL A (A phase)
2PIN	HALL C (C phase)	5PIN	UP (needle position)
3PIN	HALL B (B phase)	6PIN	PGND (power ground)



6) Panel interface : SMH200-5P (LCD screen)

PIN	definition	PIN	definition
1PIN	+5V	4PIN	RXD (signal send)
2PIN	TXD (signal received)	5PIN	Blank
3PIN	GND (ground)		





Monitoring interface

SPd		10rpm
CUr		0.1A
UdC		V
PdL		/
HAL		/
id		/
vEr		/

1. operation

long press S , enter monitoring interface

press   , choose items, press S enter and exit

SPd → 1888

Pedal operation, Read motor speed in real time

CUr → 105

Pedal operation, Read the current required by motor operation in real time

UdC → 311

Monitor bus voltage(PCB bus DC power)

PdL → 450

pedal original position, between 440-460 wrong, can adjust the pedal PCB position

HALL → 011

0and1 exchange, HALL A B C signal
· Show and disappear, UP signal

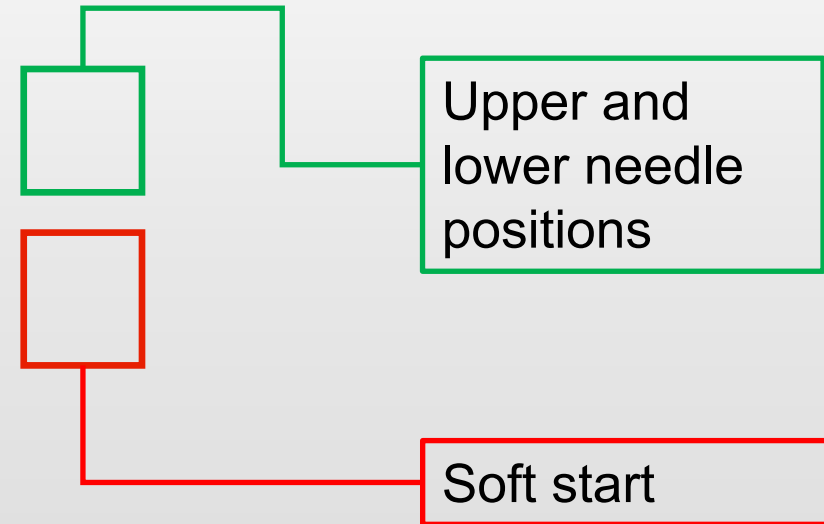
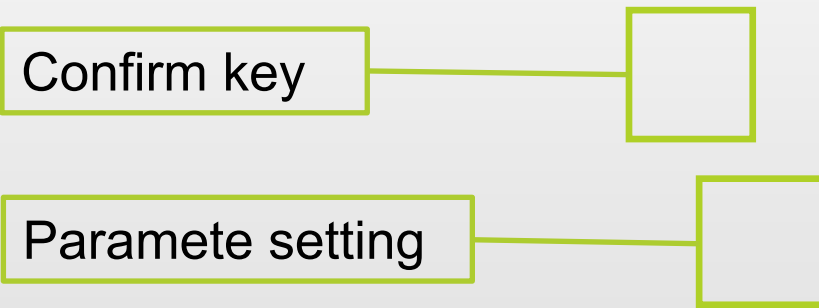
id → 5155

machine factory machine type

vEr → 108

the control box software version

Basic feature introduction





Parameter set

1. General parameters set

2. Advanced parameters set

1. General recovery

Shorts press **p**, enter the parameters interface :

▲ ▼ key choice parameter . **S** to perservation

▲ ▼ key modify parameter . **S** to perservation

2. Advanced parameters set

long press **P**,
the screen display **000**, Input
password **824**

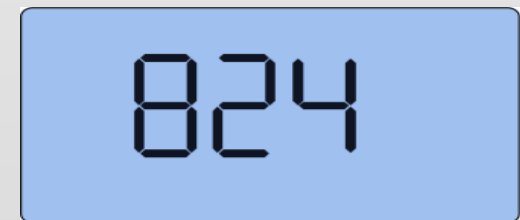
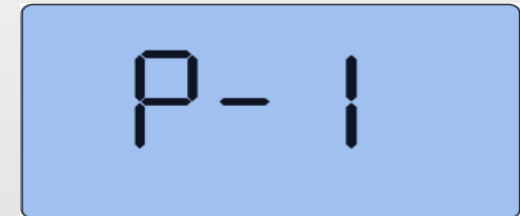
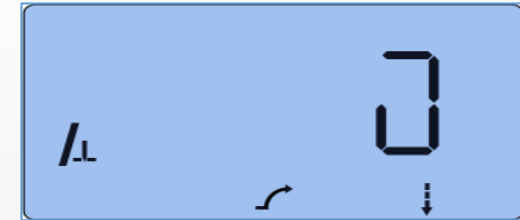
(press **S** toggle letters)

press **p** key

▲ ▼ key choice parameter, **S** to perservation

▲ ▼ key modify parameter, **S** to perservation

P key to sign out





Restor factory settings

1. General parameters recovery: just recovery primary parameters
2. Advanced recovery: recovery all parameters

1. General parameters recovery

In the power off

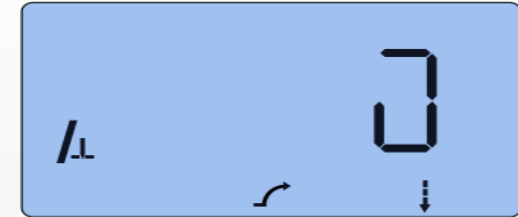
press and hold at the same time



power on

press S

then general parameters recovery



2. Advanced recovery

Enter the advanced recovery

choice **P-48** ,press **S**

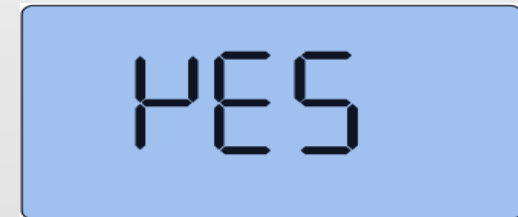
change **0 to 2** , **S** to presevery

the screen display **NO**,press ▼

key the screen display **YES** , press

S to preservation ,press **P** to sing

out



1. Up / Down needle position

press needle stop key

switch up/down needle position

choice P-7 adjust up needle position
(fine tuning)

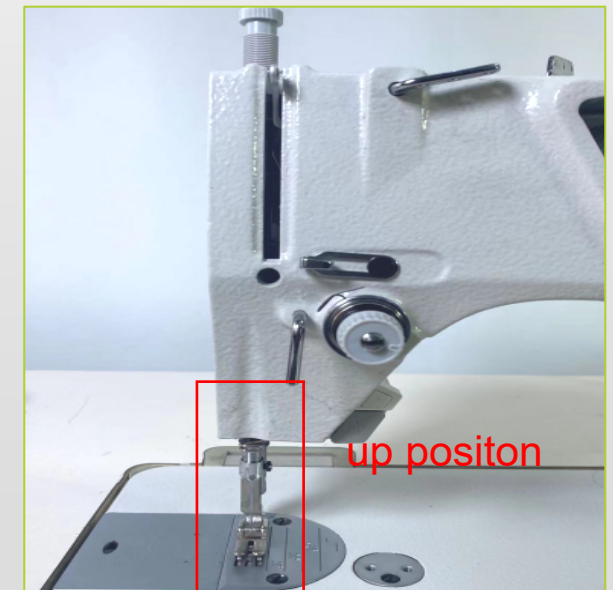
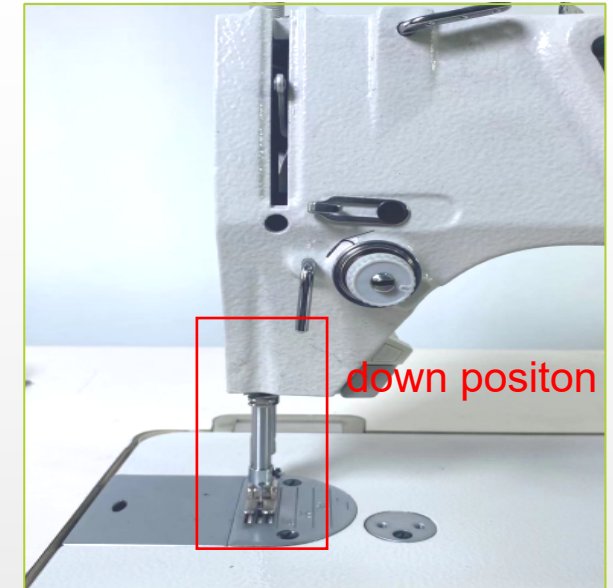
choice P-8 adjust down needle position
(fine tuning)

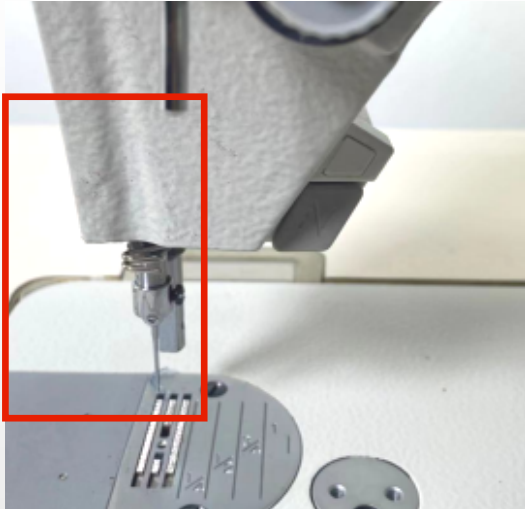


up / down needle position

1. up needle position: power on in the upper
needle position

2. Down needle position: power on in the down
needle position





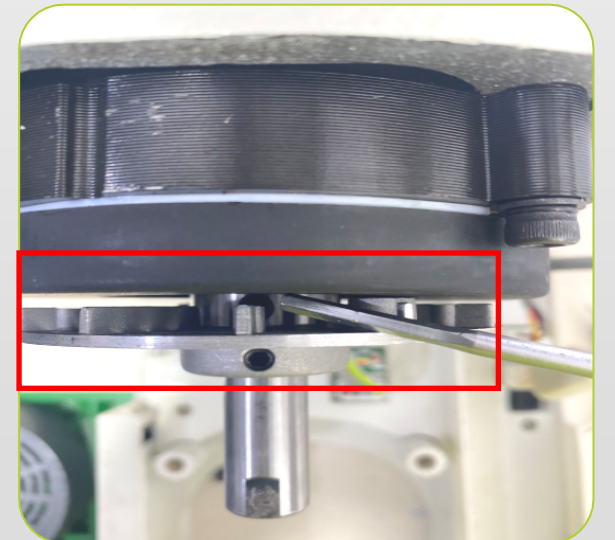
Needle substrare install

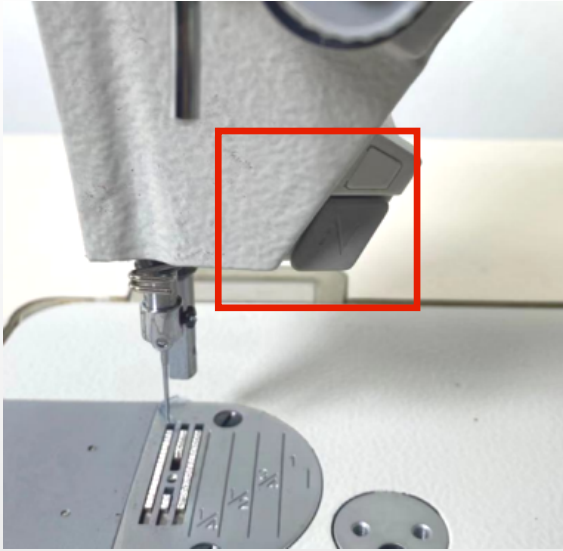
1. Ensure that the substrate is installed in the correct position

1. Needle substrare install

machine position : from left to right of the screw align axis plane

Ensure that there is no scratch between the needle stop substrate and the motor





1. Needle supplement function

Needle mending method: In the operation interface, choice P-15, press S to confirm select needle patching method(0-3)



P-15

0: Hafe needle



1: Stitch

2: continuons hafe stitch 3: one continuons stitch

Needle supplement function



1. Set the needle patching button function according to the acaual demand

1. maximum speed setting

Normal speed: Press   Key adjust speed



3700

Maximum speed lock: long press P input password ,choice P-49 press s confirm to Lock the maximum speed setting and in the operation interface, press   adjust the speed

P-49

2. Minimum speed lock

Minimum speed lock: in the operation interface choice the P-06,the numer of is 200-500 value



P-06



Speed adjust

1. Set the required sewing speed(200-5000)
2. Set the minimum sewing speed

Gently press the pedal: the speed is minimum speed

1. Soft start

Soft start: press soft start realization
soft start on/off

Soft start: choice P-04



Set up the soft start the speed (200-1500)

soft start stitches :choice P-05 (1-15) stitches

P-04

P-05



Soft start

1. set up soft start of speed and
needle of stitches



Motor installation method

1. Ensure that the clearance around the motor stator and rotor is equal during installation

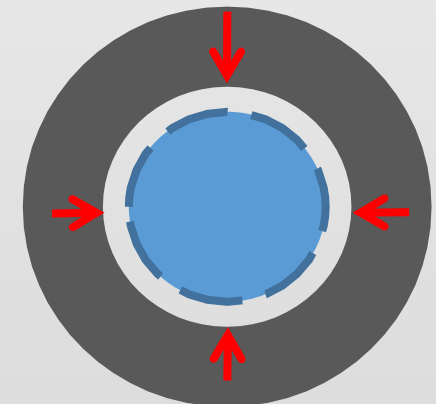
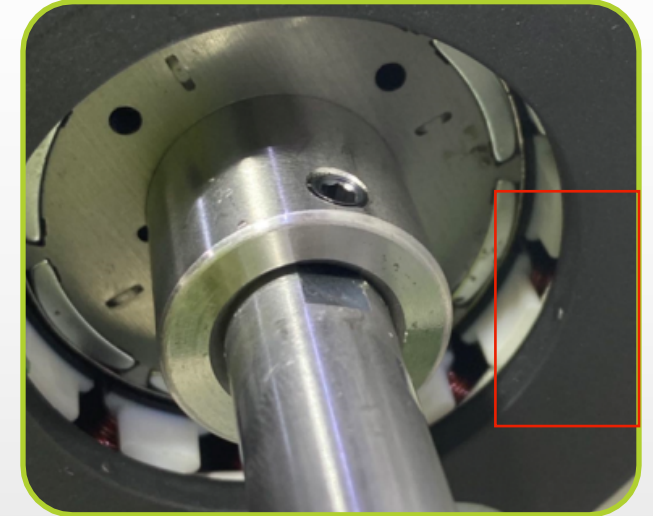
motor installation method

Installation precautions: use the mold installation that ensure the concentricity of motor and bearing

Motor wire down, first fixed motor's sator ,second fixed screw

place the rotor the motor's stator, from left to right ,the first screw is aligned with the axis plane

If you no mode, use the tool beat the motor's sator ,make the gap equal





pedal module

1. pedal zero position is wrong then automatic running after startup
2. according to usage habits adjust the pedal trip

1.pedal zero position

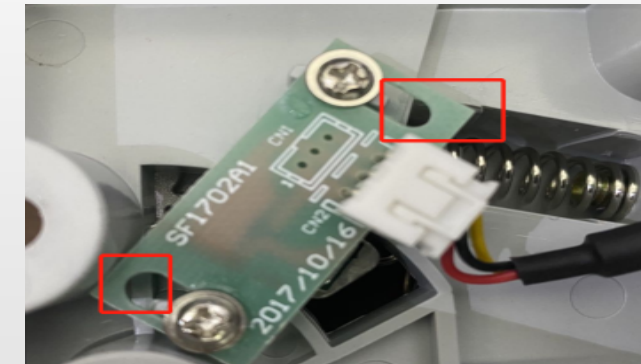
Long press S 2 seconds ,enter the monitor model . press ▲▼ choise the PDL , check the pedal's voltage value

The pedal's angle how to adjust: opean the pedal's shell , remove the pedal's circuit board ,make the pedal angle is $450^{\circ}\pm 10^{\circ}$

2.Pedal accelerate

Pedal trip adjust:
choise P-11(pedal accelerate curve):The higher the value ,the more sensitive of the pedal

PDL



P-11



Pedal module

1. adjust different values according to actual sewing requirements

3. pedal trip

Long press P ,input password 824
,choise you need pedal value

parameter	describe	value
P51	pedal needallift value	415
P52	pedal run value	500
P53	pedal low speed value	550
P54	pedal highest value	660



P-51

P-52

P-53

P-54

P-51: pedal back pedal limilt position
 P-52: the value at whitch the machine starts to run when the pedal is pressed
 P-53: press the pedal to the position where the machine rotates at low speed
 P-54: press the pedal the highest speed positon of the machine

E07/E14 Resolvence

E07: Motor overload

E14: Encoder signal abnormality

Troubleshooting:

1: Check whether the control or motor connecting wire is good conditiong

2: Exchange control and motor to judge whether is control fault or motor fault

3: Check whether the sewn cloth has passed

control fault

when it's judged that there is's a control problem contact the technical personnel in the corrspood area to repair and replace the control



motor fault

When it's jduged that is a motor problem replace the motor or motor encoder

Replacement method of motor encoder :

1:Remove the motor rear cover and the old encoder

2:Replace with a new encoder and replace it in it's original position

3: install the motor rearcover



E09/E11 Resolvence

E09: motor signal failure

E11: motor signal failure

Troubleshooting:

1: Check Whether the machine is heav when the hand wheel roattes

2: Exchange control and motor to judge whether is control fault or motor fault

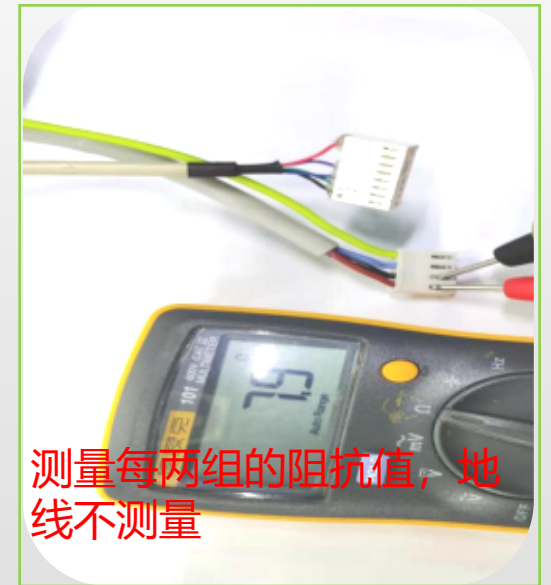
3: Check whether the sewn cloth has passed

control fault

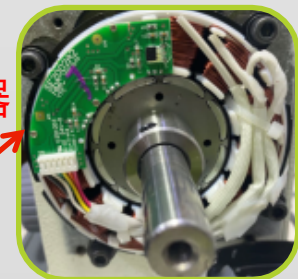
when it's judged that there is's a control problem contact the technical personnel in the corrspood area to repair and replace the control

Motor fault

When it's judged is judged that there is a motor problem:
1: use a multimeter to measure the three-phase im pedance of the motor if the impedance is same ,it's judged that the motor boby is normal only the motor encoder needs to be replaced .if the motor body is abnormal and the motor shall be replaced



电机编码器



E15/E18 Resolvence

E15: Excessive motor current

E18: software overcurrent

Troubleshooting:

1: Check Whether the machine is heavy when the hand wheel rotates

2: Exchange control and motor to judge whether is control fault or motor fault

control fault

when it's judged that there is a control problem contact the technical personnel in the corresponding area to repair and replace the control



Motor fault

Change the motor or motor's encoder



E01/E02 Resolvence

E01: System voltage too high

E02: System voltage too low

Troubleshooting:

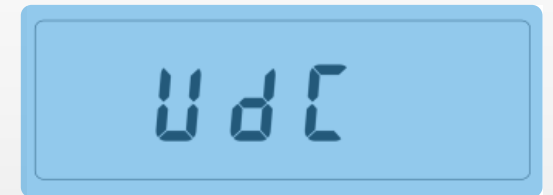
1: when power on, check the control is used at the factory **110V** or **220V**

2: Use a multimeter to measure and whether the voltage is too high or too low

Control fault

long press S to 2 seconds.
enter the monitor mode
choose the UDC, check the value whether is 320
if not, need to change the control box

P



E03 Resolvence

E03:operation boxfault

Troubleshooting:

- 1:Check whether the plug of the operation is good contact
- 2:Check whether the componentes of operation box damaged
- 3:Is the operation box problem burned

control fault

operation box fault: change the operation box

control fault:change the control



E05 Resolvence

E05:pedal ID fault

Troubleshooting:

1:Check the pedal and control connect is good

2: Check whether the plug between the pedal and the control is inserted reversely

control fault

when it's judged that there is a control problem contact the technical personnel in the corresponding area to repair and replace the control



pedal fault

- 1: change the pedal's line
- 2: change the pedal





No electric solution

No electric solution: power on no display

Troubleshooting:

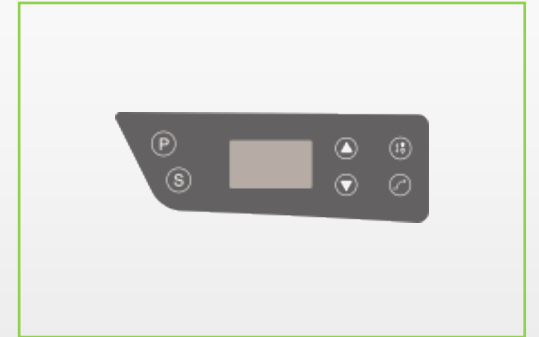
1: Check whether the connecting wire between the power supply and control is normal

2: Check external voltage

3: If the inspection is normal, it's determined as a control problem

Operation box fault

- 1: change the operation box line
- 2: Change the operation



Control fault

when it's judged that there is a control problem contact the technical personnel in the corresponding area to repair and replace the control

