A7 Operation Manual

Safety Instruction

- Please read this manual carefully, also with related manual for the machinery before use the controller.
- For installing and operating the controller properly and safely, qualified engineers are required.
- Please stay away from arc welding equipment, in order to avoid electromagnetic interference and malfunction of the controller.
- · Keep room temperature bellow 45°c and above 0°c
- Do not use in humidity below 30% or above 95% or dew and mist places.
- Please turn off the power and unplug the power cord, before install the control box and other components,
- To prevent interference or electric leakage accidents, please make the ground work; the power cord ground wire must
 be securely connected to earth by an effective way.
- · All parts for the repair provided by the Company or approved before use.
- Please turn off the power and unplug the power cord before any maintenance action. There is dangerous high voltage control box, you must turn the power off after one minute before opening the control box.
- The symbol Λ in this manual means Safety Precautions, please pay attention to it and strictly follow it, to avoid any unnecessary damage.

1 Installation Instructions

1.1 Product specifications

| Product Type | A7 | Supply Voltage | AC 220 ±20%V |
|-----------------|-----------|----------------------|--------------|
| Power frequency | 50Hz/60Hz | Maximum output power | 550W |

1.2 Port diagram

Plug each connection plug of the machine head into the corresponding socket behind the controller as Figure 1-2-1.18P functional port as

Figure 1-2-2.Well connected, please check whether the plug is firmly inserted.

1.2.1 Name of each port



| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-----------|-----------|------------------|----|----|-----------|--------------------|--------------|--------------|
| Thickness | Thickness | Thickness | 1 | 1 | 1 | Low Oil level | Switchgroup | Switchgroup |
| Detection | Detection | Detection | | | | detection GND | GND | Power supply |
| Signal | GND | Power supply +5V | | | | | | +5V |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| I | 1 | 1 | 1 | 1 | Low Oil | Switchgroup- | Switchgroup- | Switchgroup- |
| | | | | | Detection | Fill half a needle | backstitch | Fill the |
| | | | | | signal | | | needle |

1.2.3 12P function port corresponding table

| 12 | 11 | 10 | 9 | 8 | 7 | |
|----|----|----|---|---|---|--|
| 6 | 5 | 4 | 3 | 2 | 1 | |

| 1 | 2 | 3 | 4 | 5 | 6 |
|---------------|---|---|---------------|---------------|---------------|
| Wire cutting | / | / | Loose line | Lifting foot | Clamp line |
| Electromagnet | | | Electromagnet | Electromagnet | Electromagnet |
| power supply | | | power supply | power supply | power supply |
| +33V | | | +33V | +33V | +33V |
| 7 | 8 | 9 | 10 | 11 | 12 |
| Wire cutting | / | / | Loose line | Lifting foot | Clamp line |
| electromagnet | | | Electromagnet | Electromagnet | Electromagnet |
| signal | | | signal | signal | signal |

⚠: If it is difficult for inserting plug into socket, please check whether they are matching with each other, or the inserting direction is correct!

1.3 Wiring and Grounding

We must prepare the system grounding project, a qualified electrical engineer is requested for the construction. Product is energized and ready for use; you must ensure that the power outlet the AC input is securely grounded. The grounding wire is yellow and green lines, it must be connected to the grid and reliable security protection on the ground to ensure safe use, and prevent abnormal situation.

A: All power lines, signal lines, ground lines, wiring not to be pressed into other objects or excessive distortion, to ensure safe use!

2 Operation Panel Instructions

2.1 Operation Panel Display Instruction

According to the system working state, the LCD module of operation panel will display the current sewing mode, parameters, start / end back tacking, and presser foot, needle position, soft start sewing etc. Function mark of the operation panel is as follows:



Key FunctionsS/L mark Key Name Description

| Кеу | Name | Description |
|------------|--------------------------|--|
| | | 1. Short press the "+" key, and the stitch length increases by 0.1mm each time. Long press the "+" |
| | Stitch length | key, and the stitch length continues to increase. |
| mm | adjustment key | 2. Short press the "-" key, and the stitch length decreases by 0.1mm each time. Long press the "-" |
| | | key, and the stitch length continues to decrease. |
| | Front | Front reinforcing sewing selection key. Short press it once to switch between Front Reinforcing |
| | roinforcing | Sewing 🎾 , Front Double-reinforcing Sewing 44 , and Off. The corresponding LCD screen icon |
| B | | lights up. Select the corresponding key to set the stitch count in segments A and B. The range of |
| | sewing key | stitch count 1~F corresponds to 1~15 stitches. |
| | Rear | Rear reinforcing sewing selection key. Short press it once to switch between Rear Reinforcing |
| (CAL | roinforcing | Sewing $^{\bigstar}$, Rear Double-reinforcing Sewing $^{\flat}$, and Off. The corresponding LCD screen icon |
| (i/ d) | | lights up. Select the corresponding key to set the stitch count in segments C and D. The range of |
| | sewing key | stitch count 1~F corresponds to 1~15 stitches. |
| | The needle | |
| \$↓ | Stop | If clicked, switch the stop position of the sewing machine (upper stop position/lower stop position). |
| | button/Presser | If long pressed, toggle the presser foot function on or off. |
| | foot | |
| | The trajectory of key | If click, switch the current sewing track (1-4 cycle switch), track description: |
| | | Track 1: standard track to reduce fabric sliding; |
| a ma | | Trajectory 2: improve the winding line to prevent wrinkles; |
| | | Trajectory 3: Reduce broken needles and weaken the thread; |
| | | Track 4: Thick sewing, good feeding. |
| | | Without error warning: |
| | Power on voice | 1. Short press key: The power-on voice is disabled. Short press again to enable the power-on |
| | message and | voice. |
| Speaking | voice on/off key | 2. Long press Key: The voice function is disabled. Then, long press again to enable the voice |
| | voice on/oii key | function. |
| | | With error warning: Short press key to broadcast the error code solution directly. |
| | Free sewing | 1. Short press key to select free sewing mode. |
| | and trimming | 2. Long press \square key, the thread trimming icon \checkmark on the LCD screen lights up, and the thread |
| | key | trimming function is enabled. Long press key again to disable the thread trimming function. |
| | Look cowed | If clicked, set the use of front lock, front lock, rear lock or cancel the front lock.(The function of |
| | LOCK Sewed | locking the needle is to sew tightly) |
| | Pattern sewing | |
| | kev | Short press to switch between Pattern Sewing Mode and Pattern Sewing Editing. |
| | КСУ | |
| | W bar tacking | 1, Short press key, the icon ⁴⁴ of LCD is lit, W seam marking function turns on. |
| | /Multi-section | 2, Long press key, the icon 🕅 of LCD is lit, the multi-section constant-stitch sewing |
| | constant-stitch | function turns on. |

| × | Presser foot key | 1, Short press key, the icon of LCD is lit, the c sewing after the end of automatic trimming presser foot function turns on. 2,Long press Key, the icon Of LCD is lit, the cycle sewing midway parking presser foot function turns on. |
|------------|-----------------------------|---|
| | Thickness monitoring key | If clicked, set to use or cancel the thickness monitoring function. If long press, it will enter the thin-thickness detection parameter mode. |
| | Presser foot key | Short press key, the icon trimming presser foot function turns on. Long press key, the icon turns of LCD is lit, the cycle sewing midway parking presser foot function turns on. |
| (+) | Parameter increment key | In the Home interface, press key to increase the speed by 50 rpm each time. In the Parameter Setting, parameter value increment key. |
| \bigcirc | Parameter decrement key | In the Home interface, pressookey to decrease the speed by 50rpm each time. In the Parameter Setting, parameter value increment key. |
| | The left selection key | Parameters selection toward to left key. (In constant-stitch sewing mode, long press this key, One-shot-sewing can be turned on or turned off.) |
| \bigcirc | The right selection key | Prameters selection toward to right key. |
| P | Parameter setting key | In the boot state, long press $\widehat{\mathbb{P}}$ key to enter the parameter modes. After modify the parameters, press $\widehat{\mathbb{P}}$ key to storage. Then long press $\widehat{\mathbb{P}}$ key to exit this mode. |
| Reset | Factory reset | Long press button for 5 seconds to restore the factory Settings. |

2.3 Operation panel auxiliary functions

2.3.1 User parameter adjustment

Normal boot, press Pkey to enter user parameter mode. Press the Left/Right key to move the cursor and the corresponding value digit flashes, then press the Plus/Minus key to modify the value of the digit. Press Pkey, the parameter number flashes, and save the parameter.

Press Pagain to exit.

2.3.2 Needle stop position setting

In the power-on state, press P+ Key to enter the monitor mode (display 024 parameter interface). At this time, turn the hand wheel to the

upper needle position as required. The displayed value will change with the hand wheel position. Press P + key to "set zero" to parameter value measured after 024 in the interface, confirm the upper needle position is OK, and calculate the lower needle position automatically at the same time.

2.3.3 Parameter save setting

In the monitoring interface state (press + Key to enter), long press to save the current parameters. In the power-on state, long

press key to restore the saved parameters.

2.3.4 Version number query

In the power-on state, press \mathbb{P}_+ is key to enter the version display interface, and switch the display of program versions by pressing the Plus/Minus key, h**-**- represents the panel program version; A**-**- ** represents the master control program version; V5-**** represents the voice version; V2-**** represents the recovery code.

2.3.5 Piece/stitch count setting

In the power-on state, press (\mathbb{P}, \oplus) key to enter piece/stitch count interface. Use the Left/Right key to switch between the piece/stitch count. **2.3.6** Step motor "Zero" calibration

When the machine is on, adjust the needle distance to 5mm, press P the key to enter the user parameter mode, adjust the parameter to P123, measure with ordinary A4 paper, adjust the parameter to make the continuous needle distance reach the same length;

Note: When entering the interface of parameter P123, the speed will automatically drop to 200rpm. After leaving this interface, the speed will return to normal.)

2.3.7 Stitch length adjustment setting

When the machine is on, set the needle distance to 5 mm.Button to enter user parameter model, the parameters to P112 (track 1 suture needle distance compensation), P114 (track 2 stitches distance compensation), P116 (track 3 stitches distance compensation), P118 (track 4 stitches distance compensation), in ordinary A4 paper paper test, measure distance between two pinhole on the paper,adjust the parameter to stitch 4.9 5.1 mm.Then enter P113 (track 1 reverse stitching distance compensation), P115 (track 2 reverse stitching distance compensation), P117 (track 3 reverse stitching distance compensation), P119 (track 4 reverse stitching distance compensation), use ordinary A4 paper, stitch a section forward, press and hold the manual reverse stitching switch, adjust the parameters, make the reverse stitching overlap more than 11 stitches.

Note: When entering the P112-P119 interface, the speed will automatically change to 200 RPM for easy debugging. After leaving the interface,

the speed will return to normal.

3 Thin thickness detection parameter model description

3.1 Thin thickness detection function description

For the requirements of over-stalk in the sewing process, when the thickness detection is turned on, when the cloth suddenly thickens, it will slow down according to the setting, and the needle distance will change to fully over-stalk.

3.2 Thin material thickness setting:

1) Long press the Thin Thickness Test key to enter the Thin Thickness Test Setting Interface, stop the needle to the stop position (the needle plate with teeth exposed), and place the thinner part of the cloth;

2) Click +/- to select item H01, and long press P to display "H01 ----" on the panel;

3) Wait until the panel displays "OK" and the voice announces "successful identification of fabric thickness". After about 0.8s, "H01-DD-SS" is

displayed (DD stands for real-time height and SS stands for set height). At this time, thin material thickness identification is completed, and the AD value identified is stored in P25.

pay attention to: If the height of thin material identification is larger than the set value of thick material thickness, it shows that ER is about 0.8S, indicating that the setting fails;

3.3 Thick material thickness setting:

1) Long press the Thin Thickness Test key to enter the Thin Thickness Test Setting Interface, stop the needle to the stop position (exposed needle plate with teeth), and place the thicker part of the cloth;

2) Click +/- to select item H02, long press P to display "H02 ----" on the panel;

3) Wait until the panel displays "OK" and the voice announces "successful identification of fabric thickness". After about 0.8s, "H02-DD-SS" will be displayed (DD stands for real-time height and SS stands for set height). At this time, the thickness identification of thick material is completed, and the AD value identified is stored in P17.

pay attention to: If the height of thick material identification is smaller than the set value of thin material thickness, it shows that ER is about 0.8S, indicating that the setting fails.

| Parameter Item | Corresponding parameters | significance | explain |
|----------------|--------------------------|---|--|
| H03 | P18 | A terrier number of threads | Factory: 5 |
| H04 | P19 | A terrier speed | Factory: 2000 |
| H05 | P20 | Compensation value of over-stalk needle | Factory: 5; Displays the needle spacing icon |
| | | distance | |
| H06 | P21 | Thickness detection sensitivity | Automatic/manual setting when identifying cloth |
| | | | thickness |
| H07 | P22 | A terrier trajectory | Factory: Track 4; Display the corresponding track icon |

3.4 Corresponding parameter table of thickness detection and adjustment:

4 System parameters setting list

| 4.1 Param | .1 Parameter mode | | | |
|------------|-------------------|---------------------------------|---|--|
| 1、In the s | standby state ,p | oress ®key to | enter the parameter modes. | |
| 2、Press of | corresponding | _{key} ⊘⊘ _{ar} | id key $\oplus \ominus$ to adjust the corresponding parameter. | |
| 3、When | the paramete | er values have | e increased and decreased, parameter interface flash. Short press $^{igodoldsymbol{\mathbb{P}}}$ key to save the modified | |
| parameter | s .Long press (| ₱ key to exit pa | arameter interface, return to standby model. | |
| NO. | Range | Default | Description | |
| P01 | 200~5000 | 3800 | Free seam velocity | |
| P02 | 1~100 | 56 | Start sewing slight lift force adjusting | |
| P03 | 0/1 | 1 | Needle stop position selection (1:up; 0: down) | |
| P04 | 200~3000 | 1800 | Start back tacking speed | |
| P05 | 200~3000 | 1800 | End back tacking speed | |
| P06 | 200~3000 | 1800 | Continuous back sewing speed (W sewing) | |
| P07 | 200~4000 | 3700 | Multiple seam velocity | |
| P08 | 0/1 | 0 | Stitching presser foot micro-lift presser foot switch | |
| P09 | 0/1 | 0 | Soft start switch (0:off; 1: on) | |
| P10 | 1~9 | 2 | Slow-start stitch count | |
| P11 | 100~800 | 400 | Slow-start sewing speed | |
| P12 | -8~8 | 2 | 1/2 multi-function key(2-1/2 4-1/4 8-1/8 -2-(-1/2) -4(-1/4) -8-(-1/8)) | |
| P13 | 200~4000 | 3200 | Maximum speed of reverse stitching | |
| P14 | 100~800 | 200 | Stitch compensation speed | |
| P15 | 0~3 | 1 | Button stitching mode (0- close 1- continuous stitching according to the time 2- half stitching 3- one stitching) | |
| P16 | 0~9999 | 0 | Thickness detection 0 point value | |
| P17 | 0~9999 | 0 | Thick material height | |
| P18 | 0~50 | 5 | A terrier number of threads | |
| P19 | 200~4000 | 2000 | A terrier speed | |
| P 2 0 | 0~50 | 5 | Compensation value of over-stalk needle distance | |
| P 2 1 | 0~50 | 0 | Thickness detection sensitivity | |
| P 2 2 | 1~4 | 4 | A terrier trajectory | |
| P 2 3 | 0~4095 | 1100 | Analog quantity of pedal wire cutting position 1(turn off automatic lifting foot pedal wire cutting position) | |
| P 2 4 | 0~4095 | 550 | Analog quantity of pedal wire cutting position 2(start automatic lifting foot pedal wire cutting position) | |
| P 2 7 | 10~100 | 36 | Efforts to cut line | |
| P28 | 0~359 | 130 | The starting Angle of the clamping line when the front reinforcement joint and the W joint are opened | |
| P 2 9 | 0~359 | 320 | The clamping end Angle of front reinforcement joint and W joint when opened | |
| P30 | 0~359 | 130 | The starting Angle of the clip when the front tight seam is opened | |
| P31 | 0~359 | 340 | The clamping end Angle when the front tight seam is opened | |
| P 3 2 | 0~100 | 80 | Raise duty cycle gently with presser foot | |
| P33 | 0~80 | 55 | Clamp wire output | |
| P 3 4 | 0/1 | 1 | Oil level detection switch | |
| P 3 5 | 0~3000 | 800 | The speed of the first stitch | |
| P36 | 0~3000 | 1500 | The speed of the second stitch | |
| P 3 7 | 0~3000 | 0 | The speed of the third stitch | |
| P 3 8 | 0~4000 | 1000 | Front reinforcement/W seam first stitch speed limit | |

| P39 | 0~4000 | 0 | Front reinforcement/W seam second stitch speed limit |
|-------|----------|------|--|
| P40 | 0~4095 | 900 | The position of the rear half step (presser foot lifted) of the pedal |
| P41 | 0~4095 | 1600 | Pedal analog return to the median |
| P42 | 0~4095 | 300 | Start position of low speed running in front of pedal (relative median) |
| P43 | 0~4095 | 600 | End position of low speed running in front of pedal (relative median) |
| P44 | 0~4095 | 4000 | Maximum pedal analog amount |
| P47 | 200~360 | 359 | Back-pull function after cutting wire |
| P48 | 0/1 | 0 | Lift presser foot switch in advance when cutting wire |
| P49 | 100~500 | 250 | Shear velocity |
| P 5 0 | 100~500 | 200 | Lifting foot solenoid total output time |
| P 5 1 | 0-9999 | 0 | Thin height |
| P 5 2 | 10~500 | 50 | Running delay time of presser pin motor |
| P 5 3 | 0/1 | 1 | Presser foot switch |
| P 5 4 | 0~255 | 5 | Automated test run times |
| P 5 5 | 0~255 | 3 | Automatic test stop time |
| P 5 6 | 0/1 | 1 | Switch on the power to find needle position automatically |
| P 5 7 | 1~60 | 10 | Protection time of solenoid in lifting foot |
| P 5 8 | 0~359 | 275 | Stopping needle to adjust the Angle (relative to Z signal) |
| P 5 9 | 0~359 | 160 | Lower stop needle to adjust the Angle (relative to upper stop needle) |
| P60 | 200~5000 | 4000 | Automatically test running speed |
| P 6 1 | 0~1000 | 500 | Electric Angle value |
| P 6 2 | 0-3 | 0 | Operation mode (0- normal sewing 1- easy sewing 2-THETA0 test 3- automatic test) |
| P 6 3 | 0/1 | 0 | Start tight slot switch |
| P 6 4 | 0/1 | 65 | Stop the tight slot switch |
| P66 | 0/1 | 1 | safety switch |
| P 6 7 | 0~3000 | 0 | Look for the Angle of the principal axis |
| P68 | 200~5000 | 3800 | Free seam maximum speed limit |
| P69 | 0~359 | 150 | Spindle delta Angle |
| P71 | 50~350 | 104 | Soft release time of solenoid in lifting foot |
| P72 | 0/1 | 1 | Anti-breaking needle function switch |
| P74 | 100~2500 | 1000 | Initial tight seam velocity |
| P75 | 0~12 | 2 | Number of initial tight stitches |
| P76 | 100~2500 | 1800 | Stop tight seam speed |
| P77 | 0~12 | 2 | Stop the number of tight stitches |
| P78 | 10~359 | 130 | Clamp starting Angle |
| P79 | 0~359 | 320 | Clamp end Angle |
| P84 | 200~3000 | 2000 | Pattern sewing speed |
| P 8 5 | 0/1 | 0 | Multi - slit pattern switch |
| P86 | 0~50 | 8 | Start close stitching distance |
| P87 | 0/1 | 1 | The direction of the initial tight seam |
| P88 | 0~50 | 5 | Stop close stitching |
| P89 | 0/1 | 1 | End the direction of the tight seam |
| P90 | 0/1 | 0 | Lock pin distance switch (0 off 1 on) |

| P91 | 0~70 | 50 | Maximum stitch | |
|------|--------|------|--|--|
| P97 | 0~2 | 0 | Voice broadcast mode selection (0-power on language and press on voice 1- power on language only - press on voice only) | |
| P98 | 0~7 | 7 | Voice volume | |
| P99 | 0~2 | 1 | Voice selection (0- Voice off 1- Country 1- Country 2- Country 2) | |
| P100 | 0~9999 | 0 | Free - seam and multi - seam ABCD segment ten - position compensation | |
| P101 | 0~9909 | 0 | W seam ABD section ten section compensation | |
| P102 | -99~99 | 2 | Reduce/add the number of stitches in the first section of W seam | |
| P103 | -99~99 | 2 | Reduce/add the number of stitches at the end of W seam | |
| P104 | 0~9999 | 0 | Stitch count current value | |
| P105 | 0~9999 | 0 | Number of pieces counts the current value | |
| P106 | 1~50 | 1 | A unit for counting the number of stitches | |
| P107 | 0~9999 | 9999 | Stitch count set point | |
| P108 | 0~6 | 0 | Stitch count mode | |
| P109 | 1~50 | 1 | A unit of count | |
| P110 | 0~9999 | 9999 | Number of pieces count set value | |
| P111 | 0~6 | 0 | Number of pieces counting mode | |

4.2 Monitor mode

| No. | Description | No. | Description |
|-------|--|-------|--|
| M 0 1 | Feedback value of spindle speed | M 2 5 | The ratio between motor and machine |
| M 0 2 | On the AD value | M 2 6 | The total used time(hours) of motor |
| M 0 3 | The step zero | M 2 7 | Software version L |
| M 0 4 | busbar voltage | M 2 8 | Software version H |
| M 0 5 | The spindle zero | M 2 9 | Analog input 1 |
| M 0 6 | Step encoder value0~4000 | M 3 0 | Analog input 2 |
| M 1 5 | Spindle encoder value0~2880 | M 4 0 | Analog input 3 |
| M 1 6 | Dump switch IO port value | M 4 1 | Analog input 4 |
| M17 | Reverse seam switch IO port value | M 4 2 | Parameter version |
| M 1 8 | Fill half needle switch IO port value | M 4 3 | The history records of error codes |
| M 1 9 | IO port value of stitching switch | M 4 4 | Panel BOOT version number |
| M 2 0 | Servo motor overcurrent fault detection port value | M 4 5 | Motherboard BOOT version number |
| M 2 1 | Stepper motor overcurrent fault detection port value | M 4 6 | Main board APP version number 1 XXYY:XX represents year and YY represents month |
| M 2 2 | Oil level detects port value | M 4 7 | Main board APP version 2 XXYY:XX stands for date and YY stands for time |
| M 2 3 | Initial electric Angle value of spindle motor | M 4 8 | Version 1 of APP on the panel XXYY:XX represents year and YY represents month |
| M 2 4 | Mechanical Angle value | M 4 9 | Panel APP version 2 XXYY:XX represents the date and YY represents the time |

4.3 The warning message

| Alarm code | Description | Corrective | |
|------------|-------------------------------------|--|--|
| ALA-5 | Stitch counter alarm | The stitch counter reaches the limit. Press ${f \mathbb{P}}_{ m key}$ to cancel the alarm and reset the counter. | |
| RLR-3 | Trimming counter alarm | The trimming counter reaches the limit. Press (P) key to cancel the alarm and reset the counter. | |
| ۵FF | Power off alarm | Please wait for 30 seconds, then turn on the power switch | |
| RrN UP | Safety switch alarm | Adjust the machine to the correct position. | |
| RLR-8 | The speed controller is abnormal | Disconnect the power supply and check whether the line contact of the speed controller is detached | |
| R18-7 | Stepper motor out of position | Adjust the parameter item P123 to check the installation position of the stepping motor | |

4.4 Error mode

If the error code appears, please check the following items first: 1.Make sure the machine has been connected correctly; 2. Confirm that the control box match with the machine head. 3. Confirm factory reset is accurate

 Error Code
 Description

| LIIOI Code | Description | Solution |
|------------|---|---|
| Err-01 | Arm shaft motor hardware overcurrent | Turn off the system power, and turn it on again after 30 seconds. Please enter P61 to check the initial angle of the arm shaft motor. Check whether the arm shaft motor encoder and electronic control are damaged or in other poor conditions. If so, replace them in time. If the system still does not work properly after troubleshooting and restart. Please contact your local service provider or call 4008876858. |
| Err-03 | System undervoltage | Disconnect the power supply of the controller and check whether the input power supply voltage is lower than 176V. If so, please restart the controller after the voltage returns to normal. If the voltage returns to normal, it still does not work properly after the controller starts up. Please contact your local service provider or call 4008876858. |
| Err-04 | Overvoltage during shutdown | Disconnect the controller power and check whether the input power voltage is higher than 264V. If so, please restart the controller after the voltage returns to normal. If the voltage returns to normal, it |
| Err-05 | Overvoltage during operation | still does not work properly after the controller starts up. Please contact your local service provider or call 4008876858. |
| Err-06 | Electromagnet circuit failure | Turn off the system power, check whether the electromagnet connection is correct and whether there is any loose or damaged part. If so, replace it in time. Unplug the 14-pin plug on the electric control to confirm whether the electric control is normal. If the electric control is normal, please check whether the electromagnetic circuits are damaged. If the system still does not work after troubleshooting and restart. Please contact your local service provider or call 4008876858. |
| Err-07 | Current detection circuit failure | Turn off the system power, and turn on the power again after 30 seconds to see whether it can work properly. Try a few times again. If the fault occurs frequently, please contact your local service provider or call 4008876858. |
| Err-08 | Arm shaft motor stalled | Please check whether there is any foreign object wrapped around the machine head, whether there is any thread residue stuck in the rotating shuttle, and whether the eccentric wheel of the machine is stuck. Disconnect the power supply of the controller and check whether the input plug of the arm shaft motor power supply is detached, loose, or damaged. Please enter P61 to check the initial angle of the arm shaft motor. If the system still does not work properly after troubleshooting and restart. Please contact your local service provider or call 4008876858. |
| Err-10 | Panel communication failure | Please check whether the connection between the operation panel and the electric control is drops off, loose, or broken. Please check whether the connection cable of the pedal speed controller is drops off, loose, or damaged. If the system still does not work properly after troubleshooting and restart. Please contact your local service provider or call 4008876858. |
| Err-11 | Head stop signal failure | Check whether the connection between the arm shaft motor encoder and the controller is loose. Replace the arm shaft motor encoder. If the system still does not work properly after troubleshooting and restart. Please contact your local service provider or call 4008876858. |
| Err-12 | Arm shaft motor initial angle detection failure | Please enter P61 to check the initial angle of the arm shaft motor. Please try 2-3 times again after power off. If it still fails. Please contact your local service provider or call 4008876858. |
| Err-13 | Arm shaft motor zero position fault | Turn off the power of the system, check whether the arm shaft motor encoder connector is loose, or drops off. Restore it to normal and restart the system. Replace the arm shaft motor encoder. If the system still does not work properly after troubleshooting and restart. Please contact your local service provider or call 4008876858. |
| Err-14 | Master control eeprom components read/write failure | |
| Err-15 | Arm shaft motor overspeed protection | Turn off the system power, and then turn on the power again after 30 seconds. If the controller still does not work properly, please contact your local service provider or call 4008876858 |
| Err-16 | Arm shaft motor reverse | |
| Err-17 | Master control restart failure | |
| Err-18 | Arm shaft motor overload | Check whether the arm shaft motor is stalled. If not, please contact your local service provider or call 4008876858. |
| Err-20 | Alarm for oil shortage every 8 hours | Check whether the oil level of the machine is sufficient. If the problem is still not resolved after filling up the oil volume, please contact your local service provider or dial 4008876858. |
| | | |

| Err-21 | Arm shaft motor stalled | Please check whether there is any foreign object wrapped around the machine head, whether there is any thread residue stuck in the rotating shuttle, and whether the eccentric wheel of the machine is stuck. Disconnect the power supply of the controller and check whether the input plug of the arm shaft motor power supply is detached, loose, or damaged. Please enter P61 to check the initial angle of the arm shaft motor. If the system still does not work properly after troubleshooting and restart. Please contact your local service provider or call 4008876858. |
|--------|---|---|
| Err-30 | Password lock shutdown alarm | The machine has reached the set time. If further use is required, please contact your local service provider or call 4008876858. |
| Err-31 | Backstitch step motor zero position fault | Check whether the backstitch step motor, swing seat, and teeth are stuck. After the normal state is restored, restart the system. Check whether the backstitch step encoder is damaged or in other poor conditions. If so, replace it in time. If the system still does not work properly after troubleshooting and restart. Please contact your local service provider or call 4008876858 |
| Err-32 | Backstitch step motor hardware overcurrent | Turn off the system power, and then turn on the power again after 30 seconds Check whether the backstitch step motor, swing seat, and teeth are stuck. After returning to the normal state, restart the system. If the system still does not work properly after troubleshooting and restart. Please contact your local service provider or call 4008876858 |
| Err-33 | Stepper motor current A detects loop faults | Turn off the system power, and then turn on the power again after 30 seconds. If the controller still does not work properly, please contact your local service provider or call 4008876858. |
| Err-34 | Stepper motor current B detects loop faults | Turn off the system power, and then turn on the power again after 30 seconds. If the controller still does not work properly, please contact your local service provider or call 4008876858.4. |
| Err-35 | Stepper motor Hall signal failure | Check whether the stepping encoder and electric control are damaged or not. If so, replace them in time Turn off the system power, and then turn on the power again after 30 seconds. If the system still does not work properly after troubleshooting and restart. Please contact your local service provider or call 4008876858 |