 Safety Instruction

1）Users are required to read the operation manual completely and carefully before installation or operation.

2） The product should be installed and pre-operated by well-trained persons

3） All the instruction marked with sign ，must be observed or executed; Otherwise, bodily injuries might occur.

4） For perfect operation and safety, it is prohibited that using extension cable with multi-outlet for power connection

5） When connecting power supply cords to power sources, it is necessary to make sure that the power voltage is lower than 250V AC and matches the rated voltage indicated on the motor’s name plate.

※Attention: If the Control Box is AC 220V system, please don’t connect the Control Box to AC 380V power outlet. Otherwise, the error will occur and motor will not work. If that happens, please turn off the power immediately and check the power voltage. Continue supply 380V power over 5 minutes might damage the fuse F2, burst the electrolytic capacitors and the power module U14 of the main board and even might endanger the person safety.

6） Please don’t operate in direct sun light, outdoors area and where the room temperature is over 45℃or below 0°C.

7） Please avoid operating near the heater at dew area or at the humidity below 10% or above 95%.

8） Please don’t operate in area with heavy dust, corrosive substance or volatile gas.

9） Avoid power cord being applied by heavy objects or excessive force, or over bend.

10）The earth wire of power cord must be connected to the system ground of the production plant by proper size of conductions and terminals. This connection should be fixed permanently.

11）All the moving portions must be prevented to be exposed by the parts provided.

12）Turing on the machine in the first time, operate the sewing machine at low speed and check the correct rotation direction.

13）Turn off the power before the following operation:

1. Connecting or disconnecting any connectors on the control box or motor.

2. Threading needle.

3. Raising the machine arm.

4. Repairing or doing any mechanical adjustment.

5. Machine is out of work.

14）Repairing and high level maintenance work should only be done by electronic technicians with appropriate training.

15）All the spare parts for repairing work must be provided or approved by the manufacturer.

16）Don’t use any objects 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:

1. 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.

2. 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.

3. 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 all a failsafe device. (Such as residual current breaker).

**1. Keys Function**

|  |  |  |
| --- | --- | --- |
| Entering the Parameter Mode |  | Press key P to enter into user parameter setting mode. |
| Setting Parameter Check and Save  |  | After setting the function code, press this key to check the preset parameter and parameter accordingly; When the parameter is fixed, press key to save the setting and quit. |
| On the Adjustment Key |  | 1. Choose the region parameter items of incrementing key2. Parameter setting value incrementing key |
| Under the Adjustment Key |  | 1. Choose the region parameter items of diminishing key2. Parameter setting value decrementing key |
| LED Brightness Adjustment Shortcut Key |  | Press this key to adjust LED brightness. |
| Slow Play Seam Selection Shortcut / Select the Shortcut Needle Position |  | 1. Slow play seam selection shortcuts.2. Select the shortcut needle position. |

**2. Operating Instructions**

**2.1 Reset the System**

1. 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.

**2.2 Enter the User Argument and Save Changes**

1. Under normal mode, press key P enter to【Use Parameter Area】

# 2. Press S key enter to parameter content value; changed the value through “up” “down” key

**2.3 Enter Technician Mode and Save Changes**

1. In the shutdown state, hold on key P to turn on machine and enter 【Technical Parameter Area】

2. 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 ＆ Technician Parameter**

**3.1 User Parameter**

| **Parameters** | **Parameter Function** | **Range** | **Default** | **Description** |
| --- | --- | --- | --- | --- |
| P01 | Maximum Speed |  |  | Set the max sewing speed.Note: 900E(Range: 200-5000, Default: 4500)950E(Range: 200-5500, Default: 5000) |
| P02 | Needle Stop Position Selection | 0-2 | 0 | Set the needle stop position (0: Needle up 1: Needle down 2: OFF). |
| P03 | Soft Start Switch | 0-1 | 0 | Soft start switch setting (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 (Show the actual number \* 10= speed). |

**3.2 Technician Parameter**

| **Parameters** | **Parameter Function** | **Range** | **Default** | **Description** |
| --- | --- | --- | --- | --- |
| P07 | Up Position Adjustment | 0-24 |  |  |
| P08 | Down Position Adjustment | 0-24 |  |  |
| P09 | Needle Goes Up Automatically as Power Turned On | 0-1 | 1 | 0: No Function1: Power turned on, needle goes up position 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: OFF1→4 the brightness grade, the more value the more brightness. |
| P21 | Motor Rotate Direction | 0-1 | 0 | Motor rotate direction setting (0: clockwise 1: counter-clockwise) |
| P22 | Auto Running Speed | 200-6000 | 3500 | Auto running speed setting (show the actual number \* 10=speed) |
| P23 | Auto Running Time | 1-250 | 20 |  |
| P24 | Auto Running Stop Time | 1-250 | 20 |  |
| P25 | Item A Test  | 0-1 | 0 | Item A test setting (continue running with constant speed) |
| P26 | Item B Test | 0-1 | 0 | Item B test setting (carry out the set loop running) |

**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. |
| E09E11 | 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. |
| 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. |
| E17 | Machine protection switch is not in the correct position | Turn off the machine, check if the machine is turn over, or the Mercury Switch is shifted or damaged. |

**5. Schematic Diagram of Port**

**5.1 Each Port Name**

