



NIPPON SILMAQ

ELECTRONIC CONTROL PARAMETER MANNUAL

NS-180

 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°C 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 Key Description

| Name | Key | Indicate |
|----------------------------------|---|---|
| Function Parameter Edit |  | Press this key to enter or exit function parameter edit mode. |
| Setting Parameter Check and Save |  | 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 |
| Slow Launch Setting |  | If click, set used or cancelled slow launch function. |
| Needle Stop Position Selection |  | If click, the needle stop position after shift the sewing mode (Up position / Down position) |

2. Operating Instructions

2.1 Restore Factory Setting

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.

3 Parameter List

| Parameters | Parameter Function | Range | Default | Description |
|------------|---|----------|---------|---|
| P01 | Maximum speed | 200-3700 | 3700 | Set the max sewing speed. |
| P02 | Needle stop position selection | 0-2 | 1 | 0: Needle up 1: Needle down 2: OFF |
| P03 | Soft start switch | 0-1 | 1 | 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 | 0-24 | 0 | |
| P08 | Down position adjustment | 0-24 | 12 | |
| P09 | Needle goes up automatically as power turned on | 0-1 | 1 | 0: No Function 1: Power turned on, needle goes up position automatically |
| P11 | Speed curve adjustment | 1-100 | 32 | The lager the value, the faster to increase speed |
| P15 | Stitch Correction Mode | 0-3 | 3 | 0: Half stitch 1: One stitch 2: Continuous correct half stitch 3: Continuous correct stitch and quickly stop machine |
| P21 | Motor rotate direction | 0-1 | 1 | 0: clockwise 1: counter-clockwise |
| P22 | Auto running speed | 200-6000 | 3500 | Auto running speed setting |
| P23 | Auto running time | 1-250 | 20 | |
| P24 | Auto running stop time | | 20 | |

| Parameters | Parameter Function | Range | Default | Description |
|------------|--------------------|-------|---------|--------------------------------------|
| P25 | Item A test | 1-250 | 0 | Continue running with constant speed |
| P26 | Item B test | 0-1 | 0 | Carry out the set loop running |
| P36 | Type | | 1 | |

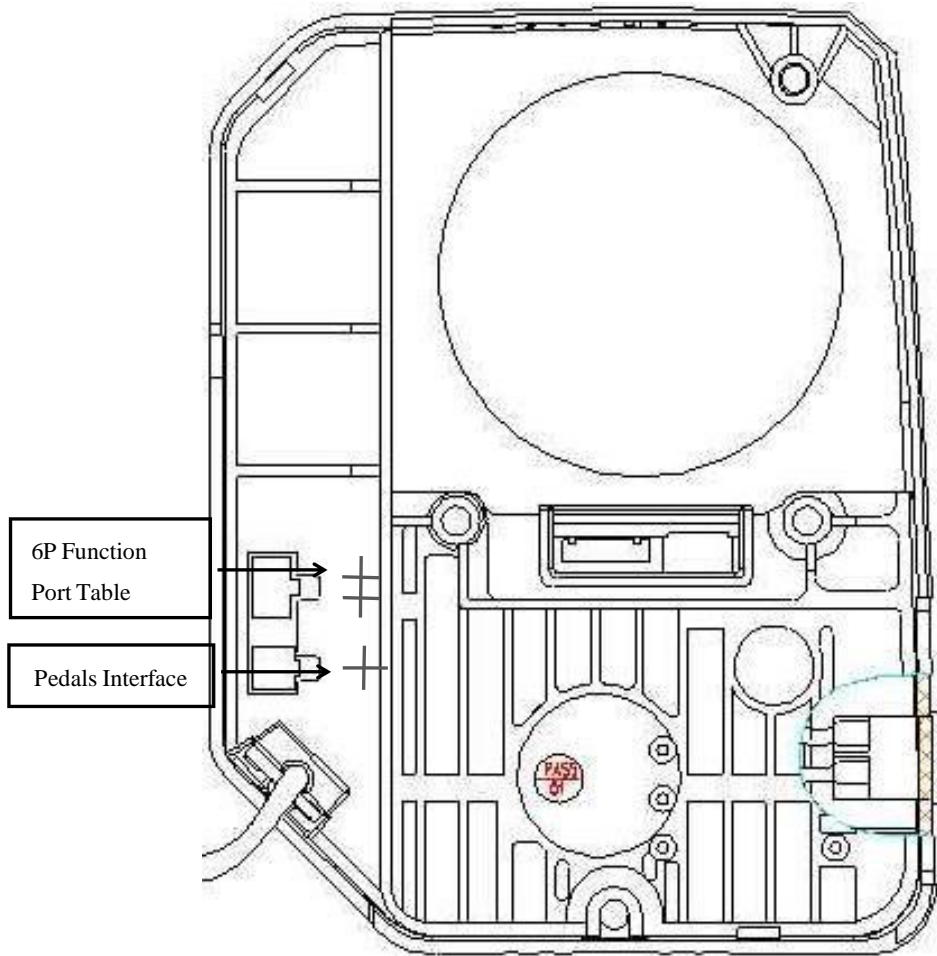
Note: the initial value of parameters is for reference only, and the actual value of parameters is subject to the real object.

4 Error Code List

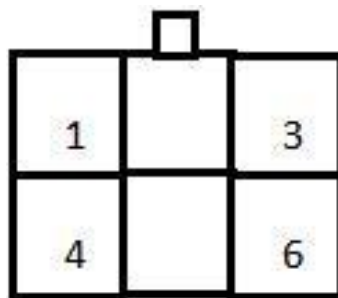
| Error Code | Problem | Status / Measurement |
|------------|---|--|
| E01 | Over-voltage | Turn off the system power supply, and detect whether the supply voltage is correct. (Or exceed the rated voltage.) If correct, please replace the control box and inform the factory |
| E02 | Low-voltage | Turn off the system power supply, and detect whether the supply voltage is correct. (Or exceed the rated voltage specified in use.) If correct, please replace the control box and inform the factory |
| E03 | CPU communication error | Turn off the machine, please check if the operation panel 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. |
| E05 | Speed control unit connection is abnormal | Turn off the system power supply, please check the speed control unit connector if loose or fall off, Will resume normal after the restart system If you still cannot work normally, please replace the speed control unit and notify the manufacturer. |
| 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. |
| E14 | Encoder signal error. | Turn off the system power supply, please check motor encoder connector if loose or fall off, renew to normal then restart system. If still not work, please replace the motor and notify the manufacture. |
| E15 | Power module abnormal over current protection | Turn off the system power supply, and then restart the machine. If still not work, please replace the control box and notify the manufacture. |
| E17 | The sewing table safety switch is not in the correct position | Turn off the system power supply, please check machine head is open or not, the machine head switch is damage or not. |

5 Port Outline Diagram:

5.1 Port Description



5.2 6P Function Port Description



1. Clothing Lights: 1(GND)、4(+5V)

2. Manual Filling Needle: 3(GND)、6(signal)