



Industrial Sewing Machine AC Servo Control System Operation Instruction

1. Important Safety Instructions

- Using Servo Control system and its accessories safely and properly...
Keep the manual for reference whenever necessary.
Keep strictly to the following instruction which should be noted and prohibited when using the machines...

Important

1.1 Operation Environment

- Only connect the machine to the power supply which conformed to the specification listed in the label.
Keep away from the electromagnetic interference source to avoid malfunction.
Do not operate the machine under the site whose temperature is below 5℃ or above 45℃.
Do not operate the machine under the site whose related humidity is below 30% or above 80%.
Keep the machine out of the dust.
Keep away from heat and place the machine in the well ventilated environment.

1.2 Installation The Machine

- Keep strictly to the manual to assemble all part of the machine.
The power supply must be turned off when changing the needle, tilting the head of the machine and connecting/disconnecting the power plug.
It's necessary to ground the machine permanently and reliably with appropriate diameter wire and plug to the factory system ground.

1.3 Operation

- Set the machine on low speed at the first turning on to check whether the rotation direction is correct.
Do not press the pedal at the moment the machine is connected to the power supply.
Do check the setting parameter and switch status before normal sewing.
Do not touch the moving parts of the machine, such as hand wheel and needle, while the machine is in operation.
On alarm, it is necessary to troubleshoot and confirm the safety, reset the alarm parameter before renewing the machine.
Do not turn on/off the machine power frequently.

1.4 Maintenance

- As there are high voltage in the control cabinet, avoid to open the cabinet within 5 minutes after turning off.
Only the trained expert is allowed to maintain and repair the machine.
All the components for maintenance and replacement must be provided or qualified by our company.

1.5 Technology Specification

Table with 2 columns: Parameter and Value. Includes Rated Input Voltage (220V±10%), Rated Input Frequency (50/60Hz), Rated Output Power (550W/750W), Maximum Motor Rotation Speed (5000rpm/3500r/min).

2. Upper Needle Stop Position Setting And Adjustment

Visual guide for setting upper needle stop position. Includes diagrams of the needle, hand wheel, and LCD display. Text: 'The needle stop position must be settled before the first operation, or the machine can't operate normally, and there will be needle break and locked mechanical issues.'

User parameter table. Columns: No., Items, Default, Range, Contents. Lists 31 parameters related to sewing machine settings like speed, tension, and safety.

System parameter table. Columns: No., Items, Default, Range, Contents. Lists 32 system-level parameters like motor rotation, auto running, and thread trimming.

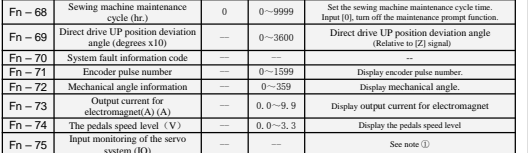
Table with 4 columns: Fn, Items, Default, Range, Contents. Lists 68 factory parameters for sewing machine maintenance, drive, and monitoring.

3. Operation Description

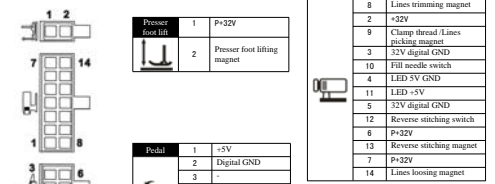
3.1 Key Function Definition:

Function Key Description Icon table. Lists functions like Function Parameter Edit, Setting Parameter Check And Save, Speed Increase/Decrease, etc., with corresponding keys and icons.

4. System Wire Diagram



4. System Wire Diagram



5. Operation Mode Selection

5.1 Sewing Mode

The machine enters into sewing mode as default setting after powering on. In the sewing mode, the user can select various kinds of sewing function using setting technology parameter. In sewing mode, the users can switch over between various kinds of sewing function according to their need, but can't modify and set all the system technology parameters.

5.2 User Parameter Setting Mode

In user parameter setting mode, users can adjust various kinds of sewing function of the magnet. The steps are as follows: 1. Press key P for 2-3S in the sewing mode to enter into user parameter setting mode...

5.3 System Parameter Setting Mode

In system parameter setting mode, it's available to adjust kinds of the parameter of the electromagnets and system setting. The system parameter ranges from Fn-40 ~79. Additional parameters can be set according to the following steps. The steps are as follows: 1. Long press key P, in the same time turn on the power switch from off to enter into system parameter setting mode...

7. Troubleshooting And Maintenance

Error code table with columns: Error code, Problem description, Measure. Lists error codes Err-0 to Err-F and their corresponding troubleshooting steps.

6. Auxiliary Function

6.1 Factory Parameter Initialization

1. Refer to clause 5.3 to enter system parameter setting mode. 2. Set function ID to Fn-79. Press key S to view and edit parameter. 3. Set different code to execute factory parameter initialization in different way.

6.2 The Number Of Processing Statistics

Under sewing mode, press S key. The display will show the processing statistics for the number.

6.3 Real-time Motor Speed Monitor

Under user parameter setting mode or system parameter setting mode, press the accelerate adjustment key, the display will show the real-time speed of the motor.

6.4 Stitch Tracking Remedial Measure

The following description is based on A=4-B=4 for dual start back-tracking sewing remediation. Includes diagrams showing root causes for stitching issues.

Issue description Remedial measure table. Lists common stitching issues like 'The stitch number of section A is beyond the set value' and provides remedial measures.

7. Troubleshooting And Maintenance

When there is error in the system, the error information will be shown on the panel in the same time, the indicator led will light red. The user can handle the error by the error code according the manual if the error can't be settled, please contact our technician for support. Error code will be indicated in HEX on the panel.

Error code table with columns: Error code, Problem description, Measure. Lists error codes Err-0 to Err-F and their corresponding troubleshooting steps.

Root cause: The stitch number of section A is less than the set value, or the length of the section A last stitch is decreased... Measure: Turn down the parameter of Fn-13 properly.

Root cause: The stitch number of section A is beyond the set value, or the length of section A last stitch is increased... Measure: Turn up the parameter of Fn-13 properly.