

JIANGFAN SD-P150

JIANGFAN Dahao AC Servo Motor Controller Driver SD-P150 Instruction Manual

Model: SD-P150

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation, installation, and maintenance of the JIANGFAN Dahao AC Servo Motor Controller Driver SD-P150. Please read this manual thoroughly before using the product to ensure proper function and to prevent damage or injury. This device is designed for use with embroidery machines.

2. PRODUCT OVERVIEW

The Dahao AC Servo Motor Controller Driver SD-P150 is a critical component for controlling AC servo motors in embroidery machines. It is constructed from durable plastic and metal components, ensuring reliability in industrial applications. This driver is specifically engineered to manage the precise movements required for intricate embroidery tasks.



Figure 1: Front view of two Dahao AC Servo Motor Controller Drivers SD-P150. This image displays the front panels of two units, showing the digital display, control buttons (ESC, up, down), and various connectors labeled CN1, CN2, CN3, U, V, W, and AC 220V input. The model number SD-P150 is visible at the bottom right of each unit.



Figure 2: Side view of two Dahao AC Servo Motor Controller Drivers SD-P150. This image shows the side and top of two controller units, highlighting their compact form factor and the heat sink fins on the sides. Labels with technical specifications and warnings are visible on the top surface of the units.

3. SPECIFICATIONS

Feature	Detail
Model Number	SD-P150
Brand	JIANGFAN (Dahao)
Application	Embroidery Machines
Type	AC Servo Motor Controller Driver
Material	Plastic and Metal
Package Dimensions	1.18 x 0.79 x 0.39 inches
Item Weight	1.76 ounces
Assembly Required	No
Number of Pieces	1

4. SETUP AND INSTALLATION

Warning: Installation should only be performed by qualified personnel. Ensure all power is disconnected before beginning installation to prevent electric shock or damage to the equipment.

1. **Mounting:** Securely mount the SD-P150 driver in a well-ventilated area, away from excessive heat, moisture, and vibration. Ensure adequate clearance for cooling.
2. **Power Connection:** Connect the AC 220V power supply to the designated terminals (refer to the labels on the unit, typically marked AC 220V). Verify correct voltage and polarity.
3. **Motor Connection:** Connect the servo motor to the U, V, W output terminals. Ensure proper phase sequence for correct motor rotation.
4. **Control Signal Connections:** Connect control signals (e.g., pulse, direction, enable) to the CN1 and CN2 connectors as per your embroidery machine's control system requirements. Refer to the machine's specific wiring diagram.
5. **Feedback Connection:** Connect the servo motor's encoder feedback cable to the appropriate connector (e.g., CN3) on the driver. This is crucial for precise motor control.
6. **Grounding:** Ensure the driver is properly grounded to prevent electrical interference and ensure safety.

After all connections are made, double-check wiring before applying power.

5. OPERATING INSTRUCTIONS

Once installed and powered on, the SD-P150 driver will typically display status information on its digital display. The exact operating parameters and procedures will depend on the specific embroidery machine and its control system.

- **Power On:** Apply power to the embroidery machine. The driver's digital display should illuminate, indicating power is supplied.
- **Status Display:** The digital display typically shows operational status, error codes, or parameter values. Consult your embroidery machine's manual for interpretation of these codes.
- **Parameter Adjustment:** If parameter adjustments are required, use the ESC, Up, and Down buttons on the front panel to navigate menus and modify settings. Refer to the Dahao servo system documentation for detailed parameter descriptions and adjustment procedures.
- **Normal Operation:** The driver will control the servo motor based on commands received from the embroidery machine's main controller. Monitor for smooth motor operation and absence of error codes.

Note: Do not attempt to modify parameters without understanding their function, as this can lead to system malfunction or damage.

6. MAINTENANCE

Regular maintenance helps ensure the longevity and reliable performance of the SD-P150 servo driver.

- **Cleaning:** Periodically clean the exterior of the driver to remove dust and debris. Use a soft, dry cloth. Do not use liquid cleaners directly on the unit. Ensure ventilation openings are clear.
- **Inspection:** Regularly inspect all cable connections for tightness and signs of wear or damage. Ensure the driver is securely mounted.
- **Environmental Conditions:** Ensure the operating environment remains within specified temperature and humidity ranges to prevent overheating or condensation.

Caution: Disconnect all power before performing any cleaning or inspection to avoid electrical hazards.

7. TROUBLESHOOTING

This section outlines common issues and general troubleshooting steps. For specific error codes, refer to the detailed Dahao servo system documentation or your embroidery machine's service manual.

- **No Power/Display Off:**
 - Check the main power supply to the embroidery machine.
 - Verify the AC 220V connection to the driver.
 - Inspect fuses (if accessible and applicable).

- **Motor Not Responding:**
 - Ensure all motor and control signal cables are securely connected.
 - Check for error codes on the driver's display.
 - Verify that the servo motor is enabled by the machine's controller.
 - Confirm correct parameter settings.

- **Motor Overheating:**
 - Check for proper ventilation around the driver and motor.
 - Ensure the motor is not overloaded.
 - Verify motor parameters are correctly set.

- **Abnormal Noise/Vibration:**
 - Inspect motor mounting and mechanical connections.
 - Check for loose wiring.
 - Review servo tuning parameters.

If issues persist after attempting these steps, contact qualified service personnel.

8. WARRANTY AND SUPPORT

For warranty information and technical support regarding your JIANGFAN Dahao AC Servo Motor Controller Driver SD-P150, please refer to the documentation provided with your original purchase or contact your supplier. Ensure you have your purchase details and model number readily available when seeking support.

For general inquiries or to locate authorized service centers, please visit the official JIANGFAN website or contact their customer service department.