

Jebao DCP-2500

Jebao DCP-2500 Sine Wave Water Return Pump Instruction Manual

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your Jebao DCP-2500 Sine Wave Water Return Pump. The DCP series pumps are designed for enhanced performance and precise flow control in aquarium systems, including reactors, sumps, or closed-loop setups. They feature a DCP Controller for adjustable flow, feed modes, and motor protection.



Figure 1: The complete Jebao DCP-2500 pump kit, including the main pump unit, the digital controller, the power adapter, and

2. SAFETY INSTRUCTIONS

Please read and understand all safety instructions before operating the pump. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- **Internal Use Only:** This pump is designed for internal use within an aquarium system. Do not use it for external applications.
- **Electrical Safety:** Ensure the power outlet matches the pump's voltage (110-120V 60Hz). Always unplug the pump from the power source before performing any maintenance or cleaning.
- **Water Contact:** Never immerse the controller or power adapter in water. Ensure all electrical connections are dry.
- **No Copper Components:** This pump is built without copper components, ensuring safety for your aquatic environment.
- **Cable Protection:** Do not run the power cord over sharp edges or hot surfaces. Avoid kinking or damaging the cord.
- **Children and Pets:** Keep the pump and its components out of reach of children and pets.

3. PACKAGE CONTENTS

Verify that all components are present and undamaged upon opening the package:

- DCP Pump Unit
- AC Adapter
- DCP Controller
- Hose Fittings (1" and 3/4")
- PVC Fittings (1-1/4")
- O-rings and Gaskets

4. SETUP

Follow these steps to properly install your Jebao DCP-2500 pump:

1. **Choose Location:** Place the pump in a stable position within your aquarium sump or designated water return area. Ensure it is fully submerged during operation.
2. **Attach Fittings:** Select the appropriate hose or PVC fittings for your plumbing system. The pump supports 1" and 3/4" hose fittings, and 1-1/4" PVC fittings. Securely attach the chosen fittings to the pump's inlet and outlet.
3. **Connect Tubing:** Connect your aquarium tubing to the pump's fittings. Ensure all connections are tight to prevent leaks.
4. **Connect Controller:** Plug the pump's cable into the DCP Controller. Then, connect the AC adapter to the controller and plug the adapter into a suitable electrical outlet.
5. **Initial Priming:** Ensure the pump is fully submerged before powering on. The pump will self-prime once activated.



Figure 2: A detailed view of the Jebao DCP-2500 pump, highlighting its compact design and the protective intake grate.

5. OPERATING INSTRUCTIONS

The DCP Controller allows for precise control over the pump's performance:

- **Power On/Off:** Press the 'Power' button on the controller to turn the pump on or off.
- **Flow Adjustment:** Use the '+' and '-' buttons to increase or decrease the water flow rate. The controller display will show the current power level.
- **Feed Mode:** Press the 'Feed' button to activate a 10-minute feed mode. The pump will pause for 10 minutes, allowing fish to feed without being disturbed by water flow. After 10 minutes, the pump will automatically resume its previous operation.
- **Memory Function:** The pump features a memory function that recalls the last set flow rate after a power outage.
- **Motor Protection:** The controller includes motor protection that will shut down the pump if the rotor is blocked, preventing damage.

6. MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your pump:

- **Cleaning Frequency:** Clean the pump every 1-3 months, depending on the accumulation of debris in your aquarium.
- **Disassembly:** Unplug the pump. Disconnect all tubing and carefully remove the pump from the sump. Twist and remove the intake grate and impeller cover.
- **Impeller Cleaning:** Remove the impeller and clean it thoroughly with a soft brush under running water. Remove any calcium buildup or debris.
- **Housing Cleaning:** Clean the pump housing and impeller chamber.

- **Reassembly:** Reassemble the pump in reverse order, ensuring all parts are securely fitted.

7. TROUBLESHOOTING

If you encounter issues with your pump, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Pump not starting	No power; blocked impeller; damaged controller/adapter	Check power connection; clean impeller; inspect controller/adapter for damage.
Reduced flow rate	Clogged impeller/intake; air in system; incorrect flow setting	Clean pump and intake; ensure pump is fully submerged and primed; adjust flow setting on controller.
Unusual noise/vibration	Debris in impeller; worn impeller; pump not stable	Clean impeller; inspect impeller for damage (replace if necessary); ensure pump is on a stable surface.
Pump stops intermittently	Overheating; motor protection activated (blocked rotor)	Check for blockages and clean pump; ensure adequate water flow around pump for cooling.

8. SPECIFICATIONS

Feature	Specification
Model	DCP-2500
Power	23 watts
Voltage	110-120V 60Hz
Maximum Flow Rate	660 GPH (11 Gallons Per Minute)
Maximum Head Height	8.2 feet
Product Dimensions (L x W x H)	6" x 5" x 4"
Hose Fitting Compatibility	1" and 3/4"
PVC Fitting Compatibility	1-1/4"
Material	PVC
Item Weight	2 pounds

9. WARRANTY AND SUPPORT

The Jebao DCP-2500 Sine Wave Water Return Pump comes with a **180-day warranty** from the date of purchase. This warranty covers manufacturing defects under normal use. For technical support, warranty claims, or inquiries regarding your product, please contact your retailer or the manufacturer directly. Keep your proof of purchase for warranty validation.

