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Jebao DCP-4000

Jebao DCP-4000 Sine Wave Water Return Pump User Manual

Model: DCP-4000 | Brand: Jebao

INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your Jebao DCP-4000 Sine Wave Water Return Pump. The DCP series pumps offer enhanced performance and precise flow control, making them suitable for various aquarium applications including reactors, sumps, and closed-loop systems. Please read this manual thoroughly before use to ensure proper function and longevity of the product.



Image 1: Jebao DCP-4000 pump and its retail packaging.

PRODUCT FEATURES

- High-performance motor with innovative electronics, offering energy savings up to 50% compared to older models.
- No copper components, ensuring safety for aquatic environments. Designed for internal use only.
- Super quiet operation for minimal disturbance.
- Memory function to recall settings after power supply interruption.
- Integrated motor protection system activates if the rotor is blocked.
- Complete flow control via the DCP Controller.
- Feed mode function (10 minutes duration).

SAFETY INSTRUCTIONS

Please observe the following safety precautions to prevent injury or damage to the product.

- Always disconnect power before performing any maintenance or installation.
- Ensure the pump is fully submerged in water during operation to prevent overheating.
- Do not operate the pump if the power cord or plug is damaged.
- This pump is designed for internal use in aquatic environments only. Do not use for other purposes.
- Keep the controller and power adapter dry and away from water.
- Regularly inspect the pump and connections for any signs of wear or damage.
- Ensure all connections are secure to prevent leaks.

PACKAGE CONTENTS

Verify that all components are present in the package:

- Jebao DCP Pump (DCP-4000)
- AC Adapter
- DCP Controller
- Various connection fittings and O-rings



Image 2: All included components: pump, controller, power adapter, and various fittings.

SETUP INSTRUCTIONS

1. Prepare the Pump:

The pump comes with an intake screen and threaded output. Attach the appropriate fittings for your plumbing system. The DCP-4000 is compatible with 3/4" PVC for hard piping or 3/4" barb fittings for flexible tubing. Ensure O-rings are properly seated for a watertight seal.



Image 3: Front view of the pump showing the intake screen.

2. Position the Pump:

Place the pump in your sump or desired location, ensuring it is fully submerged. The pump base provides stability.

3. Connect Plumbing:

Connect your return plumbing to the pump's output. Use hose clamps for barb fittings to ensure a secure connection and prevent leaks. For PVC connections, use appropriate PVC glue and primer.



Image 4: Pump with the output fitting detached, showing the threaded connection.

4. Connect Controller and Power:

Connect the pump cable to the DCP controller. Then, connect the AC adapter to the controller and plug the adapter into a grounded electrical outlet. Ensure all connections are dry before plugging into power.



Image 5: The pump connected to its digital controller.

OPERATING INSTRUCTIONS

The DCP controller allows for precise adjustment of the pump's flow rate and includes a feed mode.

1. Power On/Off:

Plug in the AC adapter. The pump will start at its last saved setting due to the memory function.

2. Adjust Flow Rate:

Use the "+" and "-" buttons on the controller to increase or decrease the pump's output. The digital display will show the current power level or flow setting.

3. Feed Mode:

Press the "Feed" button (often labeled with a fish icon or "F") to activate feed mode. The pump will temporarily shut off for 10 minutes, allowing fish to feed without being disturbed by water flow. After 10 minutes, the pump will automatically resume its previous operation.

MAINTENANCE

Regular maintenance ensures optimal performance and extends the lifespan of your pump.

1. Disconnect Power:

Always unplug the pump from the power outlet before performing any maintenance.

2. Clean the Impeller and Housing:

Remove the intake screen and front housing. Carefully remove the impeller assembly. Clean any debris, algae, or calcium buildup from the impeller, impeller shaft, and pump housing using a soft brush and vinegar or a mild acid solution designed for aquarium equipment. Rinse thoroughly with fresh water.



Image 6: Pump with the intake screen detached, showing the impeller area.

3. Inspect O-Rings:

Check all O-rings for cracks, wear, or compression. Replace any damaged O-rings to prevent leaks. Apply a thin layer of silicone grease (aquarium safe) to O-rings before reassembly to ensure a good seal and ease of future disassembly.

4. Reassemble:

Carefully reassemble the pump, ensuring all parts are correctly seated and secured. Reconnect plumbing and power.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Pump does not start or runs intermittently.	<ul style="list-style-type: none"> No power supply. Impeller blocked by debris. Controller malfunction. 	<ul style="list-style-type: none"> Check power connection and outlet. Disconnect power, remove impeller cover, and clean impeller. Contact support if controller is unresponsive.
Reduced flow rate.	<ul style="list-style-type: none"> Clogged intake screen or impeller. Air in the system. Controller setting too low. 	<ul style="list-style-type: none"> Clean intake screen and impeller. Ensure pump is fully submerged and plumbing is free of air pockets. Increase flow setting on the controller.

Problem	Possible Cause	Solution
Excessive noise or vibration.	<ul style="list-style-type: none"> • Debris in impeller. • Impeller worn or damaged. • Pump not seated properly. 	<ul style="list-style-type: none"> • Clean impeller. • Inspect and replace impeller if necessary. • Ensure pump is stable and not vibrating against surfaces.
Water leak.	<ul style="list-style-type: none"> • Loose plumbing connections. • Damaged O-rings. • Cracked housing. 	<ul style="list-style-type: none"> • Tighten all plumbing connections. • Inspect and replace O-rings. • If housing is cracked, pump may need replacement.

SPECIFICATIONS (DCP-4000)

Feature	Detail
Model	DCP-4000
Power	32 Watts
Voltage	110-120V, 60Hz
Maximum Flow Rate	1056 GPH (4000 L/H) / 17.6 Gallons Per Minute
Maximum Head Height	13 Feet (4.0 M)
Product Dimensions	7.1"L x 3.1"W x 7.1"H (Pump body: 6x3x4 inches)
Item Weight	4.1 Pounds
Material	Copper-free construction
UPC	651046608004



Image 7: Diagram showing the dimensions of the Jebao DCP-4000 pump.

WARRANTY AND SUPPORT

Warranty: The Jebao DCP-4000 Sine Wave Water Return Pump comes with a 180-day warranty from the date of purchase. This warranty covers manufacturing defects under normal use. It does not cover damage resulting from misuse, improper installation, neglect, or unauthorized modifications.

Customer Support: For technical assistance, troubleshooting, or warranty claims, please contact your retailer or the manufacturer directly. Keep your purchase receipt as proof of purchase for warranty services.

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Related Documents - DCP-4000



[Jebao DC Pump User Manual - DCP Series](#)

Comprehensive user manual for Jebao DC Pumps (DCP-2500 to DCP-20000), covering features, operation, maintenance, and troubleshooting.

	<p>Jebao DC Pump Owner's Manual - Models DCP-2500 to DCP-20000</p> <p>The Jebao DC Pump Owner's Manual provides comprehensive instructions for the safe operation, installation, maintenance, and troubleshooting of DCP-2500, DCP-3000, DCP-4000, DCP-5000, DCP-6500, DCP-8000, DCP-10000, DCP-15000, DCP-18000, and DCP-20000 models. Learn about features like adjustable flow rate, feed mode, memory function, and automatic power-off protection for both submersible and non-submersible applications in marine and fresh water environments.</p>
	<p>Jebao Smart Wave Maker User Manual - Setup, Operation, and Troubleshooting</p> <p>Comprehensive user manual for the Jebao Smart Wave Maker (MCP, MLW, MOW SERIES), covering installation, features, app control via Jebao Aqua, various wave modes, troubleshooting, and maintenance. Learn how to set up and operate your Jebao wave maker for optimal aquarium conditions.</p>
	<p>Jebao MDC Series Aquarium Pumps User Manual</p> <p>User manual for Jebao MDC series aquarium pumps, detailing features, safety instructions, installation, operation, and technical specifications. Includes models MDC-2000 to MDC-10000.</p>
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