

AquaMiracle WD500

AquaMiracle Aquarium Powerhead Pump User Manual

Model: WD500 (135 GPH for 10-40 Gal Aquariums)

Brand: AquaMiracle

1. INTRODUCTION

This manual provides instructions for the AquaMiracle Aquarium Powerhead Pump, designed to circulate water and provide aeration in aquariums. This model (WD500) is suitable for aquariums ranging from 10 to 40 gallons, offering a maximum flow rate of 135 gallons per hour (GPH).

The powerhead pump is engineered for energy efficiency and safety, featuring a fully submersible design with an epoxy-sealed motor to prevent electrical leakage. It contributes to a healthy aquatic environment by creating water currents, aiding in the removal of fish waste, and distributing heat evenly throughout the tank.

2. SAFETY INFORMATION

- Ensure the pump is fully submerged in water before connecting it to a power source.
- Always disconnect the power supply before performing any maintenance, installation, or removal of the pump.
- Do not operate the pump if the power cord or plug is damaged.
- This appliance is for indoor use only and is intended for use with aquariums.
- Keep out of reach of children.
- Regularly inspect the pump for any signs of wear or damage.

3. PRODUCT COMPONENTS

The AquaMiracle Powerhead Pump consists of several key components:



Figure 3.1: Exploded View of Pump Components. This image displays the disassembled parts of the AquaMiracle powerhead pump, including the pump body, pump locator with suction cups, impeller, impeller cover, adjustable air regulator, and inlet strainer. This view helps in understanding the internal structure and for maintenance purposes.

- **Pump Body:** The main housing containing the motor.
- **Pump Locator with Suction Cups:** Used to securely attach the pump to the aquarium glass.
- **Impeller:** The rotating component that creates water flow.
- **Impeller Cover:** Protects the impeller and directs water flow.
- **Adjustable Air Regulator:** Controls the amount of air drawn into the pump for aeration.
- **Inlet Strainer:** Prevents large debris from entering the pump and damaging the impeller.



Figure 3.2: Adjustable Air Regulator. This image shows a detailed view of the adjustable air regulator, which allows users to control the amount of air introduced into the aquarium water for aeration.



Figure 3.3: Suction Cups. A close-up of the cocktail glass-shaped suction cups, designed for secure attachment of the pump to the aquarium wall.



Figure 3.4: Inlet Strainer. This image provides a detailed view of the inlet strainer, which prevents larger particles and debris from entering the pump mechanism.

4. SETUP INSTRUCTIONS

- 1. Unpack Components:** Carefully remove all components from the packaging. Verify that all parts listed in Section 3 are present and undamaged.
- 2. Assemble Pump:** Attach the inlet strainer to the bottom of the impeller cover. Ensure the impeller is correctly seated within the pump body, then secure the impeller cover. Connect the air tubing to the air intake nozzle on the pump body and attach the adjustable air regulator to the other end of the air tubing.
- 3. Position Pump:** Submerge the pump completely in your aquarium. Use the suction cups on the pump locator to firmly attach the pump to the inside wall of the aquarium. Ensure the pump is positioned where it can create optimal water circulation and aeration.
- 4. Adjust Air Regulator:** Position the adjustable air regulator above the water surface. This allows it to draw in air for aeration.
- 5. Connect to Power:** Once the pump is fully submerged and securely positioned, connect the power plug to a suitable electrical outlet.



Figure 4.1: Assembled Powerhead Pump. This image shows the AquaMiracle powerhead pump fully assembled and ready for installation, demonstrating its compact design and the air intake tube for aeration.

5. OPERATING INSTRUCTIONS

The AquaMiracle Powerhead Pump is designed for continuous operation to maintain water circulation and aeration in your aquarium.

- **Water Circulation:** The pump creates a steady underwater current, which is beneficial for active fish species and helps to move fish excrement and debris towards the aquarium filter, contributing to a cleaner and healthier environment.
- **Aeration:** The included air tubing and adjustable air venturi allow the pump to draw air from above the water surface and release it as fine bubbles into the aquarium, supplementing oxygen supply. Adjust the air regulator to control the amount of air introduced.
- **Heat Distribution:** By circulating water, the powerhead helps to distribute heat evenly throughout the tank, preventing "cold spots" and ensuring that aquarium heaters operate efficiently to maintain a consistent temperature.



Moving water

The powerhead creates a nice underwater current, keeping the water moving around your tank. The current will give your fish something to swim against, which is appreciated by active river fish. In the meanwhile the moving water will bring fish excrement or particulars to the filter for a healthy environment in the aquarium.

Figure 5.1: Water Movement. This image illustrates the powerhead pump actively circulating water within an aquarium, showing the beneficial currents it creates for fish and overall tank health.

Circulating · Aerating · Help Heating



Figure 5.2: Circulation and Aeration in Aquarium. The powerhead pump is shown installed in an aquarium, demonstrating its function in circulating water and providing aeration through bubbles, contributing to a healthy aquatic environment.

6. MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your AquaMiracle Powerhead Pump.

- 1. Disconnect Power:** Always unplug the pump from the electrical outlet before performing any maintenance.
- 2. Remove from Aquarium:** Carefully detach the pump from the aquarium wall.
- 3. Clean Inlet Strainer:** Remove the inlet strainer and rinse it under clean water to remove any accumulated debris.
- 4. Clean Impeller and Impeller Chamber:** Gently remove the impeller cover and then the impeller. Use a small brush or cotton swab to clean the impeller and the impeller chamber, removing any algae, slime, or mineral deposits. Ensure the impeller spins freely.
- 5. Inspect Components:** Check the power cord, suction cups, and all plastic parts for any signs of wear, cracks, or damage. Replace any damaged components if necessary.
- 6. Reassemble and Reinstall:** Reassemble the pump in reverse order of disassembly. Ensure all parts

are securely fitted. Reinstall the pump in the aquarium and reconnect power.

7. TROUBLESHOOTING

If you encounter issues with your AquaMiracle Powerhead Pump, refer to the following troubleshooting guide:

Problem	Possible Cause	Solution
Pump does not start or operate.	No power supply; Impeller jammed; Damaged motor.	Check power connection. Disconnect power, clean impeller and chamber. If still not working, motor may be damaged and require replacement.
Reduced water flow or aeration.	Clogged inlet strainer; Dirty impeller; Air intake blocked.	Disconnect power, clean inlet strainer and impeller. Check air tubing and regulator for blockages.
Excessive noise or vibration.	Impeller not seated correctly; Debris in impeller chamber; Pump not securely mounted.	Disconnect power, check and clean impeller. Ensure pump is firmly attached to the aquarium wall with suction cups.
Electric shock sensation when touching water.	Damaged pump housing or wiring.	Immediately disconnect power. Do not touch the water. Remove the pump and inspect for damage. Do not use if damaged.

8. SPECIFICATIONS

Technical specifications for the AquaMiracle Aquarium Powerhead Pump (Model WD500, 135 GPH):



Figure 8.1: Product Dimensions. This image provides the key dimensions of the AquaMiracle powerhead pump, showing its length, width, and height for reference.

Specification	Value
Model Number	WD500
Power	4.8 Watts
Voltage	120 Volts
Maximum Flow Rate	135 GPH (500 L/H) / 2.25 Gallons Per Minute
Maximum Lifting Height	2.5 Feet (0.75 m)
Recommended Tank Size	10-40 Gallons
Product Dimensions (L x W x H)	4.8" x 2" x 3.9" (12.1cm x 5.1cm x 9.9cm)
Item Weight	9.7 ounces (274 Grams)
Material	Copper, Steel, Rubber, Plastic

Specification	Value
Included Components	Air hose, Powerhead

9. WARRANTY AND SUPPORT

Specific warranty details and direct support contact information are not provided within this manual. For warranty claims, technical support, or inquiries regarding your AquaMiracle Aquarium Powerhead Pump, please refer to the product packaging, the retailer where the product was purchased, or visit the official AquaMiracle website.

You may also find additional resources and frequently asked questions on the AquaMiracle brand store page: [AquaMiracle Store](#).

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