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> MagTool Wave Maker MT-1600 User Manual

MagTool MT-1600

MagTool Wave Maker MT-1600 User Manual

Model: MT-1600 | Brand: MagTool

INTRODUCTION

The MagTool Wave Maker MT-1600 is an advanced crossflow wave pump designed to create dynamic water movement in your aquarium, simulating natural ocean currents. It features sine wave technology for quiet operation and multiple flow modes to suit various aquatic environments. This manual provides essential information for the safe and effective operation, maintenance, and troubleshooting of your device.



Figure 1: MagTool Wave Maker MT-1600 and its external LCD controller.

SAFETY INFORMATION

- Always disconnect power before performing any maintenance or installation.
- Do not operate the pump if the power cord or plug is damaged.
- Ensure the pump is fully submerged in water during operation to prevent overheating.
- Keep the controller dry and away from water splashes.
- This product is designed for indoor aquarium use only.
- Do not attempt to modify or repair the device yourself. Refer to qualified personnel for service.
- Keep out of reach of children and pets.

PACKAGE CONTENTS

Please verify that all components are present in the package:

- MagTool Crossflow Wave Pump (MT-1600)
- External LCD Controller
- Power Adapter (DC 24V)
- User Manual

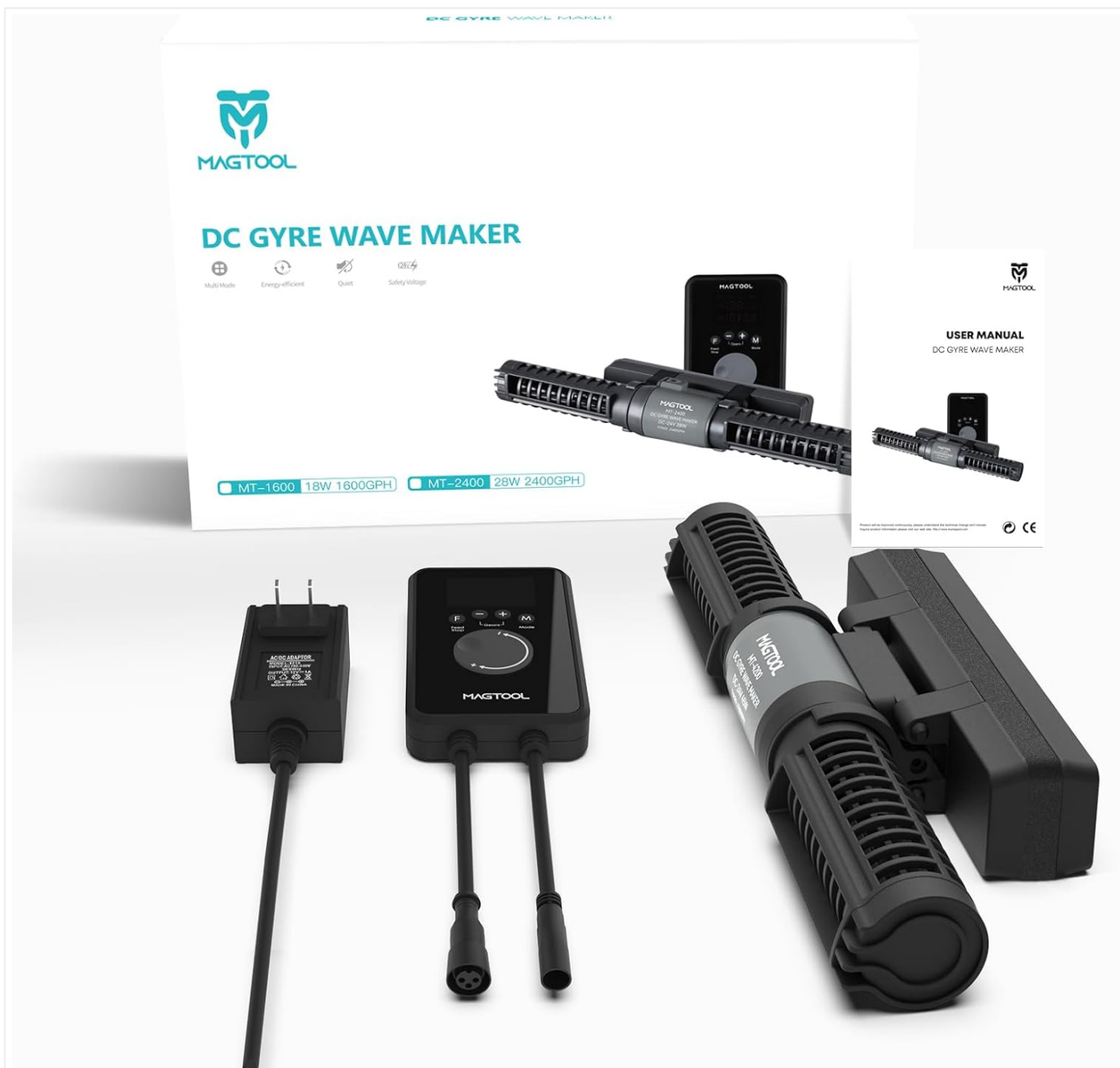


Figure 2: Contents included in the MagTool Wave Maker MT-1600 package.

SETUP AND INSTALLATION

1. **Choose Placement:** Select a suitable location within your aquarium for optimal water circulation. The crossflow design ensures wide water distribution.
2. **Mounting:** Attach the wave pump to the aquarium glass using the strong magnetic mount. Ensure the external magnet is securely aligned with the internal pump unit on the opposite side of the glass. The rubber buckles on the mount provide additional stability.



Figure 3: Securely attach the wave maker using the magnetic mount.

3. **Connect Controller:** Connect the wave pump to the external LCD controller. Ensure the connections are firm.
4. **Power Connection:** Connect the power adapter to the controller, then plug the adapter into a suitable power outlet.
5. **Initial Operation:** Once powered, the pump will begin operation according to its default settings. Adjust as needed using the controller.

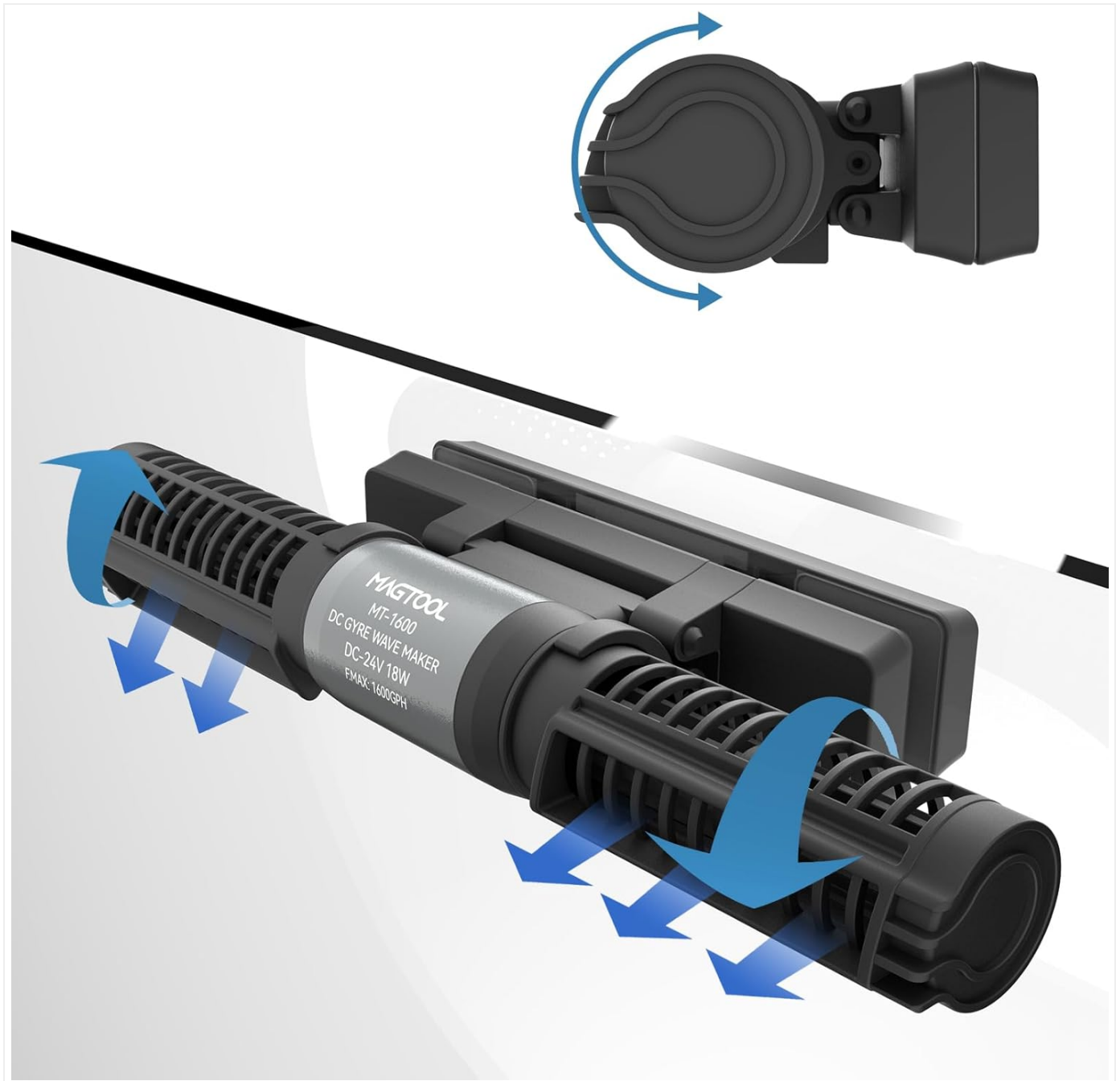


Figure 4: The crossflow design ensures comprehensive water circulation, minimizing dead spots.



Figure 5: Visual comparison of water flow patterns between a crossflow pump and a traditional pump.

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Video 1: An overview of the MagTool DC Gyre Wave Maker, demonstrating its features and installation.

OPERATING MODES AND CONTROLLER FUNCTIONS

The external LCD controller allows for easy adjustment of the wave maker's settings and modes.



Figure 6: Detailed view of the LCD controller with labeled buttons and display.

Available Flow Modes:

- **Constant Flow:** Provides a steady, continuous water flow.
- **Pulse Mode:** Generates rhythmic pulses of water flow, simulating natural wave action. Adjustable frequency.
- **Tidal Mode:** Mimics tidal currents with varying flow intensity over time. Adjustable frequency.
- **Turbulent Mode (Random Mode):** Creates unpredictable, turbulent water movement for a dynamic environment.



Figure 7: Illustrations of the four distinct wave-making modes: Pulse, Tidal, Constant, and Random.

Special Functions:

- **Feeding Mode:** Press the 'F' (Feed/Stop) button to pause the pump for 10 minutes, allowing for undisturbed feeding of your aquatic inhabitants. The pump will automatically resume operation after the pause.
- **Frequency Adjustment Knob:** Use the rotary knob to fine-tune the wave frequency in Pulse and Tidal modes, creating resonant or oscillating waves as desired.
- **Intensity Buttons (+/-):** Adjust the flow intensity (GPH) of the pump.

MAINTENANCE

Regular cleaning and maintenance are crucial for the longevity and optimal performance of your MagTool Wave Maker.

1. Disassembly:

- Disconnect the pump from power.
- Undo the rubber buckles on both sides of the pump unit.
- Unscrew the small screws on both sides of the pump unit.
- Gently twist left and right to remove the impellers from both ends.

2. Cleaning:

- Carefully clean all disassembled parts, including the impellers, pump housing, and grates, using a soft brush and clean water. Remove any algae, debris, or mineral buildup.
- *Note: Clean the left and right impellers separately to avoid installing them incorrectly during reassembly.*

3. Reassembly:

- After cleaning, reassemble the parts in reverse order of disassembly. Ensure the impellers are correctly inserted into their respective sides.
- Secure the screws and rubber buckles.

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Video 2: A step-by-step guide on how to properly clean the MagTool Wave Pump for optimal performance.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Pump not operating	No power; loose connection; motor blockage.	Check power supply and connections. Disconnect power and inspect impellers for obstructions.

Problem	Possible Cause	Solution
Reduced flow	Impellers or housing clogged with debris/algae; mineral buildup.	Perform thorough cleaning of the pump and impellers as per maintenance section.
Unusual noise/vibration	Debris in impeller; worn impeller; improper installation.	Clean impellers. Ensure pump is securely mounted and not touching tank decorations. If noise persists, contact support.
Controller display off/malfunctioning	Power issue; controller damage.	Check power connections. Ensure controller is dry. If issue persists, contact support.

SPECIFICATIONS (MT-1600 MODEL)

Feature	Specification
Model	MT-1600
Voltage	DC 24V
Max Power	18W
Min Power	7.2W
Max Flow Rate	1600 GPH
Recommended Tank Size	≤120 Gallon (60-100cm / 23-39inch)
Product Dimensions (L x W x H)	10.24"L x 2.76"W x 2.76"H
Material	Plastic

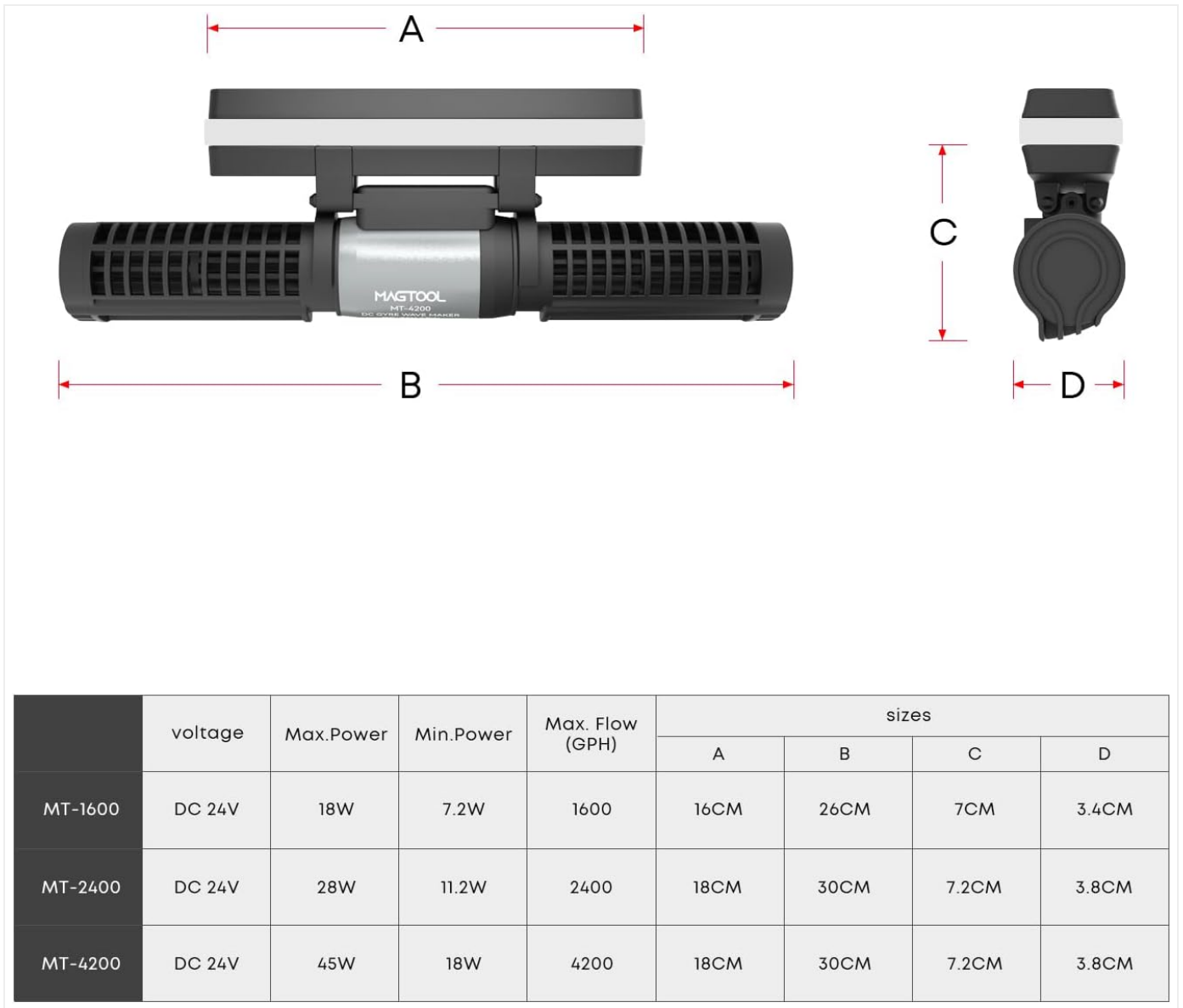


Figure 8: Detailed specifications and dimensions for various MagTool Wave Maker models.

WARRANTY AND SUPPORT

MagTool products are manufactured to high-quality standards. For warranty information, technical support, or any inquiries regarding your product, please refer to the warranty card included in your package or contact the seller/manufacturer directly through their official channels. Please retain your proof of purchase for warranty claims.