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› UPETTOOLS 2100 GPH Wave Maker for Aquarium Instruction Manual

## UPETTOOLS DC24V-10W

# UPETTOOLS 2100 GPH Wave Maker for Aquarium Instruction Manual

Model: DC24V-10W

## PRODUCT OVERVIEW

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The UPETTOOLS 2100 GPH Wave Maker is an advanced DC 24V powerhead designed to create natural water movement within your aquarium. It features an ultra-quiet operation, a strong magnetic suction base for easy installation, and a smart LED display controller for various wave and flow modes. This device is suitable for both freshwater and saltwater aquariums, specifically designed for tanks ranging from 30 to 70 gallons, providing essential circulation and oxygenation for a healthy aquatic environment.



Image: The UPETTOOLS 2100 GPH Wave Maker, showing the submersible pump unit and its external LED display controller.

## SAFETY INFORMATION

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- **Submersion Requirement:** Always ensure the wave maker pump is fully submerged in water before operation. Running the pump dry can cause damage and void the warranty.
- **Power Supply:** Use only the provided DC 24V power adapter. Do not use any other power source.
- **Electrical Safety:** Before performing any maintenance or installation, always unplug the power adapter from the electrical outlet. Keep electrical connections dry.
- **Placement:** Ensure the wave maker is securely attached to the aquarium glass using the magnetic mount. Avoid

placing it in areas where it might dislodge or interfere with other equipment.

- **Child Safety:** Keep the device and its components out of reach of children.
- **Regular Cleaning:** Regular cleaning is essential to prevent buildup that could affect performance or cause damage. Refer to the Maintenance section for details.
- **Fish Safety:** The pump is equipped with a protective foam net to prevent small fish from being sucked into the impeller. However, exercise caution with extremely small or weak fish.



Image: The wave maker featuring a dense filter cover, designed to prevent fish from being drawn into the pump, ensuring their safety.

## PACKAGE CONTENTS

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Upon opening the package, verify that all the following components are present:

- UPETTOOLS Wave Maker Pump Unit (10W 2100 GPH)
- Smart LED Display Controller
- DC 24V Power Adapter
- Magnetic Suction Base
- Protective Foam Net (pre-installed or separate)

## SETUP AND INSTALLATION

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### 1. Choosing an Installation Location

The wave maker can be positioned anywhere within the aquarium using its strong magnetic mount. The magnetic base is suitable for tank glass thickness up to 15mm. Consider the desired water flow patterns when selecting the location:

- **Upper Installation:** Creates surface agitation and waves, ideal for simulating surge currents.
- **Middle Installation:** Simulates natural water flow, encouraging fish activity and exercise.
- **Bottom Installation:** Helps clean residue, blow away fish feces, and food debris from the substrate.



Image: Diagram illustrating optimal placement of the wave maker at upper, middle, and bottom levels within an aquarium for different flow effects.

## 2. Attaching the Wave Maker

1. Ensure the aquarium glass is clean and free of algae or debris where the wave maker will be attached.
2. Place the wave maker pump unit inside the aquarium at the desired location.
3. Align the external magnetic base on the outside of the aquarium glass directly opposite the internal pump unit. The strong magnets will secure the pump in place.
4. Verify that the pump is firmly attached and fully submerged in water.

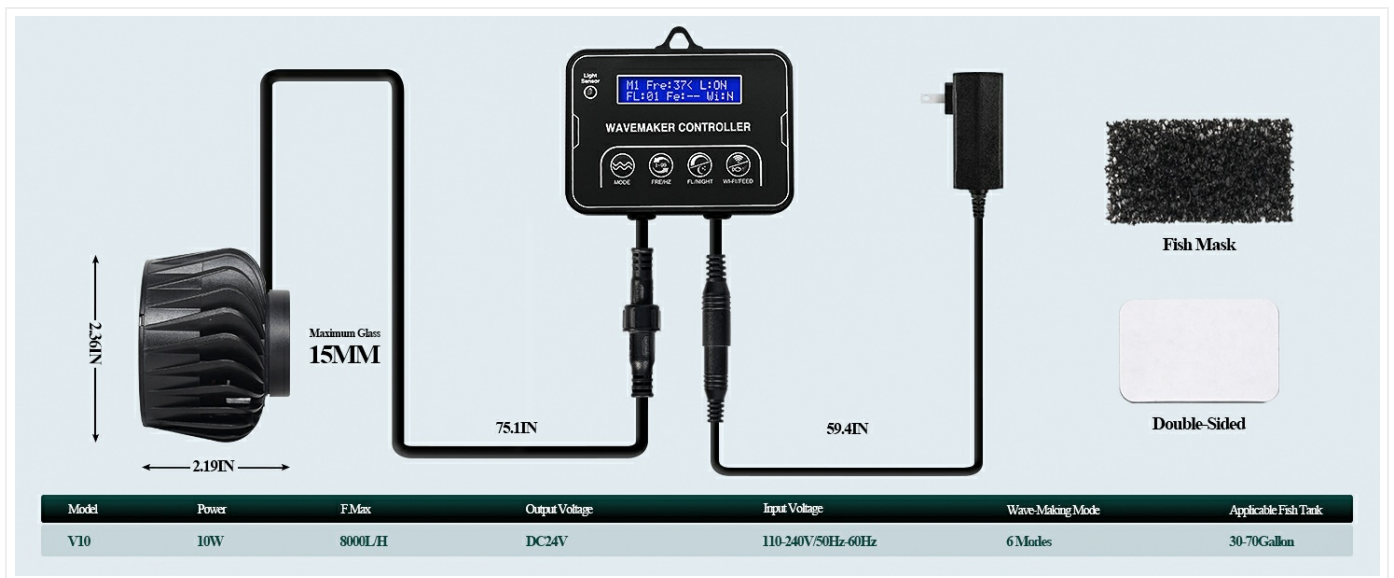


Image: A hand demonstrating the attachment of the wave maker to the aquarium glass using its magnetic suction base, highlighting its strong adhesion.

### 3. Connecting the Controller and Power

1. Connect the wave maker pump cable to the designated port on the smart LED display controller.
2. Connect the DC 24V power adapter to the controller.
3. Plug the power adapter into a suitable electrical outlet. The LED display on the controller will illuminate.

# Suitable For 30-70 Gallon Tank

Can be used for freshwater and marine water



Image: A detailed diagram showing the dimensions of the wave maker and controller, along with their cable connections to the power adapter, suitable for 30-70 gallon tanks with up to 15mm glass thickness.

## OPERATING INSTRUCTIONS

### Controller Overview

The smart LED display controller allows for comprehensive control over the wave maker's functions. Familiarize yourself with the display and buttons:

# Control Pane

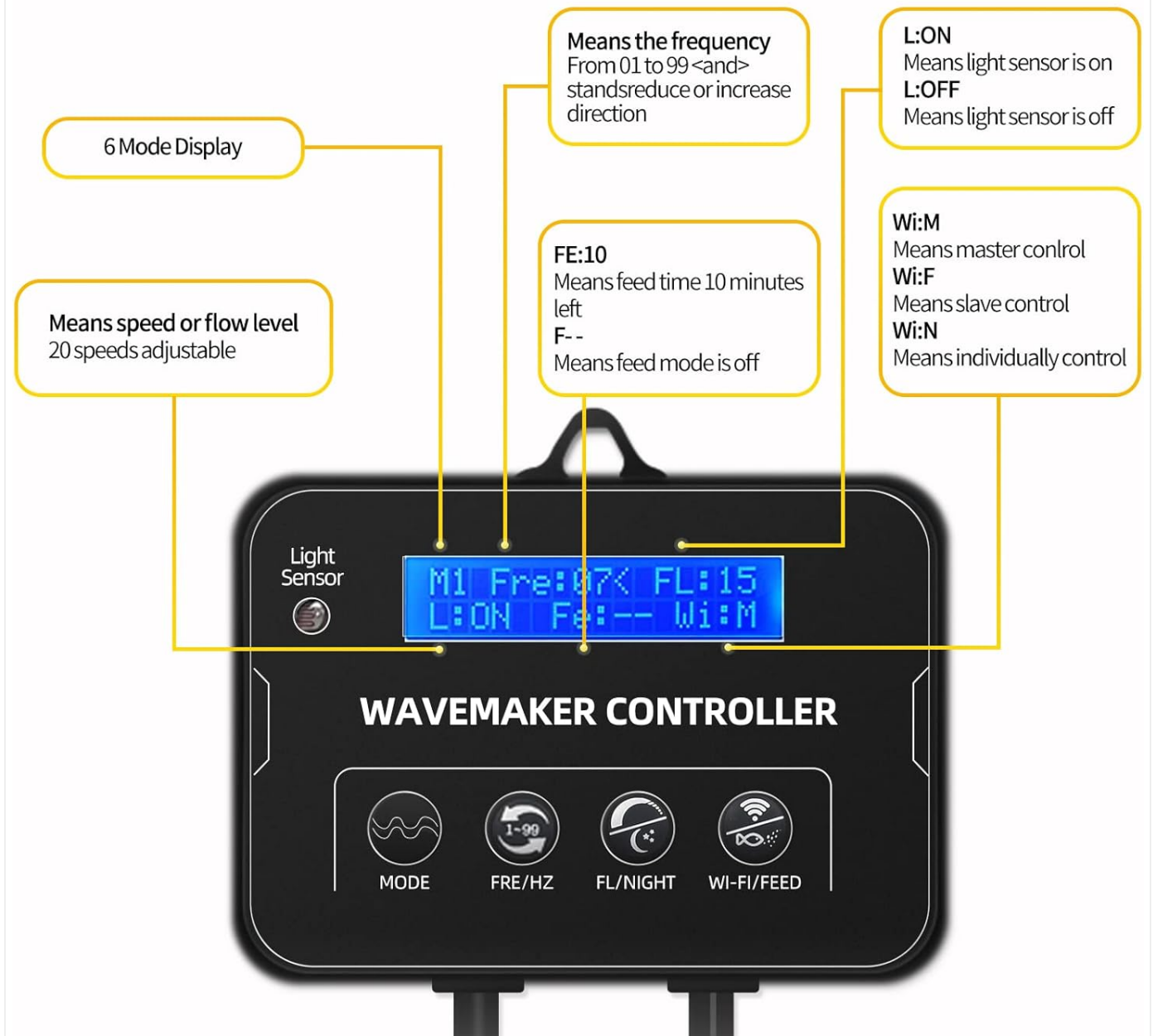


Image: Close-up of the wave maker controller, detailing the LED display and button functions for mode, frequency, night mode, and feed mode.

- **MODE Button:** Cycles through the 6 available wave patterns (M1-M6).
- **FRE/HZ Button:** Adjusts the frequency or speed/flow level (01-99, 20 speeds adjustable). This also controls the direction in some modes.
- **FL/NIGHT Button:** Toggles the light sensor (L:ON / L:OFF) and activates Night Mode, which can reduce intensity during nighttime.
- **WI-FI/FEED Button:** Activates Feed Mode (FE:10 for 10 minutes, F-- to turn off) and manages master/slave control (Wi:M for master, Wi:F for slave, Wi:N for individual control).
- **LED Display:** Shows current mode (M1-M6), frequency/flow (Fre:XX), light sensor status (L:ON/OFF), feed mode status (FE:XX or F--), and master/slave status (Wi:M/F/N).

## Wave Modes and Settings

The wave maker offers 6 distinct wave patterns to simulate various aquatic environments:

- **M1: Constant Current Mode** - Provides a steady, continuous flow.
- **M2: Classic Wave** - Generates a regular, oscillating wave pattern.
- **M3: Classic Reverse Wave** - Similar to M2 but with reversed flow direction.
- **M4: Sine Wave Pattern** - Creates a smooth, undulating flow.
- **M5: Turbulence Mode** - Produces a more chaotic and irregular flow.
- **M6: Unilateral Switching Mode** - Alternates flow direction from one side.

Press the **MODE** button to cycle through these patterns. Use the **FRE/HZ** button to adjust the intensity or frequency of the selected mode (from 01 to 99). The display will show "Fre:XX" indicating the current setting.

## Feed Mode

To temporarily pause the wave maker for feeding, press the **WI-FI/FEED** button. The display will show "FE:10", indicating a 10-minute pause. The pump will automatically resume operation after 10 minutes. To manually exit feed mode, press the **WI-FI/FEED** button again; the display will show "F--".

## Light Sensor and Night Mode

The wave maker features a light sensor that can automatically adjust pump intensity during nighttime hours. Press the **FL/NIGHT** button to toggle the light sensor function. "L:ON" indicates the light sensor is active, and "L:OFF" indicates it is off. When active, the pump's intensity may decrease in low light conditions to simulate natural nocturnal environments.

## Master and Slave Control (for multiple units)

If you are using multiple UPETTOOLS wave makers, you can synchronize their operation:

- To set a unit as the master, press the **WI-FI/FEED** button until the display shows "Wi:M".
- To set a unit as a slave, press the **WI-FI/FEED** button until the display shows "Wi:F". Slave units will follow the master unit's settings.
- To operate a unit individually, press the **WI-FI/FEED** button until the display shows "Wi:N".

## MAINTENANCE

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Regular maintenance ensures optimal performance and longevity of your wave maker. It is recommended to clean the unit regularly, especially in tanks with high bioload or algae growth.

1. **Disconnect Power:** Always unplug the wave maker from the power outlet before attempting any cleaning or maintenance.
2. **Remove from Tank:** Carefully detach the wave maker from the aquarium glass.
3. **Disassemble:** Gently twist or unclip the protective foam net and the impeller cover.
4. **Clean Impeller and Housing:** Use a soft brush (like a toothbrush) and warm water to remove any algae, detritus, or mineral buildup from the impeller, impeller shaft, and the pump housing. For stubborn buildup, a diluted vinegar solution can be used, followed by thorough rinsing with clean water.
5. **Clean Protective Net:** Clean the foam net to ensure unrestricted water flow and continued protection for fish.
6. **Reassemble:** Carefully reassemble all components, ensuring they are securely in place.
7. **Reinstall:** Reattach the wave maker to the aquarium glass and reconnect the power. Ensure it is fully submerged before powering on.

## TROUBLESHOOTING

Problem	Possible Cause	Solution
Wave maker not operating.	No power; pump not fully submerged; impeller jammed.	Check power connection and outlet. Ensure pump is 100% submerged. Disconnect power, remove pump, and check impeller for obstructions.
Reduced water flow.	Algae or debris buildup on impeller or protective net.	Perform thorough cleaning of the impeller and protective foam net as described in the Maintenance section.
Unusual noise during operation.	Impeller obstructed; air trapped in pump; pump not securely mounted.	Disconnect power and check impeller for any foreign objects. Gently shake the pump while submerged to release trapped air. Re-secure the magnetic mount.
Controller display is off or flickering.	Power connection issue; faulty adapter.	Check all cable connections. Ensure the power adapter is functioning correctly. Try a different outlet.
Master/Slave control not syncing.	Units too far apart; incorrect setting.	Ensure units are within close proximity (e.g., within 14 inches as per some user feedback). Verify correct master (Wi:M) and slave (Wi:F) settings on each controller.

## SPECIFICATIONS

Feature	Detail
Brand	UPETTOOLS
Model Number	DC24V-10W
Power	10W
Maximum Flow Rate	2100 GPH (8000 Liters Per Hour)
Voltage	DC 24V
Power Source	Corded Electric
Material	Stainless Steel, ABS, PVC
Product Dimensions (LxWxH)	9.45" x 7.48" x 3.54"
Item Weight	1.34 Pounds (610 Grams)
Applicable Tank Size	30-70 Gallons
Maximum Glass Thickness	15mm
Noise Level	Less than 30dB

## WARRANTY AND SUPPORT

Warranty information for your UPETTOOLS Wave Maker is typically provided with your purchase documentation or on the product packaging. Please refer to these resources for details regarding warranty coverage and duration.

For technical support, troubleshooting assistance, or any inquiries regarding your product, please visit the official UPETTOOLS brand store or contact their customer service through the platform where you made your purchase.

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