

fishkeeper FK016-500W

fishkeeper Intelligent Submersible Aquarium Heater 500W User Manual

Model: FK016-500W

1. INTRODUCTION

Thank you for choosing the fishkeeper Intelligent Submersible Aquarium Heater 500W. This heater is designed to maintain a stable and accurate water temperature in your aquarium, ensuring a healthy environment for your aquatic life. It features advanced electronic controls, dual sensors, and multiple safety protections for reliable operation.

2. SAFETY INSTRUCTIONS

Please read all safety instructions carefully before use to prevent injury or damage.

- Always unplug the heater from the power outlet before performing any maintenance, cleaning, or handling the heater or aquarium water.
- Ensure the heater is fully submerged in water before plugging it in. Operating the heater out of water can cause damage and pose a fire hazard.
- Do not operate the heater if the cord or plug is damaged, or if the heater malfunctions or has been dropped.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Keep children away from the aquarium and heater.
- The heater is designed for indoor aquarium use only. Do not use it for other purposes.
- Ensure the power outlet has a proper ground connection.
- Avoid placing the heater in areas with strong water flow that could dislodge it.
- The heater features built-in run-dry and overheat protection. If the heater is removed from water or the

temperature exceeds safe limits, it will automatically shut off.

3. PRODUCT FEATURES

- **Intelligent Temperature Control:** Advanced water sensors and IC chips combined with PID precision electronic algorithm technology ensure accurate temperature control within $\pm 1^{\circ}\text{F}$.
- **Dual Sensors Microprocessor:** Provides highly sensitive and accurate temperature readings.
- **High Quality Construction:** Features 28MM thickened explosion-proof quartz glass for enhanced safety and durability.
- **Efficient Heating:** Utilizes high purity Nickel-Chromium heating wire for ultrafast and efficient heating, corrosion resistance, and lower energy consumption. Silicon Carbide Sand Filler ensures stable heating and prevents leakage.
- **Multiple Safety Functions:** Includes run-dry protection, overheat protection, and low-temperature protection to safeguard your aquatic pets.

HIGH QUALITY UPGRADE

fishkeeper



**28MM Thickened
Explosion-Proof Quartz Glass**
UltraSafe

**High Purity Nickel-Chromium
Heating Wire**
UltraFast efficiency heating,
corrosion-resistant

**Run-Dry & Overheat
Protection**
More smarter, More Safe



Others



**Titanium tube or ordinary
quartz**
< 2mm thick only and risk of cracking

Iron or steel
Easy to corrode, short lifetime

Cook your fish
Dangerous!!



Image: High-quality upgrade features of the fishkeeper heater, including robust construction and safety mechanisms.

HIGH EXPLOSION PROOF



28MM Thickened
Quartz Glass

ULTRA
SAFE



Image: Detail of the 28MM thickened quartz glass, emphasizing the heater's explosion-proof design for ultra-safe operation.

ULTRA FAST HEATING



Image: Illustration of the ultra-fast heating technology, showcasing the internal components responsible for efficient heat transfer.

4. SETUP INSTRUCTIONS

- 1. Unpack and Inspect:** Carefully remove the heater from its packaging. Inspect the heater and power cord for any signs of damage. Do not use if damaged.
- 2. Placement:** The fishkeeper heater is fully submersible. It can be placed horizontally near the bottom of the tank or vertically in a corner. Ensure it is positioned where water circulation is good to distribute heat evenly.
- 3. Mounting:** Use the provided suction cups to securely attach the heater to the inside wall of your

aquarium. Ensure the heater is completely covered by water.

4. **Connect Power:** Plug the heater into a suitable, grounded power outlet. Ensure there is a drip loop in the power cord to prevent water from running along the cord and reaching the outlet.
5. **Initial Temperature Setting:** The heater will display the current water temperature. Use the control button to set your desired temperature. Allow at least 15-30 minutes for the heater to stabilize and begin heating the water to the set temperature.

5. OPERATING INSTRUCTIONS

1. **Power On:** Once plugged in and fully submerged, the heater will power on and display the current water temperature.
2. **Setting Temperature:** Press the control button to adjust the desired temperature. The display will flash the set temperature, allowing you to cycle through the available range (59°F to 94°F). Release the button when your desired temperature is displayed, and it will automatically save.
3. **Heating Indicator:** A blue light will illuminate when the heater is actively heating the water.
4. **Monitoring:** Regularly check the heater's display and use an external thermometer to verify the aquarium water temperature.

PRECISION ELECTRONIC DUAL SENSORS TEMP CONTROL SYSTEM



RUN-DRY PROTECTION

Blue light on and "L1" Flashes:

Heater will automatically stop heating if the heater is out of water

The image shows a black Fishkeeper 500W heater partially submerged in water. The digital display on the heater shows "L1" in red. A blue light is illuminated below the display. In the background, two colorful guppies are swimming in the water.



OVERHEAT PROTECTION

Blue light on and "HH" Flashes:

Heater will automatically stop working once the temperature exceeds 94°F. The heater will start to work again until the temperature drop to 94°F.

The image shows a black Fishkeeper 500W heater fully submerged in water. The digital display on the heater shows "HH" in red. A blue light is illuminated below the display. In the background, a colorful guppy is swimming in the water.

Image: Visual explanation of the heater's run-dry and overheat protection features, including display indicators.

PID ELECTRONIC PRECISION TEMPERATURE CONTROL SYSTEM

**Dual Sensors
Microprocessor**
For accurate temp reading

Built-in High-precision IC Chip
For high sensitivity and accurate
temperature control



Image: Illustration of the PID electronic precision temperature control system, highlighting the dual sensors and integrated IC chip for accurate readings.

6. MAINTENANCE

- **Disconnect Power:** Always unplug the heater from the power source before attempting any maintenance or cleaning.
- **Cleaning:** Over time, algae or mineral deposits may accumulate on the heater surface. Gently wipe the heater with a soft cloth or sponge. Do not use abrasive cleaners or harsh chemicals.
- **Inspection:** Periodically inspect the heater for any signs of damage, such as cracks in the glass, frayed cords, or loose connections. Replace the heater immediately if any damage is found.

- **Water Changes:** During water changes, ensure the heater remains submerged or is unplugged to prevent dry heating.

7. TROUBLESHOOTING

- **Heater Not Heating:**
 - Check if the heater is properly plugged into a working power outlet.
 - Ensure the set temperature is higher than the current water temperature.
 - Verify the heater is fully submerged.
- **Temperature Inaccurate:**
 - Ensure the heater's sensors are clean and free from debris.
 - Check for adequate water circulation around the heater.
 - Compare with a reliable external thermometer.
- **Display Shows "L1" (Run-Dry Protection):**
 - The heater has detected it is not fully submerged in water.
 - Unplug the heater, ensure it is fully submerged, and then plug it back in.
- **Display Shows "HH" (Overheat Protection):**
 - The heater has detected an excessively high water temperature (above 94°F).
 - Unplug the heater and allow the water to cool down. Check for external heat sources or other equipment malfunctions. Re-plug when temperature drops to 94°F or below.

8. SPECIFICATIONS

Feature	Detail
Brand	fishkeeper
Model Number	FK016-500W
Power	500W
Recommended Tank Size	65-120 Gallons
Voltage	110-120V/60Hz
Temperature Accuracy	±1°F
Temperature Control Range	59°F - 94°F (15°C - 34°C)
Product Dimensions (LxWxH)	29.46 x 5.49 x 3 cm (approx. 11.6 x 2.16 x 1.18 inches)
Item Weight	712.14 g (approx. 1.57 lbs)
Power Cord Length	5.9 ft (heater to controller) + 4 ft (controller to plug)



Power	300W	500W	800W
Application	40~80 Gal	65~120 Gal	80~220 Gal
Voltage	110-120V/60HZ		
Temp Accuracy	1°F		
Temp Control Range	59°F~94°F		
Power control Range	5.9ft + 4ft		

Image: Overview of different heater models and their corresponding specifications, including power, application, and dimensions.

9. WARRANTY AND SUPPORT

This product comes with a manufacturer's warranty. For specific warranty details, please refer to the documentation included with your purchase or contact fishkeeper customer support. If you encounter any issues or have questions regarding your fishkeeper Intelligent Submersible Aquarium Heater, please contact our customer service team for assistance.

