

## FREESEA FS28-100W

# FREESEA FS28-100W Aquarium Heater User Manual

Model: FS28-100W

## 1. INTRODUCTION

---

Thank you for choosing the FREESEA FS28-100W Aquarium Heater. This submersible heater is designed to maintain a stable water temperature in your aquarium, providing a comfortable environment for your aquatic pets. Please read this manual thoroughly before installation and operation to ensure safe and efficient use.

## 2. PRODUCT OVERVIEW

---

The FREESEA FS28-100W is a 100W submersible heater suitable for 10-20 gallon tanks. It features an external temperature controller for easy adjustment and a digital LED display for real-time temperature monitoring. Key features include:

- **Adjustable Temperature:** Easily set the desired temperature from 63°F to 94°F using the external controller.
- **Digital LED Display:** Shows the current water temperature and error codes. A red indicator light illuminates when the heater is actively heating.
- **Double Safety Protection:** Automatic shut-off when out of water (E1 error) and overheating protection when water temperature exceeds 94°F (HH/E2 error).
- **Memory Function:** Retains the last set temperature in case of power failure.
- **Durable Construction:** Equipped with an ABS protective shell and nickel-chromium heating wire.



## AUTO POWER OFF WHEN OUT OF WATER

When the heater is not fully immersed into water, it will power off and the LED screen displays E1.

E1

AUTO STOP WORKING



## OVERHEATING PROTECTION

When temp rapidly reaches over 95°F, the heater will stop heating and LED screen will show HH.

HH

AUTO STOP HEATING



Image: FREESEA FS28-100W Aquarium Heater showing the digital display and external temperature controller.

# COMPACT SIZE



## SUITABLE FISH TANKS



50W:1-10gal



75W:5-15gal



100W:10-20gal

Image: Dimensions of the FREESEA FS28-100W heater and recommended tank sizes for different wattage models.

### 3. SAFETY INSTRUCTIONS

Adhere to the following safety guidelines to prevent accidents and ensure proper operation:

- The heater body must be 100% submerged in water. Do not operate it above the water line.
- If the power cord is damaged, discontinue use immediately and replace the heater. The power cord is not replaceable.
- Do not bury the power cord in the substrate (sand or landscaping base) of the aquarium.
- Always unplug the heater before cleaning the water tank or performing water changes.
- This heater should be used with a plug socket leakage protection device for added safety.
- Install this product in a location inaccessible to children.
- Do not touch the heater when it is operating, as it can be hot.

# DIGITAL DISPLAY

INTUITIVE READINGS, EASY ADJUSTMENT



Image: Visual representation of the heater's auto power-off function when out of water (E1 error) and overheating protection (HH error).

## 4. SETUP

Follow these steps to install your FREESEA FS28-100W Aquarium Heater:

1. **Placement:** Position the heater fully submerged in your aquarium using the provided suction cups. Ensure it is placed vertically or horizontally where water circulation is good.
2. **Controller Placement:** Mount the external temperature controller on the outside edge of the tank for easy access.
3. **Power Connection:** Plug the heater into a suitable power outlet. Ensure the outlet has a leakage protection device.
4. **Initial Temperature Setting:** Once plugged in, the LED display will show the current water temperature. Use the 'SET' button on the external controller to adjust to your desired temperature.

# INSTALLATION METHOD

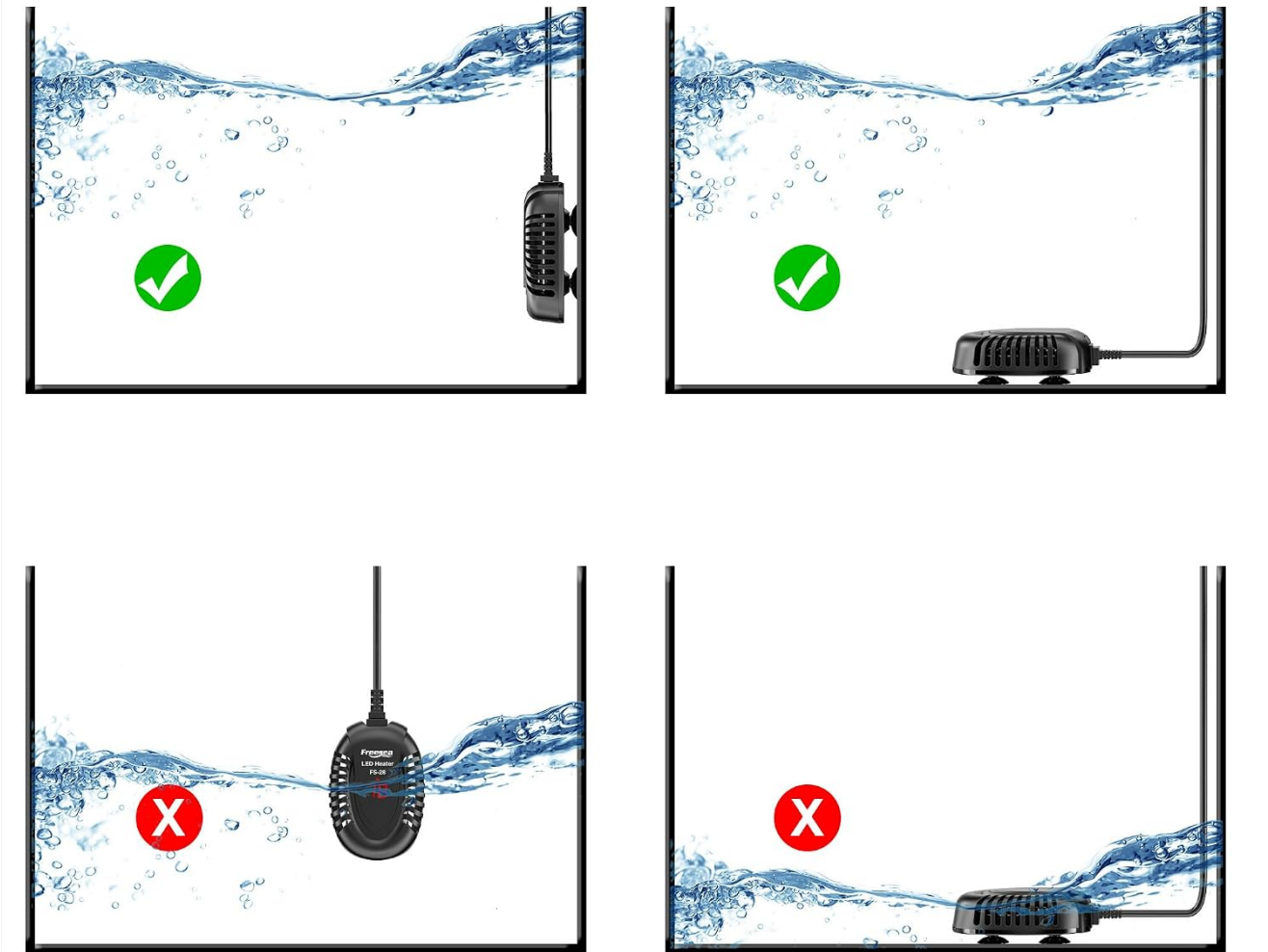


Image: Correct and incorrect installation methods for the submersible heater, emphasizing full submersion.

Video: Demonstrates the installation and basic operation of the FREESEA Aquarium Heater, including placement and temperature adjustment.

## 5. OPERATING INSTRUCTIONS

---

Operating your FREESEA aquarium heater is straightforward:

- **Temperature Adjustment:** Press the 'SET' button on the external controller to cycle through desired temperatures. The LED display on the heater will show the selected temperature.
- **Heating Indicator:** A red indicator light above the digital display will illuminate when the heater is actively heating the water.
- **Memory Function:** The heater automatically saves your last temperature setting. If power is interrupted, it will resume heating to the previously set temperature once power is restored.

Video: Illustrates how the heater functions, including temperature setting and error code display for off-water and overheating conditions.

## 6. MAINTENANCE

---

Regular maintenance ensures the longevity and efficiency of your heater:

- Always unplug the heater from the power source before performing any maintenance, cleaning, or water changes in your aquarium.
- Gently wipe the heater's surface with a soft cloth to remove algae or mineral buildup. Avoid using abrasive cleaners.
- Inspect the power cord and heater body regularly for any signs of damage. If damage is found, replace the unit immediately.

## 7. TROUBLESHOOTING

---

If you encounter issues with your heater, refer to the following common problems and solutions:

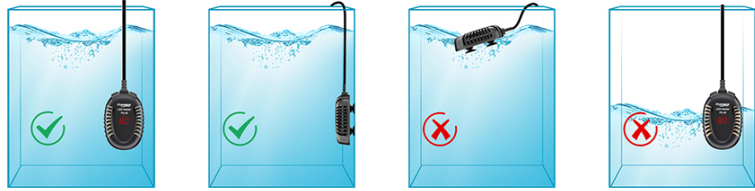
Problem	LED Display	Solution
Heater stops working, displays error code.	E1	This indicates the heater is out of water or not fully submerged. Ensure the heater is completely underwater. It will resume operation once fully immersed.
Heater stops heating, displays error code.	HH or E2	This indicates the water temperature has exceeded 94°F, activating overheating protection. The heater will stop heating until the temperature drops to a safe level. Check your set temperature and ambient conditions.
Heater not turning on.	No display	Check if the power plug is securely connected to a working outlet. Ensure there is no damage to the power cord or heater unit.

## 8. SPECIFICATIONS

---

- **Model:** FS28-100W
- **Power:** 100W
- **Voltage:** 110-120V
- **Frequency:** 60Hz
- **Temperature Range:** 63°F to 94°F (17°C to 34°C)
- **Dimensions (Heater Body):** Approximately 2.5 x 1.5 x 3.5 inches
- **Cable Length:** 5.0 ft
- **Suitable Tank Size:** 10-20 Gallons
- **Application:** Freshwater, Saltwater, Turtle Tanks

## INSTALLATION TIPS



## WIDE RANGE OF APPLICATIONS

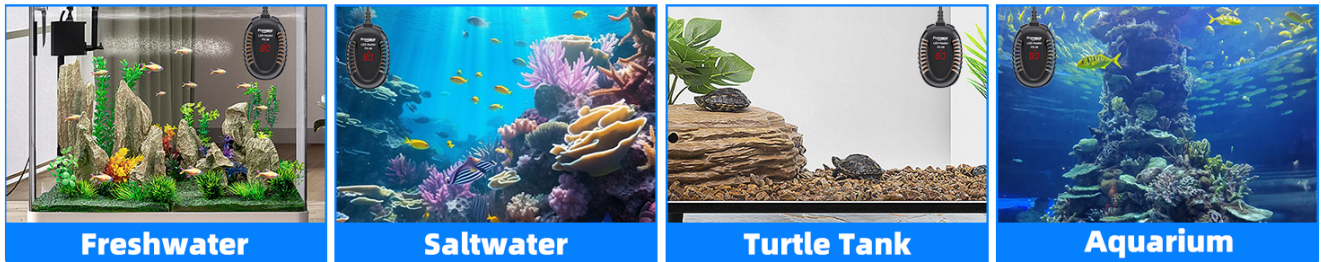


Image: Detailed specifications for the FREESEA Aquarium Heater, including power, voltage, temperature range, and dimensions.

## 9. WARRANTY AND SUPPORT

FREESEA is committed to providing high-quality products and excellent customer service. If you have any questions or concerns regarding your FREESEA Aquarium Heater, please do not hesitate to contact us. Our professional after-sales service team is available 24-hours to assist you.

For support, please refer to the contact information provided with your product packaging or visit the official FREESEA website.