

Inkbird ITC-308S

Inkbird ITC308S Temperature Controller User Manual

Model: ITC-308S

1. INTRODUCTION

The Inkbird ITC308S is a reliable and easy-to-use temperature controller designed for precise temperature management in various applications, particularly aquariums. It features dual relay outputs for both heating and cooling devices, ensuring stable temperature control. The unit includes a fully submersible probe for accurate temperature readings in liquid environments.

2. SAFETY INFORMATION

- Ensure the power supply matches the controller's requirements (110V for this model).
- Do not immerse the main controller unit in water. Only the probe is submersible.
- Always disconnect power before performing any maintenance or installation.
- Keep the device away from children and pets.
- Do not use the device if any part is damaged.

3. PACKAGE CONTENTS

- ITC308S Temperature Controller Unit
- Submersible Temperature Probe
- Suction Cup for Probe Mounting
- User Manual



Figure 3.1: The Inkbird ITC308S Temperature Controller and its included accessories, packaged in a brown box.

4. PRODUCT OVERVIEW

The ITC308S features a main control unit with a dual LED display, showing both the present value (PV) and set value (SV) temperatures. It has dedicated outlets for heating and cooling devices, and a detachable submersible probe for accurate temperature sensing.



Figure 4.1: Overview of the Inkbird ITC308S controller, showing the display, control buttons, power cord, and probe connection.

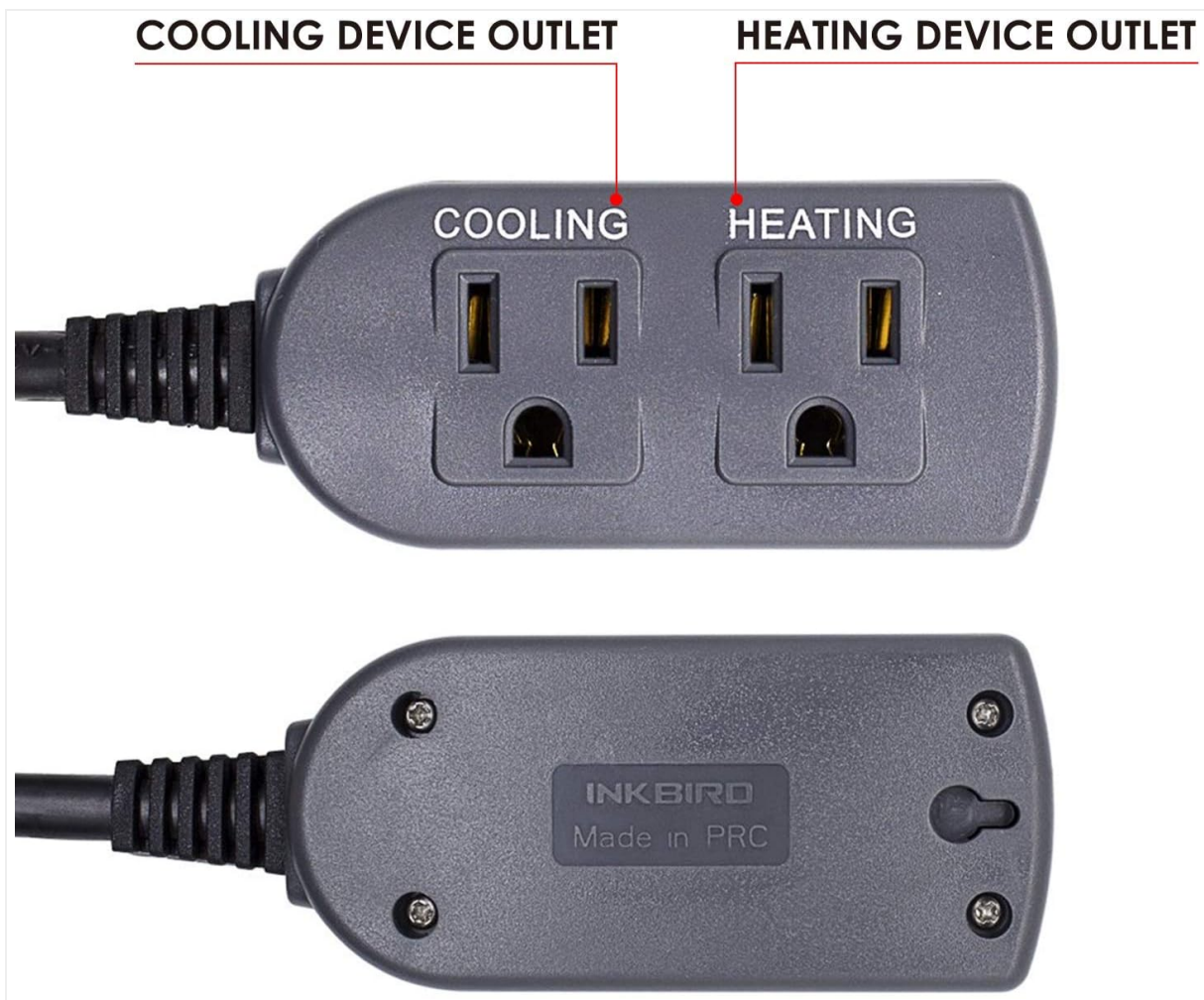


Figure 4.2: The dual power outlets, clearly marked for 'HEATING' and 'COOLING' devices.

COME WITH AN AQUARIUM PROBE



Figure 4.3: The submersible temperature probe, designed for accurate readings in water, shown with its suction cup.

5. SPECIFICATIONS

Feature	Detail
Model	ITC-308S
Voltage	120 Volts (AC)
Maximum Output Load	1200W (110V)
Temperature Control Mode	On/Off Control (Heating and Cooling)
Probe Type	Fully Submersible Aquarium Probe
Display Type	LED Dual Display
Material	Plastic
Color	Green, Gray and White

6. SETUP INSTRUCTIONS

1. **Connect the Probe:** Plug the submersible temperature probe into the designated port on the main controller unit. Use the provided suction cup to secure the probe inside your aquarium or water bath, ensuring it is fully submerged and away from direct heat sources or strong currents.

2. **Connect Heating/Cooling Devices:** Plug your heating device (e.g., aquarium heater) into the 'HEATING' outlet and your cooling device (e.g., cooling fan) into the 'COOLING' outlet on the power strip. Ensure devices are rated within the controller's maximum output load (1200W).
3. **Power On:** Plug the main power cord of the ITC308S controller into a standard 110V AC power outlet. The LED display will illuminate, showing the current temperature (PV) and the set temperature (SV).

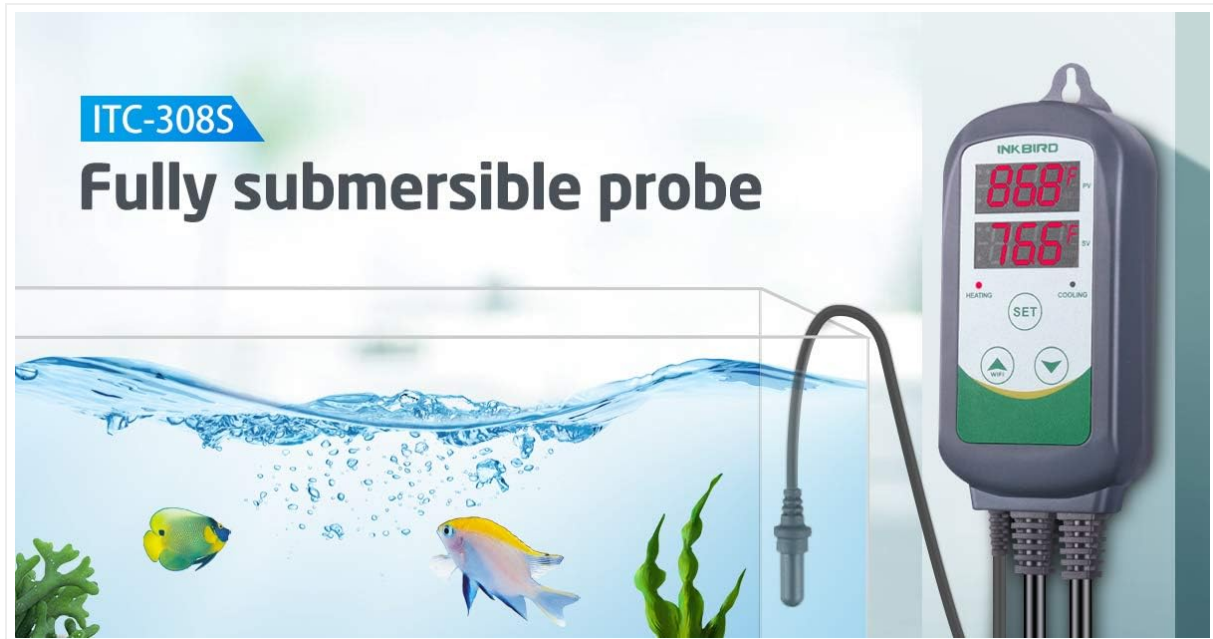


Figure 6.1: The submersible probe correctly placed within an aquarium, ensuring accurate temperature measurement.

7. OPERATING INSTRUCTIONS

1. **View Current Temperature (PV):** The upper LED display shows the current measured temperature (Process Value).
2. **View Set Temperature (SV):** The lower LED display shows the desired set temperature (Set Value).
3. **Set Temperature:**
 - Press the **SET** button once. The SV display will flash.
 - Use the **Up (▲)** or **Down (▼)** buttons to adjust the desired temperature.
 - Press **SET** again to confirm and save the setting, or wait a few seconds for it to save automatically.
4. **Heating/Cooling Indication:** The 'HEATING' or 'COOLING' indicator lights will illuminate when the respective outlet is active.
5. **Temperature Calibration:** Refer to the detailed instructions in the included paper manual for advanced settings like temperature calibration, differential settings, and alarm parameters. These settings allow fine-tuning of the controller's response.
6. **Alarms:** The controller features over-temperature and sensor fault alarms. If an alarm triggers, the display will show an error code (e.g., 'HHH' for over-temperature, 'LLL' for under-temperature, 'ERR' for sensor fault) and an audible alert may sound. Address the issue promptly.

8. MAINTENANCE

- **Cleaning the Probe:** Regularly inspect and clean the submersible probe to prevent algae or mineral buildup, which can affect accuracy. Use a soft cloth and mild cleaning solution if necessary.
- **Controller Unit:** Wipe the main controller unit with a dry, soft cloth. Do not use abrasive cleaners or immerse it in water.

- **Cable Inspection:** Periodically check all cables for any signs of wear, cuts, or damage. Replace if necessary.

9. TROUBLESHOOTING

Problem	Possible Cause	Solution
Display is blank	No power supply	Check power connection and outlet.
Temperature reading is inaccurate	Probe dirty or improperly placed; calibration needed	Clean probe, ensure proper submersion, perform temperature calibration.
Heating/Cooling device not turning on	Device not plugged in correctly; controller settings incorrect; device malfunction	Verify device connection to correct outlet, check set temperature and differential, test device independently.
Alarm sounds frequently	Temperature outside set range; alarm limits too narrow	Adjust set temperature or alarm high/low limits. Ensure heating/cooling devices are functioning.
'ERR' displayed	Sensor fault	Check probe connection. If error persists, the probe may need replacement.

10. WARRANTY AND SUPPORT

Inkbird products are designed for reliability and performance. For warranty information, technical support, or service inquiries, please refer to the contact details provided in your product packaging or visit the official Inkbird website. Keep your purchase receipt for warranty claims.