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› Inkbird ITC-308 Digital Temperature Controller User Manual

Inkbird ITC-308

Inkbird ITC-308 Digital Temperature Controller User Manual

Model: ITC-308 | Brand: Inkbird

1. INTRODUCTION

The Inkbird ITC-308 is a reliable and easy-to-use digital temperature controller designed for precise temperature regulation. It features dual relay output, allowing it to control both heating and cooling devices simultaneously. This makes it suitable for a wide range of applications, including homebrewing, fermenting, greenhouse climate control, and terrarium environments. The controller provides clear digital displays for both the current measured temperature and your desired set temperature, along with audible alarms for temperature deviations.

2. PRODUCT OVERVIEW

2.1 Components

- ITC-308 Temperature Controller Unit
- Temperature Probe
- Power Cord

2.2 Features

- **Convenient Design:** Plug and play operation, easy to use. Supports display in Celsius or Fahrenheit.
- **Dual Relay Output:** Capable of connecting to both refrigeration and heating equipment simultaneously.
- **Dual Display Windows:** Allows for simultaneous viewing of the measured temperature (PV) and the set temperature (SV).
- **High and Low-Temperature Alarms:** A buzzer will sound when the temperature reaches preset high or low limits.
- **Maximum Output Load:** 1100 W (110 V).
- **Calibration and Compressor Delay:** Includes temperature calibration and compressor delay functions to protect refrigeration equipment.

2.3 Product Images



Front view of the Inkbird ITC-308 controller, showing the main unit, heating/cooling outlets, temperature probe, and power cord.



Front and rear views of the ITC-308 controller, highlighting the digital display and product specifications label on the back.



Diagram illustrating the dimensions of the ITC-308 controller unit.



The Inkbird ITC-308 controller mounted above a terrarium, demonstrating its application in environmental control.



A detailed view of the dual outlets, clearly labeled for 'COOLING' and 'HEATING' connections.



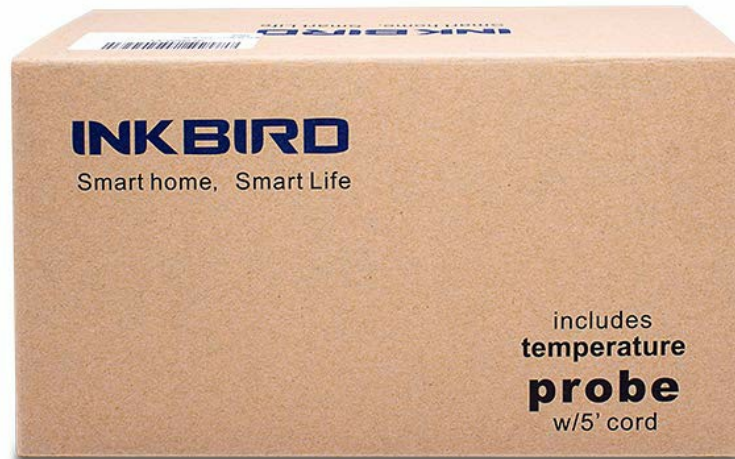
A close-up image of the durable temperature probe, essential for accurate readings.



ITC-308



User Guide



Package

A detailed shot of the standard three-prong power plug.

If You Want to keep Your Room From 75°F to 80°F
Only three steps

ONE Set "TS" as 76°F

TWO Set "HD" as 1°F

THREE Set "CD" as 4°F

Temp. set value Heating differential value Cooling differential value

Switch on the power, press the key for 3 seconds to temperature setting, press the key to adjust the temperature to 76°F.

press the to select press the button to adjust the temperature to 1°F.

press the to select press the button to adjust the temperature to 4°F, then press the key for 3 seconds to store the settings.

★ - 76-1+75(heater turns on at 76, shut in 76)
 + 76+4-80(cooling device turns on at 80, shut in 76)

The complete package contents, including the ITC-308 controller, temperature probe, user guide, and product box.

3. SETUP INSTRUCTIONS

Follow these steps to set up your Inkbird ITC-308 temperature controller for optimal performance. This example demonstrates setting a temperature range from 75°F to 80°F.

3.1 Initial Power On

Plug the ITC-308 into a standard 110V power outlet. The digital displays will illuminate.

3.2 Setting the Target Temperature (TS)

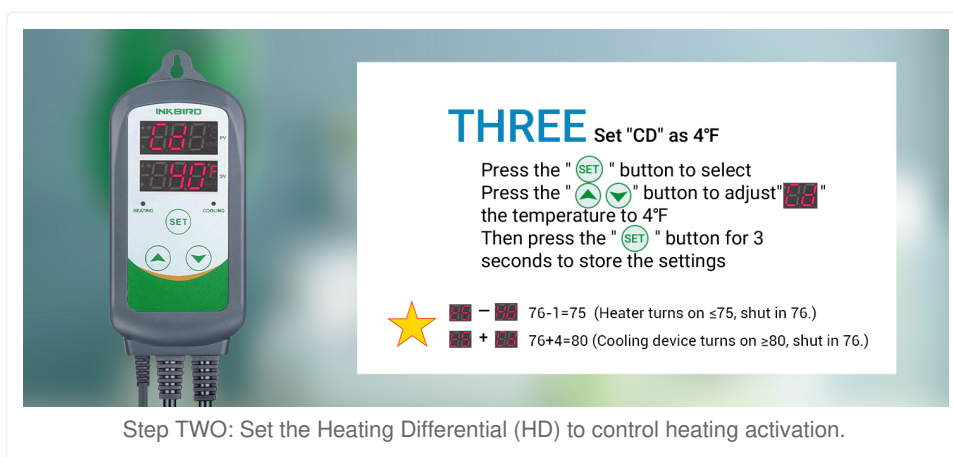
1. Press and hold the **SET** button for 3 seconds until the PV display starts flashing. This indicates you are in the temperature setting mode.
2. Use the **UP** (▲) or **DOWN** (▼) arrow buttons to adjust the target temperature (TS) to your desired value. For example, set it to 76°F.
3. Press the **SET** button again to confirm the setting and move to the next parameter.



3.3 Setting the Heating Differential (HD)

The Heating Differential (HD) determines how far the temperature can drop below the target temperature before the heating device turns on.

1. After setting TS, the display will show 'HD'. Use the **UP** (▲) or **DOWN** (▼) arrow buttons to adjust the heating differential. For example, set it to 1°F.
2. Press the **SET** button again to confirm.



3.4 Setting the Cooling Differential (CD)

The Cooling Differential (CD) determines how far the temperature can rise above the target temperature before the cooling device turns on.

1. After setting HD, the display will show 'CD'. Use the **UP** (▲) or **DOWN** (▼) arrow buttons to adjust the cooling

differential. For example, set it to 4°F.

2. Press and hold the **SET** button for 3 seconds to save all settings and exit the menu.



Step THREE: Set the Cooling Differential (CD) to control cooling activation, then save settings.

Example Calculation:

If TS = 76°F, HD = 1°F, CD = 4°F:

Heating: Heater turns on when temperature is $\leq 75^\circ\text{F}$ ($76 - 1$), and shuts off when temperature is $\geq 76^\circ\text{F}$.

Cooling: Cooling device turns on when temperature is $\geq 80^\circ\text{F}$ ($76 + 4$), and shuts off when temperature is $\leq 76^\circ\text{F}$.

4. OPERATING INSTRUCTIONS

Once configured, the ITC-308 will automatically manage your heating and cooling devices to maintain the set temperature range. The top display (PV) shows the current measured temperature, and the bottom display (SV) shows your set target temperature.

4.1 Connecting Devices

- Plug your heating device into the 'HEATING' outlet.
- Plug your cooling device into the 'COOLING' outlet.
- Ensure the temperature probe is placed in the environment you wish to control.

4.2 Temperature Alarms

The unit will sound an alarm if the measured temperature goes outside the configured high or low temperature limits. Refer to the full user manual for detailed instructions on setting alarm parameters.

5. MAINTENANCE

To ensure the longevity and accuracy of your Inkbird ITC-308, follow these general maintenance guidelines:

- **Cleaning:** Wipe the controller unit with a soft, dry cloth. Do not use abrasive cleaners or immerse the unit in water.
- **Probe Care:** Keep the temperature probe clean and free from debris. Avoid bending or damaging the probe cable.
- **Storage:** If storing the unit for an extended period, unplug it from the power source and store it in a cool, dry place.

6. TROUBLESHOOTING

If you encounter issues with your ITC-308, consider the following common troubleshooting steps:

- **No Power:** Ensure the unit is securely plugged into a working power outlet. Check the power cord for any damage.
- **Incorrect Temperature Reading:** Verify the temperature probe is properly connected and positioned. Clean the

probe if necessary. Consider recalibrating the temperature if readings are consistently off (refer to the full user manual for calibration steps).

- **Heating/Cooling Device Not Activating:** Check if the heating/cooling device is properly plugged into the correct outlet on the controller. Ensure the set temperature and differential settings are appropriate for the desired operation.
- **Alarm Sounds Continuously:** Check the current temperature against your set high and low alarm limits. Adjust the limits or the environment's temperature as needed.

For more detailed troubleshooting or complex issues, please refer to the comprehensive user manual or contact Inkbird customer support.

7. SPECIFICATIONS

Product Dimensions	2.68"L x 1.3"W x 5.51"H
Item Model Number	COMINHKPR111236
Manufacturer	Inkbird
Voltage	110 Volts
Material	Plastic
Color	Black
Country of Origin	China

8. WHAT'S IN THE BOX

Upon opening your Inkbird ITC-308 package, you should find the following items:

- 1 x ITC-308 Temperature Controller
- 1 x Temperature Probe
- 1 x Socket (integrated with controller)
- 1 x Controller Panel (integrated with controller)

9. WARRANTY AND SUPPORT

Inkbird products are designed for reliability and performance. For detailed warranty information and customer support, please refer to the official Inkbird website or the full user manual provided with your product.

You can also access the official User Guide PDF [here](#).