

Inkbird ITC-C216T

Inkbird ITC-C216T Thermostat Instruction Manual

Model: ITC-C216T

INTRODUCTION

Thank you for choosing the Inkbird ITC-C216T Thermostat. This device is a versatile plug-and-play temperature controller designed for precise temperature management in a wide range of applications. It features three control modes: temperature, cycle time, and countdown, along with safety features like high/low temperature alarms and a child lock. This manual will guide you through the setup, operation, and maintenance of your thermostat to ensure optimal performance and safe use.

SAFETY INFORMATION

- Ensure the thermostat is connected to a grounded power outlet.
- Do not exceed the maximum load capacity of 10A, 220V AC (2200W).
- Keep the device away from water, except for the IP67 rated probe.
- Do not attempt to disassemble or repair the unit yourself. Contact customer support if issues arise.
- Always unplug the device before cleaning or performing maintenance.

PRODUCT OVERVIEW

Components



Image: Detailed diagram of the Inkbird ITC-C216T thermostat with labeled components.

1. **LCD with White Backlight:** Displays current and set temperatures/times.
2. **Operational Buttons:** MODE, UP, SET, DOWN for navigation and setting adjustments.
3. **Output:** Max 10A (2200W at 220Vac) for connecting heating or cooling devices.
4. **Temperature Probe:** 2m/79in long, IP67 waterproof for accurate temperature detection.
5. **Input:** 100~240Vac 50/60Hz max 10A.
6. **Heating Icon:** Indicates heating operation.
7. **Cooling Icon:** Indicates cooling operation.
8. **Timing Icon:** Indicates timing function is active.
9. **Child Lock Icon:** Indicates child lock is engaged.
10. **START:** Displays start temperature or time.
11. **STOP:** Displays stop temperature or time.

Key Features



Image: The Inkbird ITC-C216T thermostat showcasing its main features.

- **Backlit LCD Display:** Easy to read current and set values, even in low light.
- **Three Control Modes:** Temperature, Cycle Time, and Countdown.
- **Wide Temperature Range:** Controls temperatures from -40°C to 100°C.
- **High/Low Temperature Alarms:** Customizable alarm values with an option to mute the buzzer.
- **Temperature Calibration:** Allows for fine-tuning temperature readings.
- **Cooling Delay:** Protects cooling equipment from short cycling.
- **Child Lock:** Prevents accidental changes to settings.
- **Memory Function:** Retains all settings after a power interruption.
- **IP67 Waterproof Probe:** Suitable for use in soil or submerged in water.

SETUP

1. **Unpack:** Carefully remove the thermostat and its components from the packaging.
2. **Plug In:** Insert the thermostat into a standard 220V AC grounded power outlet. The LCD display will light up.
3. **Connect Device:** Plug your heating or cooling device (e.g., heater, fan, refrigerator) into the output socket of the thermostat.
4. **Position Probe:** Place the waterproof temperature probe in the environment where temperature control is needed (e.g., terrarium, water, soil). Ensure the probe is securely positioned and not directly exposed to heating elements or strong air currents that could affect readings.

OPERATING MODES

The ITC-C216T thermostat supports three main control modes: Temperature Mode, Cycle Time Mode, and Countdown Mode. Please note that Temperature Mode and Timing functions cannot be used simultaneously.

1. Temperature Mode



Image: Visual representation of the thermostat's cooling and heating functions.

In Temperature Mode, the thermostat automatically controls your connected device (heater or cooler) to maintain a desired temperature range. The device will operate in heating or cooling mode based on your set START and STOP temperatures.

- Press the **MODE** button repeatedly until the display shows the temperature mode (usually indicated by a thermometer icon).
- Press **SET** to enter setting mode. The START temperature will flash. Use the **UP** and **DOWN** buttons to adjust the desired START temperature.
- Press **SET** again to confirm and move to the STOP temperature. Adjust the STOP temperature using **UP** and **DOWN**.
- Press **SET** one more time to save the settings and exit.
- If START temperature is lower than STOP temperature, the thermostat operates in *heating mode*.
- If START temperature is higher than STOP temperature, the thermostat operates in *cooling mode*.

2. Cycle Time Mode (P01)

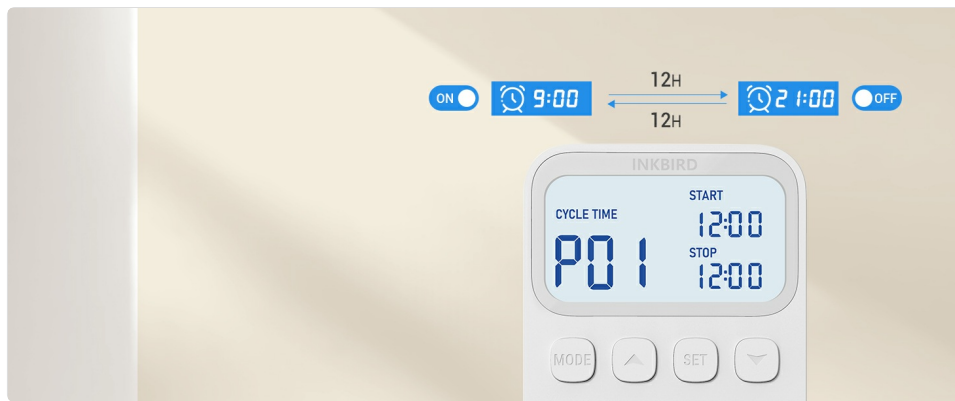


Image: Diagram explaining the Cycle Time Mode (P01) operation.

This mode allows you to set a repeating ON/OFF cycle for your connected device. The time range is 0 to 99 hours and 59 minutes.

- Press **MODE** until P01 is displayed.
- Press **SET**. The ON time will flash. Adjust using **UP/DOWN**.
- Press **SET**. The OFF time will flash. Adjust using **UP/DOWN**.
- Press **SET** to save and exit. The device will now cycle ON and OFF according to your settings.

3. Countdown Mode (P02, P03, P04)

The Countdown Mode offers three sub-modes for specific timed operations:

- **P02: Countdown ON**



Image: Diagram explaining the Countdown ON Mode (P02).

The device will turn ON after the set countdown period.

- **P03: Countdown OFF**

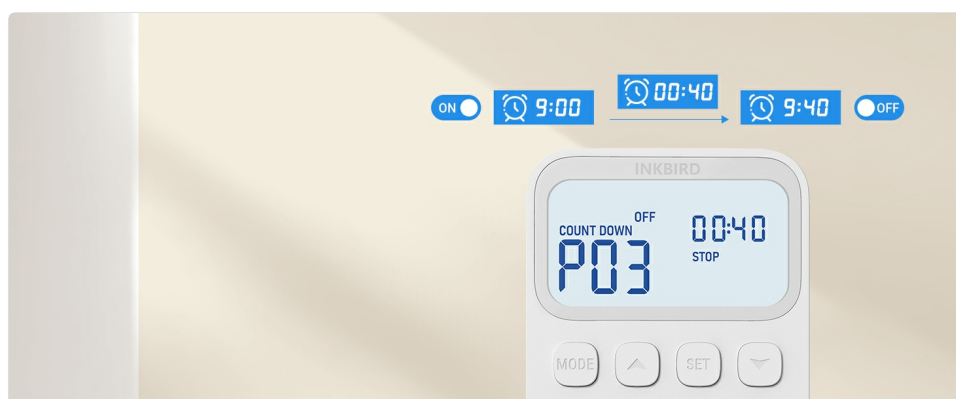


Image: Diagram explaining the Countdown OFF Mode (P03).

The device will turn OFF after the set countdown period.

- **P04: Countdown ON & OFF**



Image: Diagram explaining the Countdown ON&OFF Mode (P04).

The device will turn ON after the first countdown, then turn OFF after a second countdown.

To set any Countdown Mode:

- Press **MODE** until P02, P03, or P04 is displayed.
- Press **SET**. The countdown time(s) will flash. Adjust using **UP/DOWN**.
- Press **SET** to save and exit.

ADVANCED SETTINGS

Temperature Calibration (CA)



Image: Thermostat screen showing temperature calibration setting.

If you find that the temperature reading is inaccurate compared to a known reference thermometer, you can calibrate the device:

- With the device powered on, press and hold the **SET** button for approximately 3 seconds to enter the parameter settings.
- Use the **UP/DOWN** buttons to navigate to the 'CA' (Calibration) setting.
- Press **SET**, then use **UP/DOWN** to adjust the calibration value (e.g., +0.5°C or -0.5°C).
- Press **SET** to confirm and exit.

Cooling Delay (Pt)

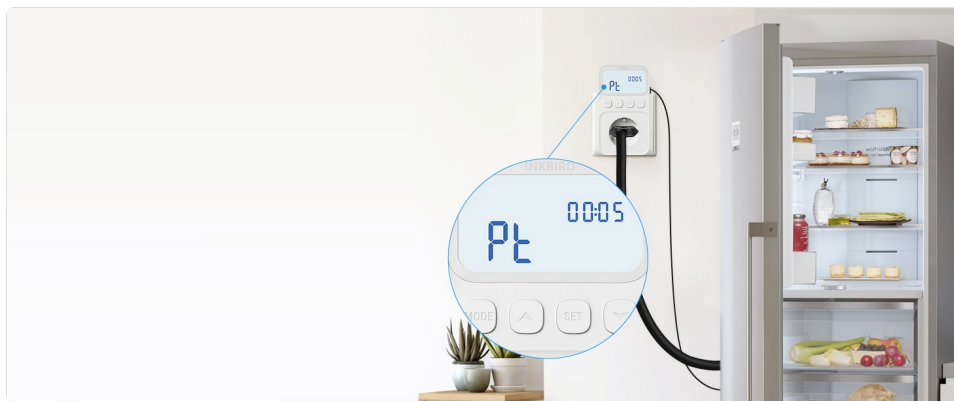


Image: Thermostat screen showing refrigeration delay setting.

The cooling delay function prevents rapid cycling of cooling equipment, which can extend its lifespan.

- Enter parameter settings (press and hold **SET** for 3 seconds).
- Navigate to 'Pt' (Cooling Delay).
- Adjust the delay time in minutes using **UP/DOWN**.
- Press **SET** to confirm and exit.

High/Low Temperature Alarms (AH/AL)



Image: Thermostat screen showing high temperature alarm with mute option.

Set custom high (AH) and low (AL) temperature alarm values. If the detected temperature exceeds these limits, an audible alarm will sound.

- Enter parameter settings.
- Navigate to 'AH' (High Alarm) or 'AL' (Low Alarm).
- Adjust the alarm temperature using **UP/DOWN**.
- Press **SET** to confirm.
- To mute the buzzer, press any button when the alarm sounds.

Child Lock



Image: Thermostat displaying the child lock icon.

To prevent accidental changes to settings, activate the child lock:

- Press and hold the **UP** and **DOWN** buttons simultaneously for approximately 3 seconds. The child lock icon will appear on the display.
- Repeat the action to unlock the device.

Memory Function & Factory Reset

- **Memory Function:** The thermostat automatically saves all your settings. In case of a power outage, the device will resume operation with the last saved settings once power is restored.
- **Factory Reset:** To restore the device to its default factory settings, consult the full user manual or contact Inkbird support for specific instructions.

APPLICATIONS

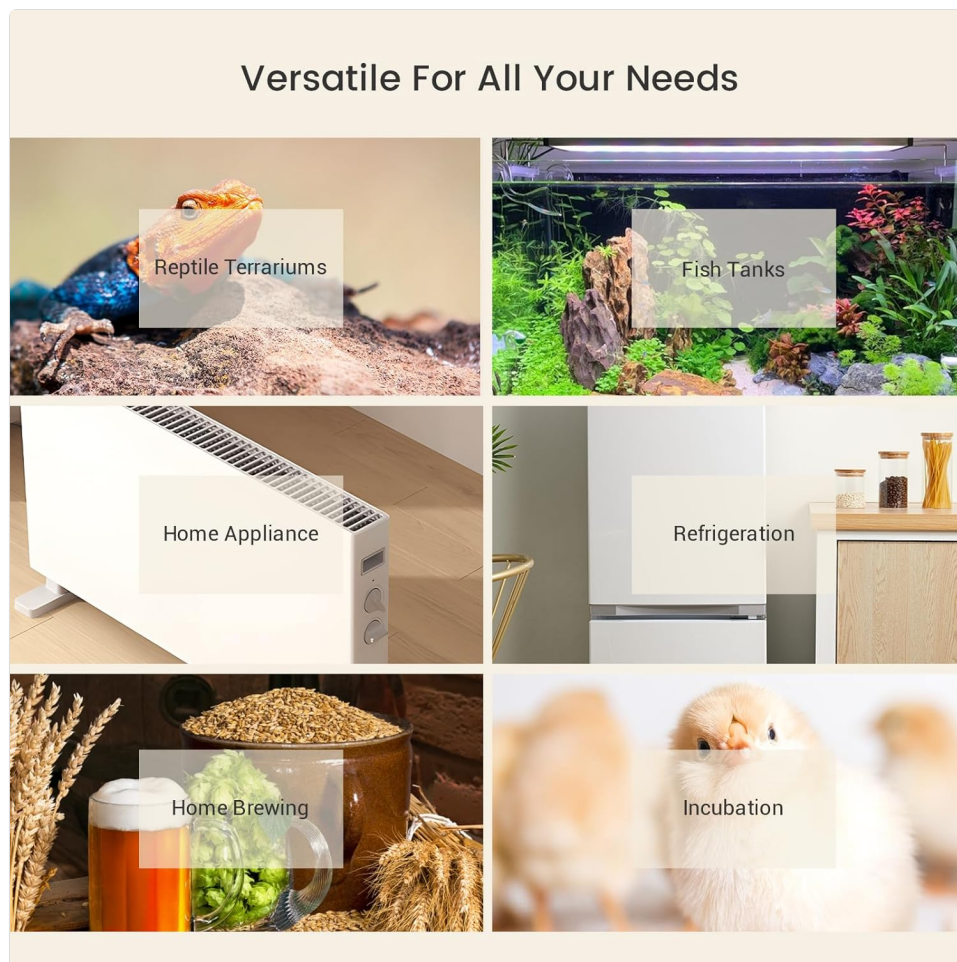


Image: Diverse applications of the Inkbird ITC-C216T thermostat.

The Inkbird ITC-C216T thermostat is suitable for a wide range of temperature control needs, including but not limited to:

- Reptile Terrariums and Aquariums
- Greenhouses and Plant Propagation
- Incubators for Eggs
- Home Brewing and Fermentation
- Controlling Freezers and Refrigerators
- Managing Heating Mats and other Home Appliances

SPECIFICATIONS

Feature	Specification
Model	ITC-C216T
Voltage	220V AC
Max Output Load	10A / 2200W
Temperature Control Range	-40°C to 100°C (-40°F to 212°F)
Timing Range	0 to 99 hours 59 minutes
Probe Type	IP67 Waterproof
Probe Length	2 meters (79 inches)
Material	Acrylonitrile Butadiene Styrene (ABS)
Dimensions	8.8 x 8.9 x 13.7 cm
Weight	250 g
Controller Type	Button

TROUBLESHOOTING

If you encounter issues with your Inkbird ITC-C216T thermostat, please refer to the following common solutions:

- **Display Not Lighting Up:** Ensure the thermostat is securely plugged into a live power outlet. Check the power supply.
- **Inaccurate Temperature Reading:** Verify the probe is correctly placed and not damaged. Perform a temperature calibration (refer to Advanced Settings).
- **Device Not Turning On/Off:** Check if the connected heating/cooling device is functioning correctly. Ensure the thermostat is in the correct operating mode (Temperature, Cycle Time, or Countdown) and that settings are properly configured. Verify the child lock is not active.
- **Alarm Sounds Continuously:** Check the high/low alarm settings (AH/AL) and the current temperature. Adjust alarm values if necessary or mute the buzzer by pressing any button.
- **Settings Not Saving:** The device has a memory function. If settings are not retained, try a factory reset (consult full manual) or contact support.

For more detailed troubleshooting or persistent issues, please contact Inkbird customer support.

MAINTENANCE

- **Cleaning:** Disconnect the thermostat from power before cleaning. Wipe the unit with a soft, dry cloth. Do not use abrasive cleaners or immerse the main unit in water.
- **Probe Care:** Regularly inspect the temperature probe for any signs of damage. Clean the probe gently if it accumulates debris, especially if used in water or soil.
- **Storage:** If storing the device for an extended period, ensure it is clean and dry. Store in a cool, dry place away from direct sunlight.

WARRANTY AND SUPPORT

Inkbird products are designed for reliability and performance. This product comes with a standard manufacturer's warranty. For specific warranty terms, registration, or technical support, please visit the official Inkbird website or contact their customer service directly.

You can find more information and support resources by visiting the [Inkbird Store on Amazon](#).