

KETOTEK KT3100

KETOTEK KT3100 Digital Thermostat Instruction Manual

1. PRODUCT OVERVIEW

The KETOTEK KT3100 is a versatile digital thermostat designed for precise temperature control in various applications. It features both heating and cooling functions, along with advanced timing modes, making it suitable for household use, heating/cooling equipment, incubators, greenhouses, and terrariums.

Key Features:

- **Temperature Control Range:** -40°C to 120°C.
- **Power Input:** 100-250V, 50/60Hz.
- **Max Load:** 16A, 3680W.
- **Timing Functions:** F01 Cycle Timer, F02 Countdown ON, F03 Countdown OFF, F04 Countdown ON/OFF (0-99 hours, 59 minutes).
- **Temperature Calibration:** -9.9°C to 9.9°C adjustment.
- **Memory Function:** Retains settings after power loss.
- **Reset Function:** Allows restoration of factory settings.
- **Sensor:** NTC10K/B3950 temperature probe with a 3-meter cable.



Image 1.1: The KT3100 thermostat displaying its main features including heating/cooling, timing, calibration, memory, and reset functions.

2. SAFETY INFORMATION

Please read all safety instructions before operating the device. Failure to follow these instructions may result in electric shock, fire, or personal injury.

- Ensure the power supply voltage matches the device's specifications (100-250V).
- Do not exceed the maximum load capacity of 16A / 3680W.
- Keep the device and sensor away from water or excessive moisture.
- Do not disassemble or modify the device. Refer all servicing to qualified personnel.
- Ensure proper ventilation around the device.
- Unplug the device from the power outlet before cleaning or when not in use for extended periods.

3. PRODUCT COMPONENTS

The KETOTEK KT3100 package includes the following items:

- 1 x KETOTEK KT3100 Digital Thermostat
- 1 x 3-meter NTC10K/B3950 Temperature Sensor
- 1 x User Manual (this document)



Image 3.1: The KETOTEK KT3100 Digital Thermostat with its included 3-meter temperature sensor.

4. DEVICE LAYOUT AND DISPLAY

Familiarize yourself with the thermostat's buttons and display indicators for effective operation.



Image 4.1: Front view of the KT3100 thermostat with labeled components.

- **MODE Button:** Used to switch between temperature control and timing modes, and to confirm settings.
- **SET Button:** Used to enter setting mode for parameters.
- **UP Button:** Increases values or navigates up.
- **DOWN Button:** Decreases values or navigates down.
- **Reset Button:** Small button for factory reset (requires a pin).
- **Measured Temperature:** Displays the current temperature detected by the sensor.
- **Start Temperature (ON):** The temperature at which the connected device turns ON.
- **Stop Temperature (OFF):** The temperature at which the connected device turns OFF.
- **Heating/Cooling Indicator:** Icon indicating active heating or cooling mode.
- **Output Work Indicator:** Light indicating when the output socket is active.



Image 4.2: Detailed view of the digital display showing temperature readings and set points.

5. TECHNICAL SPECIFICATIONS

Specification	Value
Brand	KETOTEK
Model Number	KT3100
Input Voltage	100-250V
Frequency	50/60Hz
Max Current	16A
Max Power	3680W
Temperature Control Range	-40°C ~ 120°C
Temperature Sensor	NTC10K/B3950, 3m cable
Display Type	LCD
Control Method	Touch buttons
Special Features	Timing Function, Temperature Calibration, Memory, Reset



Image 5.1: Physical dimensions of the KT3100 thermostat and its temperature sensor.

6. SETUP

1. **Unpack:** Carefully remove the KT3100 thermostat and its temperature sensor from the packaging.
2. **Connect Sensor:** Plug the 3-meter temperature sensor into the designated port on the side of the thermostat.
3. **Position Sensor:** Place the sensor in the area where you wish to measure and control the temperature. Ensure it is not directly exposed to heat sources or drafts that could affect readings.
4. **Plug In Thermostat:** Insert the KT3100 thermostat into a standard 230V wall outlet. The LCD display will illuminate, showing the current measured temperature.
5. **Connect Appliance:** Plug the appliance you wish to control (e.g., heater, fan, refrigerator) into the socket on the front of the KT3100 thermostat.

7. OPERATING INSTRUCTIONS

7.1. Temperature Control Mode

This mode allows you to set a desired temperature range for heating or cooling.

1. **Power On:** Plug in the thermostat. The display will show the current measured temperature.
2. **Set Start Temperature (ON):** Press the 'MODE' button once. The 'Start Temperature' (ON) value will flash. Use the 'UP' and 'DOWN' buttons to adjust the desired temperature at which your appliance should turn ON.
3. **Set Stop Temperature (OFF):** Press the 'MODE' button again. The 'Stop Temperature' (OFF) value

will flash. Use the 'UP' and 'DOWN' buttons to adjust the desired temperature at which your appliance should turn OFF.

4. **Confirm Settings:** Press the 'MODE' button a third time to exit the setting mode and save your changes. The thermostat will now operate according to your set temperatures.
5. **Heating/Cooling Selection:** The thermostat automatically detects whether to operate in heating or cooling mode based on the relationship between the Start and Stop temperatures. If Start Temp < Stop Temp, it's heating mode. If Start Temp > Stop Temp, it's cooling mode.

7.2. Timing Functions (F01-F04)

The KT3100 offers four timing modes for advanced control. To access these modes, press and hold the 'SET' button for approximately 3 seconds until 'F01' appears.

1. F01: Cycle Timer Mode

This mode allows the device to cycle ON and OFF for set durations. Press 'SET' to enter F01 settings. Use 'UP'/'DOWN' to set ON hours/minutes, then 'SET' to move to OFF hours/minutes, then 'SET' to confirm. Press 'MODE' to exit.



Image 7.1: Display showing F01 Cycle Timer settings.

2. F02: Countdown ON Mode

The device will remain OFF for a set countdown period, then turn ON and stay ON. Press 'UP'/'DOWN' to select F02, then 'SET' to enter settings. Set countdown hours/minutes. Press 'SET' to confirm. Press 'MODE' to exit.



Image 7.2: Display showing F02 Countdown ON settings.

3. F03: Countdown OFF Mode

The device will remain ON for a set countdown period, then turn OFF and stay OFF. Press 'UP'/'DOWN' to select F03, then 'SET' to enter settings. Set countdown hours/minutes. Press 'SET' to confirm. Press 'MODE' to exit.



Image 7.3: Display showing F03 Countdown OFF settings.

4. F04: Countdown ON/OFF Mode

The device will turn ON for a set period, then OFF for another set period, and then repeat. Press 'UP'/'DOWN' to select F04, then 'SET' to enter settings. Set ON hours/minutes, then 'SET' to move to OFF hours/minutes, then 'SET' to confirm. Press 'MODE' to exit.



Image 7.4: Display showing F04 Countdown ON/OFF settings.

7.3. Temperature Calibration

If you notice a discrepancy between the thermostat's reading and a known accurate thermometer, you can calibrate the sensor. Press and hold 'SET' for 3 seconds, then use 'UP'/'DOWN' to navigate to the calibration setting (usually indicated by 'CAL' or a similar symbol). Adjust the value between -9.9°C and 9.9°C to match the reference thermometer. Press 'SET' to confirm, then 'MODE' to exit.

7.4. Memory Function

The KT3100 automatically saves your settings. In case of a power outage, the device will retain its last programmed settings once power is restored.

7.5. Reset Function

To restore the thermostat to its factory default settings, locate the small reset button (usually a pinhole) on the device. Use a thin object (like a paperclip) to press and hold the reset button for a few seconds until the display indicates a reset has occurred.

8. APPLICATIONS

The KETOTEK KT3100 Digital Thermostat is suitable for a wide range of temperature control applications:

- **Home Heating/Cooling:** Control electric heaters, fans, or portable air conditioners.
- **Refrigeration:** Maintain specific temperatures for refrigerators or freezers.
- **Incubators:** Ensure stable temperatures for hatching eggs.

- **Greenhouses:** Regulate temperature for optimal plant growth.
- **Reptile Terrariums:** Create a stable environment for reptiles and amphibians.
- **Aquaculture:** Control water temperature in aquariums or fish tanks.



Image 8.1: Examples of common applications for the KT3100 thermostat.

9. MAINTENANCE

Proper maintenance ensures the longevity and accuracy of your KT3100 thermostat.

- **Cleaning:** Wipe the device with a soft, dry cloth. Do not use abrasive cleaners or immerse the device in water.
- **Sensor Care:** Keep the temperature sensor clean and free from debris. Avoid bending or damaging the sensor cable.
- **Storage:** When not in use, store the thermostat in a cool, dry place away from direct sunlight and extreme temperatures.

10. TROUBLESHOOTING

If you encounter issues with your KT3100 thermostat, refer to the following common problems and

solutions:

Problem	Possible Cause	Solution
Display is blank	No power; Device malfunction	Check power outlet; Ensure thermostat is properly plugged in; Try a different outlet. If still blank, contact support.
Incorrect temperature reading	Sensor dirty or damaged; Calibration needed; Sensor placed incorrectly	Clean sensor; Perform temperature calibration (Section 7.3); Reposition sensor away from direct heat/cold sources.
Appliance not turning ON/OFF	Incorrect temperature settings; Timing mode active; Appliance not plugged in or faulty	Verify Start/Stop temperature settings (Section 7.1); Check if a timing mode (F01-F04) is active (Section 7.2); Ensure appliance is functional and correctly plugged into the thermostat.
Buttons unresponsive	Temporary software glitch	Unplug and replug the thermostat; Perform a factory reset (Section 7.5).

11. WARRANTY AND SUPPORT

KETOTEK products are manufactured to high-quality standards. This product comes with a standard manufacturer's warranty against defects in materials and workmanship. For warranty claims, technical support, or service inquiries, please refer to the contact information provided with your purchase or visit the official KETOTEK website. Please retain your proof of purchase for warranty validation.