KETOTEK KT2000

KETOTEK KT2000 Digital Thermostat Plug Instruction Manual

Model: KT2000

1. INTRODUCTION

Thank you for choosing the KETOTEK KT2000 Digital Thermostat Plug. This device is designed to provide precise temperature control for a wide range of applications, including home brewing, aquariums, terrariums, incubators, and seedling heat mats. Its user-friendly interface and robust features ensure stable and reliable temperature management.

Image 1.1: The KETOTEK KT2000 Digital Thermostat Plug, showing the main unit with its display, control buttons, power socket, and the attached waterproof temperature sensor.

What's in the Box:

- 1 x KETOTEK KT2000 Digital Thermostat Plug
- 1 x NTC Temperature Sensor (waterproof)

2. SAFETY INFORMATION

- Ensure the device is connected to a power outlet with the correct voltage (230V AC).
- Do not exceed the maximum resistive load of 2300W (16A).
- Do not immerse the main unit in water. The temperature sensor is waterproof, but the main plug unit is not.
- Keep the device away from children.
- Do not disassemble or attempt to repair the device yourself. Contact qualified personnel for service.
- Always unplug the device from the power outlet before cleaning or performing any maintenance.

3. SETUP

1. **Plug in the Thermostat:** Insert the KETOTEK KT2000 Digital Thermostat Plug into a standard 230V AC wall outlet.
2. **Connect the Sensor:** Plug the NTC temperature sensor into the designated port on the bottom of the thermostat plug.
3. **Position the Sensor:** Place the waterproof temperature sensor in the environment where you wish to monitor and control the temperature. Ensure it is securely positioned and will not be dislodged.
4. **Connect Your Appliance:** Plug your heating or cooling appliance (e.g., heater, fan, heat mat) into the power socket on the front of the KETOTEK KT2000.

4. OPERATING INSTRUCTIONS

4.1. Understanding the Display and Buttons

Image 4.1: Detailed view of the LCD display and control buttons. The display shows real-time temperature, set temperature, and indicators for heating/cooling mode and alarms. Buttons include Up, Down, and Mode (M).

- **Real-time Temperature:** The larger number on the display shows the current temperature measured by the sensor.
- **Set Temperature:** The smaller number labeled "SET" indicates your desired target temperature.
- **Mode Indicators:** Icons at the top left indicate heating (wavy lines) or cooling (snowflake) mode.
- **Alarm Indicator:** A bell icon will appear if a temperature alarm is triggered.
- **Up (▲) Button:** Used to increase values or navigate menus.
- **Down (▼) Button:** Used to decrease values or navigate menus.
- **Mode (M) Button:** Used to enter settings, confirm selections, or switch between modes.

4.2. Setting the Temperature and Mode

1. **Enter Setting Mode:** Press and hold the **M** button for 3 seconds to enter the setting menu.
2. **Adjust Set Temperature:** The set temperature value will flash. Use the ▲ and ▼ buttons to adjust it to your desired temperature.

3. **Select Mode (Heating/Cooling):** Press the **M** button again to move to the mode selection. Use ▲ and ▼ to choose between heating (indicated by wavy lines) or cooling (indicated by a snowflake).

4. **Set Hysteresis (Differential Value):** Press **M** again. The hysteresis value (d) will flash. This is the temperature difference between the set point and when the device turns on/off. Adjust using ▲ and ▼. A range of 0.1°C to 30°C (0.5°F to 60°F) is available.

5. **Exit Setting Mode:** Press and hold the **M** button for 3 seconds, or wait for 10 seconds for the device to automatically exit the setting mode.

4.3. Heating Mode Operation

Image 4.2: The thermostat plug operating in heating mode, connected to a radiator. The display shows the current temperature and the set temperature.

In heating mode, the connected appliance will turn on when the measured temperature falls below the set temperature minus the hysteresis value. It will turn off when the measured temperature exceeds the set temperature.

- **Load ON:** Measured Temperature < Set Temperature - Hysteresis
- **Load OFF:** Measured Temperature > Set Temperature

4.4. Cooling Mode Operation

Image 4.3: The thermostat plug operating in cooling mode, connected to a fan. The display shows the current temperature and the set temperature.

In cooling mode, the connected appliance will turn on when the measured temperature rises above the set temperature plus the hysteresis value. It will turn off when the measured temperature falls below the set temperature.

- **Load ON:** Measured Temperature > Set Temperature + Hysteresis
- **Load OFF:** Measured Temperature < Set Temperature

4.5. Backlight Settings

Image 4.4: The HD LCD screen of the KT2000, illustrating the adjustable backlight feature for clear visibility in various lighting conditions.

The backlight of the HD LCD screen can be adjusted for optimal visibility. You can set it to:

- **Always On:** The backlight remains continuously lit.
- **Always Off:** The backlight remains off.
- **Auto-Off (10 minutes):** The backlight will automatically turn off after 10 minutes of inactivity to save power.

To adjust the backlight setting, refer to the advanced settings menu (usually accessed by a longer press of the M button or a specific button combination, consult the full manual for exact steps if not covered here).

4.6. Calibration Function

The device includes a temperature calibration function to ensure accuracy. If you notice a discrepancy between the displayed temperature and a known accurate thermometer, you can adjust the calibration value. The calibration range is -10.0°C to 10.0°C (-20.0°F to 20.0°F).

To access calibration settings, refer to the advanced settings menu (usually accessed by a longer press of the M button or a specific button combination, consult the full manual for exact steps if not covered here).

4.7. High/Low Temperature Alarms

The KETOTEK KT2000 features high and low temperature alarms to prevent overheating or freezing. You can set specific temperature thresholds, and if the measured temperature goes above the high limit or below the low limit, an alarm will sound, and an indicator will appear on the display.

To set alarm thresholds, refer to the advanced settings menu (usually accessed by a longer press of the M button or a specific button combination, consult the full manual for exact steps if not covered here).

5. FEATURES OVERVIEW

- **Plug & Play Design:** Easy to set up and use, no complex wiring required.
- **Precise Temperature Control:** Offers a hysteresis range of 0.1°C to 30°C (0.5°F to 60°F) for stable and accurate temperature management with ±1°C (±2°F) precision.
- **HD LCD Screen with Adjustable Backlight:** Clear display of real-time and set temperatures, visible in various lighting conditions with options for always on, always off, or 10-minute auto-off.
- **Safety Functions:** Includes high/low temperature alarms to prevent extreme temperature conditions and a calibration function for enhanced accuracy.
- **Versatile Applications:** Suitable for a wide range of uses including home brewing systems, plant growth environments (greenhouses, seedling heat mats), aquariums, animal care (reptile terrariums, incubation), and electric radiator temperature control.

Image 5.1: A collage demonstrating various applications of the KETOTEK KT2000, including home brewing, plant cultivation, aquariums, pet breeding, greenhouses, incubation, reptile care, and seedling heat mats.

6. MAINTENANCE

- **Cleaning:** Wipe the main unit with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Sensor Care:** Ensure the temperature sensor is clean and free from debris for accurate readings. The waterproof sensor can be gently cleaned with water.
- **Storage:** When not in use, store the device in a cool, dry place away from direct sunlight and extreme temperatures.

7. TROUBLESHOOTING

If you encounter issues with your KETOTEK KT2000, please refer to the following common problems and solutions:

- **Device not powering on:**
  - Ensure the thermostat plug is securely inserted into a working 230V AC outlet.

- Check if the power outlet itself is functional by plugging in another device.

- **Inaccurate temperature readings:**

  - Verify that the temperature sensor is correctly connected to the main unit.
  - Ensure the sensor is properly positioned in the environment you wish to measure.
  - Consider using the calibration function (Section 4.6) if you suspect a consistent offset.

- **Appliance not turning on/off as expected:**

  - Check if the thermostat is set to the correct mode (heating or cooling) for your application.
  - Verify the set temperature and hysteresis values are configured correctly (Section 4.2).
  - Ensure your appliance is properly plugged into the thermostat's socket and is functional.

- **Display is dim or off:**

  - Check the backlight settings (Section 4.5) to ensure it's not set to 'Always Off' or in auto-off mode.

If the problem persists, please contact KETOTEK customer support for further assistance.

8. SPECIFICATIONS

- 58 - 230°F/ - 50 - 110°C
Plage de contrôle de température

16A / 2300W
Charge résistive

**- 58°F /
- 50°C**

**230°F /
110°C**

Image 8.1: Visual representation of the KETOTEK KT2000's temperature control range (-50°C to 110°C / -58°F to 230°F) and maximum resistive load (16A / 2300W).

Image 8.2: Dimensions of the KETOTEK KT2000 Digital Thermostat Plug and its sensor cable length.

Specification	Value
Brand	KETOTEK
Model Number	KT2000
Color	Black
Product Dimensions (L x W x H)	8.5 x 6 x 11.5 cm
Item Weight	240 grams
Voltage	250 Volts (AC)
Material	Plastic
Features	Temperature Display, High/Low Alarms, Calibration
Controller Type	Push Button

Specification	Value
Specific Uses for Product	General temperature control for various applications
Temperature Control Type	Automatic
Included Components	Thermostatic plug with NTC temperature sensor
Power Source	Electric Cable
Temperature Range	-50°C to 110°C (-58°F to 230°F)
Hysteresis Range	0.1°C to 30°C (0.5°F to 60°F)
Output	Relay 16A Max.
Resistive Load	≤ 2300 W
Inductive Load	≤ 460 W
Spare Parts Availability	Information unavailable on spare parts

9. WARRANTY AND SUPPORT

KETOTEK products are designed for reliability and performance. For warranty information or technical support, please refer to the product packaging or contact KETOTEK customer service through their official website or the retailer where the product was purchased.