VOLTCRAFT K204D

VOLTCRAFT K204-200 Temperature Measurement Device User Manual

MODEL: K204D

Introduction

The VOLTCRAFT K204-200 is a high-precision temperature measurement device designed for professional applications. It features a wide measurement range from -200 °C to +1370 °C and includes an RS-232 interface for data transfer to a computer. With an integrated memory capacity of 16,000 measurement values, it is suitable for long-term process monitoring and data logging.

Safety Information

Please read and understand all safety instructions before operating the device. Failure to follow these instructions may result in injury or damage to the device.

- Always use the device within its specified temperature range.
- Do not expose the device to extreme temperatures, humidity, or direct sunlight.
- Ensure proper battery installation and replacement.
- Avoid dropping the device or subjecting it to strong impacts.
- Do not attempt to disassemble or modify the device. Refer all servicing to qualified personnel.
- Keep the device away from children.

Package Contents

Carefully unpack the device and check for the following components:

- VOLTCRAFT K204-200 Temperature Measurement Device (1 unit)
- K-type Thermocouple Probes (quantity may vary based on kit)
- RS-232 Data Cable
- Software CD (for data transfer and analysis)
- User Manual

Image: The VOLTCRAFT K204-200 kit, including the device, probes, and accessories, neatly packed in its carrying case.

Device Overview

Familiarize yourself with the main components and controls of your VOLTCRAFT K204-200.

Image: Front view of the VOLTCRAFT K204-200, highlighting the display and button layout.

- **LCD Display:** Shows temperature readings, units, and various indicators.
- **Power Button:** Turns the device on/off.
- **REL Button:** Relative measurement function.
- **HOLD Button:** Freezes the current reading on the display.
- **AVG/MAX/MIN Button:** Cycles through average, maximum, and minimum recorded temperatures.
- **TIMER Button:** Activates the timer function.
- **°C/°F Button:** Toggles between Celsius and Fahrenheit units.

Image: Side view of the VOLTCRAFT K204-200, showing the DC 9V power input and RS-232 data port.

- **Thermocouple Inputs (T1, T2, T3, T4):** Ports for connecting K-type thermocouple probes.
- **DC 9V Input:** For external power supply.
- **RS-232 Port:** For connecting to a computer for data transfer.

Setup

1. **Battery Installation:**
   Open the battery compartment cover on the back of the device. Insert a 9V battery, ensuring correct polarity. Close the cover securely.

Image: Rear view of the device with the battery compartment open, illustrating battery insertion.

2. **Connecting Thermocouple Probes:**
   Connect the K-type thermocouple probes to the designated input ports (T1, T2, T3, T4) on the top of the device. Ensure a firm connection.

3. **Initial Power-On:**
   Press the Power button to turn on the device. The display will illuminate and show the current temperature readings from the connected probes.

4. **Software Installation (for Data Logging):**
   Insert the provided software CD into your computer's CD/DVD drive and follow the on-screen instructions to install the data logging software. This software is required to utilize the RS-232 interface and transfer recorded data.

Operating Instructions

- **Basic Measurement:**
  After powering on, the device will automatically display the temperature from the connected probes. Ensure probes are properly placed at the measurement point.

- **Changing Temperature Units (°C/°F):**
  Press the °**C**/°**F** button to toggle between Celsius and Fahrenheit temperature scales.

- **Data Hold Function:**

Press the **HOLD** button to freeze the current temperature reading on the display. Press it again to release and resume live readings.

- **Maximum, Minimum, and Average Readings:**
Press the **AVG/MAX/MIN** button repeatedly to cycle through the average, maximum, and minimum temperature values recorded since the device was powered on or the function was reset.

- **Relative Measurement (REL):**
Press the **REL** button to set the current reading as a reference point. Subsequent readings will be displayed as a deviation from this reference.

- **Timer Function:**
Press the **TIMER** button to activate the built-in timer. Refer to the software manual for detailed instructions on configuring and using the timer for specific measurement intervals.

- **Data Logging (16,000 Values):**
The device can store up to 16,000 measurement values. To initiate data logging and transfer data to your computer, connect the device via the RS-232 port and use the installed software. Consult the software's user manual for detailed instructions on setting up logging parameters and exporting data.

Maintenance

- **Cleaning:**
Wipe the device exterior with a soft, damp cloth. Do not use abrasive cleaners or solvents. Ensure the device is dry before storage or next use.

- **Battery Replacement:**
When the low battery indicator appears on the display, replace the 9V battery as described in the Setup section. Dispose of old batteries responsibly.

- **Storage:**
When not in use for extended periods, remove the battery to prevent leakage. Store the device in its original carrying case in a cool, dry place, away from direct sunlight and extreme temperatures.

Troubleshooting

Problem	Possible Cause	Solution
Device does not power on.	Dead or incorrectly installed battery.	Check battery polarity or replace with a new 9V battery.
Inaccurate temperature readings.	Probe not properly connected or damaged; incorrect probe type.	Ensure probes are securely connected. Verify that K-type probes are used. Replace damaged probes.
Data transfer to PC fails.	RS-232 cable not connected; software not installed or configured correctly.	Check cable connection. Reinstall software and refer to its manual for setup.
Display shows "OL" or "--- ".	Temperature is out of range or probe is open circuit.	Ensure temperature is within -200 °C to +1370 °C. Check probe for damage.

Specifications

Feature	Detail
Model Number	K204D
Measurement Range	-200 °C to +1370 °C (-328 °F to +2498 °F)
Probe Type	K-type Thermocouple
Channels	4
Data Logger Capacity	16,000 measurement values
Connectivity	RS-232
Display Type	Digital
Power Source	9V Battery
Exterior Material	Plastic
Product Dimensions (L x W x H)	18.4 x 6.4 x 3 cm (7.24 x 2.52 x 1.18 inches)
Weight	180 grams (0.4 lbs)
Country of Origin	France

Warranty and Support

VOLTCRAFT provides a 1-year availability for spare parts for the K204-200 device. For technical support, warranty claims, or service inquiries, please contact your local VOLTCRAFT distributor or visit the official VOLTCRAFT website for contact information.

Please retain your proof of purchase for any warranty claims.

Related Documents - K204D

	[VOLTCRAFT VC371 40A AC/DC Mini Clamp Meter Operating Instructions](#) This document provides comprehensive operating instructions and safety guidelines for the VOLTCRAFT VC371 40A AC/DC Mini Clamp Meter. It details product features, measurement procedures for AC/DC current and voltage, resistance, capacitance, and includes troubleshooting and technical specifications.
	[Voltcraft IR 650-12D & IR 800-20D Infrared Thermometer User Manual](#) Comprehensive operating instructions and technical specifications for the Voltcraft IR 650-12D and IR 800-20D infrared thermometers, covering features, usage, safety, and maintenance.
	[VOLTCRAFT MT-52 5-in-1 Digital Multimeter User Manual](#) This document provides comprehensive operating instructions, safety guidelines, and technical specifications for the VOLTCRAFT MT-52 5-in-1 Digital Multimeter. Learn how to measure voltage, current, resistance, temperature, humidity, light, and sound levels.
	[Voltcraft Thermal Camera User Manual](#) Comprehensive user manual for Voltcraft thermal cameras, covering operation, features, technical specifications, and troubleshooting. Includes instructions on setup, image capture, data management, and maintenance.
	[VOLTCRAFT DSA-3100 Handheld Oscilloscope Quick Start Guide](#) This document provides a quick start guide for the VOLTCRAFT DSA-3100 handheld oscilloscope, covering safety instructions, operation of oscilloscope, multimeter, and spectrum analyzer functions, PC communication, troubleshooting, and technical specifications.
	[VOLTCRAFT SL-200 Schallpegelmessgerät Bedienungsanleitung | Präzise Schallpegelmessung](#) Umfassende Bedienungsanleitung für das VOLTCRAFT SL-200 Schallpegelmessgerät. Erfahren Sie alles über Funktionen, sichere Handhabung, Wartung und technische Spezifikationen für genaue Schallpegelmessungen.