

## Graigar CENTER-300

# CENTER-300 Digital Thermometer User Manual

Model: CENTER-300 | Brand: Graigar

## INTRODUCTION

This manual provides comprehensive instructions for the safe and effective operation, maintenance, and troubleshooting of the Graigar CENTER-300 Digital Thermometer. The CENTER-300 is a K-Type Thermocouple Thermometer designed for precise temperature measurement with features such as simultaneous MAX/AVG/MIN measurement, auto power off, timer function, REL function, and HOLD function. It offers a resolution of 0.1 °C/0.1 °F and connectivity via USB and Bluetooth.

## GENERAL 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 instrument.

- Do not expose the thermometer to extreme temperatures, humidity, or direct sunlight.
- Ensure the battery compartment is securely closed before use.
- Use only the specified battery type (9V battery, NEDA 1604 6F22 006P).
- Avoid dropping or subjecting the device to strong impacts.
- Do not attempt to disassemble or modify the thermometer. Refer all servicing to qualified personnel.
- Keep the device away from strong electromagnetic fields.
- Always disconnect the thermocouple probe before cleaning or storing the device.

## WHAT'S IN THE BOX

Upon opening the package, verify that all components are present and undamaged:

- CENTER-300 Digital Thermometer
- K-Type Thermocouple Probe
- Instruction Manual

- Carrying Case
- Meter



Figure 1: Contents of the CENTER-300 package, including the thermometer, K-type probe, and manual.

## SETUP

### 1. Battery Installation

1. Locate the battery compartment cover on the back of the thermometer.
2. Slide the cover downwards to open the compartment.
3. Insert a new 9V battery (NEDA 1604 6F22 006P), observing the correct polarity (+/-).
4. Close the battery compartment cover by sliding it upwards until it clicks into place.



Figure 2: Battery compartment with cover removed, ready for 9V battery insertion.

## 2. Connecting the Thermocouple Probe

The CENTER-300 uses a standard K-Type thermocouple probe. Connect the probe to the input terminals located at the top of the thermometer. Ensure the positive (+) and negative (-) terminals of the probe match those on the meter.



Figure 3: Top view of the thermometer, highlighting the thermocouple input ports.

### 3. Initial Power On

Press the **POWER** button (green circle) to turn on the device. The display will illuminate and show the current temperature reading.



Figure 4: Front view of the CENTER-300, displaying its buttons and screen.

## OPERATING INSTRUCTIONS

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### 1. Basic Temperature Measurement

Once powered on and with a thermocouple connected, the thermometer will display the current temperature. Place the thermocouple probe in contact with the object or environment you wish to measure.

### 2. Function Buttons

- **°C/°F Button:** Press this button to switch between Celsius (°C) and Fahrenheit (°F) temperature units.
- **HOLD Button:** Press to freeze the current temperature reading on the display. Press again to release and resume live readings.
- **AVG MAX MIN Button:** Press this button repeatedly to cycle through Average (AVG), Maximum (MAX), and Minimum (MIN) temperature readings recorded since the function was activated.
- **ΔREL Button:** Activates the Relative (REL) function, displaying the difference between the current reading and a

stored reference value.

- **TIMER Button:** Activates the timer function. Refer to the detailed instruction manual for specific timer operation.

### 3. Auto Power Off

The device features an auto power-off function to conserve battery life. If no buttons are pressed for a certain period (typically 10-15 minutes), the thermometer will automatically shut down. This feature can usually be disabled or adjusted via specific button combinations (refer to the full manual for details).

### 4. PC Interface / Connectivity

The CENTER-300 supports data output via USB and Bluetooth connectivity. These ports are located on the side of the device. Use appropriate cables and software (not included) to connect the thermometer to a computer for data logging or analysis. Refer to the software's user guide for detailed instructions on data transfer.



Figure 5: Side view of the thermometer, showing the DC 9V input and data output ports.

# MAINTENANCE

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## 1. Cleaning

To clean the thermometer, wipe it with a soft, damp cloth. Do not use abrasive cleaners or solvents. Ensure the device is powered off and disconnected from any probes or power sources before cleaning. The outer material is Polycarbonate (PC).

## 2. Battery Replacement

When the battery indicator appears on the display, replace the 9V battery as described in the "Setup" section. Dispose of old batteries responsibly according to local regulations.

## 3. Storage

Store the thermometer in a cool, dry place away from direct sunlight and extreme temperatures. If storing for an extended period, remove the battery to prevent leakage. The included carrying case (Figure 6) is ideal for protection during storage and transport.



Figure 6: The protective carrying case for the CENTER-300 thermometer.

## TROUBLESHOOTING

This section addresses common issues you might encounter with your CENTER-300 thermometer.

Problem	Possible Cause	Solution
Device does not power on.	Low or dead battery; incorrect battery polarity.	Replace the 9V battery. Ensure correct polarity during installation.
Inaccurate temperature readings.	Loose or faulty thermocouple connection; damaged thermocouple probe; probe not properly placed.	Check thermocouple connection. Replace probe if damaged. Ensure probe is in full contact with the measurement target.

Problem	Possible Cause	Solution
Display shows "OL" or "---".	Temperature is outside the measurable range; open circuit in thermocouple.	Ensure the temperature is within -200°C to 1370°C (-328°F to 2498°F). Check thermocouple for breaks or disconnections.
Auto power off too quickly.	Default auto power off setting.	Consult the full instruction manual for steps to disable or adjust the auto power off timer.

## SPECIFICATIONS

Key technical specifications for the Graigar CENTER-300 Digital Thermometer:

Feature	Detail
Model Number	CENTER-300
Measurement Range	-200°C to 1370°C (-328°F to 2498°F)
Resolution	0.1 °C, 0.1 °F
Display Type	Digital
Power Source	9V Battery (NEDA 1604 6F22 006P)
Connectivity	USB, Bluetooth
Special Features	High Accuracy, Large Display, Timer, MAX/AVG/MIN, REL, HOLD, Auto Power Off
Item Weight	1.1 Pounds
Outer Material	Polycarbonate (PC)
Color	Black
Certification	CE

## WARRANTY AND SUPPORT

This product is covered by a standard manufacturer's warranty. For specific warranty terms and conditions, please refer to the documentation included with your purchase or contact Graigar customer support. A 30-day return/replacement policy is typically offered by sellers.

For technical assistance, troubleshooting, or to inquire about replacement parts, please contact Graigar customer service through their official website or the contact information provided in your product packaging. Please have your model number (CENTER-300) and purchase details ready when contacting support.

## VIDEO RESOURCES

No official product videos from the seller were found in the provided data to embed in this manual. Please refer to the manufacturer's official website for any available video tutorials or demonstrations.

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