

## Elitech RC-4

# Elitech RC-4 Temperature Data Logger User Manual

Model: RC-4

## 1. INTRODUCTION

The Elitech RC-4 is a versatile temperature data logger designed for precise temperature monitoring. It features a wide measuring range, high accuracy, and a large record capacity, making it suitable for various applications requiring reliable temperature data collection. This manual provides detailed instructions for the proper setup, operation, and maintenance of your RC-4 data logger.

## 2. PRODUCT OVERVIEW

### 2.1 Key Features

- Temperature measuring range: -30 °C to +60 °C (internal sensor); -40 °C to +85 °C (optional external sensor).
- High accuracy:  $\pm 0.5$  °C within -20 °C to +40 °C,  $\pm 1$  °C otherwise.
- Record capacity: 16000 points (maximum).
- Adjustable record interval: 10 seconds to 24 hours.
- Internal NTC thermal resistor sensor.
- USB interface for data communication.
- Power supply: CR2450 battery or USB interface.
- Compact size: Approximately 84 x 44 x 20 mm.
- Automatic report generation.
- Over-limit buzzer alarm.
- Support for data correction.
- Replaceable battery.

### 2.2 Components

The Elitech RC-4 package typically includes:

- Elitech RC-4 Data Logger unit
- Calibration Certificate
- User Manual (this document)
- USB Cable (for connection to PC)

- Software CD (for PC software installation)

## 2.3 Product Diagram



Figure 1: Front view of the Elitech RC-4 data logger, illustrating its display, control button, and icons representing features like high precision sensor, automatic report generation, over-limit buzzer alarm, replaceable battery, data correction support, and external temperature probe capability.

## 3. SETUP

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### 3.1 Battery Installation

The RC-4 data logger is powered by a CR2450 button cell battery. Ensure the battery is correctly installed before first use. The battery compartment is typically located on the back of the device. Observe polarity when inserting the battery.

### 3.2 Software Installation

To configure the data logger and view recorded data, you need to install the Elitech software on your computer. The software is typically provided on a CD-ROM included with the product. If you do not have the CD, the software can be downloaded from the official Elitech website, usually at [elitechstore.com/pages/download](http://elitechstore.com/pages/download).

1. Insert the software CD into your computer's CD-ROM drive or navigate to the download page.
2. Follow the on-screen instructions to install the Elitech data logger software for your operating system (Windows or Mac).
3. Once installed, launch the software.

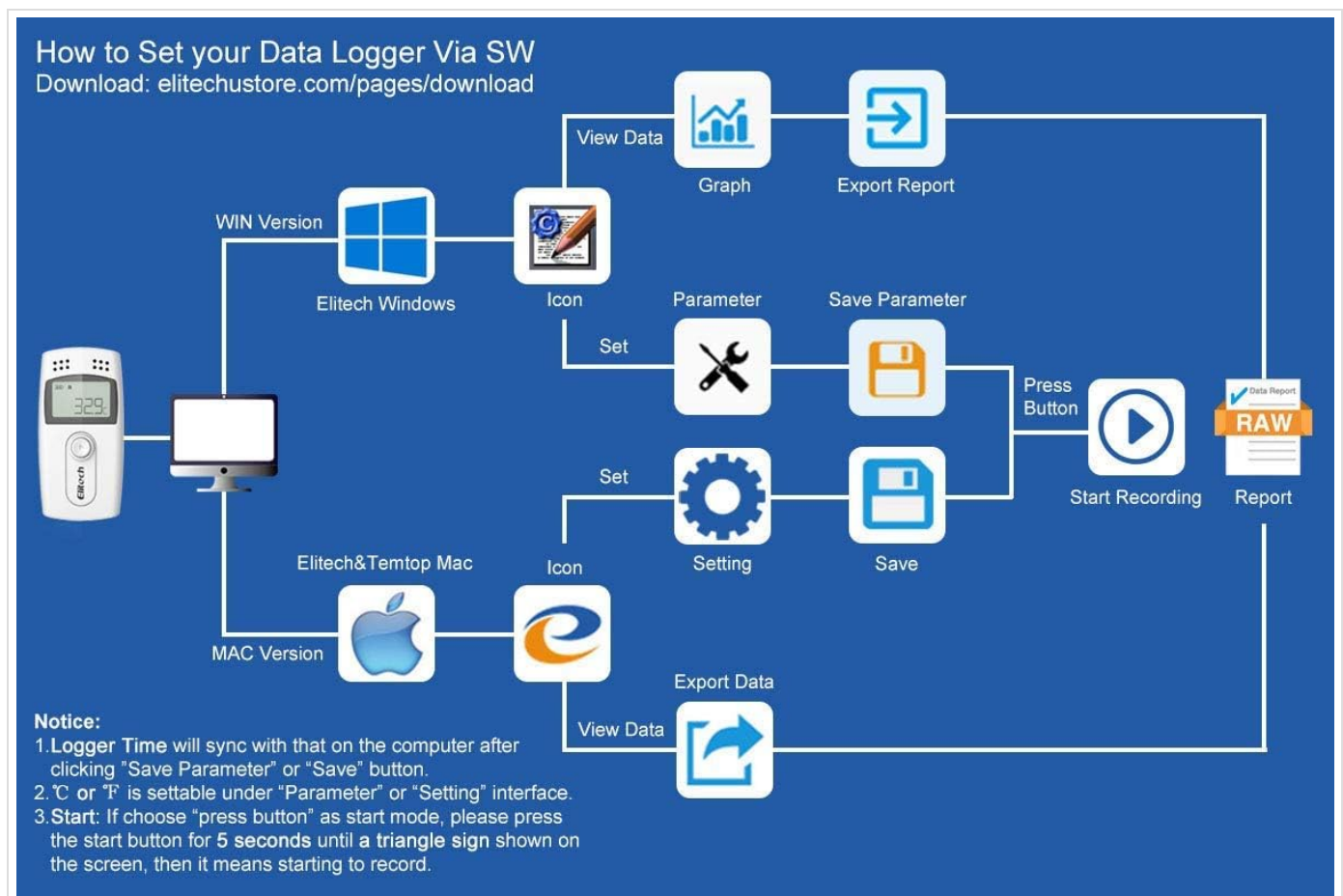


Figure 2: Software setup and configuration workflow for the Elitech RC-4, detailing steps for both Windows and Mac users to set parameters, save settings, and initiate recording.

### 3.3 Initial Configuration

Before starting a recording session, configure the data logger using the Elitech software:

- Connect the RC-4 to your computer via the USB interface.
- In the software, navigate to the "Parameter" or "Setting" interface.
- Set desired parameters such as recording interval, alarm thresholds, and start/stop modes.
- Click "Save Parameter" or "Save" to apply the settings to the data logger. The logger's internal clock will synchronize with your computer's time during this process.



Figure 3: The Elitech RC-4 data logger connected to a computer via its USB port, ready for configuration or data download.

## 4. OPERATING INSTRUCTIONS

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### 4.1 Starting a Recording Session

After configuring the data logger, disconnect it from the computer. To start recording:

- Press and hold the start button (usually the main button on the front) for approximately 5 seconds.
- A triangle sign will appear on the LCD screen, indicating that recording has successfully started.
- Place the data logger in the environment where temperature monitoring is required.

### 4.2 Stopping a Recording Session

The recording session will stop automatically based on the settings configured in the software (e.g., reaching maximum record points, specific stop time). You can also manually stop recording if the software settings allow for it, typically by pressing and holding the start button again for a few seconds until the triangle sign disappears or a stop indicator appears.

### 4.3 Viewing Current Data

The LCD screen on the RC-4 displays the current temperature reading. Short presses of the main button may cycle through other information such as maximum/minimum recorded temperatures or remaining battery life, depending on the model's firmware.

## 5. DATA MANAGEMENT

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### 5.1 Downloading Data

To download the recorded data:

1. Connect the RC-4 data logger to your computer using the USB cable.
2. Launch the Elitech data logger software.
3. The software should automatically detect the connected device and prompt you to download the data, or you may need to click a "View Data" or "Download" button within the application.

### 5.2 Viewing and Analyzing Data

Once the data is downloaded, the software will display it in various formats, including tables and graphs. You can analyze temperature trends, identify excursions, and review alarm events.

### 5.3 Exporting Reports

The Elitech software allows you to export the recorded data into various report formats for documentation and sharing.



## Export PDF/Word/Excel/Txt



Figure 4: The Elitech RC-4 supports exporting data reports into common formats such as PDF, Word, Excel, and plain text files, facilitating easy data sharing and analysis.

Common export formats include:

- PDF
- Microsoft Word (.doc/.docx)
- Microsoft Excel (.xls/.xlsx)
- Plain Text (.txt)

*Note: When printing results, ensure you designate the specific data range or summary you wish to print to avoid printing every single reading, which can be extensive.*

## 6. MAINTENANCE

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### 6.1 Cleaning

To maintain the device, wipe clean with a soft, dry cloth. Do not use abrasive cleaners or immerse the device in water.

### 6.2 Battery Replacement

When the battery indicator on the LCD screen shows low power, replace the CR2450 battery. Open the battery compartment, remove the old battery, and insert a new CR2450 battery, ensuring correct polarity. Dispose of used batteries according to local regulations.

## 7. TROUBLESHOOTING

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### 7.1 Software Not Found or Not Working

- **Missing Software CD:** If the original software CD is lost, download the latest software version from the official Elitech website ([elitechstore.com/pages/download](http://elitechstore.com/pages/download)).
- **Installation Issues:** Ensure your operating system meets the software requirements. Try reinstalling the software.
- **Device Not Recognized:** Ensure the USB cable is securely connected to both the data logger and the computer. Try a different USB port.

### 7.2 Data Logger Not Recording

- **Battery Level:** Check if the battery is low or depleted. Replace the CR2450 battery if necessary.
- **Start Command:** Ensure you have pressed and held the start button for 5 seconds until the triangle sign appears on the screen.
- **Configuration:** Reconnect to the software and verify that the recording parameters are correctly set and saved to the device.

### 7.3 Inaccurate Readings

- **Sensor Obstruction:** Ensure the sensor area is not blocked or covered.
- **Environmental Factors:** Avoid placing the logger in direct sunlight, near heat sources, or in areas with extreme air currents that could affect readings.
- **Calibration:** If persistent inaccuracies are observed, consider recalibration or contacting support.

## 8. SPECIFICATIONS

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| Parameter                              | Value                                     |
|----------------------------------------|-------------------------------------------|
| Temperature Measuring Range (Internal) | -30 °C ~ +60 °C                           |
| Temperature Measuring Range (External) | -40 °C ~ +85 °C                           |
| Accuracy                               | ±0.5 °C (-20 °C ~ +40 °C); ±1 °C (others) |
| Resolution                             | 0.1 °C                                    |
| Record Capacity                        | 16000 points (MAX)                        |
| Record Interval                        | 10 seconds ~ 24 hours (adjustable)        |
| Sensor                                 | Internal NTC thermal resistor             |
| Communication Interface                | USB interface                             |

| Parameter                 | Value                                            |
|---------------------------|--------------------------------------------------|
| Power Supply              | CR2450 battery or USB power                      |
| Dimensions (L x W x H)    | Approx. 84 x 44 x 20 mm (3.3 x 1.73 x 0.79 inch) |
| Connectivity Technology   | USB                                              |
| Product Care Instructions | Wipe Clean                                       |

## 9. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please refer to the warranty card included with your product or visit the official Elitech website. You can typically find support resources, FAQs, and contact information on their website.  
**Elitech Official Website:** <https://www.elitechustore.com>

