Elitech RC-5+ TE

Elitech RC-5+ TE Digital USB Temperature Data Logger Instruction Manual

Brand: Elitech | Model: RC-5+ TE

1. INTRODUCTION

The Elitech RC-5+ TE is a versatile digital USB temperature data logger designed for reliable and accurate temperature monitoring across various applications, including life sciences, food cold chain, and industrial fields. This device features both an internal and an external sensor, allowing for flexible measurement options. It generates automatic PDF reports without requiring special software, simplifying data access and analysis. The RC-5+ TE is compliant with FDA 21 CFR Part 11 standards, ensuring high quality and regulatory adherence.

Image: Elitech RC-5+ TE Reusable Temperature Data Logger, ideal for cold chain transportation temperature monitoring.

Key Features:

- **Dual Sensors:** Equipped with both internal and external temperature probes for comprehensive monitoring.
- **Automatic PDF Report:** Generates PDF reports directly upon USB connection, no proprietary software needed for basic data access.
- **High Accuracy:** Provides precise temperature readings with a low margin of error.

- **Large Data Capacity:** Stores up to 32,000 data points.
- **Wide Temperature Range:** Suitable for extreme cold and heat, from -40°C to +85°C (-40°F to 185°F) with the external probe.
- **IP67 Waterproof:** Offers robust protection against water and dust.
- **Configurable Parameters:** Allows setting of temperature units, alarm ranges, and logging intervals.
- **Long Battery Life:** Up to 1 year of operation on a single CR2032 battery.

Product Overview Video:

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Video: An overview of the Elitech RC-5+ and RC-5+ TE temperature data loggers, highlighting their features and applications.

2. WHAT'S IN THE BOX

Upon opening your Elitech RC-5+ TE package, you should find the following items:

- Elitech RC-5+ TE Data Logger
- USB External Probe/Sensor
- Calibration Certificate
- User Manual

Image: The Elitech RC-5+ TE package includes the data logger, external probe, calibration certificate, and user manual.

3. SETUP

3.1 Battery Installation

The RC-5+ TE uses a CR2032 lithium metal battery. To install or replace the battery:

1. Locate the battery compartment on the back of the data logger.
2. Use a coin or small tool to twist and open the battery cover.
3. Insert the CR2032 battery with the positive (+) side facing up.
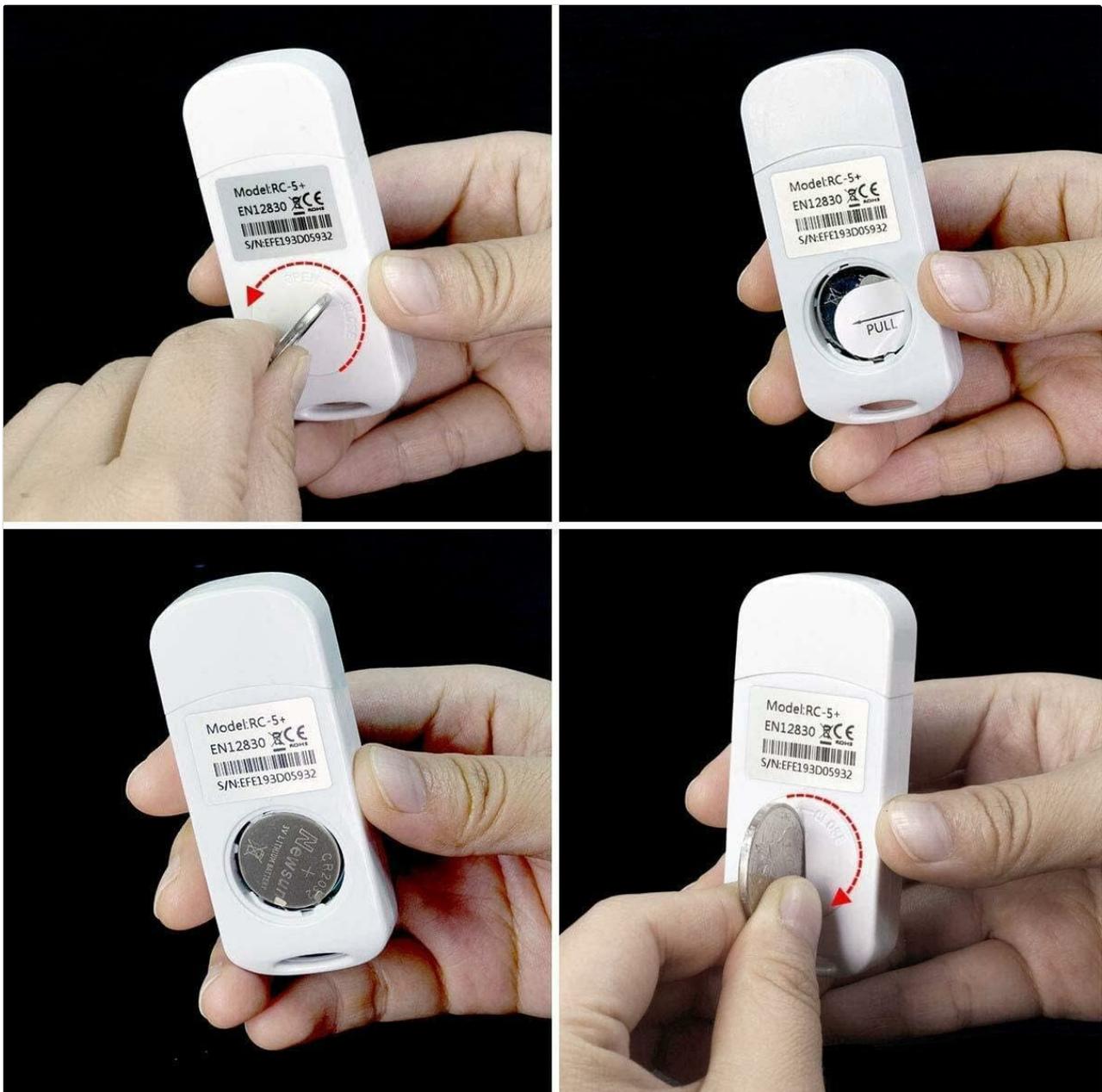4. Replace the battery cover and twist to secure it.

Image: Step-by-step guide for installing the CR2032 battery into the Elitech RC-5+ TE data logger.

3.2 Software Installation and Initial Configuration

While the RC-5+ TE can generate basic PDF reports without software, the Elitechlog software (available for Windows and Mac) provides advanced configuration options and detailed data analysis. To download and install the software:

1. Visit the official Elitech website: www.elitechustore.com.
2. Navigate to the 'Download' section and select 'Software'.
3. Choose the appropriate software version for your operating system (Windows or Mac) and download the installer.
4. Follow the on-screen prompts to complete the installation.
5. Once installed, connect the RC-5+ TE to your computer's USB port.
6. Open the Elitechlog software. Go to the 'Settings' tab (or 'Parameter' tab on Windows) to configure the device.
7. Set the desired logging interval (from 10 seconds up to 12 hours), temperature unit (°C/°F), time zone, and alarm settings.
8. For the RC-5+ TE, select whether to use the internal or external probe under 'Probe Type'.

9. Click 'Save' to apply your settings to the device.
10. Safely eject the device from your computer.

Software Setup and Configuration Video:

Your browser does not support the video tag.

Video: Detailed instructions on how to download, install, and configure the Elitechlog software for RC-5+ and RC-5+ TE data loggers.

3.3 Connecting the External Sensor

The RC-5+ TE model includes an external sensor for more precise or remote temperature measurements. Simply plug the external sensor cable into the designated port on the data logger. Ensure it is securely connected.

Image: The Elitech RC-5+ TE with its external sensor connected and the USB port exposed.

4. OPERATION

4.1 Starting a Recording

To begin temperature logging, press and hold the **left play button** (►) for approximately 5 seconds. The play sign will appear on the LCD, indicating that recording has started.

4.2 Stopping a Recording

To stop temperature logging, press and hold the **right pause button** ( ) for approximately 5 seconds. The stop sign will appear on the LCD, indicating that recording has ceased.

4.3 Viewing Data on the LCD

Press the **left play button** (►) briefly to cycle through the following display menus:

- Current Temperature
- Number of Logged Readings
- Current Time
- Current Date
- Maximum Temperature Recorded
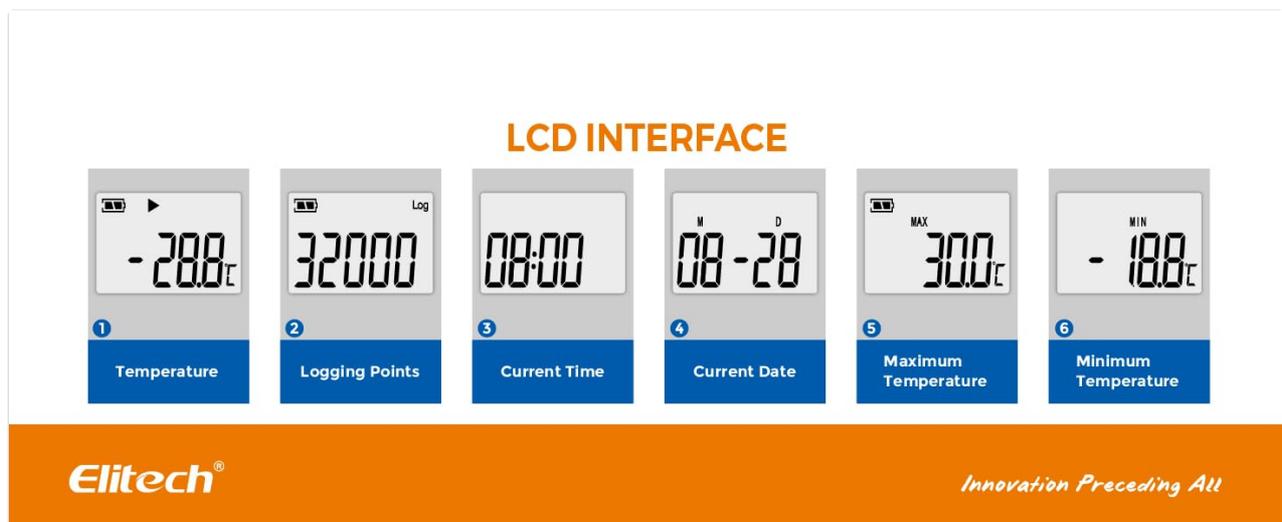- Minimum Temperature Recorded

Image: Visual representation of the Elitech RC-5+ TE LCD interface, showing various data points like temperature, logging points, time, date, and min/max values.

4.4 Marking Events

During logging, you can mark specific events by double-clicking the **right pause button** ( ). This feature is useful for noting significant occurrences during the monitoring period.

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Image: Instructions on how to clear data and restart the recorder, and how to double-click to mark an event on the Elitech RC-5+ TE.

5. DATA MANAGEMENT

5.1 Automatic PDF Report Generation

The RC-5+ TE automatically generates a PDF report when plugged into a computer's USB port. No special software is required to view this report.

1. Ensure the data logger has stopped recording.
2. Remove the protective cap from the USB connector.
3. Plug the data logger into an available USB port on your computer.
4. The device will appear as a removable drive. Open the drive to find the generated PDF report.

Image: The Elitech RC-5+ TE connected to a laptop, demonstrating automatic PDF and CSV report generation without additional software.

5.2 Exporting Data with Elitechlog Software

For more detailed analysis and export options (e.g., Excel, AELT), use the Elitechlog software:

1. Connect the data logger to your computer and open the Elitechlog software.
2. The software will automatically read the data from the device.
3. Click on the 'Export Data' option within the software interface.
4. Choose your desired file format (Excel, PDF, AELT) and specify a save location.
5. Click 'Save' to export the data.

Image: The Elitechlog software interface showing data comparison graphs and tables from multiple loggers, allowing for powerful analysis.

6. MAINTENANCE

6.1 Battery Replacement

Refer to section 3.1 for detailed instructions on how to replace the CR2032 battery. It is recommended to replace the battery annually or when the low battery indicator appears on the LCD.

6.2 Cleaning

To clean the data logger, simply wipe it with a clean, damp cloth. Avoid using abrasive cleaners or solvents that could damage the device. The device is freezer safe.

6.3 Waterproof Protection

The RC-5+ TE features an IP67 waterproof rating, meaning it is protected against dust ingress and immersion in water up to 1 meter for 30 minutes. Ensure the USB cap is securely in place to maintain its waterproof integrity.

Image: The Elitech RC-5+ TE data logger submerged in water, demonstrating its IP67 waterproof capability.

7. TROUBLESHOOTING

7.1 No Data Recorded / "Battery Too Low" Error

- Check the battery level on the LCD display. If low, replace the CR2032 battery (refer to section 3.1).

- Ensure the recording was properly started by pressing and holding the left play button until the play sign appears.
- Verify that the logging interval and start mode are correctly configured in the Elitechlog software.

7.2 "nC" Error (No Connection)

- This error typically indicates a problem with the external sensor connection. Ensure the external sensor is firmly plugged into the data logger's port.
- If the issue persists, try unplugging and re-plugging the sensor.
- If using the external sensor, ensure the 'Probe Type' setting in the Elitechlog software is set to 'External'.

7.3 Software Not Recognizing Device

- Ensure the Elitechlog software is correctly installed and updated to the latest version.
- Try connecting the data logger to a different USB port on your computer.
- Restart your computer and the Elitechlog software.

8. SPECIFICATIONS

Feature	Specification
Model Name	RC-5+ TE
Temperature Measurement Range (External Probe)	-40°C to +85°C (-40°F to 185°F)
Temperature Measurement Range (Internal Probe)	-30°C to +70°C (-22°F to 158°F)
Temperature Accuracy	±0.5°C/±0.9°F (-20°C to +40°C); ±1°C/±1.8°F (others)
Resolution	0.1°C/°F
Data Capacity	32,000 points
Logging Interval	Configurable from 10 seconds to 12 hours
Alarm Settings	Up to 5 alarm settings
Connectivity	USB
Waterproof Rating	IP67
Battery Type	CR2032 Lithium Metal (included)
Battery Life	Up to 1 year
Dimensions	3.2 x 1.3 x 0.5 inches
Item Weight	2.39 ounces
Material	Plastic
Compliance	FDA 21 CFR Part 11

9. Warranty and Support

9.1 Warranty Information

The Elitech RC-5+ TE Digital USB Temperature Data Logger comes with a **12-month warranty** from the date of purchase. This warranty covers manufacturing defects and ensures the product meets its specified performance standards. Please retain your proof of purchase for warranty claims.

9.2 Customer Support

For any technical assistance, troubleshooting, or inquiries regarding your Elitech product, please contact Elitech Customer Support. They offer 24/7 support via email and phone.

- **Email Support:** Refer to the Elitech website or your product packaging for the specific email address.
- **Phone Support:** Refer to the Elitech website or your product packaging for the specific phone number.
- **Online Resources:** Visit the Elitech website (www.elitechustore.com) for FAQs, software downloads, and additional user manuals.