

Elitech RC-51

Elitech RC-51 Digital Temperature Data Logger Instruction Manual

Model: RC-51

INTRODUCTION

The Elitech RC-51 is a reusable digital temperature data logger designed for precise and reliable temperature monitoring. It features a USB interface for direct connection to a computer, allowing for automatic PDF report generation without the need for specialized software. This device is capable of recording up to 32,000 temperature points across a wide range, making it suitable for various applications requiring accurate temperature data. This manual provides comprehensive instructions for setting up, operating, and maintaining your RC-51 data logger.

PRODUCT OVERVIEW



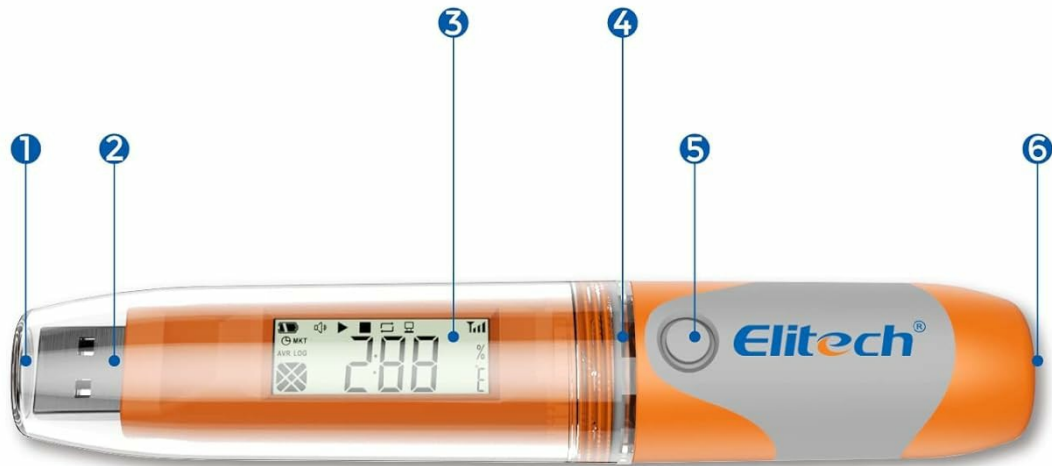
Figure 1: Elitech RC-51 Digital Temperature Data Logger

This image displays the Elitech RC-51 digital temperature data logger, showcasing its pen-style design with a transparent cap covering the USB connector and an integrated LCD screen.

Key Features:

- **Reusable Temperature Data Logger:** Capable of recording up to 32,000 temperature points.
- **Wide Temperature Range:** Measures from -22°F to 158°F (-30°C to +70°C).
- **Plug and Play USB:** Automatically generates PDF reports upon connection to a PC, eliminating the need for software installation.
- **LCD Visual Display:** Allows users to view current temperature, maximum/minimum values, current date, and logging points. Fahrenheit/Celsius units are switchable.
- **Multiple Start Options:** Start logging by button press, pre-set time, or start delay via Elitechlog software.
- **Alarm Settings:** Supports up to 5 alarm settings to monitor critical temperature thresholds.
- **IP67 Waterproof Rating:** Provides protection against dust and water ingress.

Components:



1 Transparent cap

2 USB port

3 LCD screen

4 Seal ring

5 Button & Bi-color indicator
(red and green)

6 Temperature Sensor

Figure 2: Labeled Components of the RC-51 Data Logger

This diagram labels the key components of the RC-51 data logger: 1. Transparent cap, 2. USB port, 3. LCD screen, 4. Seal ring, 5. Button & Bi-color indicator (red and green), 6. Temperature Sensor.

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Video 1: Elitech RC-51 Series Temperature/Humidity Data Logger Overview

This video provides a general overview of the Elitech RC-51 series data loggers, highlighting their design and primary functions.

SETUP

1. Battery Installation

The RC-51 uses one Lithium Metal battery (included). Ensure the battery is correctly installed before initial use.

1. Carefully remove the back panel of the data logger.
2. Insert the Lithium Metal battery, ensuring correct polarity.

3. Replace the back panel securely.

2. Initial Configuration (Optional, via Software)

While the RC-51 can generate PDF reports without software, advanced settings like log interval, start mode, and alarm thresholds can be configured using the Elitechlog software. This software is available for both Windows and Mac platforms.

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Video 2: Elitech Software for RC-5+ & RC-5+-TE (Relevant for RC-51 software setup)

This video demonstrates how to download and use the Elitechlog software for configuring data loggers, including setting parameters like log interval, start mode, and alarm thresholds. Although it references RC-5+, the process is similar for the RC-51.

1. Download the Elitechlog software from the official Elitech website.
2. Install the software on your computer (Windows or Mac).
3. Remove the transparent cap from the RC-51 and plug the data logger into a USB port on your computer.
4. Open the Elitechlog software. The device information should appear.
5. Navigate to the 'Settings' or 'Parameter' tab within the software.
6. Configure desired settings:
 - **Log Interval:** Set how frequently the device records data (e.g., every 10 seconds to every 12 hours).
 - **Start Mode:** Choose between 'Start by button-press', 'Start immediately', or 'Timer start' (pre-set time).
 - **Temperature Unit:** Select Fahrenheit (°F) or Celsius (°C).
 - **Time Zone:** Adjust the time zone as needed.
 - **Alarm Settings:** Define up to 5 high and low temperature alarm thresholds.
7. Click 'Save' to apply the settings to the data logger.
8. Safely eject the data logger from your computer.

OPERATING THE DATA LOGGER

1. Starting Data Logging

Depending on your configured start mode:

- **Button Press Start:** Press and hold the left button (Play/Start) for 5 seconds until the play sign appears on the LCD.
- **Immediate Start:** If configured for immediate start, logging begins as soon as the device is unplugged from the computer after saving settings.
- **Timer Start:** Logging will begin automatically at the pre-set date and time.

2. Viewing Data on LCD

Press the left button (Play/Start) briefly to cycle through the following information on the LCD display:

- Current Temperature
- Number of Logged Readings
- Current Time
- Current Date

- Maximum Temperature Recorded
- Minimum Temperature Recorded

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Video 3: Elitech RC-51/RC-51H Data Logger Operation Guide

This video provides a detailed guide on operating the Elitech RC-51/RC-51H data logger, including starting and stopping logging, and navigating the LCD display.

3. Stopping Data Logging

Depending on your configured stop mode:

- **Button Press Stop:** Press and hold the right button (Pause/Stop) for 5 seconds until the stop sign appears on the LCD.
- **Software Stop:** Logging can be stopped via the Elitechlog software when connected to a PC.
- **Full Memory Stop:** Logging automatically stops when the 32,000 data point memory is full.

4. Generating Reports

The RC-51 automatically generates a PDF report when plugged into a computer.

1. Remove the transparent cap and plug the data logger into a USB port on your computer.
2. The device will appear as a removable drive. A PDF file containing the data log will be automatically generated and saved to the device.
3. Open the PDF file to view the temperature data, including a graph, statistics, and a table of all recorded points.
4. For Excel reports or further analysis, open the Elitechlog software, connect the device, and use the 'Export Data' function to save data in Excel format.

Generate PDF Without Software

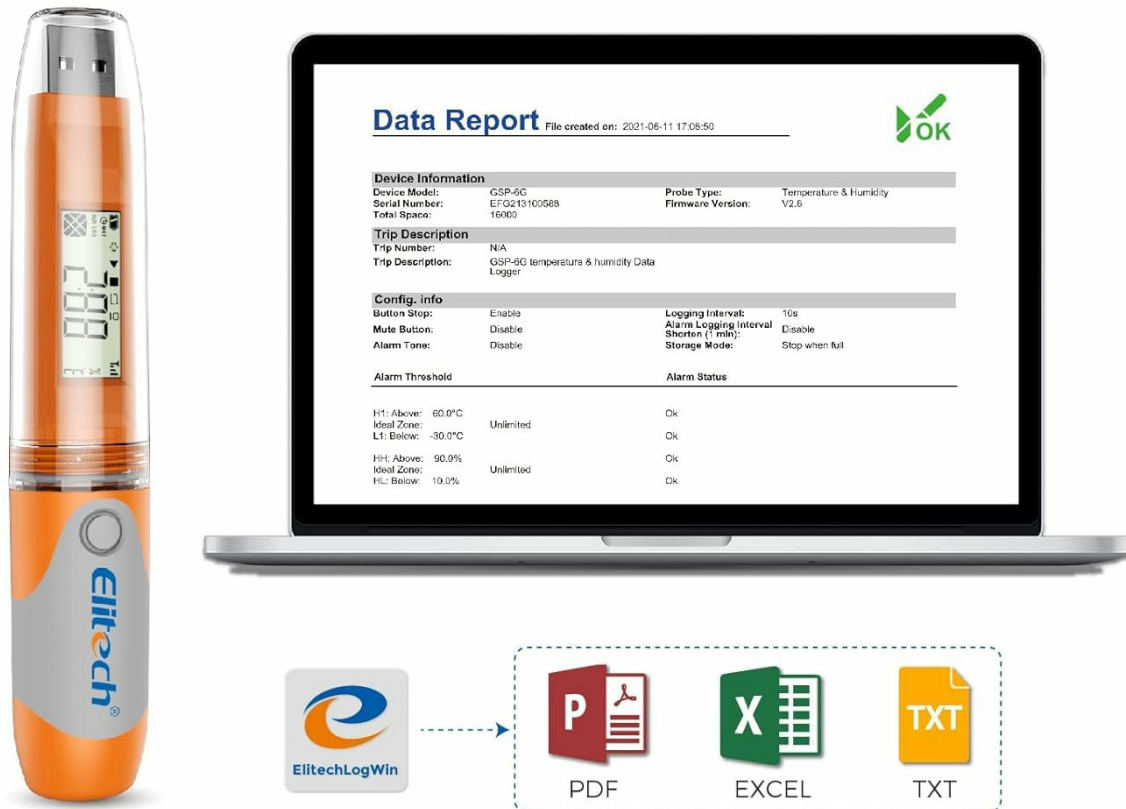


Figure 3: Automatic PDF Report Generation

This image illustrates the Elitech RC-51 data logger connected to a laptop, demonstrating its ability to automatically generate a PDF report without requiring additional software installation.

MAINTENANCE

1. Cleaning

Wipe the device clean with a soft, dry cloth. Do not use abrasive cleaners or solvents.

2. Battery Replacement

The RC-51 uses a replaceable Lithium Metal battery. If the battery indicator on the LCD is low or the device does not power on, replace the battery by following the installation steps in the 'Setup' section.

3. Storage

Store the data logger in a cool, dry place away from direct sunlight and extreme temperatures when not in use.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Device does not power on.	Low or dead battery.	Replace the Lithium Metal battery.
No PDF report generated.	Device not properly connected to USB port; USB port malfunction.	Ensure secure USB connection. Try a different USB port or computer.
Logging does not start.	Incorrect start mode configuration; button not pressed long enough.	Verify start mode in Elitechlog software. Ensure button is held for 5 seconds.
Inaccurate temperature readings.	Device exposed to extreme conditions; calibration needed.	Ensure device is used within specified operating range. Contact support for calibration information.

SPECIFICATIONS

Feature	Detail
Model	RC-51
Temperature Measuring Range	-30°C to +70°C (-22°F to 158°F)
Temperature Accuracy	±0.5°C (±0.9°F)
Resolution	0.1°C / 0.1°F
Data Storage Capacity	32,000 points
Log Interval	Configurable from 10 seconds to 12 hours
Start Mode	Button press, pre-set time, or start delay
Stop Mode	Button press, software stop, or full memory
Alarm Settings	Up to 5 configurable alarm thresholds
Display	LCD
Interface	USB 2.0
Power Supply	1 x CR2032 Lithium Metal battery (included)
Protection Class	IP67 (Waterproof)
Certifications	CE, FDA
Material	Polycarbonate (PC)

Feature	Detail
Dimensions	Approx. 3.14" x 0.99" (as per image)

Elitech®

Innovation Preceding All

Specification

-40 ~ 85°C, ±0.5°C, 0.1°C; -40 ~ 185°F

32000 points Max

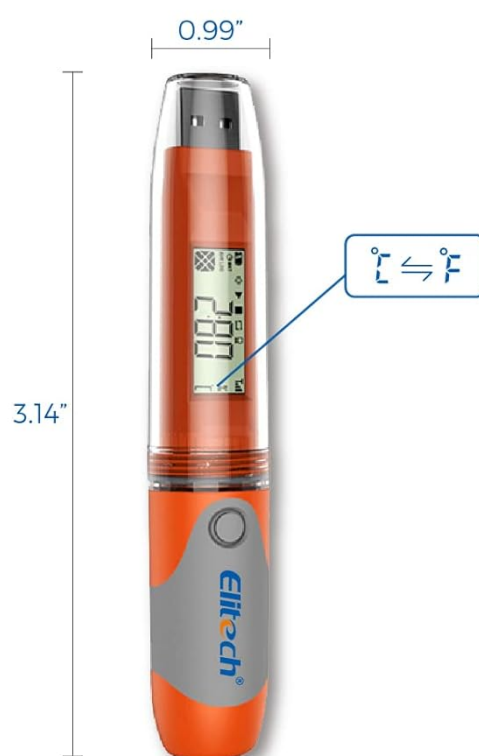


Figure 4: Elitech RC-51 Data Logger Dimensions

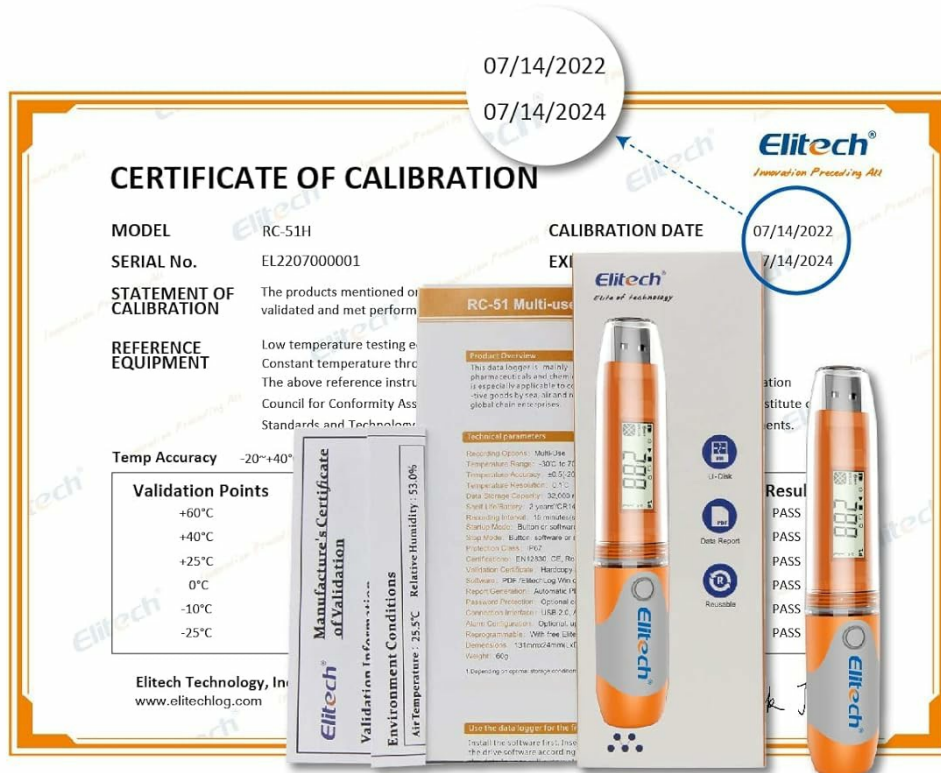
This image provides a visual representation of the RC-51 data logger's dimensions, indicating a length of approximately 3.14 inches and a width of 0.99 inches.

WARRANTY AND SUPPORT

Warranty Information

The Elitech RC-51 data logger typically comes with a manufacturer's warranty. Please refer to the included warranty card or the official Elitech website for specific terms and conditions regarding your product's warranty period and coverage.

Two-year Validation Certificate



RC-51 Data Logger*1 User Manual*1 Validation Certificate*1

Figure 5: Example of a Two-year Validation Certificate

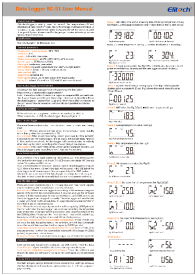
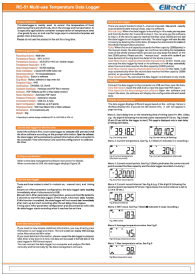

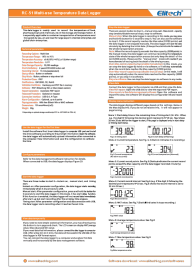
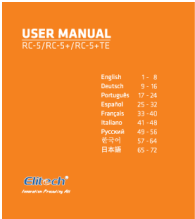

This image displays an example of a two-year validation certificate for an Elitech data logger, indicating calibration and expiration dates. A similar certificate may be included with your RC-51.

Technical Support

For technical assistance, troubleshooting, or inquiries regarding calibration certificates, please contact Elitech customer support. 24/7 US Technician Support is available via email and phone.

- **Email:** Refer to your product packaging or the official Elitech website for contact details.
- **Phone:** Refer to your product packaging or the Elitech website for contact details.
- **Online Resources:** Visit the Elitech website for FAQs, software downloads, and additional support materials.

Related Documents - RC-51

	<p>Elitech RC-51 Data Logger User Manual</p> <p>User manual for the Elitech RC-51 temperature data logger, detailing its features, specifications, setup, operation, data logging, and battery replacement procedures.</p>
	<p>Elitech RC-51 Multi-use Temperature Data Logger User Manual</p> <p>Comprehensive user manual for the Elitech RC-51 Multi-use Temperature Data Logger, covering product overview, technical specifications, operation instructions, display menus, report generation, and battery replacement.</p>
	<p>Elitech RC-51 Multi-use Temperature Data Logger - Technical Specifications</p> <p>Explore the Elitech RC-51, a versatile temperature data logger designed for accuracy and reliability. This document provides technical specifications, features, and software download information for the RC-51 model.</p>
	<p>Elitech RC-51 Multi-use Temperature Data Logger User Guide and Specifications</p> <p>Comprehensive guide to the Elitech RC-51 multi-use temperature data logger, covering product overview, technical parameters, usage instructions, data viewing, battery replacement, and PDF report content. Features include a wide temperature range, high accuracy, and large storage capacity for logistics and cold chain monitoring.</p>
	<p>Elitech RC-5+ Temperature Data Logger: User Manual and Specifications</p> <p>This manual provides detailed instructions for using the Elitech RC-5+ USB temperature data logger, covering setup, operation, data download, and analysis with Elitech software. Features and technical specifications are also included.</p>
	<p>Elitech RC-5 Quick Start Guide: Temperature Data Logger</p> <p>Quick start guide for the Elitech RC-5 temperature data logger, covering battery installation, software setup, logger operation, technical specifications, and troubleshooting.</p>