Lascar Electronics EL-USB-2-LCD+

Lascar Electronics EL-USB-2-LCD+ High Accuracy Humidity Temperature and Dew Point Data Logger User Manual

This manual provides comprehensive instructions for the Lascar Electronics EL-USB-2-LCD+ data logger, covering setup, operation, maintenance, troubleshooting, and technical specifications for accurate humidity, temperature, and dew point monitoring.

1. Product Overview

The Lascar Electronics EL-USB-2-LCD+ is a compact, high-accuracy data logger designed to measure and record humidity, temperature, and dew point. It features an integrated LCD display that shows the latest logged values, minimum/maximum readings, and operational status. Data is easily downloaded to a PC via a USB port for analysis using the included software. This device is ideal for monitoring environmental conditions in various applications.

Key Features:

- LCD Display: Shows current ambient temperature and humidity readings.
- Measurement Range: -35°C to 80°C (-31°F to 176°F) and 0 to 100% RH.
- Accuracy: 0.5°C for temperature and 3.0% RH for humidity.
- Sampling Rate: Adjustable from 10 seconds to 12 hours.
- Memory: Stores over 16,000 readings per parameter.
- Battery Life: Approximately 1 year with a 1/2 AA 3.6 Volt Lithium Battery.
- Indicators: LED operational and alarm indicators.
- Logging Modes: Immediate, delayed, push-to-start logging.



Figure 1: Lascar EL-USB-2-LCD+ Data Logger with LCD display.

2. Setup Instructions

Follow these steps to set up your EL-USB-2-LCD+ data logger using the EasyLog software.

2.1. Software Installation

The PC-compatible software is available as a free download from the manufacturer's website. Install the software on your computer before connecting the data logger.

2.2. Connecting the Data Logger

1. Remove the protective cap from the data logger to expose the USB connector.
2. Insert the data logger into an available USB port on your computer.
3. Launch the EasyLog software.



Figure 2: Data Logger connected to a computer.

2.3. Configuring Settings

Within the EasyLog software, select 'Set up and start the USB data logger'. If the logger is currently logging, you will be prompted about possible data loss; confirm to proceed.

1. **Logger Name:** Assign a unique name (max 15 characters) to identify your data logger.
2. **Temperature Scale:** Choose between degrees Celsius (°C) or Fahrenheit (°F).
3. **Sampling Rate:** Select how frequently the data logger will record a reading (e.g., 10 seconds, 30 minutes). The software will indicate how long it will take to fill the logger's memory at the selected rate.
4. **Display Function (for LCD models):**
    - LCD Off: Display remains off.
    - LCD On for 30 seconds after button press: Display activates temporarily.
    - LCD Always On: Display remains active. (Note: Prolonged use of the display will reduce battery life. LCD response time may slow down in low temperatures, returning to normal at room temperatures.)

5. **Logger Behavior When Full:** Choose whether the logger stops recording when its memory is full (recommended to prevent data loss) or continues to log by overwriting the oldest data.
6. **Alarm Setup:**
    - Tick 'High Alarm' and 'Low Alarm' checkboxes for both temperature and relative humidity.
    - Use the scroll-down buttons to set the desired high and low alarm thresholds.
    - Optionally, tick 'Hold' next to an alarm to make the logger continue indicating an alarm condition even after the temperature/humidity returns to within the set parameters.
7. **Start Options:** Select how you want the data logger to begin recording:
    - Immediate start: Logging begins immediately after configuration.
    - Start when the data logger button is pressed: Logging starts when the physical button on the device is pressed.
    - Delay the start: Set a specific start time and date for logging to begin.
8. Click 'Finish' to apply all settings. The software will confirm successful configuration.

Your browser does not support the video tag.

Video 1: EL-USB-2-LCD+ Data Logger Setup. This video demonstrates the step-by-step process of configuring the data logger using the EasyLog software, including naming the logger, setting temperature scales, sampling rates, display options, alarm thresholds, and start methods.

Once configured, remove the data logger from the USB port and place it in your desired monitoring location. It is now ready to begin taking data according to your settings.

3. Operating the Data Logger

After setup, the data logger operates independently. The LCD provides real-time information about the environmental conditions.

3.1. Viewing Data on LCD

Press the button on the data logger to cycle through the display modes. The LCD will show current temperature, current humidity, highest temperature, lowest temperature, highest humidity, and lowest humidity.

3.2. Downloading Data

To download recorded data:

1. Insert the data logger into your computer's USB port.
2. Open the EasyLog software.
3. Select 'Stop the USB data logger and download data'.
4. The software will download the data, which can then be viewed as a graph, saved, or exported to formats like Excel, JPG, or PDF.



Figure 3: Data Logger with USB connector exposed.

4. Maintenance

4.1. Battery Replacement

The EL-USB-2-LCD+ data logger is powered by a 1/2 AA 3.6 Volt Lithium Battery, which typically provides approximately one year of operation. When the battery level is low, the device may indicate this on the LCD or through the software. To replace the battery:

1. Carefully open the data logger casing.
2. Remove the old 1/2 AA 3.6 Volt Lithium Battery.
3. Insert a new 1/2 AA 3.6 Volt Lithium Battery, ensuring correct polarity.
4. Securely close the casing.

Always dispose of used batteries according to local regulations.

5. Troubleshooting

If you encounter issues with your data logger, refer to the following common troubleshooting steps:

- **Logger not detected by software:** Ensure the data logger is fully inserted into the USB port. Try a different USB port or restart your computer. Verify that the EasyLog software is correctly installed and up-to-date.
- **Inconsistent or inaccurate readings:** Check the battery level; a low battery can affect performance. Ensure the logger is placed in an environment suitable for its operating range and away from direct heat sources or extreme drafts.
- **Data logging stops unexpectedly:** Confirm that the 'Logger stops' option was not selected in the software configuration if continuous logging is desired. Check battery life.
- **LCD display issues:** If the display is off, check your display settings in the EasyLog software. In very low

temperatures, the LCD response time may be slower; this is normal and will return to normal at room temperature.

- **Software limitations (Mac users):** The EasyLog software is Windows-only. Mac users may need to run the software in a Windows virtual machine.

6. Technical Specifications

Specification	Value
Model Number	EL-USB-2-LCD+
Brand	Lascar Electronics
Measurement Range (Temperature)	-35°C to 80°C (-31°F to 176°F)
Measurement Range (Humidity)	0 to 100% RH
Temperature Accuracy	±0.5°C
Humidity Accuracy	±3.0% RH
Logging Rate	User selectable from 10 seconds to 12 hours
Memory Capacity	Over 16,000 readings per parameter
Battery Type	1/2 AA 3.6 Volt Lithium Battery
Battery Life	Approximately 1 year
Dimensions	5 x 1 x 1 inches (11.4 cm long)
Item Weight	3.53 ounces (100 Grams)
Mounting Type	Tabletop
UPC	887553510879, 715933116185

7. Warranty and Support

Specific warranty details for the Lascar Electronics EL-USB-2-LCD+ are not provided in the available product information. For warranty claims, technical support, or further assistance, please contact Lascar Electronics directly or refer to the documentation included with your purchase. You may also visit the official Lascar Electronics website for support resources and contact information.

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