Quick Guide

# CSL-Display Unit

CSL-EDU10

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# 1 Specification, Features, and Component Overview

## 1.1 Specifications

- Operating Temperature Range: $-20°$C to $60°$C.

- Display: 1.8-inch TFT display with a resolution of $128 \times 160$ pixels.

- Port Type: USB Type-C port; compatible with 1A, 5V-Charger.

- Battery Backup: 5 hours (continuous use).

- Compact Dimensions: 103 mm $\times$ 71 mm $\times$ 26 mm.

- Weight: 200g.

## 1.2 Features

- Real-time display and storage of current data (stores last 10 values).

- Shows both Minimum and Maximum values alongside runtime.

- Option to toggle between Celsius and Fahrenheit temperature units.

- Powers CSL-Series Loggers.

- Equipped with a high-contrast display for excellent visibility even in sunlight.

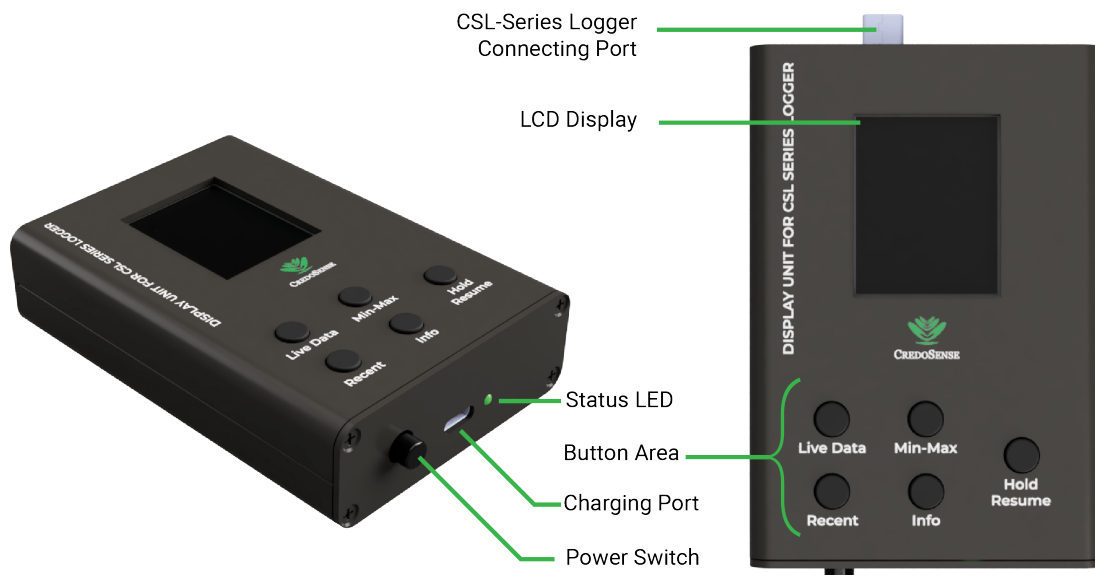- Plug-and-play functionality; no setup or programming needed.

## 1.3 Component Overview



Figure 1: Showing different parts of the device.

# 2 Operating Display Unit

To start the device, simply press the power button, as indicated in Figure **1**. Once pressed, you will see a prompt instructing you to connect a CSL-Series Logger (Figure **2**). Proceed to connect a CSL Series Logger to the device; Figure **3** shows how to connect the logger. Upon successful connection, the device will transition to the Live-Data page (Figure **6a**) automatically.



Figure 2: Device is powered-up.



Figure 3: Connecting a CSL-Series Logger.

⚠ **NOTE:** However, if any errors or warnings occur during the process, the user will be directed to the page shown in Figure **4**.

# 3   Warning

Two types of warning messages can appear when the device is turned on.

- **Timekeeping Error:** This occurs when the display unit attempts to synchronize its clock with the CSL-Series Logger. If the CSL-Series Logger's clock isn't functioning properly, the display unit cannot adjust its own clock accordingly.

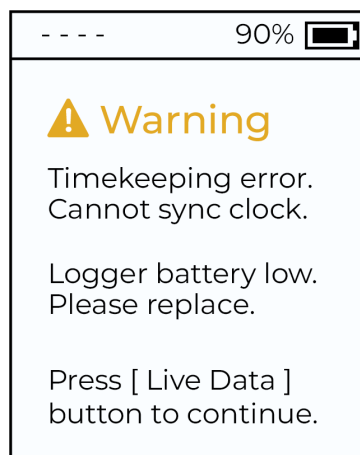- **Low Battery Warning:** This warning is displayed when the battery level of the CSL-Series Logger is low.



Figure 4: Showing Warning.

⚠ **NOTE:** The display unit provides power to the logger when they are connected. Therefore, the presence of the CR2450 battery in the CSL-Series Logger is not required for the display unit to function properly.

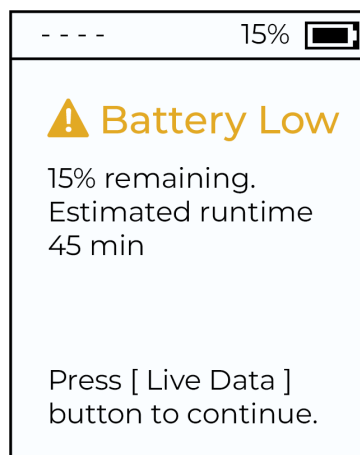If the battery level is low, the device may display an additional warning, as illustrated in Figure **5**.



Figure 5: Indicating low battery.

# 4 Viewing the data

There are five buttons on the device (Figure **1**) that allow you to access five data pages. Simply click on each button, and the corresponding data page will appear. For a visual reference, Figure **6** displays all five data pages.



(a) Live Data



(b) Min-Max Data



(c) Recent Data



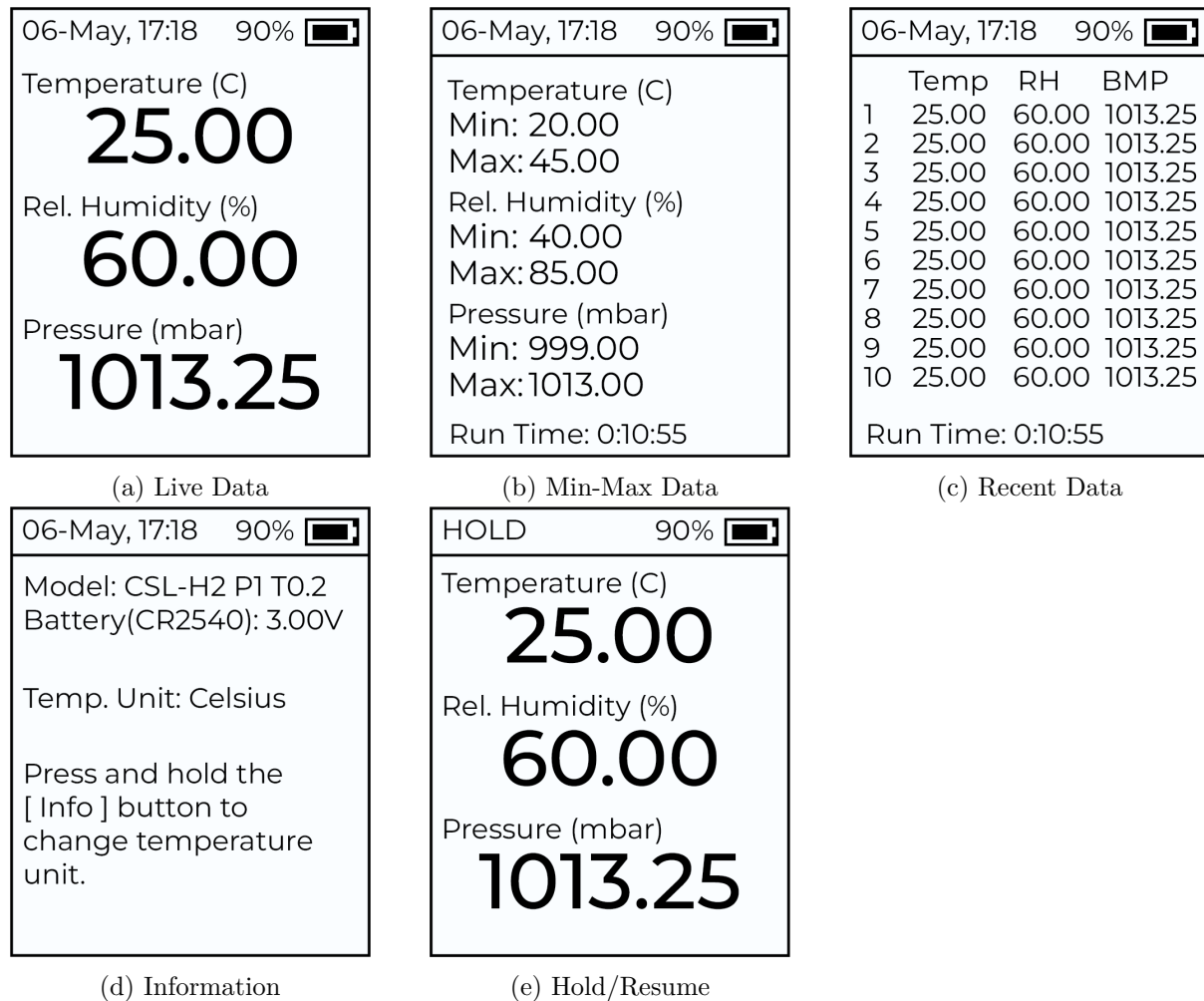(d) Information



(e) Hold/Resume

Figure 6: Showing different pages that appear on display unit.

The five buttons and their corresponding data pages are briefly discussed as follows:

1. **Live Data (6a):** Displays live data.

2. **Min-Max (6b):** Shows the minimum and maximum values recorded during a session, known as Run Time. The device calculates the Run Time starting from when the CSL-Series logger is connected until it is disconnected.

3. **Recent (6c):** Presents the most recent data (last 10 recorded data points).

4. **Info (6d):** Provides information about the logger model and battery status, and allows you to change temperature units.

5. **Hold/Resume (6e):** Allows you to pause live data, which eventually pauses the Run Time as well. Press hold button again to resume operation.