

Weather station User Manual V1.0

1. Introduction

Appearance



Overview

Thank you for purchasing our Weather Station. This innovative device allows you to monitor weather conditions and transmit data via Wi-Fi to a web server. Additionally, you can directly access real-time weather data via BLE (Bluetooth Low Energy) on your smartphone . The weather station features an internal rechargeable battery for reliable operation.

Key Features

- **Wi-Fi Connectivity:** Set up via BLE and transmit data directly to a web server.
- **BLE Access:** Directly access real-time weather data from the weather station using your mobile device.
- **Rechargeable Battery:** Ensures continuous operation without the need for frequent battery replacements.
- **Real-time Weather Monitoring:** View data on temperature, humidity, wind speed, and more from your web browser, mobile app, or directly via BLE.
- **Historical Data Logging:** Review weather trends over time.
- **User-Friendly Interface:** Easy access to all data through a web interface, mobile app, or BLE connection.

Safety Information

- Do not disassemble the weather station or its components.
- Use only the recommended charging equipment.
- Place the weather station in a safe, secure location to prevent damage.
- Keep away from extreme temperatures, moisture, and direct sunlight.

2. Package Contents

- Weather Station Sensor Unit
- User Manual

3. Product Overview

Weather Station Components

- **Sensor Unit:** Measures outdoor weather conditions such as temperature, humidity, barometric pressure and wind speed . Transmits data via Wi-Fi and BLE.
- **Mounting Bracket:** Used to securely place the weather station in an optimal location.
- **Internal Rechargeable Battery:** Powers the sensor unit and can be charged using the provided charging cable.

Web Interface, Mobile App, and BLE Overview

- **Web Interface:** Accessible from any web browser. Allows you to view real-time and historical weather data.

- **BLE Access:** Directly connect to the weather station using your mobile device's Bluetooth to access real-time data without the need for internet connectivity.

4. Setup and Installation

Selecting a Location

Mount in an open area, away from large metal objects or other electronic devices that could interfere with Wi-Fi or BLE signals. Ensure it is placed away from direct sunlight and excessive moisture for accurate readings.

Assembling the Weather Station

- Attach the sensor unit to the mounting bracket.
- Secure the mounting bracket in your chosen location, ensuring it is stable and level.

Charging the Internal Battery

- Connect the provided charging cable to the weather station.
- Plug the other end into a power source using the provided adapter.
- Ensure that the device is powered before first use. When the battery is low, it will flash red to remind you to connect the charger as soon as possible. During charging, the green light will flash. When charging is complete, the green light will keep on until the charger is disconnected. All charging information and battery level information will be displayed on the LCD screen.

Connecting to Wi-Fi via BLE

- Press the button to wake the device, and you will see the device indicator light green.
- On your mobile device, enable Bluetooth and open the weather station's mobile app.
- The app will automatically detect the weather station via BLE. Follow the on-screen instructions to connect. When the connection is successful, you will see the Bluetooth icon on the LCD screen.
- Enter your Wi-Fi SSID and password through the app to connect the weather station to your home network. During the connection process, the green light blinks; the connection is successful, you will see a green light of 0.5s; if you see a red light during the process, it proves that the Wi-Fi connection failed, please check the network information is correct.
- Once connected, the weather station will start transmitting data to the web server at the frequency you set (the default is every five minutes). When the data transfer is

successful, the wifi icon on the lcd screen will light up.

- If you want to see the lcd display more clearly, you can press the button and the screen will light up for 10 seconds.

Accessing Data via BLE

You can also access real-time weather data directly from the weather station by connecting to it via BLE. This allows you to monitor conditions even when you are not connected to Wi-Fi or the internet.

5. Operation

Accessing Weather Data Online

Visit the web address provided in your manual or download the mobile app from your app store.

Understanding the Web Interface and BLE Data

Temperature: Real-time outdoor temperature readings.

Humidity: Current outdoor humidity level.

Barometric Pressure: Measured in hPa , showing atmospheric pressure trends.

Wind Speed: Displayed in m/s.

6. Maintenance

Cleaning the Weather Station

Clean the sensor unit with a soft, damp cloth. Avoid using abrasive cleaners that may damage the sensors.

Charging the Battery

Periodically check the battery level on the web UI, mobile app, or BLE. When the battery is low, the device blinks red. It is recommended that the battery be fully charged before using the weather station for a long time.

Updating Software/Firmware

Check the manufacturer's website or the mobile app for firmware updates. Follow the provided instructions to keep your weather station up to date.

Troubleshooting Common Issues

No Wi-Fi Connection: Ensure the weather station is within range of your Wi-Fi network. Reset the Wi-Fi settings and try reconnecting via BLE.

Inaccurate Readings: Make sure the sensor unit is correctly positioned and not affected by external factors like direct sunlight or nearby heat sources.

Data Not Updating: Check your internet connection and ensure the weather station is powered on and connected to Wi-Fi.

7. Specifications

- **Temperature Range:** -20°C to 60°C
- **Humidity Range:** 0% to 100%
- **Dustproof and Waterproof Rating:** IP56
- **Barometric Pressure Range:** 300 hPa to 1100 hPa
- **Wind Speed Range:** 0 to 40 m/s
- **Power Supply:** Internal Rechargeable Lithium Battery
- **Charging Interface:** Type C
- **Battery life:** More Than Three Days
- **Wi-Fi Frequency:** 2.4G
- **Connectivity:** Wi-Fi/BLE
- **Size:** Diameter 65mm x Height 205mm
- **Weight:** About 400 Grams

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Warning: changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.