KALEVOL EM3390

KALEVOL Professional Weather Station User Manual

Model: EM3390

1. Introduction

Thank you for choosing the KALEVOL Professional Weather Station. This comprehensive system provides accurate and real-time weather information for both indoor and outdoor environments. Designed for ease of use and reliability, it helps you stay informed about current weather conditions and forecasts.

Image 1.1: The KALEVOL Professional Weather Station, showing the main color display unit and the multi-sensor outdoor unit.

Key Features:

- **Multifunction Color Display:** Provides rainfall data, wind speed and direction, indoor/outdoor temperature and humidity, barometric pressure, and time/date.
- **Professional Rainfall and Wind Detection:** Accurately monitors real-time rainfall and records current/historical wind speed and direction.
- **Dual Alarm Clock and Calendar:** Features a wireless atomic clock for automatic time synchronization and accurate time/date display.
- **Weather Forecast and Alert Functions:** Predicts weather for the next 12-24 hours and allows setting alerts for temperature, humidity, wind speed, and rainfall.
- **Adjustable Backlight Display:** 4-fold adjustable backlight for clear readability in various lighting conditions.

2. Setup Guide

Follow these steps to set up your KALEVOL Professional Weather Station for optimal performance.

2.1 Unpacking and Initial Placement

Carefully remove all components from the packaging. Before permanent outdoor placement, it is recommended to place the main display unit and the outdoor sensor unit close to each other to ensure successful initial connection.

1. Unpack the main display unit and the outdoor multi-sensor.
2. Insert batteries into both units as per the instructions (if applicable, refer to power section).
3. Place the main display unit and the outdoor sensor unit within close proximity (e.g., on a table indoors) to facilitate initial pairing.

Image 2.1: Illustration of the weather station components and power options, including the DC adapter and battery compartments.

2.2 Powering the Units

The main display unit can be powered via a DC adapter (not included) or 2xAA batteries. The wireless weather monitor (outdoor sensor) is powered by 3xAA batteries (not included) and a solar panel for extended life.

- **Main Display Unit:** Connect the DC adapter to the unit and a power outlet, or insert 2xAA batteries into the battery compartment.
- **Outdoor Sensor Unit:** Insert 3xAA batteries into the battery compartment. The integrated solar panel will help maintain battery life.

2.3 Sensor Connection and Atomic Clock Synchronization

Once powered, the devices will attempt to connect. Ensure successful connection before placing the outdoor sensor permanently.

- After plugging in the main display unit, it will automatically search for the WWVB signal for atomic clock synchronization. This occurs at 1:00 AM, 2:00 AM, and 3:00 AM daily, and after a reset.
- During the atomic clock search, the screen may turn dark for approximately 7 minutes. This is normal behavior.
- If the screen does not stay on after the search, press the brightness adjustment button on the side of the host unit.
- Confirm that the main display unit shows outdoor sensor data, indicating a successful connection.

2.4 Outdoor Sensor Placement

For accurate readings, the outdoor sensor should be placed in an open area, away from obstructions that could affect wind, rain, or temperature readings.

- Mount the sensor securely on a pole or flat surface using the provided mounting hardware.
- Ensure the rain gauge is level and clear of debris.
- Position the wind vane and anemometer so they can freely rotate and are not obstructed by buildings, trees, or other structures.
- The wireless transmission range is up to 330ft (100m). Consider this distance when choosing a location.

Image 2.2: The weather station demonstrating its wireless transmission range between the indoor display and outdoor sensor, suitable for various outdoor placements.

Image 2.3: An example of the outdoor sensor unit mounted on a fence post, illustrating a typical installation scenario.

3. Operating Instructions

This section details how to read and interact with your weather station's display and functions.

3.1 Understanding the Color Display

The main display unit features a vibrant color screen that presents various weather parameters clearly.

Image 3.1: A close-up of the weather station's colorful digital display, highlighting its various data sections and overall dimensions.

- **Weather Forecast:** Icons representing sunny, partly cloudy, cloudy, rainy, heavy rain, and snowy conditions.
- **Rainfall Data:** Displays current rainfall measurements.
- **Wind Speed and Direction:** Shows real-time wind speed and direction.
- **Indoor/Outdoor Temperature and Humidity:** Separate readings for both environments.
- **Barometric Pressure:** Indicates atmospheric pressure.
- **Time and Date:** Synchronized by the atomic clock.
- **Max/Min Temperatures:** Records daily maximum and minimum temperature readings.

3.2 Adjusting Display Backlight

The display has a 4-fold adjustable backlight for comfortable viewing in different lighting conditions.

- Locate the brightness adjustment button on the side of the main display unit.
- Press the button repeatedly to cycle through the four brightness levels.

3.3 Weather Forecast Function

The weather station predicts the weather for the next 12-24 hours. A 7 to 10-day calibration period ensures accuracy.

Image 3.2: Various weather forecast icons displayed on the unit, including sunny, cloudy, rainy, and snowy conditions.

3.4 Setting Alerts

You can set alerts for specific weather parameters.

- The unit allows setting alerts for temperature, humidity, wind speed, and rainfall.
- Refer to the detailed instructions in your physical manual for specific button presses and menu navigation to set these alerts.

3.5 Accessing Historical Data

The weather station stores historical data for wind speed and rainfall.

- You can review current, past hours, days, weeks, months, or years of maximum wind speed and rainfall measurements.
- Consult your physical manual for instructions on how to navigate through historical data records.

Image 3.3: Visual representation of the wind speed and direction monitoring, and rainfall measurement capabilities of the outdoor sensor.

4. Maintenance

Proper maintenance ensures the longevity and accuracy of your weather station.

4.1 Cleaning

- Wipe the main display unit with a soft, dry cloth. Avoid abrasive cleaners.
- Periodically check the outdoor sensor for dirt, dust, leaves, or other debris that might obstruct the rain gauge, wind cups, or wind vane.
- Gently clean the solar panel on the outdoor unit to ensure efficient charging.

4.2 Battery Replacement

- Replace batteries in both the main display unit and the outdoor sensor unit when the low battery indicator appears on the display.
- Always replace all batteries in a unit at the same time with new ones of the same type.

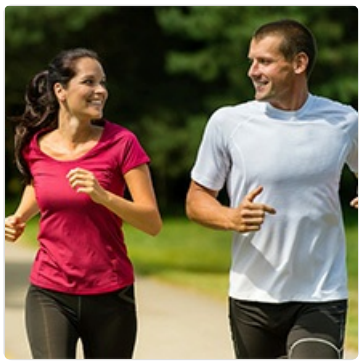

Image 4.1: The outdoor sensor unit installed on a rooftop, emphasizing its exposure to weather elements and the need for periodic checks.

5. Troubleshooting

If you encounter issues with your weather station, refer to the following common problems and solutions.

Problem	Possible Cause	Solution
Outdoor sensor not connecting / No outdoor data displayed.	Batteries are low or incorrectly installed. Sensor is out of range or obstructed. Interference from other electronic devices. Units not properly paired.	Replace batteries in both units. Move sensor closer to the main unit or clear obstructions. Relocate units away from potential interference sources. Perform a reset: unplug the main unit for 30 minutes, then plug back in. Ensure sensor is nearby during reconnection.
Display screen turns dark or does not stay on.	Atomic clock synchronization in progress. Brightness setting is too low.	Wait approximately 7 minutes for synchronization to complete. Press the brightness adjustment button on the side of the main unit to increase brightness.

Problem	Possible Cause	Solution
Inaccurate wind speed/direction or rainfall readings.	Sensor is obstructed or not level. Debris in rain gauge or on wind sensors.	Ensure sensor is mounted level and in an open area. Clean the rain gauge and wind sensors of any debris.
Time is incorrect.	Atomic clock signal not received. Incorrect time zone or DST settings.	Ensure the unit is in an area where it can receive the WWVB signal. Manually adjust time zone and DST settings as per your physical manual.

6. Specifications

Feature	Detail
Model Number	EM3390
Product Dimensions	12.4 x 5.71 x 15.16 inches (Main Unit & Sensor Assembly)
Item Weight	4.03 Pounds
Material	Acrylonitrile Butadiene Styrene (ABS)
Special Features	Adjustable Brightness, Alarm, Clock, Large Display
Power Source (Main Unit)	DC Adapter (not included), 2xAA Batteries (not included)
Power Source (Outdoor Sensor)	3xAA Batteries (not included), Solar Panel
Wireless Transmission Range	Up to 330ft / 100m

7. Warranty and Support

KALEVOL is committed to providing high-quality products and comprehensive after-sales service. We actively listen to customer feedback to continuously improve and upgrade our products.

For any questions, concerns, or technical assistance regarding your KALEVOL Professional Weather Station, please contact our customer support. Refer to the contact information provided with your product packaging or visit the official KALEVOL website for support details.

Please retain your proof of purchase for warranty claims.

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