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ECOWITT WS68

ECOWITT WS68 Wireless Anemometer Sensor Instruction Manual

Model: WS68

1. Introduction

The ECOWITT WS68 Wireless Anemometer Sensor is a solar-powered accessory designed to measure wind direction, wind speed, wind gust, UV index, and light data. This sensor is an integral part of a complete weather monitoring system and **cannot be used as a standalone device**. It requires pairing with a compatible Wi-Fi gateway (e.g., GW1100) or a display console (e.g., HP2551, HP2561, WN1900, HP3501) to transmit and display data.

This manual provides essential information for the proper setup, operation, and maintenance of your WS68 sensor.

2. PRODUCT OVERVIEW

The WS68 sensor is engineered for outdoor use, featuring a robust design and solar power capabilities with a battery backup. It wirelessly transmits data at a frequency of 915 MHz.

The Outdoor Sensor Can Not Be Used Alone, It Paireds A Console Or Gateway, The Data Displayed On APP Or Website Dashboard. Wind Speed Sensor Wind Direction Sensor Solar Power **Battery Compartment Door**

Image: The ECOWITT WS68 Wireless Anemometer Sensor, highlighting its key components: wind speed sensor, wind direction sensor, solar panel, and battery compartment door.

Key Components:

- Wind Speed Sensor: Measures the velocity of the wind.
- Wind Direction Sensor: Determines the prevailing wind direction.
- UV & Light Sensor: Detects ultraviolet radiation and ambient light levels.
- Solar Panel: Provides primary power and charges the internal capacitor.
- Battery Compartment: Houses the backup AA battery.
- Mounting Arm: For secure installation.

3. PACKAGE CONTENTS

Please verify that all items are present in your package:

• 1x ECOWITT WS68 Wireless Anemometer Sensor with UV & Light Sensor

- 1x Mounting Hardware Pack (U-bolts, nuts, washers)
- 1x Instruction Manual (this document)

Note: A stainless steel mounting pole and 1x AA battery are not included and must be purchased separately.



Image: The retail box displaying the included items: the wireless anemometer sensor and mounting hardware.

4. SETUP

4.1 Battery Installation

- 1. Locate the battery compartment door on the underside of the sensor unit.
- 2. Open the battery compartment.
- 3. Insert one (1) AA battery (not included) into the compartment, observing correct polarity (+/-). A lithium AA battery is recommended for extended life and performance in varying temperatures.
- 4. Securely close the battery compartment door.

4.2 Mounting the Sensor

For optimal accuracy, the WS68 sensor should be mounted in an open area, free from obstructions that could interfere with wind flow or sunlight. A mounting height of approximately 32 feet (10 meters) is often recommended for professional weather stations, though this may vary based on your specific environment.

- 1. Attach the sensor to a suitable mounting pole (not included) using the provided U-bolts, nuts, and washers. Ensure the sensor is firmly secured to prevent movement in high winds.
- 2. Orient the sensor so that the solar panel faces the direction that receives the most sunlight throughout the day. For users in the Northern Hemisphere, this typically means facing the 'N' arrow on the sensor towards North. In the Southern Hemisphere, the solar panel should face North for optimal charging, which may require adjusting the wind

direction offset in the app by 180 degrees to ensure accurate readings.

3. Ensure the wind cups and wind vane can rotate freely without any obstructions.

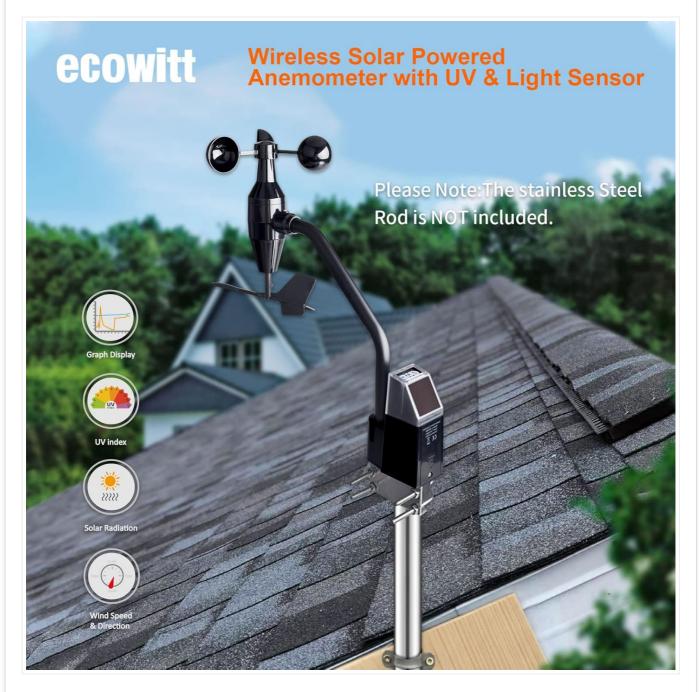


Image: The WS68 sensor mounted on a pole, illustrating a typical installation scenario on a rooftop for clear exposure to wind and sun.

4.3 Pairing with a Gateway or Console

The WS68 sensor transmits data wirelessly at 915 MHz. It must be paired with a compatible ECOWITT Wi-Fi gateway (e.g., GW1100) or a display console (e.g., HP2551, HP2561, WN1900, HP3501) that operates on the same frequency.

- 1. Power on your compatible ECOWITT Wi-Fi gateway or display console.
- 2. Refer to the instruction manual of your gateway or console for specific pairing instructions. Generally, the gateway/console will automatically detect and connect to the WS68 sensor once both are powered on and within range.
- 3. Ensure the gateway/console is within the wireless transmission range of 330 feet (100 meters) from the sensor. Walls and other obstructions can reduce this range.



Image: Diagram showing the WS68 sensor wirelessly connecting to either an ECOWITT gateway (GW1100) or a display console (HP2551, HP2561, HP3501), which then allows data viewing via the WSView Plus/Ecowitt App.

5. OPERATING INSTRUCTIONS

5.1 Data Viewing via App

Once your WS68 sensor is successfully paired with a Wi-Fi gateway and the gateway's Wi-Fi configuration is complete, you can view live data:

- Download and install the WSView Plus App or Ecowitt App on your mobile device.
- Follow the in-app instructions to add your gateway and view the live wind, UV, and light data from your WS68 sensor.
- The sensor transmits data every 16.5 seconds.

5.2 Online Weather Services

The ECOWITT system supports uploading your sensor data to various online weather platforms:

- Ecowitt Weather Server (ecowitt.net): Upload data to the free Ecowitt server to view data graphs and download historical records. A shortcut to the website on your phone's home screen is recommended for quick access.
- Third-Party Services: The system also supports uploads to Weather Underground (WU), WeatherCloud, and WOW. You can view the sensor history graph for your WU station ID directly within the WSView Plus/Ecowitt App.

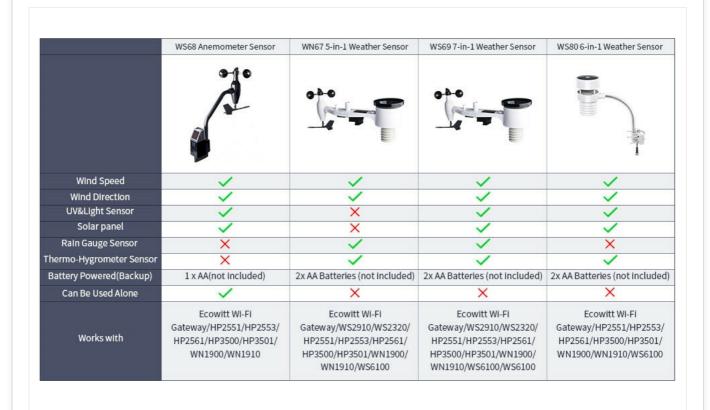


Image: Visual representation of the various online weather platforms supported by Ecowitt, including ecowitt.net, Weather Underground, Met Office WOW, and Weathercloud.

5.3 Sensor Calibration

Calibration functions for wind and UV & light sensors are available within the WSView Plus or Ecowitt App to fine-tune readings if necessary.

6. Maintenance

6.1 Battery Replacement

The WS68 sensor uses a solar panel for primary power, but an AA battery acts as a backup. When the battery level is low, you may receive a notification via the app or see an indicator on your display console. Replace the battery as follows:

- 1. Access the battery compartment as described in Section 4.1.
- 2. Remove the old AA battery.
- 3. Insert a new AA battery, ensuring correct polarity. A lithium AA battery is recommended for optimal performance and longevity, especially in cold climates.
- 4. Securely close the battery compartment.

6.2 Cleaning

Periodically inspect the sensor for dirt, dust, or debris that may accumulate on the solar panel, wind cups, wind vane, or UV/light sensor. Gently clean these components with a soft, damp cloth. Avoid using abrasive cleaners or solvents.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
No data displayed on app/console.	Sensor not powered, not paired, or frequency mismatch.	Ensure AA battery is installed and functional. Verify sensor is paired with gateway/console. Confirm both sensor and receiver operate on 915 MHz.
Inaccurate wind readings.	Obstructions, incorrect mounting, or dirty sensors.	Relocate sensor to an open area. Ensure wind cups and vane rotate freely. Clean sensors. Use app calibration if needed.
Data transmission issues (intermittent or no signal).	Distance too great, obstructions, or interference.	Reduce distance between sensor and gateway/console. Minimize physical obstructions (walls, large metal objects). Check for other 915 MHz devices causing interference.
Solar panel not charging effectively.	Insufficient sunlight or dirty panel.	Ensure solar panel is clean and oriented towards maximum daily sunlight. Check for shading.
Sensor not working alone.	This is an accessory sensor.	The WS68 is designed to work only with a compatible ECOWITT Wi-Fi gateway or display console. It does not have a built-in display.

8. Specifications

Feature	Detail
Brand	ECOWITT
Model	WS68
Specific Uses	Wind Direction, Wind Speed, UV Index, Light Data
Power Source	Solar Powered (with 1x AA battery backup, not included)
Material	Stainless Steel (components), Plastic
Connectivity Technology	Wireless (915 MHz)
Transmission Range	Up to 330 feet (100 meters) in open air
Sensor Reporting Interval	16.5 seconds
Wind Speed Accuracy	±10% (>5m/s), ±1m/s (≤5m/s)
Light Accuracy	±15%
UV-Index Range	0-15
Item Weight	500 Grams (1.1 pounds)
Display Type	No display (accessory only)

9. WARRANTY AND SUPPORT

For warranty information, please refer to the documentation provided with your purchase or contact your retailer. ECOWITT strives to provide reliable products and customer support.

If you encounter any issues or have questions not covered in this manual, please contact ECOWITT customer service or technical support for assistance. Contact details can typically be found on the ECOWITT official website or through your purchase platform.

Related Documents - WS68



Ecowitt WS68 Wireless Solar Powered Anemometer with UV & Light Sensor - Operation Manual

Comprehensive operation manual for the Ecowitt WS68 wireless solar-powered anemometer. Learn about setup, features, specifications, and warranty for this advanced weather sensor.



Ecowitt WS69 7-in-1 Wireless Solar Powered Weather Sensor Manual

Comprehensive user manual for the Ecowitt WS69 7-in-1 Wireless Solar Powered Weather Sensor. This guide covers installation, setup, features, specifications, maintenance, and troubleshooting for accurate environmental monitoring.



Ecowitt WN1980 WiFi Weather Station Operation Manual

Comprehensive operation manual for the Ecowitt WN1980 WiFi Weather Station, detailing features, specifications, setup, operation modes, alarm settings, troubleshooting, and warranty information.



Ecowitt WS68 Wireless Solar Powered Anemometer with UV & Light Sensor Operation Manual

Operation manual for the Ecowitt WS68 Wireless Solar Powered Anemometer with UV & Light Sensor. This document provides detailed instructions on setup, features, specifications, and warranty information for the device.



Ecowitt WS3800 Wi-Fi Weather Station Receiver User Manual

Comprehensive user guide for the Ecowitt WS3800 Wi-Fi LCD weather station receiver, detailing installation, Wi-Fi configuration via app or web, sensor pairing, data uploading, features, and operation.



Ecowitt WN1980 WiFi Weather Station Operation Manual

User guide for the Ecowitt WN1980 WiFi Weather Station, covering setup, features, specifications, operation, and troubleshooting for accurate home weather monitoring.