Ambient Weather WS-100-RAIN

Ambient Weather WS-100-RAIN Smart Home Weather Station WiFi Module with Rain Gauge User Manual

Model: WS-100-RAIN

1. Introduction

This manual provides instructions for the setup, operation, and maintenance of your Ambient Weather WS-100-RAIN Smart Home Weather Station WiFi Module with Rain Gauge. Please read this manual thoroughly before using the device to ensure proper functionality and longevity.
The WS-100-RAIN system includes a WiFi module and a rain gauge, designed to provide accurate local weather data and integrate with smart home systems.

2. Package Contents

- Ambient Weather WiFi Module
- Rain Gauge Sensor
- 6V, 500mA Power Adapter for WiFi Module
- User Manual (this document)

Note: 4 x AAA batteries for the rain gauge sensor are not included and must be purchased separately.

3. Setup Guide

3.1 Unpacking and Initial Inspection

Carefully remove all components from the packaging. Inspect for any signs of damage. If any components are damaged or missing, contact Ambient Weather customer support immediately.

3.2 Powering the WiFi Module

1. Connect the provided 6V, 500mA power adapter to the WiFi module.
2. Plug the power adapter into a standard electrical outlet.
3. The module's indicator lights should illuminate, indicating it is powered on.



Image: Ambient Weather WiFi Module. This module connects your sensors to the internet.

3.3 Installing Batteries in the Rain Gauge Sensor

1. Locate the battery compartment on the rain gauge sensor.
2. Open the compartment and insert 4 x AAA batteries, observing correct polarity (+/-).
3. Close the battery compartment securely.



Image: Ambient Weather Rain Gauge Sensor. This sensor measures rainfall.

3.4 Mounting the Rain Gauge Sensor

Mount the rain gauge in an open area, away from obstructions like trees or buildings, to ensure accurate rainfall collection. The sensor should be level to prevent skewed readings. Use appropriate mounting hardware (not included) to secure it.

3.5 WiFi Connectivity

The WiFi module connects to your home router and smart devices using WAP. It supports a range of up to 80 feet in open air/line of sight. For detailed instructions on connecting to your WiFi network and the Ambient Weather Network (AWN), refer to the quick start guide included with your product or the Ambient Weather website.

4. Operation

4.1 Data Synchronization and Calibration

The system utilizes NIST time synchronization from the Internet, including automatic Daylight Saving Time (DST) adjustments. You can also perform optional calibration of all measured parameters through the Ambient Weather Network interface.

4.2 Ambient Weather Network (AWN) Features

Once connected to the Ambient Weather Network, you can access a variety of features:

- **Personal Dashboard:** View real-time weather data including radar, temperature, wind, lightning, air quality, snow depth, fires, cyclones, and water map layers.
- **Configurable Alerts:** Set up SMS alerts (up to 10 per day), push notifications, and email alerts for changing weather conditions.
- **Forecast View:** Access a 10-day hourly forecast.
- **Data History:** Review up to 3 years of historical weather data.



Image: Overview of Ambient Weather Network (AWN) dashboard features, including data layers, alerts, and historical data access.



Image: Example of email, text, and push notifications, along with data graphs and export options available through AWN.

4.3 Smart Home Integration

The Ambient Weather system supports integration with various smart home platforms and services, enhancing its utility:

- **IFTTT:** Connect your weather data to other smart devices and services.
- **Amazon Alexa & Google Home Assistant:** Access weather information via voice commands.

- **SmartThings:** Integrate with your SmartThings ecosystem.
- **Weather Underground & PWSWeather:** Share your local weather data with global networks.



Image: Logos representing various smart home and weather services compatible with Ambient Weather, including IFTTT, Amazon Alexa, SmartThings, Google Home Assistant, Weather Underground, and PWSWeather.

5. Maintenance

5.1 Rain Gauge Cleaning

Periodically inspect the rain gauge funnel for debris such as leaves, insects, or dirt. Clean the funnel and tipping bucket mechanism with a soft cloth and water to ensure accurate readings. Avoid using abrasive cleaners.

5.2 Battery Replacement

The rain gauge sensor requires 4 x AAA batteries. Replace these batteries annually or when the low battery indicator appears in the Ambient Weather Network interface. Ensure correct polarity when inserting new batteries.

5.3 WiFi Module Care

Keep the WiFi module in a dry, indoor environment. Wipe the exterior with a soft, dry cloth as needed. Do not expose the module to extreme temperatures or moisture.

6. Troubleshooting

- **No Data Displayed:**
  - Ensure the WiFi module is powered on and connected to a stable internet source.
  - Verify that the rain gauge sensor has fresh batteries and is within range of the WiFi module (up to 80 feet line of sight).
  - Check the Ambient Weather Network dashboard for sensor status.
- **Inaccurate Rain Readings:**
  - Confirm the rain gauge is mounted level.
  - Inspect the rain gauge funnel and tipping bucket for obstructions or debris.
  - Ensure the sensor is not located under an overhang or tree that could block rainfall.
- **WiFi Connectivity Issues:**
  - Restart your WiFi router and the Ambient Weather WiFi module.
  - Ensure the module is within range of your router.

- Verify your WiFi network credentials in the Ambient Weather app or setup utility.
- If persistent issues occur, consult the Ambient Weather online support resources.

7. Specifications

Feature	Detail
Brand	Ambient Weather
Model	WS-100-RAIN
Power Source (Module)	6V, 500mA Adapter (Included)
Power Source (Sensor)	4 x AAA Batteries (Not Included)
Connectivity Technology	Wi-Fi (WAP)
Wireless Range	Up to 80 feet (open air/line of sight)
Module Dimensions	3"D x 3"W x 1"H
Rain Gauge Sensor Dimensions	8.25"D x 7.75"W x 5"H
Material	Plastic
Color	White
Special Features	NIST Time Sync, Auto DST, Optional Calibration, Smart Home Compatible

8. Warranty Information

For detailed warranty information regarding your Ambient Weather WS-100-RAIN Smart Home Weather Station WiFi Module with Rain Gauge, please refer to the warranty card included with your product or visit the official Ambient Weather website. Warranty terms and conditions may vary.

9. Customer Support

If you require further assistance, technical support, or have questions not covered in this manual, please visit the Ambient Weather support page on their official website. You can typically find FAQs, troubleshooting guides, and contact information there.
Online Support: Ambient Weather Support

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