Oregon Scientific RGR126N

Oregon Scientific RGR126N Wireless Rain Gauge Weather Station with Remote Temperature Sensor User Manual

Brand: Oregon Scientific | **Model:** RGR126N

1. Introduction

The Oregon Scientific RGR126N is a wireless rain gauge weather station designed to provide accurate rainfall measurements and outdoor temperature readings. This device includes a main display unit, a wireless self-emptying rain collector (PCR800), and a remote wireless temperature sensor (THN802). It stores daily and cumulative rainfall history and offers additional features such as time, date, and a high daily rainfall alarm.

Figure 1: Oregon Scientific RGR126N Main Display Unit. This image shows the main display unit, which presents outdoor and indoor temperature, comfort levels, rainfall data, weather forecast icons, moon phase, and current time and date.

2. Key Features

- **Rainfall Accuracy:** Measures rainfall up to 0.04 inches (1.02 mm) increments.
- **Wireless Transmission:** Rain gauge sensor transmits data up to 300 feet to the main unit.
- **Temperature Sensing:** Remote temperature sensor transmits readings up to 100 feet. The main unit also displays indoor temperature.
- **Data Storage:** Stores up to 10 days of daily and cumulative rainfall history.
- **Time and Date:** Displays current time and calendar date.
- **Rainfall Alarm:** Customizable high daily rainfall alarm.
- **Comfort Indicator:** Provides an indoor comfort level indicator.

3. Product Components

The Oregon Scientific RGR126N system consists of three primary components:

1. **Main Display Unit:** This unit displays all collected data, including rainfall, outdoor and indoor

temperatures, time, date, and weather forecasts. It is powered by batteries.

2. **Wireless Rain Collector (PCR800):** This outdoor unit collects and measures rainfall. It is self-emptying and transmits rainfall data wirelessly to the main display unit. It requires batteries for operation.
3. **Remote Wireless Temperature Sensor (THN802):** This outdoor unit measures ambient temperature and transmits it wirelessly to the main display unit. It requires batteries for operation.

4. Setup Instructions

4.1. Battery Installation

Ensure all batteries are inserted correctly according to polarity markings. Lithium AA batteries are recommended for longer life and performance in temperatures below -22°F (-30°C).

- **Wireless Rain Collector (PCR800):** Open the battery compartment, insert the required AA batteries (typically 2-3, refer to specific packaging), and close the compartment securely.
- **Remote Wireless Temperature Sensor (THN802):** Open the battery compartment, insert the required AA batteries (typically 2, refer to specific packaging), and close the compartment securely.
- **Main Display Unit:** Open the battery compartment on the back of the unit, insert the required AA batteries (typically 2-3, refer to specific packaging), and close the compartment.

4.2. Sensor Placement

Proper placement of the outdoor sensors is crucial for accurate readings.

- **Wireless Rain Collector:** Place the rain gauge in an open area, away from obstructions like trees, walls, or buildings, to ensure accurate rainfall collection. The transmission range is up to 300 feet from the main unit.
- **Remote Wireless Temperature Sensor:** Position the temperature sensor in a shaded area to avoid direct sunlight, which can cause inaccurate temperature readings. Ensure it is within 100 feet of the main unit for optimal wireless transmission.

4.3. Initial Synchronization

After installing batteries in all units, the main display unit should automatically begin searching for and synchronizing with the rain collector and temperature sensor. Allow a few minutes for the units to establish a connection. If synchronization does not occur, refer to the troubleshooting section.

5. Operating Instructions

5.1. Display Overview

The main display unit presents various data points:

- **Outdoor Temperature:** Displays the current temperature from the remote sensor.
- **Indoor Temperature:** Displays the current temperature measured by the main unit.
- **Rainfall Today:** Shows the total rainfall collected for the current day.
- **Cumulative Rainfall:** Displays the total rainfall over a selected period (up to 10 days of history).
- **Weather Forecast:** Icons indicate predicted weather conditions (e.g., sunny, cloudy, rainy, snowy, stormy).
- **Time and Date:** Current time and date, often synchronized via atomic clock (WWVB).
- **Comfort Indicator:** An icon indicating the indoor comfort level based on temperature and humidity.

- **Moon Phase:** Displays the current moon phase.

5.2. Setting Time and Date

The unit typically synchronizes with an atomic clock signal (WWVB) for automatic time and date updates, including Daylight Saving Time (DST). If manual adjustment is needed, refer to the specific buttons on your unit (usually 'SET' or 'MODE') to navigate through settings and adjust values.

5.3. Viewing Rainfall History

The unit stores daily rainfall and cumulative rainfall history for the past nine days. Use the designated buttons (e.g., 'HISTORY' or 'RAIN') to cycle through past records.

5.4. Setting Rainfall Alarm

To set a high daily rainfall alarm, access the alarm settings via the unit's buttons. You can define a specific rainfall amount that, when exceeded within a 24-hour period, will trigger an audible or visual alert.

6. Maintenance

6.1. Battery Replacement

Replace batteries in all units approximately every 12 months, or sooner if low battery indicators appear on the display. For optimal performance in cold temperatures, use Lithium AA batteries.

6.2. Cleaning

- **Rain Collector:** Periodically check the rain collector for debris (leaves, insects) that might obstruct the funnel or tipping mechanism. Clean gently with a soft cloth and water.
- **Sensors and Main Unit:** Wipe the exterior of the temperature sensor and main display unit with a soft, damp cloth. Avoid using abrasive cleaners or solvents.

7. Troubleshooting

- **No Display/Blank Screen:** Check battery installation and ensure batteries are fresh. Replace if necessary.
- **Outdoor Temperature/Rainfall Not Displaying:**
  - Ensure the remote sensor and rain collector have fresh batteries.
  - Verify that the sensors are within the specified transmission range (300 feet for rain gauge, 100 feet for temperature sensor) and free from major obstructions.
  - Perform a manual synchronization: Remove batteries from all units, wait a few minutes, then reinsert batteries into the outdoor sensors first, followed by the main display unit.
- **Inaccurate Rainfall Readings:**
  - Check the rain collector for any blockages or debris.
  - Ensure the rain gauge is level and in an open area, not under trees or overhangs.
- **Inaccurate Temperature Readings:**
  - Ensure the remote temperature sensor is placed in a shaded area, away from direct sunlight or heat sources.
  - Verify the sensor is not near reflective surfaces that could artificially inflate readings.

- **Time/Date Incorrect:** Ensure the unit is receiving a clear atomic clock signal. If not, try repositioning the main unit or manually setting the time.

8. Specifications

Feature	Specification
Brand	Oregon Scientific
Model Number	RGR126N
Rainfall Accuracy	Up to 0.04 inches (1.02 mm)
Rain Gauge Wireless Range	Up to 300 feet (from PCR800)
Temperature Sensor Wireless Range	Up to 100 feet (from THN802)
Temperature Accuracy	±0.5 °C
Power Source	Battery Powered (AA batteries included)
Number of Batteries	4 AA batteries required (included)
Display Type	LCD
Material	Polycarbonate
Color	Silver
Product Dimensions	3.54 x 5.59 x 0.98 inches
Item Weight	6.4 ounces
Special Feature	Alarm

9. Warranty and Support

9.1. Warranty Information

This product comes with a 30-day warranty from the date of purchase. Please retain your proof of purchase for any warranty claims.

9.2. Customer Support

For technical assistance or further inquiries, please refer to the contact information provided with your product packaging or visit the official Oregon Scientific website.