OWON OWM5500

OWON OWM5500 Digital Anemometer User Manual

Model: OWM5500 | Brand: OWON

1. Introduction

The OWON OWM5500 is a versatile digital anemometer designed for precise measurement of various environmental parameters. This portable instrument is ideal for HVAC professionals, outdoor enthusiasts, and anyone requiring accurate data on wind speed, airflow, temperature, and humidity. It features advanced data storage capabilities and PC synchronization for comprehensive analysis.

Key Features:

- **Comprehensive Measurements:** Supports 7 types of measurements including wind speed, air volume, temperature, humidity, wet bulb temperature, dew point, and wind chill. Includes Beaufort scale evaluation.
- **Advanced Data Storage:** Built-in memory for 8000 data sets, with options for automatic or manual storage and one-click data deletion.
- **Rechargeable Battery:** Integrated lithium battery, conveniently rechargeable via USB Type-C.
- **Graphical Analysis & Remote Control:** Features a graphical mode for trend analysis and statistics. Supports data export via PC software and remote control via a dedicated app.
- **Customization & Energy Saving:** Multiple gear settings for optimal customization. Automatic power-off function extends battery life.

2. Safety Information

Please read and understand all safety instructions before operating the OWON OWM5500 Digital Anemometer. Failure to follow these instructions may result in electric shock, fire, or personal injury.

- Do not operate the device in explosive atmospheres or near flammable gases.
- Avoid exposing the device to extreme temperatures, direct sunlight, or high humidity.
- Keep the device dry. Do not immerse it in water or other liquids.
- Use only the specified battery type and charging method.
- Do not attempt to disassemble or modify the device. Refer all servicing to qualified personnel.
- Keep out of reach of children.

3. Package Contents

Verify that all items are present and in good condition upon opening the package:

- OWON OWM5500 Digital Anemometer
- Lanyard
- USB Type-C Cable
- User Manual

Image: Product Parameters and Accessories, showing the anemometer, lanyard, USB cable, and manual.

4. Product Overview

Familiarize yourself with the components of your OWON OWM5500 Digital Anemometer:

Product Parameters And Accessories

01 Packing box
02 Anemometer
03 Lanyard
04 USB cable(Type-c)
05 Manual

Measurement Type	Icon	Name	Unit	Range	Resolution	Accuracy	Response Time
Wind speed		WIND SPD	m/s, km/h, ft/s, kt, mph	0.6 - 40 m/s	0.1m/s	±3%+0.1	0.5s
Temperature		TEMP	℃, ℉	-10 - 50 ℃	0.1℃	±1.0℃	0.5s
Humidity		HUMIDITY	%RH	5 - 95 %RH	0.1%RH	±5.0%RH	0.5s
Dew point	DP	DEW POINT	℃, ℉	-40 - 50℃	0.1℃	±2.0℃	0.5s
Wet bulb temperature	WB	WET BULB	℃, ℉	-40 - 50℃	0.1℃	±2.0℃	0.5s
Wind chill		WIND CHILL	℃, ℉	-40 - 50℃	0.1℃	±2.0℃	0.5s
Air volume		AIR FLOW	CMS, CFS	0.001 - 300.0CMS	0.001CMS		0.5s
Dimensions (L x H x W)			136.5mm x 30mm x 64.5mm				
Wight			0.2kg				

Image: Diagram of the OWON OWM5500 with numbered labels pointing to its various parts, including the impeller, LCD display, buttons, temperature sensor, humidity sensor, and USB port.

1. **Impeller:** Measures wind speed.
2. **Impeller Hood:** Protects the impeller.
3. **LCD Display Area:** Shows measurement readings and settings.
4. **Lanyard Hole:** For attaching the included lanyard.
5. **Button Area:** Contains control buttons for operation.
6. **Temperature Sensor:** Measures ambient temperature.

7. **Humidity Sensor:** Measures relative humidity.
8. **Battery Cover:** Secures the battery compartment.
9. **Fixed Hole:** For mounting on a tripod or other fixture.
10. **Switch Buckle of Battery Cover:** Releases the battery cover.
11. **Isobaric Chamber:** Internal component.
12. **Type-C Charge and Communication Port:** For charging and PC connection.

5. Setup

5.1. Battery Installation

The OWM5500 uses an integrated lithium battery. Ensure the device is charged before first use.

1. Locate the battery cover on the back of the device.
2. Slide the switch buckle to unlock and remove the battery cover.
3. If replacing, ensure the new battery is inserted with correct polarity.
4. Replace the battery cover and slide the switch buckle to lock it.

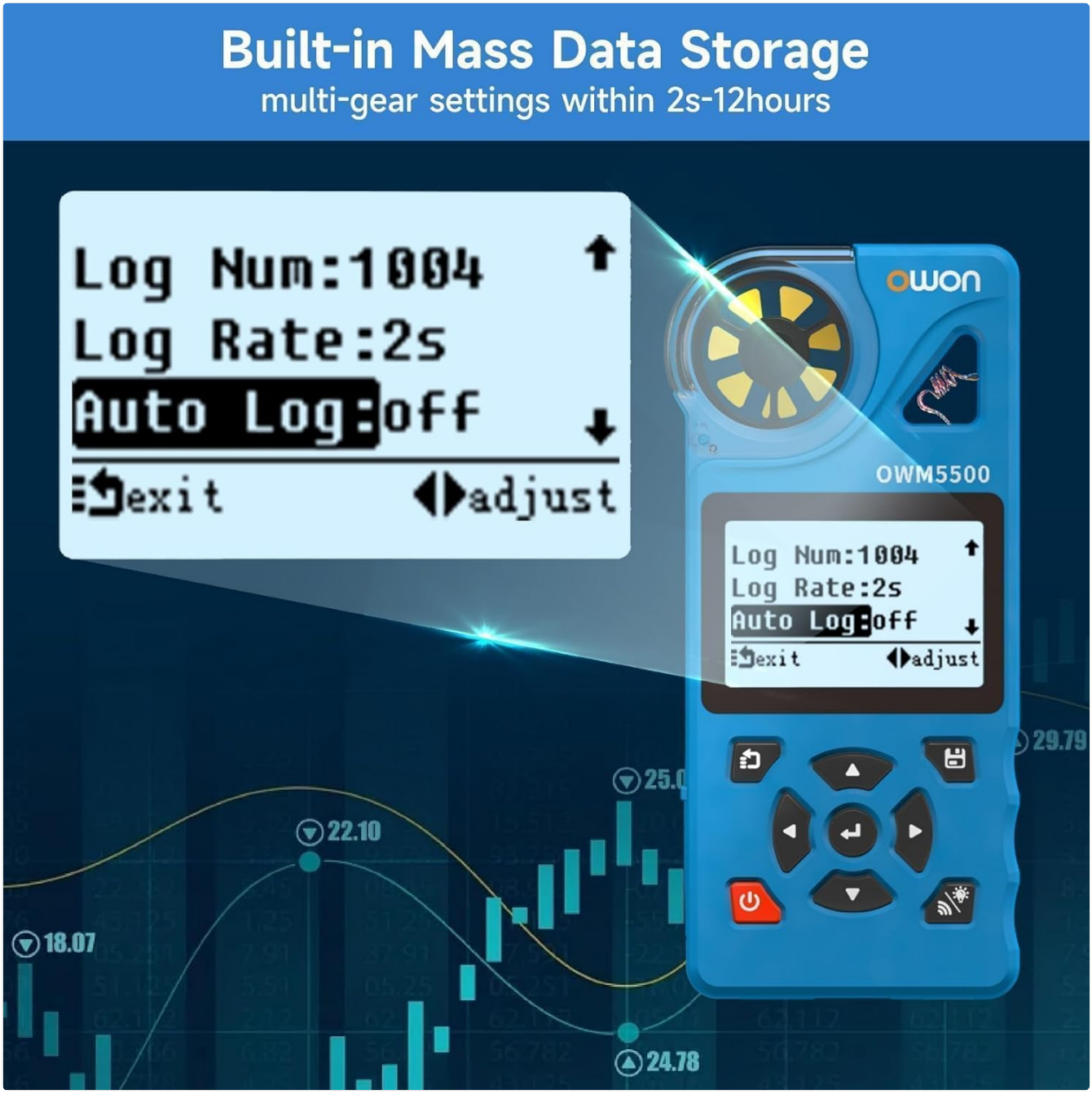

Image: A person installing AAA batteries into the battery compartment of the anemometer.

5.2. Charging the Device

Connect the supplied USB Type-C cable to the charging port (12) on the device and to a standard USB power adapter (not included) or a PC USB port. The battery indicator on the display will show charging status.

5.3. Power On/Off

Press and hold the **Power** button ( ) for approximately 2 seconds to turn the device ON or OFF.

6. Operating Instructions

6.1. Basic Measurements

Upon powering on, the device will display real-time measurements. The OWM5500 can measure:

- Wind Speed (WIND SPD)
- Air Flow (AIR FLOW)
- Temperature (TEMP)

- Humidity (HUMIDITY)
- Wet Bulb Temperature (WET BULB)
- Dew Point (DEW POINT)
- Wind Chill (WIND CHILL)

Image: The anemometer display showing various measurement values like wind speed, air flow, temperature, and humidity.

6.2. Unit Selection

Press the **UNIT** button to cycle through different wind speed units (m/s, km/h, ft/s, kts, mph). Press the**°C**/**°F** button to switch between Celsius and Fahrenheit for temperature readings.

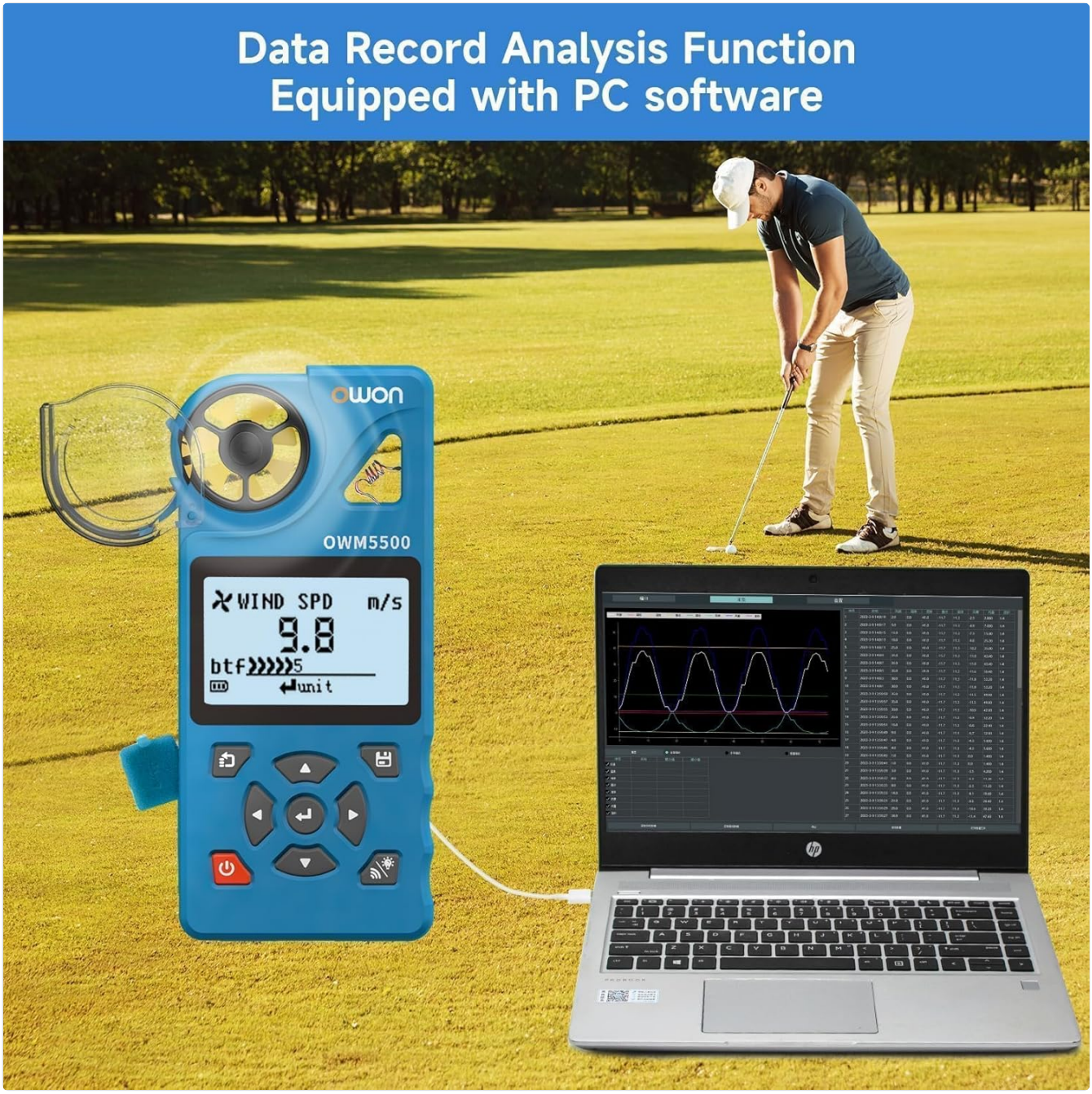

Image: The anemometer display showing wind speed in different units (m/s, km/h, kts, ft/s, mph) as the 'UNIT' button is pressed.

6.3. Data Logging and Analysis

The OWM5500 can store up to 8000 sets of data. Data can be stored manually or automatically at set intervals (2 seconds to 12 hours).

- **Manual Storage:** Refer to the device's on-screen prompts for manual data saving.
- **Automatic Storage:** Configure logging rate and auto-log settings via the device menu.
- **PC Synchronization:** Connect the device to a PC using the USB Type-C cable. Use the provided PC software to monitor the anemometer and export recorded data for further analysis.

Image: The anemometer display showing data logging settings and a laptop connected via USB, displaying data analysis software.

6.4. Trend Chart and Statistics

The device can display trend charts and statistical data (maximum, minimum, and average values) for wind speed measurements.

- Press the **RANGE** button to cycle through MAX, MIN, and AVG values.
- Access the trend chart mode through the device menu to visualize measurement data over time.

Image: Two anemometer displays, one showing a wind speed trend graph and the other showing statistical values (MAX, MIN, AVG) for wind speed.

6.5. Backlight

Press the **Backlight** button (🖨) to turn the LCD backlight ON or OFF for improved visibility in low-light conditions.

7. Maintenance

7.1. Cleaning

To clean the device, wipe it with a soft, damp cloth. Do not use abrasive cleaners, solvents, or harsh chemicals. Ensure the impeller is free from dust and debris for accurate readings.

7.2. Storage

When not in use for extended periods, store the anemometer in a cool, dry place, away from direct sunlight and extreme temperatures. If storing for a long time, ensure the battery is partially charged (around 50%) to prolong its lifespan.

8. Troubleshooting

If you encounter issues with your OWON OWM5500, refer to the following common problems and solutions:

- **Device does not power on:** Check battery charge level. Ensure the battery is properly installed.
- **Inaccurate readings:** Ensure the impeller is clean and rotates freely. Verify that the device is held correctly in the airflow. Check for environmental factors affecting sensors.
- **Display is dim or unreadable:** Activate the backlight. Check battery level.
- **Cannot connect to PC/App:** Ensure the USB cable is securely connected. Verify that Bluetooth is enabled on your mobile device and the app is correctly installed.

If the problem persists, contact OWON customer support for assistance.

9. Specifications

Detailed technical specifications for the OWON OWM5500 Digital Anemometer:

Measurement Type	Unit	Range	Resolution	Accuracy	Response Time
Wind Speed	m/s, km/h, ft/s, kt, mph	0.6 - 40 m/s	0.1 m/s	±3% + 0.1	0.5s
Temperature	°C, °F	-10 - 50 °C	0.1 °C	±1.0 °C	0.5s
Humidity	%RH	5 - 95 %RH	0.1 %RH	±5.0 %RH	0.5s
Dew Point	°C, °F	-40 - 50 °C	0.1 °C	±2.0 °C	0.5s
Wet Bulb Temperature	°C, °F	-40 - 50 °C	0.1 °C	±2.0 °C	0.5s
Wind Chill	°C, °F	-40 - 50 °C	0.1 °C	±2.0 °C	0.5s
Air Volume	CMS, CFS	0.001 - 300.0 CMS	0.001 CMS	N/A	0.5s

Dimensions (L x W x H): 136.5mm x 30mm x 64.5mm
Weight (without package): 0.2kg
Material: PC

10. Warranty and Support

OWON products are manufactured to the highest quality standards. This product is covered by a limited warranty against defects in materials and workmanship. For detailed warranty terms and conditions, please refer to the warranty card included with your product or visit the official OWON website.

For technical support, troubleshooting assistance, or service inquiries, please contact OWON customer support through their official channels. Provide your product model (OWM5500) and purchase details when contacting support.