Owon OWM5500

Owon OWM5500 Digital Smart Anemometer User Manual

Model: OWM5500

1. Introduction

This manual provides detailed instructions for the safe and effective operation of your Owon OWM5500 Digital Smart Anemometer. This device is a versatile handheld instrument designed for precise measurement of various environmental parameters, including wind speed, air volume, temperature, and humidity. Please read this manual thoroughly before using the device to ensure optimal performance and longevity.

Figure 1: Owon OWM5500 Digital Smart Anemometer (Front View)
This image displays the front of the Owon OWM5500 anemometer, highlighting its digital screen which shows wind speed, maximum, average, and minimum readings, along with battery status. Below the screen are navigation and function buttons, and the wind impeller is visible at the top.

2. Safety Information

To ensure safe operation and to prevent damage to the device, please observe the following safety precautions:

- Do not attempt to open the device casing or replace the battery without first powering off the unit.
- Keep the device away from water and excessive moisture.
- Avoid exposing the device to extreme temperatures or direct sunlight for prolonged periods.
- Handle the wind impeller carefully to prevent damage.
- Use only the specified charging cable and power source.
- Store the device in a clean, dry environment when not in use.

Figure 2: Owon OWM5500 Digital Smart Anemometer (Back View)
This image shows the back of the Owon OWM5500 anemometer. A warning label is visible, advising to power off the device before replacing the battery or opening the case. The battery compartment and regulatory marks (UKCA, CE) are also displayed.

3. Package Contents

Upon unpacking, please verify that all items listed below are present and in good condition:

- Owon OWM5500 Anemometer
- User Manual
- USB Type-C Charging Cable
- Lanyard
- Packing Box

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				

1.Anemometer 2.Manual 3.USB cable(Type-c)
4.Lanyard 5.Packing box

Figure 3: Package Contents

This image illustrates the items included in the Owon OWM5500 package. It shows the anemometer itself, a printed user manual, a USB Type-C charging cable, and a lanyard, all laid out next to the product's packaging.

4. Product Overview and Features

The Owon OWM5500 is designed for comprehensive environmental monitoring with a range of advanced features:

- **Multi-Measurement Capability:** Measures 7 types of parameters: wind speed, air volume, temperature, humidity, dew point, wet bulb temperature, and wind chill. Supports Beaufort scale wind rating.
- **Data Visualization:** Features a charts display mode for analyzing trends and performing statistical analysis on collected data.
- **Extensive Data Storage:** Built-in memory for 8000 sets of data, supporting both automatic and manual storage, with a one-click data clearing function.
- **Power Management:** Multi-gear setting for automatic power-off to conserve energy.
- **Rechargeable Battery:** Integrated lithium battery, rechargeable via USB Type-C interface for extended use.
- **Smart Connectivity:** Supports remote control via a dedicated mobile application (APP).

- **PC Software Support:** Data graph mode allows for exporting data for further analysis using PC software.
- **High Precision Design:** Features a 7-blade airfoil fan for accurate data collection and a replaceable airfoil wheel for long-term accuracy.
- **User-Friendly Display:** Allows for simultaneous display of up to three measurement values on one screen for quick data interpretation.

Figure 4: Key Features Overview

This infographic visually summarizes the key advantages of the Owon OWM5500 anemometer. Icons represent features such as 7 measurement types, multi-unit conversions, air volume calculation, high precision, a 7-blade wind wheel, lithium battery power, multi-gear auto power off, a backlit large screen, large data storage, and unlimited communication capabilities.

Figure 5: Three Displays on One Screen

This image shows the Owon OWM5500 anemometer held in a hand, with its screen displaying three different measurement values concurrently: wind speed (12.6 m/s), temperature (1.8 °C), and relative humidity (56.2 %RH). This illustrates the device's ability to present multiple data points at a glance.

Figure 6: 7-Blade Airfoil Fan Design
This image provides a detailed view of the Owon OWM5500's 7-blade airfoil fan, designed for accurate data collection. It also shows a separate, replaceable fan wheel, emphasizing the device's maintainability and long-term measurement accuracy.

5. Setup

5.1 Charging the Battery

The OWM5500 comes with a built-in rechargeable lithium battery. Before first use, or when the battery indicator shows low power, charge the device using the provided USB Type-C cable.

1. Connect the USB Type-C cable to the charging port on the device.
2. Connect the other end of the USB cable to a standard USB power adapter (not included) or a computer's USB port.
3. The charging indicator on the device will show the charging status. Once fully charged, disconnect the cable.

5.2 Attaching the Lanyard

For secure handling and to prevent accidental drops, attach the provided lanyard to the designated loop on the anemometer.

6. Operating Instructions

6.1 Power On/Off

- **Power On:** Press and hold the power button () for a few seconds until the screen illuminates.
- **Power Off:** Press and hold the power button () again until the screen turns off. The device also features an automatic power-off function, which can be configured in the settings.

6.2 Measurement Modes

The OWM5500 supports various measurement types. Use the navigation buttons to cycle through and select the desired measurement mode.

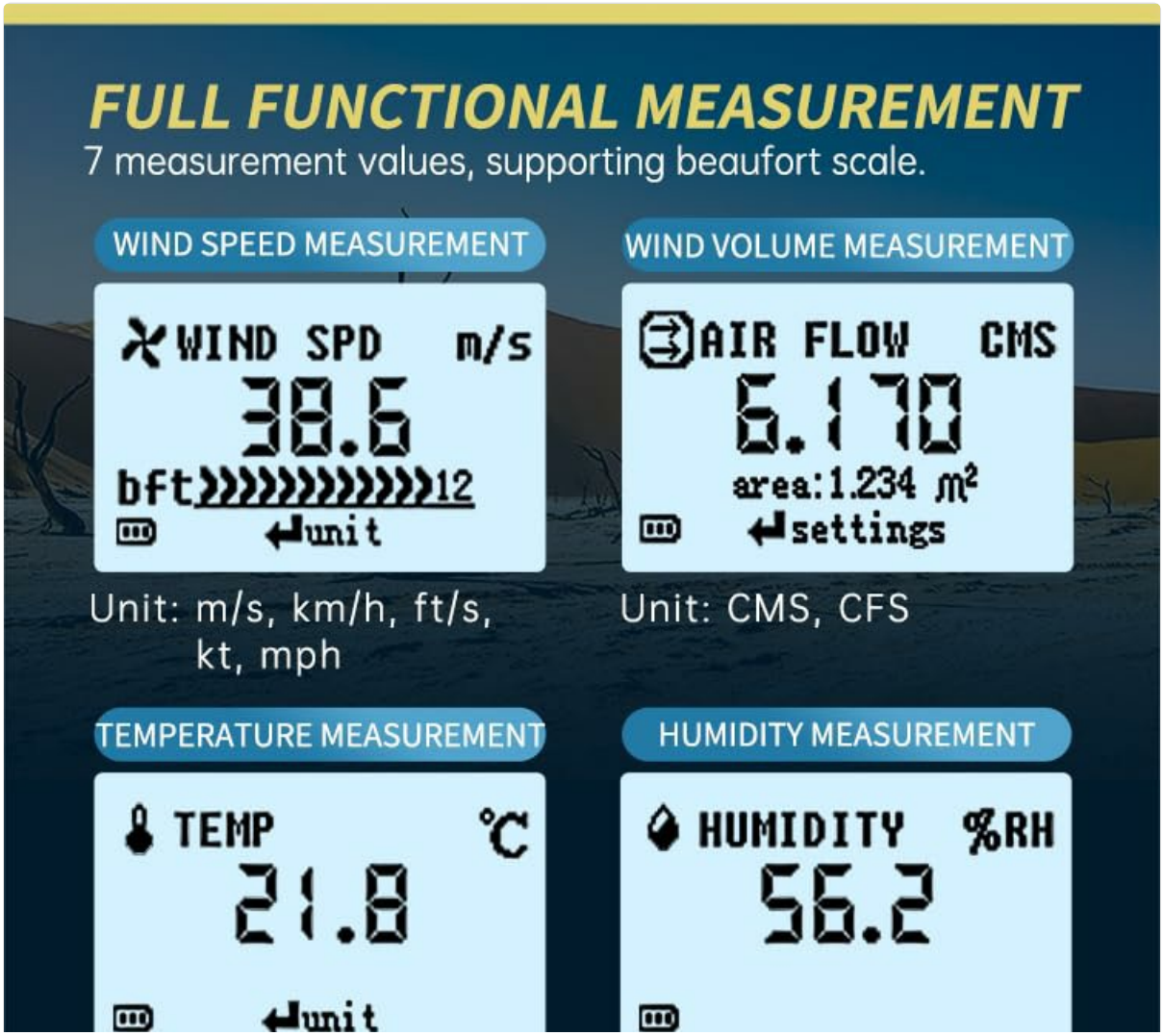


Figure 7: Full Functional Measurement Displays
This image presents a collage of screenshots from the Owon OWM5500's display, showcasing its full range of measurement capabilities. It includes readings for Wind Speed (with Beaufort scale), Wind Volume (Air Flow), Temperature, Humidity, Wet Bulb Temperature, Dew Point, Wind Chill Temperature, and the Date/Time setting interface. Each display shows the unit of measurement and current value.

- **Wind Speed:** Measures current wind velocity. Units include m/s, km/h, ft/s, kt, mph.
- **Air Volume (Air Flow):** Measures the volume of air passing through. Units include CMS, CFS. Requires input of area.
- **Temperature:** Measures ambient temperature. Units include °C, °F.
- **Humidity:** Measures relative humidity. Unit: %RH.
- **Dew Point:** Calculates the dew point temperature. Units include °C, °F.
- **Wet Bulb Temperature:** Calculates the wet bulb temperature. Units include °C, °F.
- **Wind Chill Temperature:** Calculates the wind chill factor. Units include °C, °F.

To change units within a measurement mode, refer to the on-screen prompts or the detailed instructions in the full user manual.

6.3 Data Logging and Storage

The OWM5500 can store up to 8000 sets of measurement data.

- **Automatic Storage:** Configure the logging rate (e.g., every 2 seconds to 12 hours) in the settings menu to enable automatic data recording.

- **Manual Storage:** Press the designated button (refer to device interface) to manually save the current measurement data.
- **Data Review:** Access stored data through the device's menu.
- **Data Export:** Connect the device to a PC via the USB Type-C cable and use the dedicated PC software to export data for further analysis and charting.
- **Data Clearing:** The device supports one-click data zero clearing. Exercise caution when using this function as it will permanently delete all stored data.

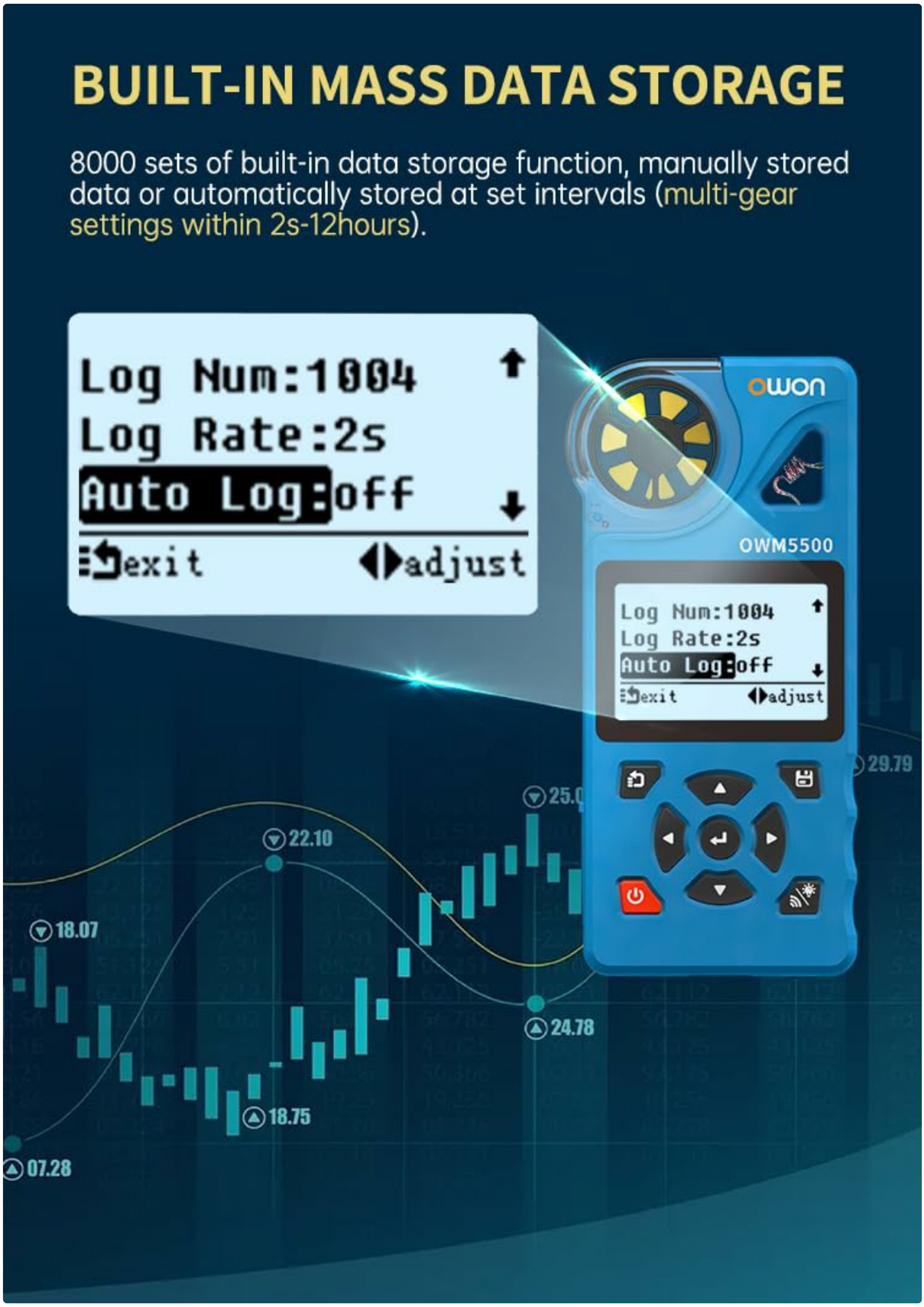


Figure 8: Built-in Mass Data Storage

This image illustrates the data storage capabilities of the Owon OWM5500. The device's screen shows settings for data logging, including 'Log Num' (log number), 'Log Rate' (logging interval), and 'Auto Log On/Off'. Below, a graphical representation of historical data trends is displayed, demonstrating the device's ability to store and visualize extensive measurement data.

6.4 APP Remote Control

The OWM5500 supports remote control via a mobile application. Download the official Owon APP from your smartphone's app store. Follow the in-app instructions to pair your device and access remote monitoring and control features.

7. Maintenance

7.1 Cleaning

Wipe the device with a soft, dry cloth. Do not use abrasive cleaners or solvents. Ensure the wind impeller is free from dust and debris for accurate readings.

7.2 Battery Care

To prolong battery life, avoid fully discharging the battery frequently. Recharge the device regularly, especially if it will be stored for an extended period.

7.3 Impeller Replacement

If the wind impeller becomes damaged or its accuracy degrades over time, it can be replaced. Refer to Figure 6 for an illustration of the replaceable impeller. Contact Owon customer support for replacement parts and detailed instructions.

7.4 Storage

Store the anemometer in a cool, dry place, away from direct sunlight and extreme temperatures. Use the original packing box or a protective case for storage.

8. Troubleshooting

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

Problem	Possible Cause	Solution
Device does not power on.	Low battery; device malfunction.	Charge the battery fully. If the issue persists, contact customer support.
Inaccurate readings.	Blocked impeller; sensor dirty; incorrect unit setting.	Ensure impeller is clear and spinning freely. Clean sensors. Verify unit settings.
Cannot connect to APP.	Bluetooth/wireless off; APP not updated; device not in pairing mode.	Ensure device and phone Bluetooth are on. Update APP. Refer to APP instructions for pairing.
Data not saving.	Storage full; auto-log off; manual save not performed.	Clear old data. Check auto-log settings. Ensure manual save button is pressed correctly.

9. Specifications

Parameter	Value
Model Number	OWM5500
Brand	Owon
Batteries	1 Lithium Ion battery (included)
Product Dimensions (L x W x H)	22 x 15 x 12 cm (8.66 x 5.91 x 4.72 inches)
Item Weight	0.5 Kilograms (1.1 lbs)
Country of Origin	China
Data Storage	8000 sets
Connectivity	USB Type-C, APP Remote Control
EU Spare Part Availability Duration	1 Year

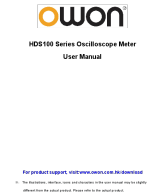
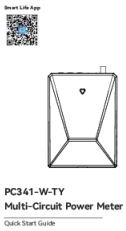
Note: Specifications are subject to change without prior notice.

10. Warranty and Support

Owon products are manufactured to high-quality standards. For warranty information and technical support, please refer to the warranty card included with your product or visit the official Owon website. Keep your purchase receipt as proof of purchase for warranty claims.
For assistance, please contact Owon customer service through their official channels.

Related Documents - OWM5500

	OWON CM2100/CM2100B AC/DC Clamp Ammeter User Manual User manual for the OWON CM2100 and CM2100B AC/DC Clamp Ammeters, detailing features, operation, safety, technical specifications, and mobile connectivity for CM2100B.
	OWON HDS200 Series Handheld Oscilloscope User Manual - Operation and Specifications This comprehensive user manual provides detailed instructions for operating the OWON HDS200 Dual Channel Series handheld oscilloscopes, including models HDS272(S) and HDS242(S). It covers safety information, general inspection, oscilloscope, multimeter, and optional waveform generator functions, along with technical specifications and maintenance guidelines.

	[OWON HDS100 Series Oscilloscope Meter User Manual | Safety, Operation, and Specifications] Comprehensive user manual for the OWON HDS100 Series Oscilloscope Meter, covering safety information, quick start guide, multimeter and oscilloscope operation, technical specifications, and maintenance. Learn how to use your OWON device effectively and safely.
	[Owon PC341-W-TY Multi-Circuit Power Meter Quick Start Guide | Electrical Monitoring] Comprehensive quick start guide for the Owon PC341-W-TY Multi-Circuit Power Meter. Learn about installation, technical specifications, network configuration, and safety handling for your smart energy monitoring device.
	[OWON HDS200 Serie Handheld-Oszilloskop Gebrauchsanweisung] Umfassende Gebrauchsanweisung für die OWON HDS200 Serie Handheld-Oszilloskope (HDS272, HDS242, HDS2102, HDS2202). Enthält Sicherheitshinweise, Bedienungsanleitungen, technische Daten und Garantieinformationen.
	[OWON SPM-Serie Source-Meter Benutzerhandbuch] Umfassendes Benutzerhandbuch für das OWON SPM-Serie Source-Meter. Enthält detaillierte Anleitungen zur Bedienung, Sicherheitshinweise, Schnellstart, Fehlerbehebung und Wartung.