Furuno 200WX

Furuno 200WX Ultrasonic Weather Station Instruction Manual

Your Guide to Accurate Weather Monitoring

Introduction

The Furuno 200WX Ultrasonic Weather Station is an advanced, all-in-one sensor designed to provide essential weather readings with high precision and accuracy. It detects instantaneous changes in weather conditions and operates continuously, even in adverse environments. This station measures apparent and true wind speed and direction, air temperature, and wind chill temperature. It also integrates a 3-Axis solid-state compass and a 3-Axis Rate Gyro for superior compass and pitch/roll accuracy. The 200WX supports both CanBUS/NMEA2000 and NMEA 0183 connectivity, allowing direct connection to compatible marine navigation systems like NavNet TZtouch/NavNet 3D DRS Radar sensors. Power is supplied via the NMEA 2000 bus, facilitating flexible installation. Its UV-stabilized, compact, and fully waterproof housing is resistant to chemicals and sunlight, ensuring durability.

A white cylindrical device with a grey band, labeled 'AIRMAR WeatherStation® 200WX', designed for outdoor weather monitoring.

Setup

This section details the initial setup of your Furuno 200WX Ultrasonic Weather Station.

Unpacking and Inspection

- Carefully remove all components from the packaging.
- Verify that all included components are present:
  - Furuno 200WX Ultrasonic Weather Station unit
  - Mounting Hardware
  - Connection Cable
- Inspect all components for any signs of damage. Contact customer support if any damage is found.

Mounting the Weather Station

The 200WX features a standard 1-inch mount, accommodating existing mounted hardware. Ensure the mounting location provides an unobstructed view of the sky for accurate readings.

1. Select a suitable mounting location, free from obstructions that could interfere with wind or precipitation measurements.
2. Secure the mounting hardware according to the provided instructions.
3. Attach the 200WX unit to the mounted hardware, ensuring it is firmly in place.

Electrical Connection

The 200WX supports both CanBUS/NMEA2000 and NMEA 0183. Power is supplied from an NMEA 2000 bus.

1. Connect the provided cable to the NMEA 2000 port on the 200WX unit.
2. Connect the other end of the cable to your NMEA 2000 bus or compatible NavNet TZtouch/NavNet 3D DRS Radar sensor.
3. Ensure all connections are secure and waterproof.

Operating Instructions

The Furuno 200WX Ultrasonic Weather Station provides continuous weather readings with no moving parts. Data is converted and distributed throughout the NavNet TZtouch/NavNet 3D Ethernet network.

Data Acquisition

- The unit automatically measures and transmits:
  - Apparent and True Wind Speed and Direction
  - Air Temperature
  - Wind Chill Temperature
  - Barometric Pressure
- The integrated 3-Axis solid-state compass and 3-Axis Rate Gyro provide accurate compass and pitch/roll data.

Interfacing with Display Units

Connect your display unit (e.g., NavNet TZtouch/NavNet 3D) to the NMEA 2000 network to view the weather data. Refer to your display unit's manual for specific instructions on configuring data displays.
The system is designed for continuous operation, even in adverse weather conditions.

Maintenance

The Furuno 200WX Ultrasonic Weather Station is designed for minimal maintenance due to its lack of moving parts.

Routine Cleaning

- Periodically inspect the unit for any accumulation of dirt, salt, or debris.
- Clean the exterior of the unit with a soft, damp cloth. Avoid abrasive cleaners or solvents.
- Ensure the ultrasonic transducers (located on the top of the unit) are clear of obstructions.

Environmental Considerations

The UV-stabilized, compact housing is fully waterproof and resistant to chemicals and sunlight, ensuring long-term durability in marine environments.

Troubleshooting

This section provides solutions to common issues you may encounter with your 200WX Weather Station.

No Data Displayed

- **Check Power:** Ensure the NMEA 2000 bus is powered and the 200WX unit is receiving power.
- **Cable Connections:** Verify that the NMEA 2000 cable is securely connected to both the 200WX and the network.
- **Network Configuration:** Confirm that your display unit is correctly configured to receive data from the NMEA 2000 network. Refer to your display unit's manual.

Inaccurate Wind Readings

- **Obstructions:** Check for any physical obstructions near the unit that could be interfering with wind flow (e.g., mast, rigging, other sensors).
- **Mounting Location:** Ensure the unit is mounted in a location with clear, undisturbed airflow.
- **Sensor Cleanliness:** Clean the ultrasonic transducers as described in the Maintenance section.

Incorrect Compass/Pitch/Roll Data

- **Calibration:** If available, perform a compass calibration procedure on your connected display unit or through the 200WX configuration.
- **Magnetic Interference:** Ensure the unit is not mounted too close to strong magnetic fields (e.g., large metal objects, electrical cables).

Specifications

Feature	Detail
Model	200WX
Sensor Technology	Ultrasonic
Measurements	Apparent/True Wind Speed & Direction, Air Temperature, Wind Chill, Barometric Pressure, 3-Axis Compass, 3-Axis Rate Gyro
Connectivity	CanBUS/NMEA2000, NMEA 0183
Mounting	Standard 1" mount
Housing	UV stabilized, waterproof, chemical & sunlight resistant
Temperature Accuracy	1 °C
Upper Temperature Rating	122 Degrees Fahrenheit
Power Source	NMEA 2000 bus
Dimensions	10 x 0.01 x 10 inches
Weight	0.16 ounces

Warranty and Support

For warranty information and technical support, please refer to the official Furuno website or contact your local Furuno dealer. Keep your purchase receipt and product serial number handy for any inquiries.
Additional resources:

- Official Furuno Manuals
- Furuno Support Page

Related Product Videos

The following videos provide additional information about weather stations and related products. Please note that these videos may feature different models or brands, but offer general insights into weather monitoring technology.

WS-5000: The Professional Smart Weather Station

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This video from Ambient Weather introduces the WS-5000 Professional Smart Weather Station, highlighting its features such as precision, accuracy, durability, and ease of installation. It covers various measured parameters like wind speed, rain, temperature, humidity, UV light, barometric pressure, air quality, lightning, soil moisture, and leak detection. The video also demonstrates the display console and mobile app connectivity for real-time data monitoring and alerts.

Weather is Personal

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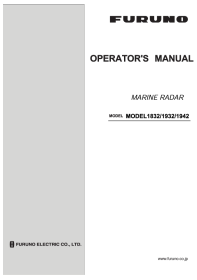
This short video from Ambient Weather emphasizes the personal relevance of weather data, showcasing how a weather station can integrate with smart home systems to provide real-time information about changing conditions. It illustrates a family using a tablet to monitor weather data, highlighting the convenience and importance of staying informed about local weather.

Related Documents - 200WX

	Furuno GP340 GNSS Receiver FAQ: Features, Compatibility, and Installation Frequently Asked Questions about the Furuno GP340 Global Navigation Satellite System (GNSS) Receiver, covering its features, compatibility with NavNet systems, installation details, and NMEA data output.
	FURUNO Operator's Manual: Marine Radar Models 1832, 1932, 1942 This operator's manual provides detailed information on the installation, operation, maintenance, and specifications for FURUNO Marine Radar models 1832, 1932, and 1942. It covers principles of operation, basic controls, menu functions, troubleshooting, and safety instructions.

	[FURUNO FA-40 AIS Receiver Operator's Manual] Operator's Manual for the FURUNO FA-40 AIS Receiver. This document provides comprehensive guidance on installation, setup, operation, and maintenance of the FA-40 unit for enhanced maritime situational awareness.
	[FURUNO Marine Radar Models 1832/1932/1942 Operator's Manual] Operator's Manual for FURUNO Marine Radar Models 1832, 1932, and 1942. This guide covers principles of operation, basic controls, menu functions, maintenance, troubleshooting, and installation of these advanced marine navigation systems.
	[Furuno TZT19F Installation Manual] This document provides comprehensive installation instructions for the Furuno TZT19F Multi Function Display, covering mounting, wiring, system configuration, and initial setup procedures.
	[FURUNO SCX-21 Satellite Compass Operator's Manual] Operator's manual for the FURUNO SCX-21 Satellite Compass, detailing installation, operation, settings, and maintenance for marine navigation. Includes technical specifications and troubleshooting.