



OM-CP-WIND101A-KIT

Wind Speed Data Logging System

**INSTRUCTION
SHEET**

MQS5792/1216

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Product Overview

The OM-CP-WIND101A-KIT is a complete system to accurately measure and record wind speed. This low cost wind speed recording system comes complete with the OM-CP-PULSE101A data logger, weatherproof enclosure, a three-cup anemometer and all the necessary cabling to quickly get up-and-running.

Changing the Reading Rate

The OM-CP-WIND101A-KIT comes programmed to provide the average wind speed using a 10 second reading rate. If a different reading rate is desired the engineering units gain will have to be reprogrammed on the device. To do this, click the **Engineering Units** button from the **Start Device** dialog box, and use the **Device Units Wizard**. Follow the wizard's prompts to:

- Enable use of portable engineering units.
- Enter an appropriate description and label (*MPH or KPH*).
- Enter the **Offset** and **Gain** values (*offset=0 / gain=see below*).
- Enable **Engineering Units**.
- Click the **Finish** button to save the units to the device.

Engineering Units Gain Quick Reference

Reading Rate	MPH	KPH	M/S	KNOTS
2 sec	0.425	0.68397	0.18999	0.36931
5 sec	0.17	0.27359	0.075997	0.14773
10 sec	0.085	0.13679	0.037998	0.073863
30 sec	0.028333	0.045598	0.012666	0.024621
1 min	0.014167	0.022799	0.006331	0.012310
5 min	0.0028333	0.0045598	0.0012666	0.0024621
10 min	0.0014167	0.0022799	0.00063331	0.0012310

LEDs

- Green LED blinks: 10 seconds to indicate logging, 15 seconds to indicate delay start mode
- Red LED blinks: 10 seconds to indicate low battery and/or memory

Password Protection

An optional password may be programmed into the device to restrict access to configuration options. Data may be read out without the password.

Multiple Start/Stop Mode Activation

- To start device: Press and hold the pushbutton for 5 seconds, the green LED will flash during this time. The device has started logging.
- To stop the device: Press and hold the pushbutton for 5 seconds, the red LED will flash during this time. The device has stopped logging.

Troubleshooting Tips

Why is the wireless data logger not appearing in the software?

If the OM-CP-WIND101A-KIT doesn't appear in the Connected Devices panel, or an error message is received while using the OM-CP-WIND101A-KIT, try the following:

- Check that the OM-CP-IFC200 is properly connected. For more information, see Troubleshooting Interface Cable problems (below).
- Ensure that the battery is not discharged. For best voltage accuracy, use a voltage meter connected to the battery of the device. If possible, try switching the battery with a new OM-CP-BAT105.
- Ensure that no other Omega software is running in the background.
- Ensure that **Omega Software** is being used.
- Ensure that the **Connected Devices** panel is large enough to display devices. This can be verified by positioning the cursor on the edge of the Connected Devices panel until the resize cursor appears, then dragging the edge of the panel to resize it. The screen layout may also be reset in the options menu by selecting **File, Options**, and scrolling to the bottom.

Troubleshooting Interface Cable problems

Check that the software properly recognizes the connected OM-CP-IFC200.

If the data logger is not appearing in the **Connected Devices** list, it may be that the OM-CP-IFC200 is not properly connected.

1. In the software, click the **File** button, then click **Options**.
2. In the **Options** window, click **Communications**.
3. The **Detected Interfaces** box will list all of the available communication interfaces. If the OM-CP-IFC200 is listed here, then the software has correctly recognized and is ready to use it.

Check that Windows recognizes the connected OM-CP-IFC200.

If the software does not recognize the OM-CP-IFC200, there may be a problem with Windows or the USB drivers.

1. In Windows, click **Start**, right-click **Computer** and choose **Properties** or press **Windows+Break** as a keyboard shortcut.
2. Click **Device Manager** in the left hand column.
3. Double click **Universal Serial Bus Controllers**.
4. Look for an entry for **Data logger Interface**.
5. If the entry is present, and there are no warning messages or icons, then windows has correctly recognized the connected OM-CP-IFC200.
6. If the entry is not present, or has an exclamation point icon next to it, the USB drivers may need to be installed. These are available on the software flash drive included with the OM-CP-IFC200.

Ensure that the USB end of the OM-CP-IFC200 is securely connected to the computer.

1. Locate the USB-A plug of the OM-CP-IFC200.
2. If the interface cable is connected to the PC, unplug it. Wait ten seconds.
3. Reconnect the cable to the PC.
4. Check to make sure that the red LED is lit, indicating a successful connection.

Installation Guide

Installation of the OM-CP-WIND101A (OM-CP-PULSE101A-2 pos. terminal block)

When installing the OM-CP-WIND101A, refer to the following:

- The anemometer should be mounted vertically in an open area, as high up as possible. Preferably on a pole.
- It can be mounted using a cotter pin on a 0.5". (13mm) diameter mast with a #35 hole, 0.35". (11mm) from the top.
- The anemometer is non-directional, and will measure wind blowing in any horizontal direction. To ensure the most accurate readings, adjust the position of the anemometer on the bracket so that it is level.
- Run the provided cable to the location where the data logger will be mounted, securing it roughly every 2'.
- There are 4 mounting holes (0.2" (5mm) diameter spaced 2.5" (63.5mm square) on the weather resistant enclosure.

Installing the Interface cable

- OM-CP-IFC200

Refer to the "Quick Start Guide" included in the package.

Installing the software

Insert the Omega Software Flash Drive in an open USB port. If the autorun does not appear, locate the drive on the computer and double click on **Autorun.exe**. Follow the instructions provided in the Installation Wizard.

Device Operation

Connecting and Starting the data logger

1. Once the software is installed and running, plug the interface cable into the docking station.
2. Connect the USB end of the interface cable into an open USB port on the computer. Place the data logger into the docking station.
3. The data logger will automatically appear under **Connected Devices** within the software.
4. For most applications, select "**Custom Start**" from the menu bar and choose the desired start method, reading rate and other parameters appropriate for the data logging application and click "Start". ("**Quick Start**" applies the most recent custom start options, "**Batch Start**" is used for managing multiple loggers at once, "**Real Time Start**" stores the dataset as it records while connected to the logger.)
5. The status of the device will change to "**Running**", "**Waiting to Start**" or "**Waiting to Manual Start**", depending upon your start method.
6. Disconnect the data logger from the docking station and place it in the environment to measure.
Note: The device will stop recording data when the end of memory is reached or the device is stopped. At this point the device cannot be restarted until it has been re-armed by the computer.

Downloading data from a data logger

1. Connect the logger to the docking station.
2. Highlight the data logger in the **Connected Devices** list. Click "**Stop**" on the menu bar.
3. Once the data logger is stopped, with the logger highlighted, click "**Download**". You will be prompted to name your report.
4. Downloading will offload and save all the recorded data to the PC.

Product Maintenance

Battery Replacement

Materials: OM-CP-BAT105, Small Phillips Head Screwdriver, and 3/32" HEX Driver

1. Remove the data logger from the OM-CP-WATERBOX101A using the allen key.
2. Puncture the center of the back label with the screw driver and unscrew the enclosure.
3. Remove the battery by pulling it perpendicular to the circuit board.
4. Insert the new battery into the terminals and then screw the enclosure back together.

Note: Be sure not to over tighten the screws or strip the threads.

Recalibration

The OM-CP-WIND101A-KIT system includes a OM-CP-PULSE101A data logger and an anemometer. The data logger is programmed with engineering units to display in the units of wind speed.

The OM-CP-PULSE101A has a digital input signal and cannot be calibrated. A Certificate of Conformance can be provided.

Battery Warning

WARNING: FIRE, EXPLOSION, AND SEVERE BURN HAZARD. DO NOT SHORT CIRCUIT, CHARGE, FORCE OVER DISCHARGE, DISASSEMBLE, CRUSH, PENETRATE OR INCINERATE. BATTERY MAY LEAK OR EXPLODE IF HEATED ABOVE 80°C (176°F).

*Specifications subject to change.
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OM-CP-WIND101A-KIT General Specifications

Description	OM-CP-WIND101A-KIT
Gust Survival Speed	214 mph (95m/s)
Starting Threshold	1.75mph (0.75m/s)
Maximum Measurable Speed	100 mph (45m/s)
Accuracy	±2 mph 0-10 mph ±2.5% of reading 10-100 mph
Resolution	Varies with reading rate 0.17 mph (.07 m/s) @ 10 sec rate
Rotation Diameter	7.5" (191mm)
Weight	1.13 lb (513 g)
Mount	Accepts 0.5" (13mm) dia. Mast
Tripod/Mast Kit	Contact factory for availability
Operating Temperature Range	-20°C to 60°C (-4°F to 140°F)
Memory	500,000 readings 250,000 readings in repeatable start/stop mode
Wrap Around	Yes
LED Indicator	Red & Green
Required Interface Package	OM-CP-IFC200
Baud Rate	115,200
Typical Battery Life	Dependent on frequency and duty cycle. 10 months typical at 25°C and 10 second reading rate
Enclosure Dimensions	3.66" x 2.45" x 0.93" (93mm x 62mm x 24mm)
Anemometer Dimensions	2.1 in height x 7.53 in diameter (54 mm height x 192 mm dia) (mount post not included)
Anemometer Operating Environment	-55 °C to +60 °C (-67 °F to +150 °F), 0 %RH to 100%RH
Data Logger Operating Environment	-20 °C to +60 °C (-4 °F to +140 °F), 0 %RH to 100%RH
IP Rating	IP65
Weight	18.1 oz (513 g)
Materials	ABS Plastic



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2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

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