USER GUIDE

Wind101A

MadgeTech

Distributed by AKRIBIS

Wind101A

Wind Speed Data Logger

Product User Guide

To view the full MadgeTech product line, visit our website at **madgetech.com**.

AKRIBIS · www.akribis.info · contacto@akribis.info

MADGETECH
WE BUILD DATA LOGGERS

Product Overview

The Wind101A is a complete system to accurately measure and record wind speed. This low cost wind speed recording system comes complete with a data logger, weatherproof enclosure, a three-cup anemometer and all the necessary cabling to quickly get up-and-running. The logger can record over 1,000,000 readings and the storage medium is non-volatile, solid state memory, providing maximum data security even if the battery becomes discharged. The device can be started and stopped directly from a computer using the MadgeTech Software.

Installation Guide

Installing the Interface Cable

IFC200 (sold separately) — Insert the device into a USB port. The drivers will install automatically.

Installing the Software

The Software can be downloaded from the MadgeTech website at **madgetech.com**.
Follow the instructions provided in the Installation Wizard.

Installing the Wind101A (Pulse101A-2 pos. terminal block)

When installing the 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 0.5in. (13 mm) diameter mast with a #35 hole, 0.35 in. (11 mm) 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 feet.
- There are 4 mounting holes (0.2 in. (5mm) diameter spaced 2.5 in. (63.5mm) square) on the weather resistant enclosure.

Ordering Information

- 901870-00 — Wind101A (25 ft)
- 901877-00 — Wind101A (50 ft)
- 901872-00 — Wind101A (100 ft)
- 901874-00 — Wind101A (150 ft)
- 900352-00 — LTC-7PN (Replacement Battery)

Device Operation

Connecting and Starting the Data Logger

1. Once the software is installed and running, plug the interface cable into the data logger.
2. Connect the USB end of the interface cable into an open USB port on the computer.
3. The device will appear in the Connected Devices list. Highlight the desired data logger.
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 interface cable 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.*

Download Data from the Data Logger

1. Connect the data logger to the interface cable.
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.

LED Status Indicators

- **Green LED blinks:** 10 seconds to indicate logging and 15 seconds to indicate Delay or Manual Start Mode - Standby (waiting to start).
- **Red LED blinks:** 10 seconds to indicate low battery and/or full memory.

Multiple Start/Stop Mode Activation

1. **To start device:** Press and hold the pushbutton for 5 seconds, the green LED will flash during this time. The device has started logging.
2. **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.

Set Password

To password protect the device so that others cannot start, stop or reset the device:

1. In the **Connected Devices** panel, click the device desired.
2. On the **Device** Tab, in the **Information** Group, click **Properties**. Or, right-click the device and select **Properties** in the context menu.
3. On the **General** Tab, click **Set Password**.
4. Enter and confirm the password in the box that appears, then select **OK**.

Changing the Reading Rate

The Wind101A 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 table below).
- Enable Engineering Units.

Click the **Finish** button to save the units to the device.

Engineering Units Gain Quick Reference

For additional information on Engineering Units, please refer to the Engineering Units Video on **madgetech.com/resources/videos** for step-by-step setup instructions.

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	0.0123100
5 min	0.0028333	0.0045598	0.0012666	0.0024621
10 min	0.0014167	0.0022799	0.00063331	0.0012310

Device Maintenance

Battery Replacement

Materials: Small Phillips Head Screwdriver, 3/32" HEX Driver and a Replacement Battery (LTC-7PN)

1. 3/32" HEX Driver and a Replacement Battery (LTC-7PN)
2. Remove the data logger from the Waterbox101A using the Allen Key.
3. Puncture the center of the back label with the screw driver and unscrew the enclosure.
4. Remove the battery by pulling it perpendicular to the circuit board.
5. Insert the new battery into the terminals and verify it is secure.
6. Screw the enclosure back together securely.

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

Recalibration

The Wind101A system includes a Pulse101A data logger and an anemometer. The data logger is programmed with engineering units to display in the units of wind speed. The Pulse101A has a digital input signal and cannot be calibrated. A Certificate of Conformance can be provided.

Need Help?

Product Support & Troubleshooting

- Visit our Resource Library online at **madgetech.com/resources**.
- Contact our friendly Customer Support Team at **(603) 456-2011** or **support@madgetech.com**.

MadgeTech 4 Software Support

- Refer to the built-in help section of the MadgeTech 4 Software.
- Download the MadgeTech 4 Software Manual at **madgetech.com**.
- Contact our friendly Customer Support Team at **(603) 456-2011** or **support@madgetech.com**.

MADGETECH
WE BUILD DATA LOGGERS

6 Warner Road, Warner, NH 03278
(603) 456-2011 | madgetech.com
info@madgetech.com

AKRIBIS · www.akribis.info · contacto@akribis.info