

Device Maintenance

Battery Replacement

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

- Remove the Data Logger from the Waterbox110C using the Allen Key.
 - Puncture the center of the back label with the screw driver and unscrew the enclosure.
 - Remove the battery by pulling it perpendicular to the circuit board.
 - Insert the new battery into the terminals and verify it is secure.
 - Screw the enclosure back together securely.
- Note: Be sure not to over tighten the screws or strip the threads.**

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).

Recalibration

The Wind110 system includes a Pulse110 data logger and an anemometer. The data logger is programmed with engineering units to display in the units of wind speed.

The Pulse110 has a digital input signal and cannot be calibrated. A Certificate of Conformance can be provided.

To send the devices back, visit www.madgetech.com, select Services then RMA Process.

Part Number	Wind110
Gust Survival Speed	214 mph (95m/s)
Threshold Wind Speed	1.75mph (0.75m/s)
Maximum Measurable Speed	170 mph (76m/s)
Accuracy	±2 mph 0-10 mph ±2.5% of reading 10-100 mph
Resolution	Varies with reading rate 0.17 mph (.07m/s) @ 10 sec rate
Rotation Diameter	7.5" (191mm)
Weight	0.2lbs (0.1kg)
Mount	Accepts 0.5" (13mm) dia. Mast
Tripod/Mast Kit	Contact factory for availability
Operating Temperature Range	-40 to 60°C (-40 to 140°F)
Data Memory	16,383 samples
Baud Rate	57,600
Typical Battery Life	10 years @ a 15 minute reading rate or slower
Enclosure Dimensions	2.9" x 4.0" x 1.1" (74mm x 102mm x 28mm)

Specifications subject to change.

See MadgeTech's terms and conditions at www.madgetech.com

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Wind110

Wind Speed Recording System

Product Notes

Installation of the Wind110 (Pulse110-2 pos. terminal block)

When installing the Wind110, 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 25 feet of 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 watertight enclosure.

Changing the Reading Rate

The Wind110 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 Wizard** 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

For additional information on Engineering Units, please refer to the App Note "Wind110" on our website.

Installation Guide

Installing the Interface cable

IFC200 IFC202 or IFC300

refer to the Quick Start Guide included in the package.

IFC110, IFC102 or IFC103

plug the serial cable into the port and verify it is secure.

USB-1 or USB-101

install the USB drivers from the CD provided in the kit, than plug the USB cable into the computer and the serial cable into the serial port.

Installing the software

Insert the Software CD in the CD-ROM Drive. If the autorun does not appear, locate the drive on the computer and double click on **Autorun.exe**. Follow the instructions provided in the Wizard.

Connecting the data logger

- Once the software is installed and running, plug the interface cable into the data logger.
- Click the **Communication Menu**, then **Auto Configure Port**.
- After a moment, a box similar to the following will appear;



- Click **OK**. The **Device Status** box will appear. Click **OK**.
- At this point, communications have been configured for your logger. These settings can be found under the **Communication Menu**.

Note: For additional installation instructions refer to your **Data Logger & Software Operating Manual**.

Device Operation

Starting the data logger

- Click **Device Menu** then **Start Device**.
- Choose the desired start method.
- Choose the start parameters by selecting a **Reading Rate** suitable for your application.
- Enter in any other desired parameters and click **Start**.
- A box will appear stating the data logger has been started. Click **OK**.



- 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.

Downloading data from a data logger

- Connect the data logger to the interface cable.
- Click the **Device Menu** then **Read Device Data**. This will offload all recorded data onto the PC.

Technical Support

Visit www.madgetech.com, or call (603) 456-2011. Technical support is also available by e-mailing support@madgetech.com

Additional product information is available by e-mailing info@madgetech.com.