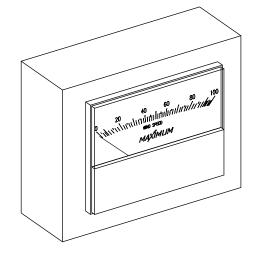


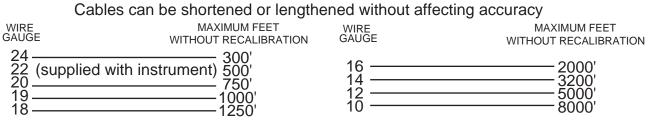
New Bedford, MA 02745 (508) 995-2200





The Sirocco is a self-powered wind speed measuring instrument. It does not need batteries or an external power supply. In normal operation it requires no maintenance.

ADDITIONAL INFORMATION



TROUBLE SHOOTING

Maximum Instruments are accurate and reliable. Most problems that occure are due to loose or corroded connections. If, after checking the connections, there is still a problem, determine if the problem is with the sensor or the brass read-out.

 \bigcirc Disconnect the wires from the back of the read-out.

If there is wind

- Attach a low range AC Analog Voltmeter to the wires. If the sensor is operating properly, you will achieve these approximate reading: 8-9 MPH = 0.15 VAC rms, 17 MPH = 0.31 VAC rms, 51 MPH = .97 VAC rms, 102 MPH 2.0 VAC rms
- If the sensor delivers these approximate readings, then the read-out is faulty. If the sensor does not produce these readings, then either the sensor or the wire is faulty.

If there is

Disconnect the wires from the back of the read-out.
 Connect an *ohm meter* to the wires.

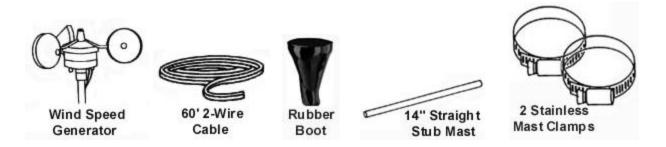
no wind

- (2.) Connect an *ohm meter* to the wires.
- ③ The *ohm meter* should indicate between 500 and 1,000 ohms.
- ④ If there is a good reading on the *ohm meter*, then the read-out
 - is faulty. If the reading is bad, then the sensor or wire is faulty.

Samuel Barnett Boulevard New Bedford, MA 02745 (508) 995-2200

IMPORTANT ADDITIONAL INFORMATION

Components: Along with the indicator, the following components are included with this instrument:



Rooftop sensor: To insure a clear unobstructed path for the wind to the sensor, it should be mounted on some type of antenna mast at least 810' above the highest object on your roof. Remember, your roof is also an obstruction and it usually requires at least 8' of height to avoid the turbulence it creates.

Sensor: Properly installed, your sensor will require virtually no maintenance at all. Our sensors do not utilize brushes or wiping contacts. All bearings are Rulon-J self lubricating type and will perform for many years in the harshest environments.

Specifications: All instrumentation or measuring devices have accuracy tolerances and specifications. Making comparisons between different pieces of equipment is appropriate provided the specified accuracies of both are known.

Wind Speed

Measurement Range 0-100 MPH

Guaranteed Accuracy ±3% Full Scale & Mid Scale

EATHER INSTRUMENTS

Electrical Damage – Common Causes & Recommended Prevention

Electrical damage can be caused by many different factors. Below are some of the more common causes and some suggested methods of minimizing potential problems.

Common Causes:

- Storm Activity lightening in your area can do damage to your instruments in different ways. The obvious way is due to a direct or nearby strike. In addition, lightening storms, dust storms, dry snowstorms and strong dry winds can all cause static electricity to build up on and around your external sensors. Regardless of the cause this built up electricity can discharge itself through the cable connecting the external sensors to the instrument.
- Power Surges A surge may come from the electric company's switching generators or power grids, from local industries or after power interruption when accumulated power suddenly surges back through AC lines. Even the on-and-off switching of large electrical appliances, such as refrigerators or clothes dryers can create damaging fluctuations. This is especially true with sensitive weather recording devices.
- Yourself Are you constantly giving and/or receiving a shock every time you touch a doorknob or another person? If so you have a great deal of static electricity in your environment. Depending on where you live, static electricity may be a year round problem or only a seasonal problem. In either case, it is possible for a person to carry enough of a charge to damage an instrument.

Recommended Prevention:

Ground Your Mounting Mast – *IMPORTANT*: <u>PVC and fiberglass are not recommended</u> mast materials as they can store high amounts of static electricity within themselves. It is recommended that you follow the grounding instructions that came with your mounting mast, while also maintaining accordance to your local Electric Code. In the absence of instructions for your mast system, the following generic guidelines from the **National Electric Code** may be helpful.

- 1) The NEC requires that the antenna mast and mount be grounded directly. No splices or connections are allowed in the ground wire between the mast and the ground rod.
- 2) Attach one end of a No. 8 (or thicker) copper or aluminum ground wire to the antenna mast. Note: As static electricity issues are more common for weather sensors than direct lightening strikes, consider installing the ground wire as physically close to the wind sensors as possible to best combat static electricity issues. For multi-piece (or telescoping) masts, consider connecting the ground to each separate section of the mast.
- 3) For painted or coated masts, scrape off the coating around the area where the contact will be made. This will ensure a good, solid connection. (Once the ground is attached to the mast, any scraped off portion that is exposed should be recoated with paint or other sealant.)
- 4) Next, run the ground wire to ground as directly as possible. Standard wire staples can be used to secure the ground wire against the side of the house. Avoid making 90° or sharper turns with the ground wire. A lightning charge has difficulty making such a turn and therefore may discharge into the house. Make ground wire bends as smooth and as gradual as possible.
- 5) The ground wire must be connected to a ground rod. Water pipes or plumbing fixtures are not acceptable. A good copper-coated steel ground rod driven at least 3 feet into the ground is required. Special clamps that provide a solid connection between the ground wire and ground rod should be used
- Use Surge Protectors For the AC adapter, a UL 1449 rated surge protector with EMI/RFI filtering is
 recommended. This rating will be clearly listed on the packaging of any good quality surge protector.
- Discharge Yourself If the instruments are located in an environment where static electricity is a problem, make sure that you discharge yourself before touching the instrument(s). The shock that you get from touching a doorknob or another person can often be sufficient to damage an instrument.