



# Davis Anemometer D6410 Installation

- Follow the instructions from Davis Instruments.
- When installing the anemometer, orient it so that the mounting arm extends out true north from the mounting pole (Figure 1 & 2). If that is not possible, you will need to enter an offset in the software. In the program menu, navigate to the calibration settings (details of how to navigate vary). Choose the wind direction calibration option. Enter the direction (in degrees) that the anemometer mounting arm points. If it points east, for example, enter 90 (Figure 3).
- Be sure to secure the cable so that it will not blow around in the wind. Use nylon wire ties or cable clamps at all points where the cable is loose.
- Protect the cable from physical damage that might be caused by rodents, falling branches, etc.
- Unless the condition of study dictate otherwise, mount the cup/vane assembly at least three feet above surrounding obstacles. Some standards suggest six feet (two meters) above the ground.
- If necessary, add lightning protection above the anemometer and connect it to earth ground.

Figure 1

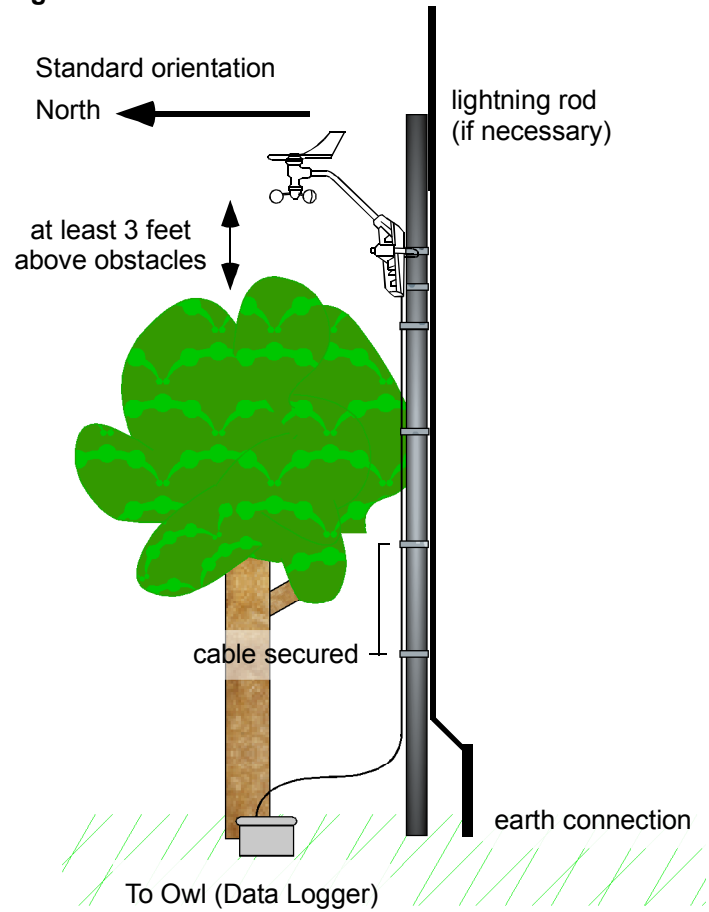


Figure 2  
Anemometer Top View

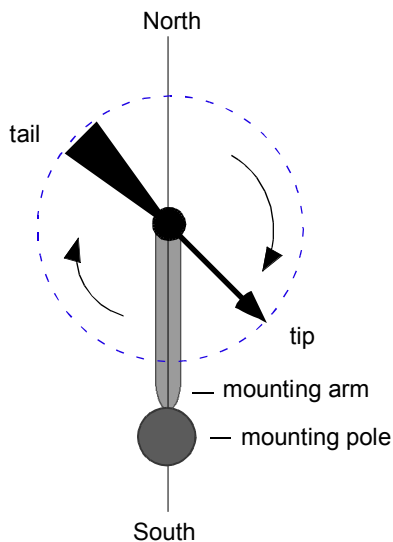
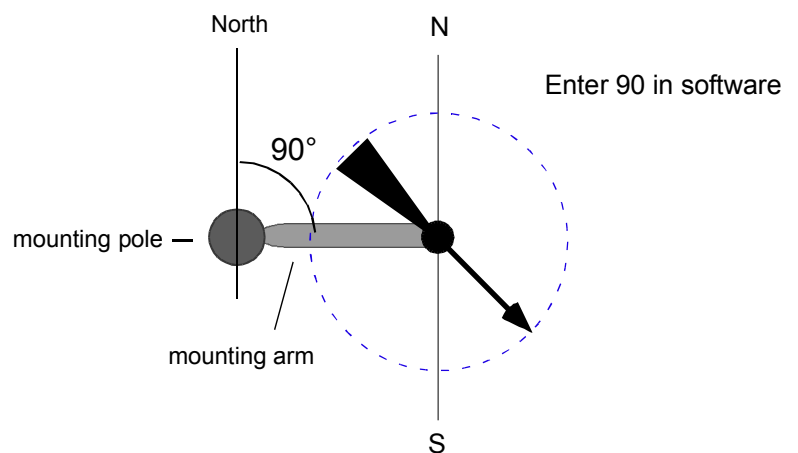


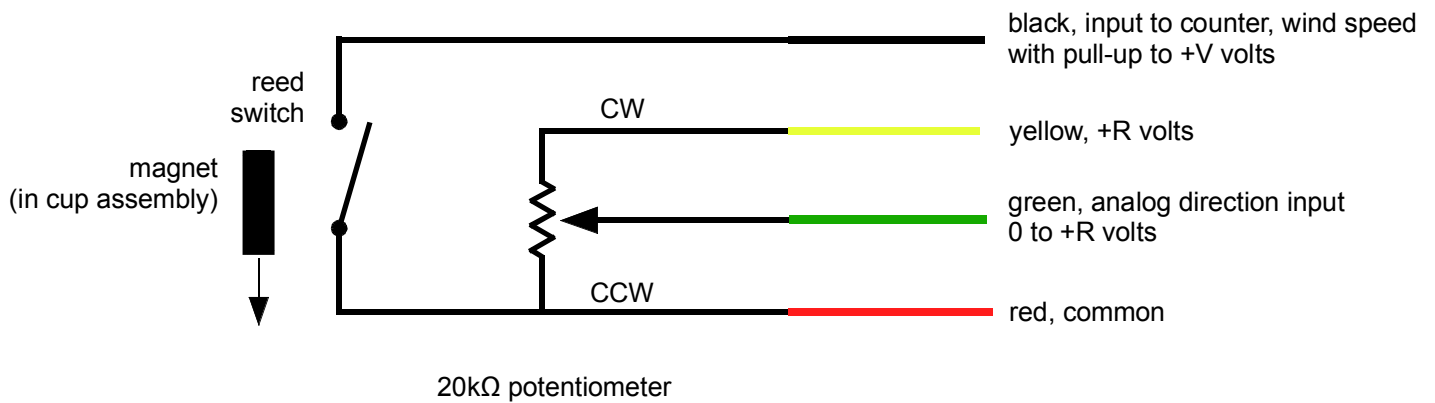
Figure 3  
Anemometer Top View



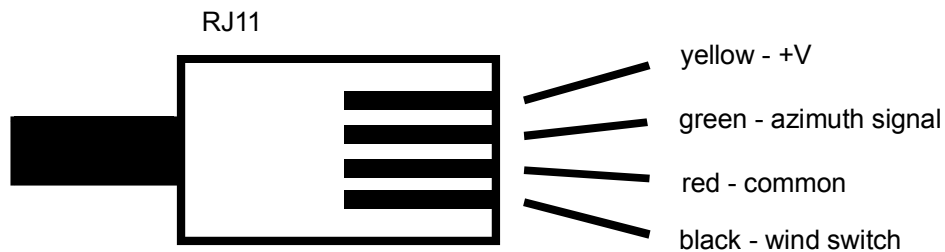


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## Wiring



For operation with the OWL, we sometimes cut off the RJ11 connector and use the stripped and tinned wires. The color code for each signal wire is shown to the above and below.



Conversion factors for wind speed calculation:

- one pulse per revolution of the cups.
- $\text{mph} = 2.25 * \text{rps}$   
 $= 2.25 * \text{hertz}$
- 60 Hertz at 135 mph. ( = 61.9 meters/sec = 217.3 km/hr. mph)
- $\text{mph} = \text{count/seconds} * 2.25$
- $\text{mps} = \text{count/seconds} * 1.032$
- $\text{kmph} = \text{count/second} * 3.621$