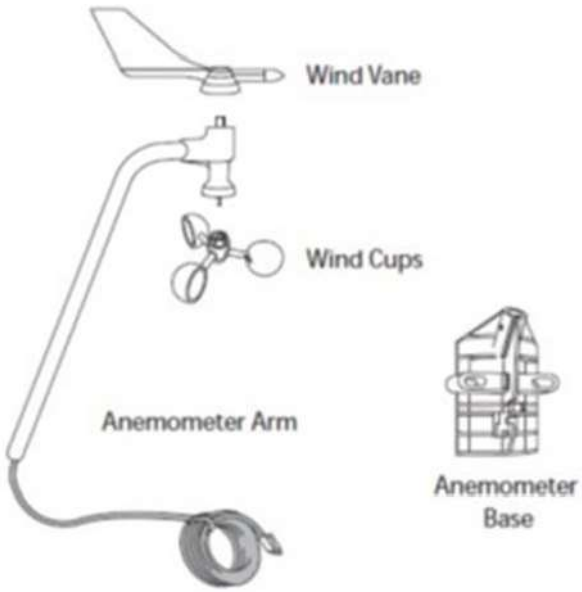
INJECT RENEWABLES

DATASHEET- WIND SPEED AND DIRECTION SENSOR

Document Name	Wind Speed and Direction Sensor
Hardware Name	Anemometer
Document Number & Revision	IS-HW-SR-AR-001, Rev-0 (4 pages)
Document Type	Public
Document Release	31-Dec-2022

1. Contents of Package



The package contains the following items-

- ✓ Anemometer arm with cable
- ✓ Wind vane
- ✓ Wind cups
- ✓ Anemometer base

2. Procedure to assemble the Anemometer

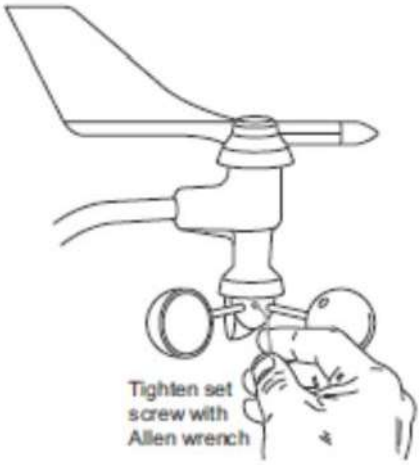
2.1. Attach the wind vane

The wind direction has been calibrated in the factory so that the wind direction will be correct when the arm is installed pointing north and the vane is installed correctly.

Slide the wind vane onto the wind vane shaft. The shaft's cross section is D-shaped to ensure that the anemometer is installed correctly.

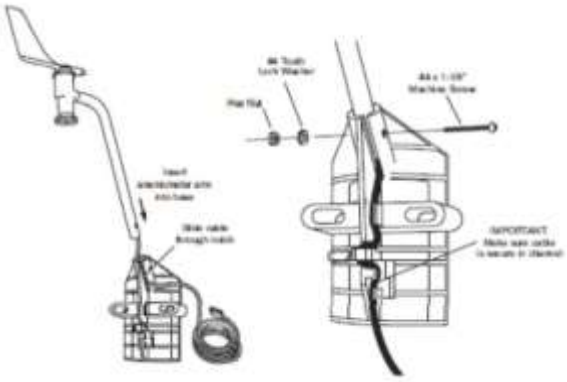
Tighten the set screw in the wind vane with the Allen wrench.

2.2. Attach the Wind Cups



a) Push the wind cups up onto the anemometer's stainless steel wind cup shaft.
b) Slide the wind cups up the shaft as far as possible
c) Use the Allen wrench provided to tighten the set screw on the side of the wind cups.
d) The wind cups should drop slightly when you let go.
e) Ensure that the set screw is screwed in fully and very tight. Failure to do so will cause theanemometer to function improperly.
f) Spin the wind cups
g) If the wind cups spin freely, the anemometer is ready

2.3. Attach the Anemometer Arm to the Base



a) Insert the anemometer arm into the base, sliding the cable through the notch in the base as shown in illustration.
b) Be sure to line up the small hole in the arm with the holes in the base.
c) Insert the machine screw through the holes in the base and arm.
d) Slide the tooth-lock washer and hex nut onto the machine screw. Tighten the hex nut while holding the screw with a Phillips head screwdriver to prevent it from turning.
e) Press the sensor cable firmly and completely into the zig-zagging channel in the base, starting from the arm and progressing downward to the bottom of the base.

2.4. Anemometer Siting Guidelines

a) Mount the anemometer so that the arm is aimed correct north.
b) For best results, place the anemometer at least 7' (2.1 m) above surrounding obstructions such as trees or buildings that obstruct wind flow.

3. Wind Sensor Specifications:

Sensor Type:	Three cups
Material:	Control Head UV-resistant ABS
Wind Cups:	Polycarbonate
Startup wind speed	0.5m/s
Range:	0 to 320Km/Hr
Output:	Pulse,60 Hz = 240 Km/hr
Response Time	< 1 Sec
Dimensions:	3 cup dia 15cm

4. Wind Direction Specifications

Wind Direction:	Wind vane potentiometer
TypeMaterial:	UV-resistant ABS
Range:	0- 360 Deg C
Accuracy:	±3 Deg C
Pot Range:	20 K ohms

-End of this document-