

380-283 Fan Aspirated Solar Radiation Shield

The **380-283 Fan Aspirated Solar Radiation Shield** provides protection from scattered as well as direct radiation. The solar powered fan draws air upwards through the shield when sufficient sunlight hits the top-mounted solar panel.

- Accommodates sensors from 0.25" to 0.75" diameter (6.3 to 19 mm)
- Air movement per hour: 700 ft³ (20 m³)
- Includes a rechargeable battery to operate the fan at night and during low light conditions.
- Powder coated aluminum bracket mounts to 1 ½" mast (38 mm)
- Wall mount option

Note: The solar array and fan assembly may not match the illustration.



380-283 Fan Aspirated Sunshield

INSTALLATION

The fan is controlled by a three-position switch (IN-CHG-OUT). The unit is shipped with the switch set to CHG, which also turns the fan off. To maximize battery life, allow the battery to fully charge before turning the fan on. To fully charge, expose the unit to full sun, (not a light bulb) for 24 to 36 hours.

After charging, turn the fan on. Grasp the top cover of the fan and turn counter-clockwise. Lift carefully to expose the switch. Set the switch to OUT. The fan should start drawing air upwards and out the top of the fan unit. Replace the top cover, making sure it is seated properly otherwise the wind may blow it away. *Note: Leave the LED ON-OFF switch in the OFF position.*

Install the probe inside the sunshield so that the tip is no closer than an inch (2.5 cm) from the flat plate that separates the sensor from the fan assembly. Loosen the jam nut on the probe retainer bolt, then turn the bolt until it clamps the sensor in place. Do not over-tighten. Tighten the jam nut to hold the bolt in place. Use a cable tie to secure the sensor cable to the mast.

For Pipe Mounting

- 1) Remove the U-bolt from the mounting bracket.
- 2) Secure the radiation shield to a 1 ½" mast (38 mm).



Radiation Shields

For Surface Mounting

- 1) Remove the U-bolt from the bracket.
- 2) Mark the outer two holes of the mounting bracket on the surface.
- 3) Drill the two holes marked in the previous step into the surface.
- 4) Attach the radiation shield with appropriate fasteners (not included).

380-283 Fan Aspirated Solar Radiation Shield with Bracket

1 probe (temperature, humidity or combined temp/RH) Accommodates sensors up to 0.75" (19 mm) diameter
700 ft ³ (20 m ³)
Solar array and rechargeable NiMh battery
3-5 years (average). Replaceable.
White powder coated aluminum plate, louvers, and bracket Plastic fan shroud encloses motor, fan, and rechargeable battery Top-mounted solar array Stainless steel U-bolt and fasteners
Vertical pipe mount: 1.25" (32 mm) o.d. with U-bolt Surface mount: Remove U-bolt. Mounting screws not included.
9" Dia x 15" H (230 x 380 mm) mounting arm 6" L (152 mm)
4 lb (1.8kg) / 5 lbs (2.3 kg)

MAINTENANCE AND TROUBLESHOOTING

- 1) Periodically clean the solar array with a mild cleaner.
- 2) Verify the fan is running when exposed to sunlight.
- 3) If the fan is not running, make sure the solar array is not shaded.
- 4) If the IN-CHG-OUT switch is in the OUT position and the fan is not working, the battery may be dead. A dead battery short circuits the solar array and will not deliver power to the motor.
 - a. Remove the battery carefully unscrewing the switch housing which acts as the battery compartment cover. Be careful not to pull the wire leads from the battery compartment cover.
 - b. Unplug the wire leads connecting the battery pack to the switch housing, and remove the battery pack. Take care not to over-stress the wire leads when reinstalling the battery compartment cover.
 - c. Test the unit <u>without the battery in it</u> by placing the array in direct sun to see if the motor turns (make sure the switch is in the OUT position). If the motor turns the battery is dead. Either replace the battery or operate the unit without the battery (it will only operate during sunlight hours).

ORDERING INFORMATION

380-283 Fan Aspirated Solar Radiation Shield

