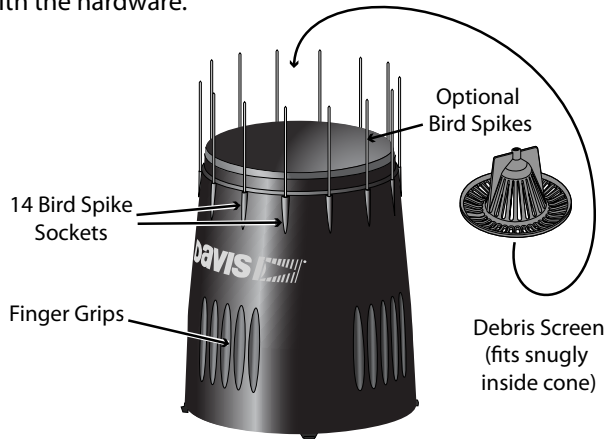


Improved Rain Collector Cone

Our improved rain collector cone features a larger debris screen, finger grips for easier turning, and optional bird spikes to discourage birds.

It fits on the same base as the previous rain collector cone. Installation is the same, with the exception of the bird spikes. A packet of 16 3.5-inch (9 cm) bird spikes is included with the hardware.



To use the bird spikes, insert one spike into each socket around the rim of the cone. The sockets are tapered: push firmly or tap lightly with a hammer for a secure fit.

If bird nesting is a problem, you may also place a spike in the hole in the top of the debris screen. Note that using a bird spike in the debris screen may make the screen more likely to be blown over or out in a high wind gust.

If you choose to not install the bird spikes, we recommend that you keep the packet of bird spikes for possible future use.

Caution: Spikes may be sharp!

Special Instructions for Vantage Pro2 Plus

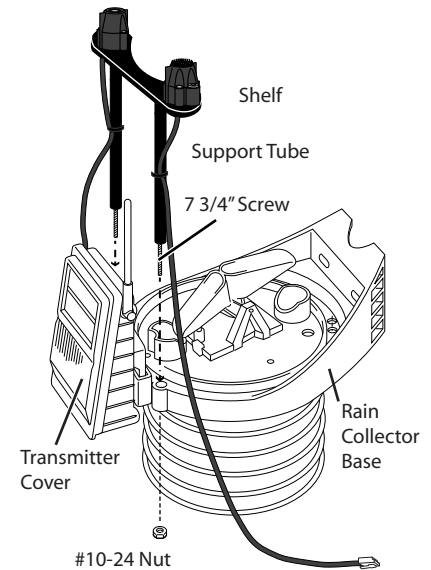
If you are installing this rain collector cone on an integrated sensor suite with Solar and/or UV Radiation Sensors mounted on the "back" of the rain collector cone (the pole side), the bird spikes may shade the sensors and reduce their accuracy. You should move the sensor mounting shelf to the "front" side of the cone, between the cone and the transmitter shelter. (Instructions are on the back of this page.)

Note: It is not necessary to remove the sensors from the sensor mounting shelf or untie the cables from the support tubes.



To Move the UV and Solar Radiation Sensors

1. Remove the old rain cone.
2. Remove the transmitter cover by pulling the tab at the bottom out and sliding the cover up and off. Unplug the sensor cables (labeled UV and SUN).
3. Remove the foam insert from the hole in the bottom of the transmitter shelter and pull the sensor cables out of the shelter and then up through the holes at the back of the rain collector base under the sensor mounting shelf.
4. A 7 3/4" screw secures each support tube to the rain collector base. Remove the nuts from these screws beneath the rain collector base.
5. Move the support tubes (with the sensors still installed) to the mounting holes at the front of the rain collector base and insert the 7-3/4" screws through the holes in the front of the rain collector base.
6. One at a time, place a nut in the opening of the hexagonal recess on the underside of the rain collector base and loosely attach them to the screws. When both nuts are in place, tighten the support tubes screws.
7. The sensors are now closer to the transmitter shelter, so there will be some slack in the cables. Before plugging the sensor cables back into the transmitter, you can take up the slack by winding the cables around the posts under the rain collector base that connect the base to the radiation shield.
8. Feed the cables, one at a time, back into the bottom of the transmitter shelter. Plug them back into the appropriate sockets.
9. Replace the foam insert and close the transmitter shelter cover.
10. If necessary, re-adjust the sensors so they are level and properly positioned so that they are even with or just above the rim of the rain collector. You may also want to re-test the sensors.



Install the new rain collector cone.

11.



The UV Sensor measures the sunburning portion of the UV spectrum. Its spectral response matches very closely the Erythema Action Spectrum (EAS), defined by McKinlay and Diffey (1987) and adopted by the Commission Internationale de l'Eclairage (C.I.E.) as the standard representation of the human skin's sensitivity to UV radiation. The sensor measures global solar UV irradiance, the sum of the components of solar UV transmitted directly and those scattered in the atmosphere. Scattered UV is a major portion of global irradiance.

The transducer is a semiconductor photodiode that responds only to radiation in the region of interest. The diffuser provides an excellent cosine response. With multiple hard-oxide coatings, the interference filter provides the Erythema Action spectral response. It is stable in the presence of heat and humidity. The outer shell shields the sensor from thermal radiation and provides a path for convection cooling of the body, minimizing heating of the sensor interior. It provides a cutoff ring with a comb structure for cosine response, a level indicator, and fins to aid in aligning the sensor with the sun's rays. Spring-loaded mounting screws, in conjunction with the level indicator, enable rapid and accurate levelling of the sensor. Each sensor is calibrated against a Yankee Environmental Systems' Ultraviolet Pyranometer, model UVB-1, in natural summer daylight.

The UV Sensor is optional on Vantage Pro2 weather stations. It is standard on the Vantage Pro2 Plus.

Please refer to the WeatherLink® for Vantage Pro2™ specification sheet for optional data logging and charting capabilities available for this product.

General

Operating Temperature	-40° to +150° F (-40° to +65° C)
Storage Temperature	-50° to +158°F (-45° to +70°C)
Transducer	Semiconductor photodiode
Spectral Response	280 to 360 nm (Erythema Action Spectrum)
Cosine Response	±4% FS (0° to 90° zenith angle)
Supplied Cable Length	2' (0.6 m)
Cable Type	4-conductor, 26 AWG
Connector	Modular RJ-11
I/O Specs	
Green wire	Output (0 to 2.5VDC); 150 mV per UV Index, 364 mV per MED/hour
Black & Red wires	Ground
Yellow wire	+3V ±10%, 2.4 mA
Housing Material	UV-resistant ABS plastic
Dimensions (length x width x height)	2" x 2.75" x 2.25" (51 mm x 70 mm x 57 mm)
Weight	0.5 lbs. (226 g)

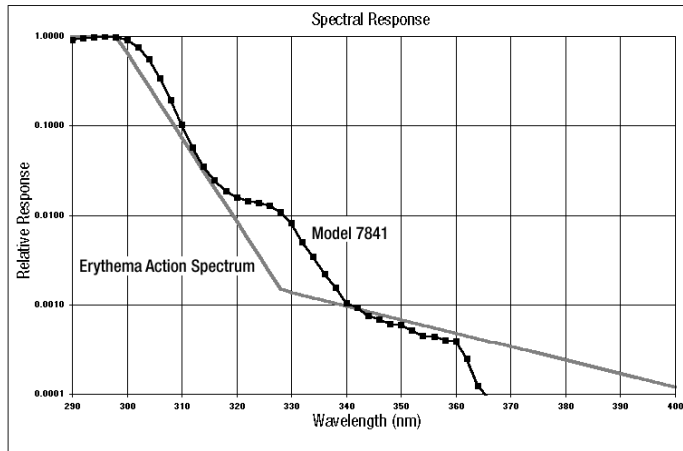
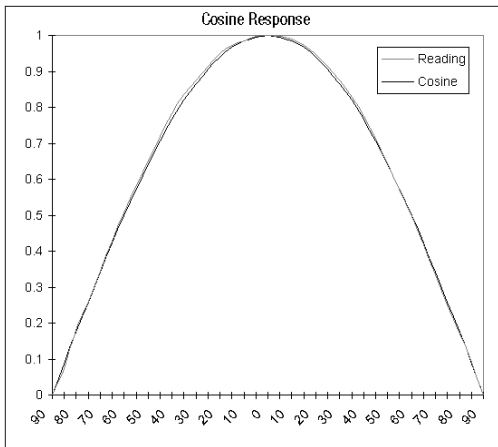
Sensor Output

Ultra Violet (UV) Radiation Dose	
Resolution and Units	0.1 MEDs to 19.9 MEDs; 1 MED above 19.9 MEDS
Range	0 to 199 MEDs
Accuracy	±5% of daily total
Drift	up to ±2% per year
Update Interval	50 seconds to 1 minute (5 minutes when dark)
Ultra Violet (UV) Radiation Index	
Resolution and Units	0.1 Index
Range	0 to 16 Index
Accuracy	±5% of full scale (Reference: Yankee UVB-1 at UV Index of 10 [extremely high]) plus 0.5 UV Index per 100' (30 m) of additional cable
Cosine Response	±4% FS (0° to 90° zenith angle)

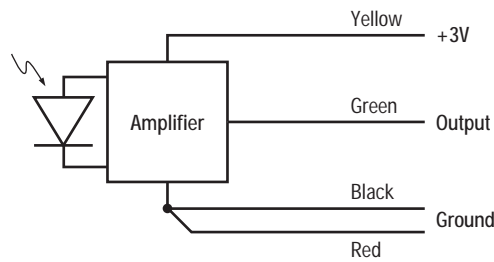
Vantage Pro2™ Accessories

Update Interval 50 seconds to 1 minute (5 minutes when dark)

Cosine and Spectral Responses (typical)



Connections



Package Dimensions

Product #	Package Dimensions (Length x Width x Height)	Package Weight	UPC Codes
6490	6.00" x 4.25" x 3.25" (153 mm x 108 mm x 83 mm)	16 oz. (.5 kg)	011698 00243 6