

PRECISION

# WEATHER INSTRUMENTS '09

Weather Monitoring Systems for  
**Home, School, Industry & Agriculture**

Introducing our new  
**Vantage Vue™** Weather Station



- Updates every 2.5 seconds
- Wireless transmission to 1,000 ft. (300 m)



# Introducing Vantage Vue: Perfect for the home weather-watcher.

Our newest weather station provides accurate, reliable weather monitoring in a self-contained, easy-to-install system. Vantage Vue™ gives you all the weather data you need. Sleek but tough—your outdoor sensor suite sets up in minutes and starts sending data wirelessly to your console anywhere in your home, school or business. You'll see current weather conditions, including indoor and outdoor temperature and humidity, barometric pressure, wind speed and direction, dew point and rainfall. You'll also get weather forecast icons, moon phase, sunrise/sunset times, graphing of weather trends, alarms and more. Vantage Vue also boasts the innovative Weather Center button that displays additional data on weather variables for today and over the last 25 days.

**Features:**

- **Easy-to-read, backlit 3" × 4¾" (8 × 11 cm) LCD screen**
- **Glow-in-the-dark keypad**
- **Fast updates every 2.5 seconds (10x faster than the competition)**
- **Optional WeatherLink® data logger and software offer additional analyses in a variety of versions**
- **Wireless transmission from station to console up to 1,000 ft. (300 m) (3x farther than the competition)**

**1. TIME & DATE**

View the current time and date or time of sunrise/sunset.

**2. MOON PHASE**

See the eight phases of the moon from new to full.

**3. FORECAST ICONS**

Icons let you know to expect sun, part sun, clouds, rain, or snow.

**4. TEMPERATURE & HUMIDITY**

Console updates outside temperature every 10 seconds and inside temperature every minute. In addition, outside humidity updates every 50 seconds and inside humidity every minute.

**5. RETRANSMITS**

Main console can extend range to additional consoles up to 1,000 ft. (300 m).

**6. BAROMETER**

Five-position trend arrow shows whether barometric pressure is rising, falling, or stable.

**7. VARIABLE DISPLAY OPTIONS**

See updated variables every 10 seconds for heat index and wind chill to get a better "feel" for the outside environment.

**8. RAIN**

Console updates rain totals and rain rate every 20 seconds for the last 25 hours, days, months.

**9. "CHANGE IN WEATHER SINCE YESTERDAY" FEATURE**

Allows comparisons of changes of temperature and barometric pressure from day to day.

**10. WEATHER CENTER**

Weather Center provides additional information for each weather variable, such as daily highs and lows, temperature

changes by the hour and barometric value changes. Also displays astronomical data such as meteor showers.

**11. USER-FRIENDLY KEYPAD**

Domed buttons are easy to sense and press. Glow-in-the-dark keypad buttons give you access to weather information all day and all night. The Done key returns user to "current" screen from anywhere in the program.

**12. GRAPHS**

Graph the last 25 hours, days or months. View up to 50 graphs including temperature, rain, rain rate, wind and barometric pressure—all on the console.

**13. "THIS TIME YESTERDAY" FEATURE**

Data point on the graph indicates the weather during the same time yesterday to help compare and analyze day-to-day weather trends.

**14. ALARMS**

Set 22 simultaneous, different alarms to warn of dangers such as high winds, freezing temperatures, rain rate, flood warning, and more.

**15. WIND SPEED**

See windspeed updates every 2½ seconds. Displays windspeed in miles per hour, meters per second, kilometers per hour and knots. Provides the average and high wind speed for two-minute and ten-minute intervals.

**Look for the following logos**



Identifies the stations or sensors that may be NIST traceable. See page 19 for details.



Identifies stations suitable for use with GLOBE protocol. See page 19 for details.



# Multiple features included at an affordable price.

Vantage Vue includes a compact outdoor sensor array and an indoor LCD console. The fully-integrated, corrosion-proof sensor suite is built to take all the weather your location can give—freezing winters, springtime thunderstorms, blistering summer sun, and brisk autumn winds. The smaller profile sensor suite is designed to minimize visual impact in your yard or on your roof.

The sensor suite transmits data wirelessly to the easy-to-read Vantage Vue console. With a range of up to 1,000 feet (300 m), Vantage Vue data packets are sent every 2.5 seconds to the console. Because Vantage Vue's transmitters are radio-compatible with Vantage Pro2, you can mix and match components. For example, add a Vantage Vue console to your Vantage Pro2 system or extend your wireless range with long and short range repeaters. They all work together seamlessly.

## 6250 Vantage Vue Station



### 1. WIRELESS

Frequency-hopping spread spectrum radio ensures consistent transmission up to 1,000 ft. (300 m) from integrated sensor suite to console.

### 2. RAIN COLLECTOR

Self-emptying tipping spoon measures rain with .01" (0.2mm) resolution.

### 3. ANEMOMETER

Vantage Vue records wind speeds as low as 2 mph (3 km/h) and as high as 150 mph (241 km/h).

### 4. WEATHER PROOF COVER

Corrosion-resistant cover provides durability in extreme conditions. Electronics are potted or

over-molded for added moisture shielding.

### 5. RADIATION SHIELD

Provides excellent protection from solar radiation and other sources of radiated and reflected heat.

### 6. TEMPERATURE/RELATIVE HUMIDITY

Provides outside temperature readings from -40° F to 150° F (-40° C to 65° C). Also measures relative humidity from 0 to 100%.

### 7. EASY INSTALLATION

Installs easily and quickly with included mounting hardware kit.

### 8. WIND DIRECTION

Measures wind direction in compass points or degrees.

### 9. SOLAR PANEL

Energizes the station during the day. On-board super capacitor provides

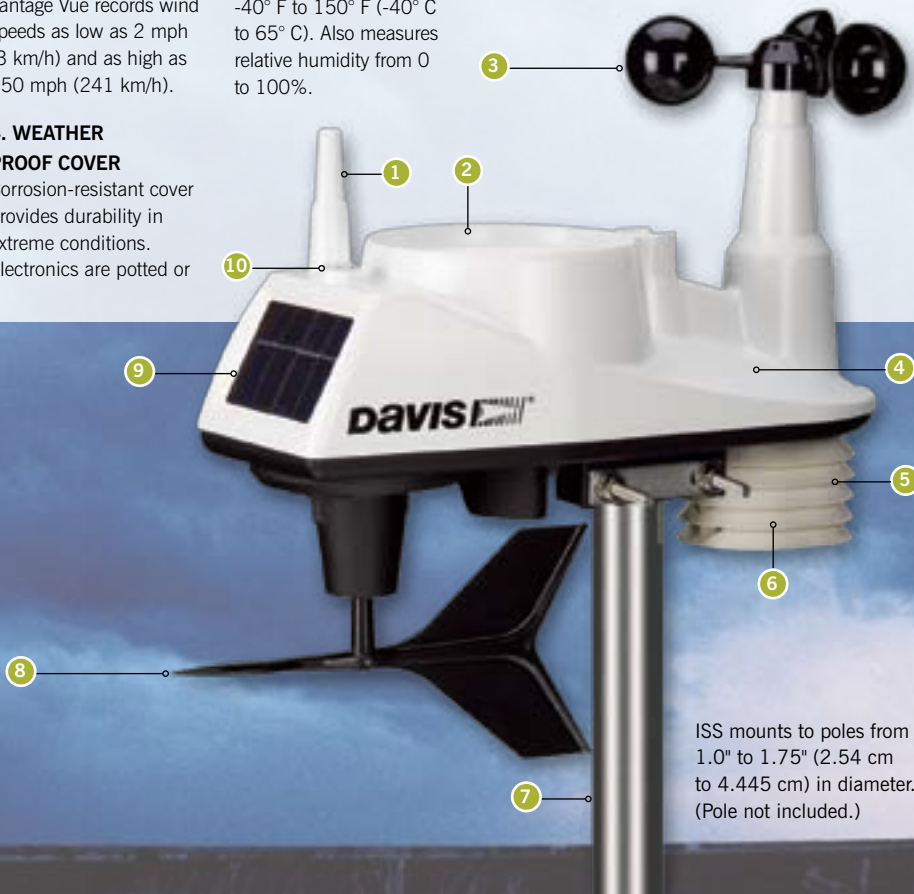
power at night. Lithium battery provides backup when needed.

### 10. BUBBLE LEVEL

Allows for more accurate installation and better data collection.



6250 Vantage Vue Station



ISS mounts to poles from 1.0" to 1.75" (2.54 cm to 4.445 cm) in diameter. (Pole not included.)

# Vantage Pro2: Professional and rugged.

Vantage Pro2™ offers the professional weather observer and the serious weather enthusiast rugged performance and a wide range of options and sensors. You'll get your own local forecast, highs and lows, totals or averages, and graphs for virtually all weather variables over the past 24 days, months or years—all without using a PC. Vantage Pro2 uses frequency-hopping spread spectrum radio to transmit and receive data up to 1,000 feet (300 m) line-of-sight. Vantage Pro2 is also an excellent choice for emergency professionals, farmers, schools, researchers, municipalities, and others to monitor wind and moisture conditions, irrigation requirements, and potential flooding. It can be customized with a range of add-on options, such as solar and UV radiation sensors, soil moisture stations, and long and short-range repeaters.

## Features:

- Large, backlit 3½" × 6" (9 × 15 cm) LCD screen
- Options available for soil moisture, short and long-range repeaters, and much more
- Fast updates every 2.5 seconds (10x faster than the competition)
- Optional WeatherLink data logger and software offer additional analyses in a variety of versions
- Wireless transmission from station to console up to 1,000 ft. (300 m) (3x farther than the competition)

### 1. CURRENT & HISTORICAL DATA

View current data or highs and lows for up to 24 days, months, or years.

### 2. FORECAST

Icons let you know what to expect: sun, part sun, rain, or snow. 12-hour icon forecast plus 24–48 hour ticker tape forecast at bottom of console screen.

### 3. MOON

Track the eight phases of the moon, from new to full.

### 4. TIME & DATE

View the current time and date, time of sunrise/sunset, time and date of highs/lows,

and time and date of a graphed data point.

### 5. WIRELESS

Frequency-hopping, spread spectrum radio provides three times the transmission distance of the competition, improved reception through multiple walls, and greater immunity from RF interference. Main console can retransmit to additional consoles up to 1,000 ft. (300 m).

### 6. BAROMETER

Five-position trend arrow shows whether barometric pressure is rising, falling, or steady.

### 7. FIXED DISPLAY

Fixed display area shows the outside temperature, humidity and barometric pressure at all times.

### 8. VARIABLE DISPLAY OPTIONS

View inside or additional temperatures, humidity, soil moisture, UV index, leaf wetness, wind chill, dew point, and two different heat indices. (Additional sensors or stations may be required.)

### 9. RAIN

Umbrella icon appears when it is currently raining.

View daily rain or rain for a storm.

View monthly or yearly rainfall, rain rate, evapotranspiration, or intensity of solar radiation.

### 10. STATUS INDICATOR

Blinks to let you know that data packets are being received.

### 11. CONTROL KEYS

Use arrow keys to scroll through data on graph or view highs and lows over time.

Plus and minus keys simplify data toggling.

### 12. TICKER-TAPE DISPLAY

Provides expanded forecast details and additional information on current conditions. Displays more than 100 different messages!

### 13. GRAPHS

Graph the last 24 hours, days, or months of readings or highs and lows. View over 80 graphs, including additional analyses of temperature, rain, rain rate, wind and barometric pressure.

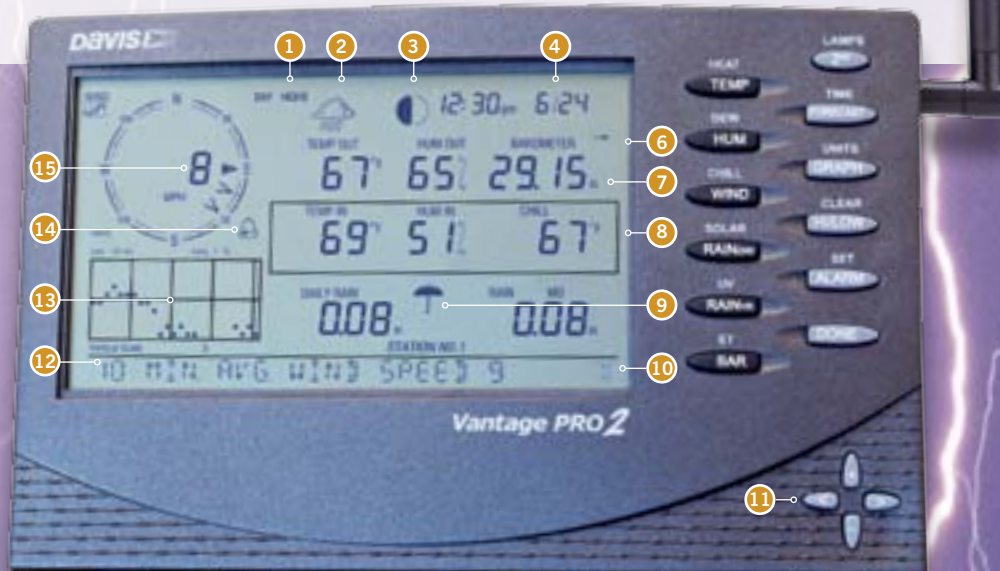
Vertical scale changes depending on what you are graphing.

### 14. ALARMS

Set more than 70 alarms for multiple functions simultaneously.

### 15. WIND

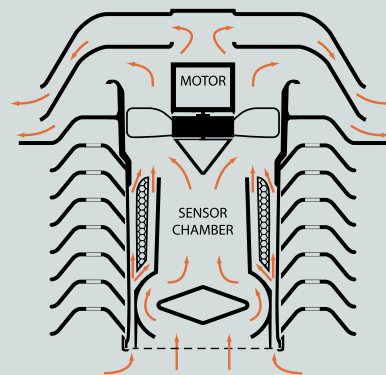
Compass rose with 16 points shows current and dominant wind direction. Inside compass rose, view wind direction to 1° resolution, or view wind speed.



# The ultimate in versatility and options.

All Vantage Pro2 stations include a console and a versatile integrated sensor suite that combines our rain collector, temperature and humidity sensors and anemometer into one package. You can customize your Vantage Pro2 by adding consoles or the special-purpose options shown on pages 10 and 11. Vantage Pro2 weather stations are available in both wireless and cabled versions.

Vantage Pro2 Stations (See page 6 for models.)



## 1. RAIN COLLECTOR

The Vantage Pro2 rain collector meets the collection area guidelines of the World Meteorological Organization. Reads rainfall amounts in 0.01" or 0.2 mm increments.

Anemometer can be installed separately using 40 ft. (12 m) cable (included).

Optional anemometer transmitter kit allows you to mount the anemometer in a different location than the rain collector and the rest of the integrated sensor suite, up to 1,000 ft. (300 m) from your wireless console.

## 2. ANEMOMETER

Includes both wind speed and wind direction sensors. Rugged components stand up to hurricane-force winds, yet are sensitive to the lightest breeze. Wind-tunnel tested to speeds in excess of 150 miles per hour (241 km/h).

## 4. 24-HOUR FAN-ASPIRATED RADIATION SHIELD

Models with 24-hour fan-aspirated radiation shields include additional radiation shield plates and a second solar panel, which powers the motor-driven fan.

## 6. SOLAR PANEL

Powers wireless station during the day and super capacitor for night operation. Lithium battery provides backup on cloudy, wintry days. (Solar panel is not included with cabled version.)

## 3. OPTIONAL MOUNTING POLE

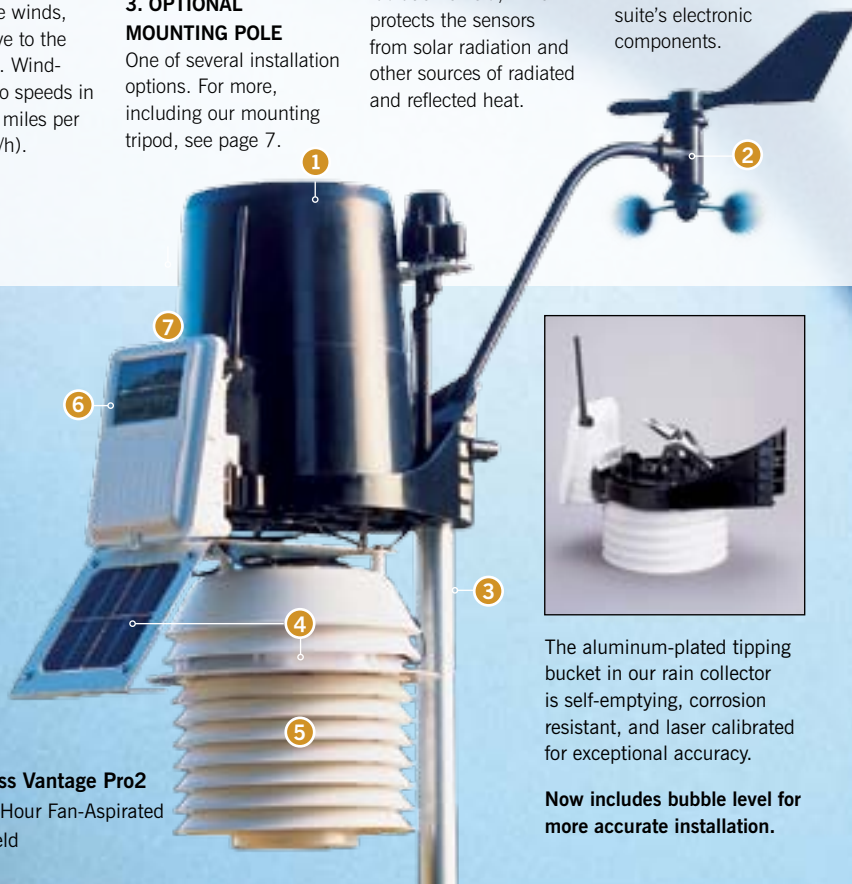
One of several installation options. For more, including our mounting tripod, see page 7.

## 5. TEMPERATURE & HUMIDITY SENSORS

Located inside the radiation shield, which protects the sensors from solar radiation and other sources of radiated and reflected heat.

## 7. WEATHER-RESISTANT SHELTER

Provides protection against the elements for the integrated sensor suite's electronic components.



The aluminum-plated tipping bucket in our rain collector is self-emptying, corrosion resistant, and laser calibrated for exceptional accuracy.

**Now includes bubble level for more accurate installation.**

## 24-Hour Fan-Aspirated Radiation Shield

Models 6153 and 6163 include our patented 24-hour fan-aspirated radiation shield for maximum accuracy of temperature and humidity readings. A motor-driven fan draws air through the sensor chamber 24 hours a day, 7 days a week. Airflow across the sensors is 500 feet per minute (2.5 m/s). At night, when the effects of radiation are less, the solar-powered model runs on battery power and the airflow is 280 feet per minute (1.4 m/s). In far northern or southern latitudes, or in areas with extended periods of heavy cloud cover, there may not be enough sunshine to power the fan or recharge the battery during the winter. However, as the level of sunlight goes down, the need for fan aspiration also diminishes. The fan will start running and the battery will recharge as soon as sufficient sunlight returns.



6152 Wireless Vantage Pro2

*pictured:*  
**6163 Wireless Vantage Pro2 Plus** with 24-Hour Fan-Aspirated Radiation Shield

Choose the station that's right for you—from 7 different models.



Vantage Vue



Vantage Pro2



Vantage Pro2 Plus

<p>Davis accuracy in a self-contained, easy-to-install system.</p> <p>Includes solar-powered transmitter.</p>	<p>Create a customized professional station with a wide range of options and sensors. Solar-powered transmitter and detachable anemometer.</p> <p>Choose a cabled station for most economical installation. Ideal for areas where lightning risk is minimal. Choose wireless for easiest installation, additional sensor options, and reduced risk of lightning damage.</p>			<p>24-hour fan aspiration model achieves maximum accuracy of temperature &amp; humidity readings by circulating the air. Ideal for arid climates.</p> <p>Includes UV &amp; solar radiation sensors.</p>		
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<p>The Davis line of Vantage weather stations are built to provide a full weather system. To maximize your weather watching, a variety of additional sensors and stations are available to make your weather station even more comprehensive.</p>	<p>6250 <b>Wireless</b></p>	<p>6152C <b>Cabled</b></p>	<p>6152 <b>Wireless</b></p>	<p>6153 <b>Wireless w/Fan</b></p>	<p>6162C <b>Cabled</b></p>	<p>6162 <b>Wireless</b></p>	<p>6163 <b>Wireless w/Fan</b></p>
<b>CONSOLE</b>							
Should be run using the included AC-power adapter. Add three C batteries (not included) for backup during power outages.		•			•		
May be run full-time using three C batteries (not included). May also be run using the included AC-power adapter.	•		•	•		•	•
12-hour advance forecast icons	•	•	•	•	•	•	•
24-48 hour advance forecast ticker tape		•	•	•	•	•	•
Weather Center with scroll-through data screens	•						
<b>INTEGRATED SENSOR SUITE</b>							
Rain collector, temperature and humidity sensors and anemometer	•	•	•	•	•	•	•
UV and Solar Radiation Sensors		Optional	Optional	Optional	•	•	•
<b>DATA TRANSFER</b>							
100' (30 m) cable		•			•		
Solar-powered transmitter with battery backup	•		•	•		•	•
<b>RADIATION SHIELD</b>							
Standard radiation shield	•	•	•		•	•	
Daytime fan-aspirated radiation shield		Optional	Optional		Optional	Optional	
24-hour fan-aspirated radiation shield				•			•
<b>ADD-ONS</b>							
Additional consoles to view data in more than one location	Optional		Optional	Optional		Optional	Optional
Special-purpose leaf wetness or soil moisture stations available to calculate evapotranspiration			Optional	Optional		Optional	Optional
Wireless temperature station			Optional	Optional		Optional	Optional

# Add another console and get the weather report wherever you are.

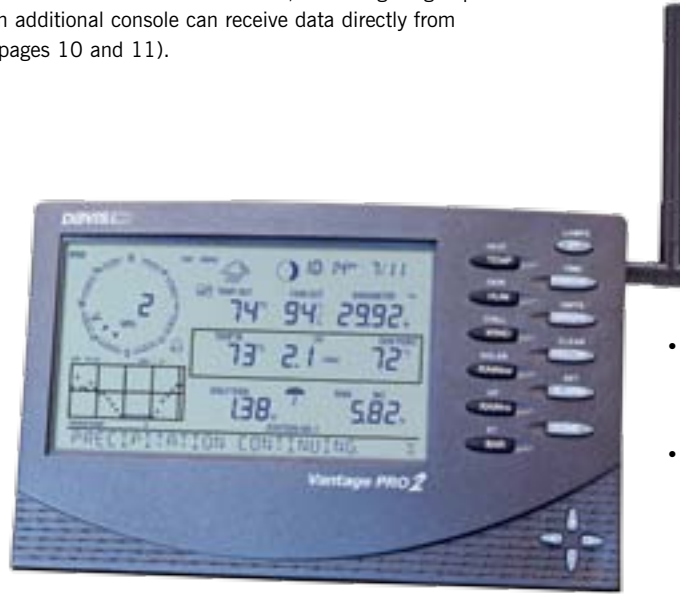
## Vantage Vue and Vantage Pro2 Console/Receivers

Add additional Vantage Pro2 or Vantage Vue consoles to display weather data in the den, bedroom, kitchen, or even in your neighbor's house, if it's closer than 1,000 ft. (300 m). Vantage Vue transmitters are radio-compatible with Vantage Pro2 so you can mix and match components. Receive data directly from the outdoor sensors or use as a repeater, retransmitting the data from one console/receiver to another, extending range up to another 1,000 ft. (300 m). With Vantage Pro2 only, an additional console can receive data directly from any of our special-purpose wireless outdoor sensors (see pages 10 and 11).

6351 Vantage Vue Console/Receiver

6312 Vantage Pro2 Console/Receiver

NIST



- Larger display for easy-to-read weather data
- Special-purpose sensors expand data collecting

## Customize your installation.

We understand that weather station customers demand flexibility when they're deciding how to install their equipment. With that in mind, Davis provides a variety of installation options to suit any weather station owner's needs.



### Anemometer Transmitter Kit

Only for Vantage Pro2, solar-powered kit allows you to mount the anemometer in a different location than the rain collector and ISS—up to 1,000 ft. (300m) from your wireless console/receiver. For longer distances, add one or more wireless repeaters. Includes weather-resistant shelter for transmitter, solar panel, battery, and mounting hardware.

6332 Anemometer Transmitter Kit



### Mounting Pole Kit

Includes two galvanized steel poles, connector, and mounting hardware. Poles measure 19.5" (0.50 m) and 21" (0.53 m) long. Assemble the two together to make a single 37.5" (0.95 m) long pole. Outside diameter is 1 5/16" (33 mm). Fits both Vantage Pro2 and Vantage Vue.

7717 Mounting Pole Kit



### Mounting Tripod

Made of galvanized steel. Brackets at the base of legs tilt to mount on a roof or uneven terrain. Two poles included measure 36.38" (0.92 m) each, but can also be used together to make a single 69.75" (1.77 m) pole. Fits both Vantage Pro2 and Vantage Vue.

7716 Mounting Tripod



# Get data directly from outdoor sensors—no console required!

## Weather Envoy™

Weather Envoy, when used along with WeatherLink, will collect and store data from the outdoor sensors. Download to your computer at your convenience, then use the WeatherLink software to view current conditions, graph and chart historical data, or even create your own weather web pages. Weather Envoy includes its own barometer and inside temperature and humidity sensors. Both the wireless and cabled versions include an AC-power adapter. Either may also be run using one of our solar power kits. The wireless model can also run on three AAA batteries. Expected battery life is four to six months, depending on the logging interval. Batteries should also be added to the cabled model for backup during power outages.

(Requires WeatherLink data logger and software package, not included. See pages 15–17.)

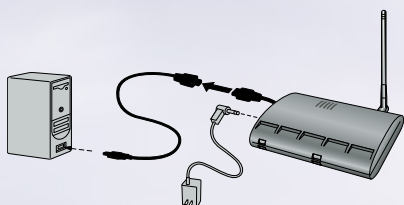
- 6316 Wireless Weather Envoy
- 6316C Cabled Weather Envoy



Envoy shown with WeatherLink data logger installed.

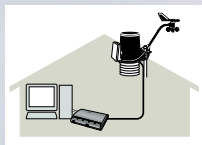
## Typical Weather Envoy Installations

### WIRELESS WEATHER ENVOY INSTALLATION



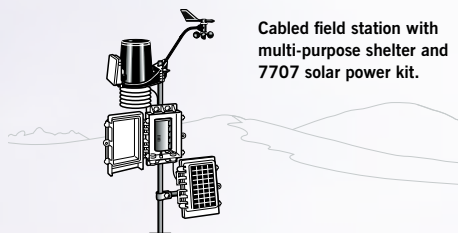
Install wireless or cabled Weather Envoy next to your computer using included USB cable and AC adapter for easy and convenient downloading without a console/receiver.

Use Weather Envoy instead of, or in addition to, a Vantage Pro2 or Vantage Vue console/receiver.



Cabled Home/Office Station

### WEATHER ENVOY IN A CABLED FIELD STATION INSTALLATION



Cabled field station with multi-purpose shelter and 7707 solar power kit.

A cabled Weather Envoy can be used with ONE of the following:

- Cabled Integrated Sensor Suite (ISS)
- Cabled ISS Plus

### WEATHER ENVOY IN A WIRELESS FIELD STATION INSTALLATION



Runs on batteries or Solar Power Kit.

A wireless Weather Envoy can be used with ALL of the following:

- One Wireless ISS or ISS Plus
- One Anemometer Transmitter Kit
- One Wireless Leaf & Soil Moisture/Temperature Station
- Three Temperature Stations or one Temperature Station and two Temperature/Humidity Stations

## INTEGRATED SENSOR SUITES

### Vantage Vue Integrated Sensor Suite

Because Vantage Vue's transmitters are radio-compatible with Vantage Pro2, you can mix and match components. Can transmit to Vantage Vue, wireless Vantage Pro2 consoles, or wireless Weather Envoy. Mounting pole not included.

### 6357 Vantage Vue Integrated Sensor Suite



Both Vantage Vue and Vantage Pro2 ISS can be used with Weather Envoy and WeatherLink (see page 15).

### Vantage Pro2 Integrated Sensor Suite

For use with Weather Envoy and WeatherLink. Includes all the features of the Vantage Pro2 and Pro2 Plus integrated sensor suites shown on page 6. Can transmit to Vantage Vue and Vantage Pro2 consoles, and Weather Envoy. Mounting pole not included.

#### Wireless Integrated Sensor Suite

- 6322 with Standard Radiation Shield
- 6323 with 24-Hour Fan-Aspirated Radiation Shield

#### Cabled Integrated Sensor Suite\*

- 6322C with Standard Radiation Shield

#### Wireless Integrated Sensor Suite Plus with UV and solar radiation sensors

- 6327 with Standard Radiation Shield
- 6328 with 24-Hour Fan-Aspirated Radiation Shield

#### Cabled Integrated Sensor Suite Plus with UV and solar radiation sensors\*

- 6327C with Standard Radiation Shield



\* Can only be used with a cabled Vantage Pro2 console/receiver





# Extend the range of your wireless station—for miles on end!

For longer distances or to improve reception in troublesome areas, add one or more wireless repeaters. Use up to four repeaters in a daisy chain, retransmitting from a single Vantage Pro2 or Vantage Vue integrated sensor suite or special-purpose station. Or build a network of up to four repeaters and eight wireless stations, with some repeaters listening to multiple stations, each with their own unique ID. See the table on page 10 for the maximum number of each station type. For use with a wireless Vantage Pro2, Vantage Vue, or Weather Envoy with a firmware date of May 2005 or later. †

## Long-Range Wireless Repeaters

In our testing, we achieved an incredible four miles (6.4 km) of transmission distance using two of our long-range repeaters with Yagi antennas. We can't promise that you'll achieve quite the same results, since range is highly variable depending on antenna height, the terrain and foliage, buildings and other man-made structures, and RF interference. But we still think you'll be impressed! Ideal for agricultural or research applications where long distances are an issue. AC-powered model includes power adapter and lithium backup battery. Solar-powered model includes solar panel and lithium backup battery. Antennas are sold separately.

### 7653 Long-Range Repeater, AC-Powered

### 7654 Long-Range Repeater, Solar-Powered



REPEATER DISTANCES				
Antenna Combination	Multiplier	Maximum Transmission Distance under optimal conditions **		
Dipole – Dipole *	1.00	1000 ft.	0.2 mile	300 m
Dipole – Omni	1.58	1580 ft.	0.3 mile	475 m
Dipole – Yagi	3.16	3160 ft.	0.6 mile	950 m
Omni – Omni	2.50	2500 ft.	0.5 mile	750 m
Omni – Yagi	5.00	5000 ft.	1.0 mile	1500 m
Yagi – Yagi	10.00	10,000 ft.	1.9 miles	3000 m

\* Dipole antennas are found on all of our wireless weather stations and on our standard repeaters.

\*\* Typical distance will be less. Outdoors, line of sight with minor obstructions or interference, typical distance is about 0.50 to 0.80 times the maximum. Through walls or in areas with high RF interference, typical distance may be as low as 0.20 to 0.40 times the maximum.



## Antennas for Long-Range Repeaters

For use with our long-range repeaters. Each repeater requires two antennas: one to receive data, and another to retransmit it. Omni antennas transmit or receive in all directions. Yagi antennas transmit or receive from a single direction, but have a longer transmission distance. Mix and match to suit your needs, using the table above.

### 7656 Omni Antenna

### 7660 Yagi Antenna

Note: FCC regulations require that U.S. customers select from the antennas above; customers outside the U.S. must purchase third-party antennas in compliance with local regulations.



## Standard Wireless Repeaters

Ideal for most applications. Uses the same dipole antenna found on all of our wireless stations. Range is up to 1,000 ft. (300 m) outdoors, line of sight. Typical range through walls under most conditions is 200 ft. to 400 ft. (60 to 120 m). AC-powered model includes power adapter. Solar-powered model includes solar panel and lithium backup battery.

### 7626 Standard Wireless Repeater, AC-Powered

### 7627 Standard Wireless Repeater, Solar-Powered

† For console/receivers with older firmware, call our Technical Support staff.

## Add special-purpose stations or sensors.

Customize your own Vantage Pro2 or Weather Envoy weather station by adding special-purpose stations and sensors. Each wireless Vantage Pro2 can receive data from up to eight different transmitting stations.



### Wireless Leaf & Soil Moisture/ Temperature Station

Solar-powered station includes transmitter and backup battery inside weather-resistant shelter. To view the data, add a wireless Vantage Pro2 console/receiver, or Weather Envoy and WeatherLink. Each can receive data from either:

- A single fully populated station with two leaf wetness sensors, four soil moisture sensors, and four temperature probes,

OR

- Two partially populated stations, one with two leaf wetness sensors and two temperature probes, and the other with four soil moisture sensors and four temperature probes.

Available in two models. Choose the model without sensors (6345), and add only those you need to meet your requirements. Or choose the Complete Soil Moisture/Temperature Station (6345CS), and add one or two leaf wetness sensors as desired.

### 6345 Wireless Leaf & Soil Moisture/Temperature Station *without sensors*

### 6345CS Complete Soil Moisture/Temperature Station *with 4 soil moisture sensors and 4 temperature probes*

NIST



### Wireless Temperature/ Humidity Station

Battery-powered station includes temperature and humidity sensors inside protective radiation shield, and transmitter and lithium battery inside weather-resistant shelter. Expected battery life is six to nine months. To view the data, add a wireless Vantage Pro2 console/receiver or Weather Envoy and WeatherLink. Includes hardware for mounting on fence post or pole. Mounting pole is not included.

### 6382 Wireless Temperature/ Humidity Station

NIST



### Wireless Temperature Station

Battery-powered station includes stainless steel temperature probe with 12 ft. (3.6 m) cable, transmitter and battery inside weather-resistant shelter, and mounting hardware. To view the data, add a wireless Vantage Pro2 console/receiver, or Weather Envoy and WeatherLink. Expected battery life is six to nine months.

### 6372 Wireless Temperature Station

NIST



### Daytime Fan-Aspirated Radiation Shield Kit

An economical solution for adding the benefits of fan aspiration by retrofitting your wireless or cabled Vantage Pro2 or Pro2 Plus. Less costly than our 24-hour fan-aspirated radiation shield, but nearly 75% as effective in reducing the effects of daytime radiation. Solar-powered fan runs during the day. Since there is no backup battery, the fan will cease running when night falls and the effects of radiation are less. Kit includes fan, solar panel, additional radiation shield plates, and hardware, as shown in inset photo. Larger photo shows the kit as installed on a wireless Vantage Pro2. Note that this kit is not compatible with our original Vantage Pro stations.

### 7747 Daytime Fan-Aspirated Radiation Shield Kit

MAXIMUM NUMBER OF EACH STATION TYPE (TOTAL # OF STATIONS CANNOT EXCEED 8)		
Transmitting Station	Shown on Console	Logged by WeatherLink
Integrated Sensor Suite	1	1
Anemometer Transmitter Kit	1	1
Leaf & Soil Moisture/ Temperature	2*	2*
Temperature Station	8	3**
Temperature/Humidity Station	8	2**

\* One fully-populated station or two partially-populated stations.

\*\* WeatherLink will log a maximum of 3 Temperature Stations or 1 Temperature Station and 2 Temperature/Humidity Stations.



### 1. Solar Radiation Sensor

To measure solar radiation and solar energy. Diffuser element and housing are carefully designed for accurate cosine response. Silicon photo diode provides good match to solar spectrum. Two-piece housing minimizes radiation heating, allows convection cooling of the sensor, and prevents the trapping of water or dust. To mount next to a rain collector, add our Sensor Mounting Shelf (not included).

#### 6450 Solar Radiation Sensor

Includes 2 ft. (0.6 m) cable. Use Standard 4-Conductor Extension Cable. Maximum cable length is 125 ft. (38 m) from sensor to integrated sensor suite.

- 7876-008 Cable, 8 ft. (2.4 m)
- 7876-040 Cable, 40 ft. (12 m)
- 7876-100 Cable, 100 ft. (30 m)

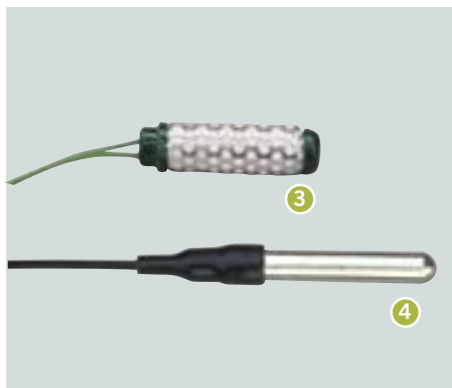
### 2. UV Sensor

Measures the sunburning portion of the UV spectrum. Allows you to display UV index, dose rate, and daily and accumulated dose. Multi-layer filter provides a spectral response that closely matches the Erythema Action Spectrum. Diffuser provides excellent cosine response. Two-piece housing minimizes radiation heating, allows convection cooling of the sensor, and prevents the trapping of water or dust. To mount next to a rain collector, add our Sensor Mounting Shelf (not included).

#### 6490 UV Sensor

Includes 2 ft. (0.6 m) cable. Uses Standard 4-Conductor Extension Cable. Maximum cable length is 125 ft. (38 m) from sensor to integrated sensor suite.

- 7876-008 Cable, 8 ft. (2.4 m)
- 7876-040 Cable, 40 ft. (12 m)
- 7876-100 Cable, 100 ft. (30 m)



### 3. Soil Moisture Sensor

Watermark® soil moisture sensor uses electrical resistance to measure the moisture level of the soil. Does not require periodic maintenance during the growing season. Simply bury at the desired depth, then monitor moisture levels throughout the season. Add up to four sensors to a single Leaf & Soil Moisture/Temperature Station. Includes 15 ft. (4.6 m) cable.

#### 6440 Soil Moisture Sensor



### 4. Stainless Steel Temperature Probe

Multi-purpose temperature probe with 2½" (64 mm)-long stainless steel housing. Use to measure temperature of air, soil, or water. Add up to four probes to a single Leaf & Soil Moisture/Temperature Station. Includes 15 ft. (4.6 m) direct-burial cable.

#### 6470 Stainless Steel Temperature Probe



### 5. Leaf Wetness Sensor

Use to monitor the level of surface moisture on foliage, with range from 0 (completely dry) to 15 (saturated). Add up to two sensors to a single Wireless Leaf & Soil Moisture/Temperature Station. Includes 40 ft. (12 m) cable.

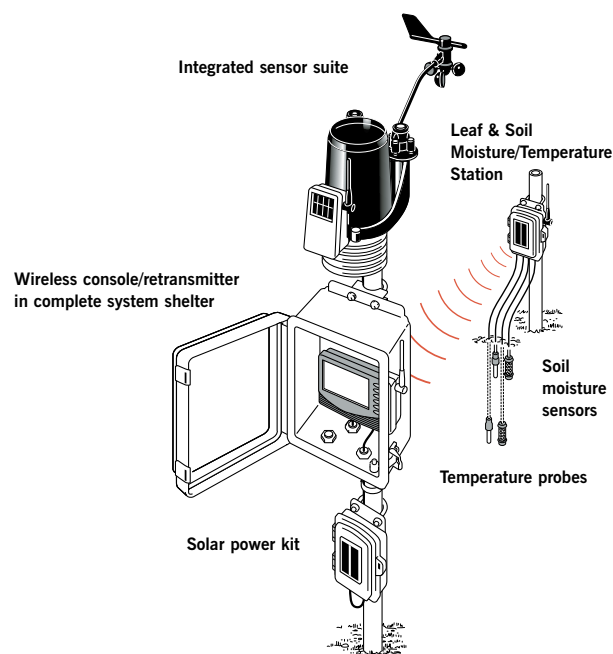
#### 6420 Leaf Wetness Sensor

### 6. Sensor Mounting Shelf

For mounting Vantage Pro2 solar radiation and/or UV sensors. Rigid shelf with anodized aluminum posts and stainless steel hardware attaches easily next to the rain collector on the outside of the integrated sensor suite.

#### 6673 Sensor Mounting Shelf

## FIELD STATION SHOWING SOLAR POWER KIT & SOIL MOISTURE SENSORS



# Installing your Vantage Pro2 console or Weather Envoy outside? Add solar power and shelter.



### 1. Solar Power Kit for Wireless Consoles or Wireless Weather Envoy

Powers the wireless console/receiver or Weather Envoy. (Outdoor sensors are powered by the solar panel that is included with the station.) Includes solar panel, regulator circuit, rechargeable battery, and 20 ft. (6 m) cable.

**6610 Solar Power Kit for Wireless Consoles/WeatherEnvoy**

### 2. Solar Power Kit for Cabled Consoles or Cabled Weather Envoy

Powers both the console (or Weather Envoy) and the outdoor sensors. Includes solar panel, regulator circuit, rechargeable battery, and 16 ft. (4.9 m) cable.

**7707 Solar Power Kit for Cabled Vantage Pro2**

### 3. Complete System Shelter

To locate your station console and other components outside, at a field or remote location. Weather-resistant NEMA 4X enclosure provides protection from the elements for the Vantage Pro2 console/receiver or the Vantage Vue console/receiver either with or without WeatherLink. Measures 15½" × 7¾" × 13½" (395 × 195 × 345 mm).

**7724 Complete System Shelter**

### 4. Multi-Purpose Shelter

Use to shelter any of the following sub-systems:

- Weather Envoy with WeatherLink data logger.
- Weather Wizard III console with WeatherLink data logger and junction box.

Measures 3¾" × 9½" × 12½" (95 × 240 × 320 mm).

**7728 Multi-Purpose Shelter**

### 5. Telephone Modem Adapter

For transmission of data from any of the serial port versions of our WeatherLink data loggers using a modem.

**6533 For WeatherLink for Vantage Vue and Vantage Pro2**

**7870 For WeatherLink for Wizard**

### 6. Rain Collector Heater

For use in cold climates to measure freezing rain or the moisture content of snowfall. Requires access to AC power; may not be run using a solar power kit. Includes 24-watt, 24-volt heater with thermal cut-off switch, control unit, insulating reflective blanket, and AC-power adapter. (For Vantage Pro2 and Weather Wizard III only.)

**7720 Rain Collector Heater**

Includes 50 ft. (15 m) cable. Use **Shielded** 4-Conductor Extension Cable. Maximum cable length is 120 ft. (36 m).

7895-050 Cable, 50 ft. (15 m)

7895-100 Cable, 100 ft. (30 m)

### 7. Radiation Shield

The most effective passive shelter available. Protects temperature sensor from solar radiation and other sources of radiated and reflected heat. Multi-plate construction for maximum airflow. Assembly required.

**7714 Radiation Shield**

For Weather Wizard III or for Wireless Temperature Station or Leaf & Soil Moisture/Temperature Station

CURRENT DRAW & BATTERY LIFE*	Current Draw in milliamperes						Estimated Backup Battery Life in Days*				80-Amp Car Battery Life at normal temperatures			
	lights off	lights on	with data logger			without data logger	with data logger			without data logger	with data logger			
			standard	streaming	WeatherLinkIP		standard	streaming	WeatherLinkIP		standard	streaming	WeatherLinkIP	
Wireless Vantage Vue Console/Receiver	1	160	1	3	101	9 months	9 months	3 months	2 days	9 years	9 years	3 years	30 days	
Vantage Pro2	Wireless	1	160	1	3	101	9 months	9 months	3 months	2 days	9 years	9 years	3 years	30 days
	Cabled	10	170	10	13	110	27 days	27 days	21 days	2 days	<9 months	<9 months	<6 months	30 days
Weather Envoy	Wireless	1	N/A	1	3	101	N/A	<4 months	1 month	<1 day	N/A	9 years	3 years	30 days
	Cabled	10	N/A	10	13	110	N/A	10 days	8 days	<1 day	N/A	6 months	6 months	30 days
Perception II	5	100	10	N/A	N/A	5 days	2 days	N/A	N/A	2 years	10 months	N/A	N/A	
Weather Wizard III	5	N/A	10	N/A	N/A	5 days	2 days	N/A	N/A	2 years	10 months	N/A	N/A	

\* Information based on premium alkaline batteries. Actual battery life will vary depending on station setup and usage. N/A = not applicable.

# Options & Accessories

With our options and accessories, you can build your own customized weather station to suit your needs. See the chart on page 10 for the maximum number of wireless stations that can report to a single Vantage Pro2 console/receiver or Weather Envoy.

			WIRELESS							CABLED					
			6250 Wireless Vantage Vue	6152 Vantage Pro2	6153 Vantage Pro2 with Fan-Aspirated Rad Shield	6162 Vantage Pro2 Plus	6163 Vantage Pro2 Plus with Fan-Aspirated Rad Shield	6345 Leaf & Soil Moisture/Temp	6372 Temperature Station	6382 Temperature/Humidity Station	6152C Vantage Pro2	6162C Vantage Pro2 Plus	7400 Perception II	7425 Weather Wizard III	7425CS Complete Weather Wizard III
	Option or Accessory	Inches	Millimeters												
Wireless	6312 Wireless Vantage Pro2 Console/Receiver	10 <sup>2</sup> / <sub>5</sub> × 1 <sup>1</sup> / <sub>2</sub> × 6 <sup>1</sup> / <sub>5</sub>	264 × 38 × 156	●	●	●	●	●	●						
	6351 Wireless Vantage Vue Console/Receiver	7 <sup>1</sup> / <sub>2</sub> × 7 <sup>1</sup> / <sub>4</sub> × 3	191 × 184 × 76	●	●	●	●	●							
	6316 Wireless Weather Envoy	6 <sup>1</sup> / <sub>2</sub> × 3 <sup>3</sup> / <sub>4</sub> × 1 <sup>1</sup> / <sub>2</sub>	165 × 95 × 38	●	●	●	●	●	●						
	6332 Anemometer Transmitter Kit	6 <sup>1</sup> / <sub>4</sub> × 2 <sup>1</sup> / <sub>4</sub> × 7 <sup>8</sup> / <sub>9</sub>	159 × 57 × 200		●	●	●								
	7626 Standard Wireless Repeater, AC-Power	6 <sup>1</sup> / <sub>4</sub> × 2 <sup>1</sup> / <sub>4</sub> × 7 <sup>8</sup> / <sub>9</sub>	159 × 57 × 200	●	●	●	●	●	●	●					
	7627 Standard Wireless Repeater, Solar-Power	6 <sup>1</sup> / <sub>4</sub> × 2 <sup>1</sup> / <sub>4</sub> × 7 <sup>8</sup> / <sub>9</sub>	159 × 57 × 200	●	●	●	●	●	●	●					
	7653 Long-Range Repeater, AC-Power	6 <sup>1</sup> / <sub>4</sub> × 2 <sup>1</sup> / <sub>4</sub> × 7 <sup>8</sup> / <sub>9</sub>	159 × 57 × 200	●	●	●	●	●	●	●					
	7654 Long-Range Repeater, Solar-Power	6 <sup>1</sup> / <sub>4</sub> × 2 <sup>1</sup> / <sub>4</sub> × 7 <sup>8</sup> / <sub>9</sub>	159 × 57 × 200	●	●	●	●	●	●	●					
Sensors	6420 Leaf Wetness Sensor	4 × 2 <sup>1</sup> / <sub>4</sub> × 2 <sup>1</sup> / <sub>4</sub>	102 × 57 × 57					●							
	7852 Rain Collector II	8 <sup>3</sup> / <sub>4</sub> × 8 <sup>1</sup> / <sub>4</sub> × 9 <sup>1</sup> / <sub>2</sub>	210 × 210 × 241										●		
	6440 Soil Moisture Sensor	3 <sup>2</sup> / <sub>5</sub> × 1 × 1	86 × 25 × 25					●							
	6450 Solar Radiation Sensor	2 × 2 <sup>3</sup> / <sub>4</sub> × 2 <sup>1</sup> / <sub>4</sub>	51 × 70 × 57		●	●				●					
	6470 Temperature Probe, Stainless	1 <sup>1</sup> / <sub>4</sub> × 1 <sup>1</sup> / <sub>4</sub> × 2	6 × 6 × 51					●							
	6490 UV Sensor	2 × 2 <sup>3</sup> / <sub>4</sub> × 2 <sup>1</sup> / <sub>4</sub>	51 × 70 × 57		●	●					●				
Computer Interface	6510 WeatherLink for Windows	3 <sup>1</sup> / <sub>2</sub> × 1 <sup>1</sup> / <sub>5</sub> × 3 <sup>3</sup> / <sub>4</sub>	89 × 29 × 18	●	●	●	●	●	●	●	●	●			
	6520 WeatherLink for Mac	3 <sup>1</sup> / <sub>2</sub> × 1 <sup>1</sup> / <sub>5</sub> × 3 <sup>3</sup> / <sub>4</sub>	89 × 29 × 18	●	●	●	●	●	●	●	●	●			
	6555 WeatherLinkIP	3 <sup>1</sup> / <sub>2</sub> × 1 <sup>1</sup> / <sub>5</sub> × 3 <sup>3</sup> / <sub>4</sub>	89 × 29 × 18	●	●	●	●	●	●	●	●	●			
	6540 WeatherLink for APRS	3 <sup>1</sup> / <sub>2</sub> × 1 <sup>1</sup> / <sub>5</sub> × 3 <sup>3</sup> / <sub>4</sub>	89 × 29 × 18	●	●	●	●	●	●	●	●	●			
	6544 WeatherLink for Alarm Output	3 <sup>1</sup> / <sub>2</sub> × 1 <sup>1</sup> / <sub>5</sub> × 3 <sup>3</sup> / <sub>4</sub>	89 × 29 × 18	●	●	●	●	●	●	●	●	●			
	6550 WeatherLink for Emergency Response Teams	3 <sup>1</sup> / <sub>2</sub> × 1 <sup>1</sup> / <sub>5</sub> × 3 <sup>3</sup> / <sub>4</sub>	89 × 29 × 18	●	●	●	●	●	●	●	●	●			
	6560 WeatherLink for Irrigation Control *	3 <sup>1</sup> / <sub>2</sub> × 1 <sup>1</sup> / <sub>5</sub> × 3 <sup>3</sup> / <sub>4</sub>	89 × 29 × 18	●	●	●	●	●	●	●	●	●			
	7862 WeatherLink for Wizard or Perception, Windows	4 <sup>1</sup> / <sub>2</sub> × 1 <sup>3</sup> / <sub>4</sub> × 3 <sup>3</sup> / <sub>4</sub>	114 × 45 × 19										●	●	●
	7855 WeatherLink for Wizard or Perception, Mac OS X	4 <sup>1</sup> / <sub>2</sub> × 1 <sup>3</sup> / <sub>4</sub> × 3 <sup>3</sup> / <sub>4</sub>	114 × 45 × 19										●	●	●
	6533 Telephone Modem Adapter	2 <sup>1</sup> / <sub>5</sub> × 1 <sup>3</sup> / <sub>4</sub> × 2 <sup>2</sup> / <sub>3</sub>	54 × 45 × 16	●	●	●	●	●	●	●	●	●			
7870 Telephone Modem Adapter	2 <sup>1</sup> / <sub>5</sub> × 1 <sup>3</sup> / <sub>4</sub> × 2 <sup>2</sup> / <sub>3</sub>	54 × 45 × 16										●	●	●	
Power	6610 Solar Power Kit	6 <sup>1</sup> / <sub>4</sub> × 2 <sup>1</sup> / <sub>4</sub> × 7 <sup>8</sup> / <sub>9</sub>	159 × 57 × 200	●	●	●	●	●							
	7707 Solar Power Kit	12 <sup>1</sup> / <sub>4</sub> × 13 × 6 <sup>1</sup> / <sub>5</sub>	318 × 320 × 156							●	●				
Installation & Mounting Options	7716 Mounting Tripod	30 × 33 × 52	762 × 838 × 1320	●	●	●	●	●	●	●	●	●	●	●	
	7717 Mounting Pole Kit	1 <sup>5</sup> / <sub>16</sub> diameter × 37 <sup>1</sup> / <sub>2</sub>	33 diameter × 950	●	●	●	●	●	●	●	●	●	●	●	
	7714 Radiation Shield	7 <sup>1</sup> / <sub>2</sub> × 8 <sup>1</sup> / <sub>2</sub> × 6	190 × 215 × 152					●	●				●	●	
	7720 Rain Collector Heater	4 × 2 <sup>1</sup> / <sub>4</sub> × 3 <sup>3</sup> / <sub>4</sub>	102 × 57 × 20		●	●	●	●		●	●		●	●	
	6673 Sensor Mounting Shelf	2 × 9 × 3 <sup>3</sup> / <sub>32</sub>	50 × 228 × 2		●	●				●					
	7767 Surge Protector	1 <sup>1</sup> / <sub>2</sub> × 1 <sup>1</sup> / <sub>2</sub> × 1 <sup>1</sup> / <sub>4</sub>	38 × 38 × 32		●	●	●	●			●	●		●	●
	7768 Surge Protector Shelter	3 <sup>1</sup> / <sub>2</sub> × 5 <sup>3</sup> / <sub>4</sub> × 2 <sup>1</sup> / <sub>4</sub>	88 × 145 × 55		●	●	●	●			●	●		●	●
	7724 Complete System Shelter	15 <sup>1</sup> / <sub>2</sub> × 7 <sup>3</sup> / <sub>4</sub> × 13 <sup>1</sup> / <sub>2</sub>	395 × 197 × 343	●	●	●	●	●			●	●			
	7728 Multi-Purpose Shelter	15 <sup>1</sup> / <sub>2</sub> × 7 <sup>3</sup> / <sub>4</sub> × 13 <sup>1</sup> / <sub>2</sub>	395 × 197 × 343										●	●	●
	7747 Daytime Fan-Aspirated Radiation Shield	9 <sup>3</sup> / <sub>8</sub> × 4 <sup>3</sup> / <sub>4</sub>	240 × 120		●	●					●	●			

\* To calculate evapotranspiration, a Vantage Pro2 ISS with solar radiation sensor is required. Because it uses a different radio, Vantage Pro2 is not compatible with our original Vantage Pro stations. However, WeatherLink and many of our installation options are still compatible. If you have any questions, please contact us or your local distributor for assistance.

## Popular features at economical prices.

Our Weather Wizard III® and Perception II® are sophisticated weather instruments for home, business, or scientific use. Add WeatherLink for detailed, long-term analysis using your PC, and you'll have a powerful computer weather station at a surprisingly affordable price.



### Weather Wizard III

The most-requested features at an economical price. Basic model includes inside and outside temperature, wind speed and direction, and wind chill. With the complete station, you'll also get daily and accumulated rainfall.

- 7425 Weather Wizard III
- 7425CS Complete Weather Wizard III with rain collector



NIST



### Perception II

An indoor weather station requiring no installation—just plug it in using the included AC-power adapter. Use to monitor your wine cellar, greenhouse, or other climate-dependent area. Measures temperature, humidity, and barometric pressure. So accurate, it's even used by automobile racers to tune their carburetors for current air density conditions. Backlit display for easy viewing.

- 7400 Perception II

NIST



- 7425CS Complete Weather Wizard III with rain collector

### Rain Collector

Designed to meet the guidelines of the World Meteorological Organization, our self-emptying rain collector with tipping bucket is exceptionally accurate. Measures in 0.01" or 0.2 mm increments. Includes 40 ft. (12 m) cable.



- 7852 Rain Collector for Wizard

Note: Uses standard 4-conductor extension cable. Maximum cable length is 900 ft. (270 m) from rain collector to console, including junction box cable. See page 18 for extension cable options.

NIST

## Instant wind speed indicators.

### WindScribe™

Ultrasonic wind meter uses patented technology to read current wind speed, highest positive speed (headwind), lowest negative speed (tailwind), 5-second average, and running average. Select from mph, km/h, fpm, m/s, f/s, or knots, plus temperature and wind chill in tenths of °F or °C. Sensitive to breezes as low as 0.4 mph (.64 km/h), yet withstands winds as high as 150 mph (241 km/h). Includes replaceable 3-volt lithium battery that lasts up to 600 hours. 3.5 oz (100 grams).



- 276 WindScribe

### Wind Wizard™

For instantaneous wind speed readings, where and when you need them. Reads wind speed in miles/hour, meters/second, and Beaufort. Readout dial is supported on sapphire jewel bearings and steadied by a rare-earth magnetic dampening system. Rugged, high-impact plastic with corrosion-resistant components. Includes protective vinyl case, and attached wrist lanyard. Folding handle quickly and securely latches into place. No batteries needed. 2.5 oz (71 g).



- 281 Wind Wizard

### Turbo Meter™

Reads wind speed in miles/hour, knots, feet/minute, or meters/second. Turbine suspended on sapphire jewel bearings responds to the lightest of winds. Three-digit display offers excellent viewing contrast both in bright sunlight and at night. Requires three AAA alkaline batteries (not included). 3 oz (85 g) not including batteries.

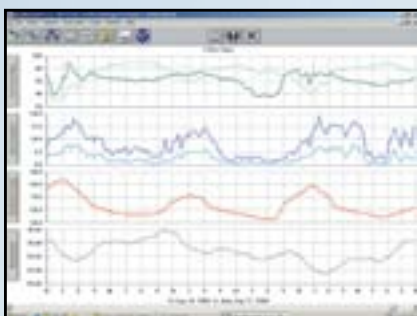


- 271 Turbo Meter

NIST

# Your weather data, your PC. What could be better?

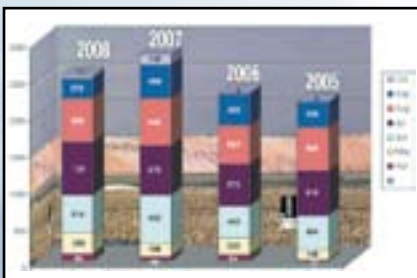
For the ultimate in weather monitoring, add WeatherLink to any of our weather stations. The data logger fits neatly into the weather station console or Weather Envoy, storing weather data even when it's not connected to your PC. Later, download the data and use the software for detailed analysis and graphing. Available in ten different models. Our popular WeatherLink with standard data logger is ideal for most purposes, while other models add special features designed for specific user groups.



Graph data on a daily, weekly, or yearly basis.



View multiple weather variables at the same time to see their relationships.



Use WeatherLink to create your own custom reports and publish them online.

## Expanded Reporting

- **More Weather Data.** View weather information not available on the console, including heating degree days, cooling degree days, and fuel-oil demand.
- **Optional Sensor Reporting.** With optional UV and solar radiation sensors, get details on sunburn risk and solar energy.
- **Moon Phase.** With Vantage Pro2 and Vantage Vue, you can see the phase of the moon right on the console. But now even Perception and Weather Wizard III owners can view the phases of the moon using WeatherLink.

## Sharing Your Weather Data

- **Create Your Own Reports.** Data can be exported to most popular spreadsheets, databases, and word processing programs.
- **Weather Website.** Create a weather website or post weather conditions to a LAN. Add graphs, text lines, or scrolling ticker tapes, and upload other files (such as webcam images) along with weather data.
- **Weather World 'Round.** Send your URL to [news@davisnet.com](mailto:news@davisnet.com) and we'll add it to our growing list of Davis stations around the world.
- **Citizen Weather Observer Program.** Submit your data to the National Weather Service to help develop improved weather prediction models.
- **The GLOBE Program.** Participate with other schools in an international weather-related program for students from elementary through high school.

Data logger fits neatly into all Vantage Pro, Vantage Pro2, Vantage Vue, Envoy, Weather Wizard III and Perception II models. (Appearance varies depending on model.)



## Data Storage & Transfer

- **User-Selectable Storage Interval.** Choose 1, 5, 10, 15, 30, 60, or 120 minutes. Store up to six months' worth of data depending on the storage interval. (Up to four months for Perception or Weather Wizard III.)
- **Standard Data Logger Models.** Log and store data, even when the data logger is not connected to your PC. Transfer the data as often as you like, or leave the software running to transfer it automatically each day.
- **Internet Protocol Model.** Our newest model lets you see your weather data live on the Internet within minutes. No web skills or complicated setup required—WeatherLink does all the work for you!
- **Alarm Output & Irrigation Control Models.** Include our standard data logger plus a connector block that allows you to connect to your irrigation system, or to a heater, fan, or other device.
- **Streaming Data Logger Models.** Provide a continuous stream of data to a PC or to a ham radio with a TNC modem.

Check current conditions at a glance on the instant weather bulletin.



**WeatherLink with Standard Data Logger**

Our most popular models, for everyone from the home weather buff to the most demanding scientific user. Available in versions for both PC and Mac. (Mac versions do not include all features; see the “Notes” in the chart below.) All models include data logger, download cable, software on CD, *Getting Started Guide*, and on-line help.

**WeatherLink for Vantage Pro2 and Vantage Vue**

- 6510USB Windows USB Version
- 6510SER Windows Serial Version
- 6520 Mac OS X Version

**WeatherLink for Perception or Wizard**

- 7862 Windows Serial Version
- 7855 Mac OS X Version



WeatherLinkIP data logger.



WeatherLink USB data logger.

**WeatherLinkIP**

Now you can post your weather data directly to the Internet without a PC! Not a web guru? Don't worry—our newest version of WeatherLink does all the work for you. Simply plug the data logger into the back of your Vantage Pro2 or Vantage Vue console, or Weather Envoy and connect the cable to your cable/DSL router. Within minutes, you'll be able to see your weather data live on the Internet. In addition, WeatherLinkIP™ lets you:

- Automatically upload data to third-party weather sites including CWOP (Citizen Weather Observer Program), the GLOBE Program, and more.
- Get e-mail alerts of current weather conditions or simple alarm conditions.
- Download the data to your PC for all the same powerful charting, graphing, and analysis as our standard WeatherLink. With Extra User License Kits, you can even download the data independently to multiple PCs—ideal for schools, agriculture, scientific fieldwork, and remote locations.

WeatherLinkIP is “plug-and-play,” so it will work straight out of the box without additional configuration in most situations. Simple configuration steps are required to upload to third-party weather sites or set e-mail alert conditions.

**6555 WeatherLinkIP**



**Choose the WeatherLink model that suits your needs.**

To get the most out of WeatherLink, choose the model that's right for you. All share the powerful weather data logging and reporting features discussed on page 15, while some add special features designed for specific user groups.

Extra User License Kit includes software on CD and extra user license.

SYSTEM REQUIREMENTS	MODEL	FOR USE WITH	DESIGNED FOR	NOTES	EXTRA USER LICENSE KIT
<b>Windows, USB</b> Windows 2000/XP/Vista	<b>6510USB</b>	Vantage Pro, Vantage Pro2, Vantage Vue, or Weather Envoy	General Purpose	For newer PCs with USB connections	<b>6510X</b>
<b>Windows, Serial</b> Windows 2000/XP/Vista  All models with streaming data loggers or connector blocks include all our normal WeatherLink features, plus additional features designed for special purposes.  To download one of these models via USB, add our # 8434 USB-to-Serial Cable	<b>6510SER</b>	Vantage Pro, Vantage Pro2, Vantage Vue, or Weather Envoy	General Purpose	For older PCs with serial port connections. Weather website features require Internet Explorer 6 or above.	<b>6510X</b>
	<b>6540</b>	Vantage Pro, Vantage Pro2, Vantage Vue, or Weather Envoy	APRS (Ham Radio)	Connects to a ham radio with TNC modem for instant streaming transmission of both your location and the local weather conditions via APRS (Automatic Position Reporting System).	<b>6510X</b>
	<b>6544</b>	Vantage Pro, Vantage Pro2, Vantage Vue, or Weather Envoy	Alarm Output	Use to turn heaters, fans, or other devices on or off depending on weather conditions. (For high-power devices, you may also need to add electrical relays.) Includes connector block.	<b>6510X</b>
	<b>6550</b>	Vantage Pro, Vantage Pro2, Vantage Vue, or Weather Envoy	Emergency Response	For use with the free CAMEO® software developed by NOAA and the EPA (not included). Provides streaming weather data to map a hazardous plume and predict its dispersion.	<b>6510X</b>
	<b>6560</b>	Vantage Pro, Vantage Pro2, Vantage Vue, or Weather Envoy	Irrigation Control	Connects to Rain Bird®, Rain Master®, Toro®, and others. Provides electronic pulses for wind, rain, and ET, or uses the alarm settings in the console. Includes connector block.	<b>6510X</b>
	<b>7862</b>	Perception or Weather Wizard	General Purpose	For older PCs with serial port connections. Weather website features require Internet Explorer 4 or above.	<b>7862X</b>
<b>Internet</b> DSL or cable connection and router with free ethernet port. Windows 2000/XP/Vista	<b>6555</b>	Vantage Pro, Vantage Pro2, Vantage Vue, or Weather Envoy	Internet Updates	View downloaded data on your own weather web site and be part of the WeatherLinkIP community.	<b>6510X</b>
<b>Mac</b> Mac OS X v 10.1 or above, Intel Mac Compatible	<b>6520</b>	Vantage Pro, Vantage Pro2, Vantage Vue, or Weather Envoy	General Purpose	Does not log data from leaf wetness, soil moisture, solar radiation, or UV sensors. Does not include Citizen Weather Observer or GLOBE capabilities. May not be used with E-Mail/Phone Alert or Agricultural/Turf Management Modules.	<b>6520X</b>
	<b>7855</b>	Perception or Weather Wizard	General Purpose	Requires a USB serial adapter. Does not include Citizen Weather Observer, GLOBE, weather forecast, or moon phase features.	<b>7855X</b>



## Critical real-time data right when you need it.



**WEATHERLINK STREAMING DATA LOGGERS**

### WeatherLink for Emergency Response Teams with Streaming Data Logger and CAMEO link

For use with the free CAMEO® (Computer-Aided Management of Emergency Operations) software developed by NOAA and the EPA. With Vantage Pro, Vantage Pro2, Vantage Vue, or Weather Envoy, provides the real-time weather data needed to map the footprint of a hazardous plume, predict its dispersion, and help make critical public safety decisions—all at just a fraction of the cost of other systems. For more about CAMEO, visit [www.epa.gov/emergencies/content/cameo/index.htm](http://www.epa.gov/emergencies/content/cameo/index.htm).

#### 6550 WeatherLink for Emergency Response Teams

### WeatherLink for APRS with Streaming Data Logger

For ham radio operators, including storm chasers and volunteer weather watchers. Connects a Vantage Pro console, Vantage Pro2 console, Vantage Vue console, or Weather Envoy to a ham radio with TNC modem for instant transmission of both your location and the local weather conditions via APRS. Connection to a PC is not required except for initial setup.

#### 6540 WeatherLink for APRS



**WEATHERLINK WITH CONNECTOR BLOCKS**

### WeatherLink for Alarm Output with Connector Block

Now you can turn heaters, fans, and other devices on or off using your weather station. Software walks you quickly and easily through the choices—yet the possibilities are almost unlimited! For each of four outputs, you can enter up to eight different weather parameters. Enter threshold values for each, select from nine different test conditions, and link the entries together as you choose. For example, you could activate a fan to cool your house—but only if the difference between the inside and outside temperatures is more than 5°F, it's more than 72°F inside, and it's between 5:00 p.m. and 6:00 a.m. Our connector block provides the interface between your weather station and an electrical device. For high-power devices, you may also need to add electrical relays (not supplied by Davis). Connection to a PC is not required except for initial setup.

#### 6544 WeatherLink for Alarm Output



### WeatherLink for Irrigation Control with Connector Block

Use your weather station to turn your irrigation system on or off. Connector block connects directly to most irrigation systems including Rain Bird®, Rain Master®, and Toro®. For industrial controllers, provides electronic pulses for wind, rain, and ET. For homeowners, looks at rain and ET values to determine when to inhibit watering. Can also set console alarms to inhibit watering when temperatures are too low or winds are too high. ET monitoring requires solar radiation sensor. Connection to a PC is not required except for initial setup.

#### 6560 WeatherLink for Irrigation Control



**WEATHERLINK PLUG-IN MODULES**

### Agricultural/Turf Management Software Module

Optional software module only for Vantage Pro2 adds specialized reports for farmers, growers, and turf managers, with user-defined growing season and 24-hour period. You'll get evapotranspiration, chilling requirement, leaf wetness hours, and soil temperature hours—all with user-entered thresholds and starting and ending dates. Plus growing degree-days and temperature-humidity hours (with user-entered names of crops, pests, or diseases) and crop water management (with irrigation values and user-entered K-factor profiles).

For use with all WeatherLink models except Mac versions. Some reports require the use of optional sensors.

#### 6511 Agricultural/Turf Management Module

### E-Mail/Phone Alert Software Module

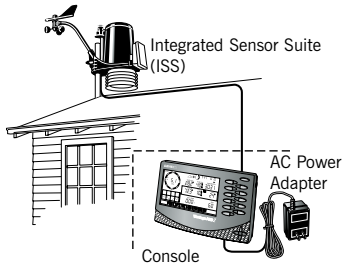
Be alerted whenever conditions approach critical—24 hours a day, 7 days a week. Choose e-mail for detailed information on alarm conditions plus regularly scheduled updates on current weather conditions. Use the alert to send a text to your cell phone. Or choose the phone alert, with a special alarm tone telling you to check your weather station console or WeatherLink for details.

For use with all WeatherLink models except Mac versions. Because systems vary, the phone alert may not work outside the USA.

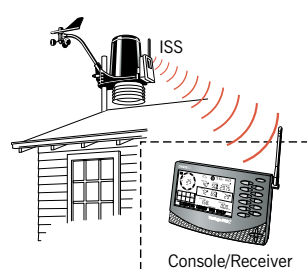
#### 6512 E-Mail/Phone Alert Module

*Note: All models work with Vantage Pro2. For other stations, refer to chart on page 16.*

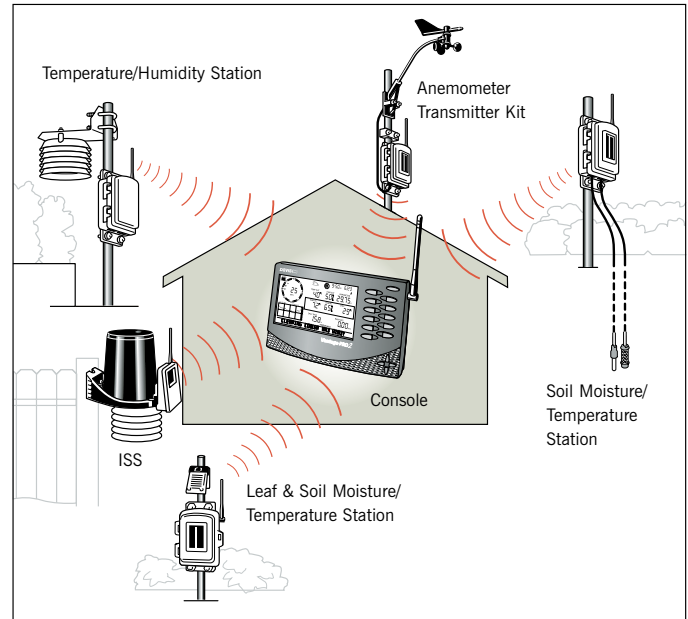
**CABLED VANTAGE PRO2 PLUS**



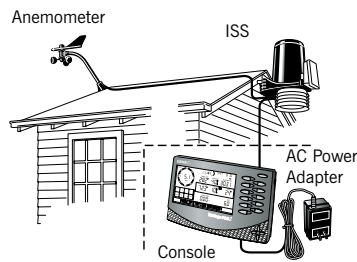
**WIRELESS VANTAGE PRO2**



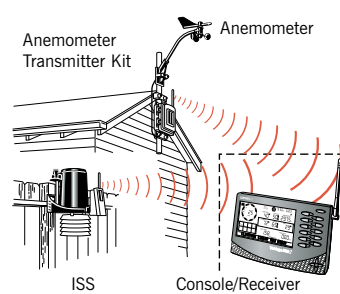
Each Vantage Pro2 console/receiver can receive data from up to eight different transmitting stations.



**REMOTE ANEMOMETER**



**ANEMOMETER TRANSMITTER KIT**



**EXTENSION CABLES**

**Cable Connections**

Our standard 4-conductor cable includes waterproof coupler kits for joining two cables together, indoors or out. Use an 8-pin cable coupler to join standard 8-conductor cables (for indoor use only). You can also join all our cables using surge protectors (see below).

**WeatherLink Cables**

The extension cables listed are for the serial port versions of WeatherLink only. USB extension cables are not available from Davis Instruments and must be purchased from a computer supplier.

**Anemometer Cables**

Maximum wind speed reading decreases as length of cable from anemometer to integrated sensor suite (for Vantage Pro2) or console (for Weather Wizard III, including junction box cable) increases. At 140' (42 m), maximum speed is 135 mph (60 m/s). At 240' (73 m), maximum is 100 mph (45 m/s).

7876-008 Standard 4-Conductor, 8' (2.4 m)	7876-040 Standard 4-Conductor, 40' (12 m)	7876-100 Standard 4-Conductor, 100' (30 m)	7876-200 Standard 4-Conductor, 200' (61 m)	7880-025 Standard 8-Conductor, 25' (7.5 m)	7880-050 Standard 8-Conductor, 50' (15 m)	7880-100 Standard 8-Conductor, 100' (30 m)	7959 Eight-Pin Cable Coupler	7895-050 Shielded 4-Conductor, 50' (15 m)	7895-100 Shielded 4-Conductor, 100' (30 m)
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**Surge Protector**

For upgraded electrical circuit protection, use surge protectors with any of our cabled weather stations. See the chart below for the number of protectors required for your installation. (Note: wire stripping is required.)



**7767 Surge Protector**

**Surge Protector Shelter**

Weather-resistant shelter houses up to two surge protectors (sold separately).



**7768 Surge Protector Shelter**

	Included Cable Length		Maximum Cable Length	Extension Cable to Use													
				7876-008	7876-040	7876-100	7876-200	7880-025	7880-050	7880-100	7959	7895-050	7895-100				
Vantage Pro2	Wireless Vantage Pro2	40' (12 m)	For anemometer to integrated sensor suite, see note above.	●	●	●	●										
	Cabled Vantage Pro2	40' (12 m)	For anemometer to integrated sensor suite, see note above.	●	●	●	●										
		100' (30 m)	1000' (300 m) from console to integrated sensor suite. (See descriptions above.)	●	●	●	●										
	WeatherLink for Vantage Pro2	8' (2.5 m)	48' (14.6 m) from data logger to serial port. (Serial port versions only.)	●	●												
	Solar Radiation Sensor	2' (0.6 m)	125' (38 m) from solar radiation sensor to integrated sensor suite.	●	●	●											
UV Sensor	2' (0.6 m)	125' (38 m) from UV sensor to integrated sensor suite.	●	●	●												
Wizard	Weather Wizard III	8' (2.4 m)	125' (38 m) from junction box to console. (See descriptions above.)						●	●	●	●					
	WeatherLink for Wizard	8' (2.4 m)	50' (15 m) from data logger to serial port.	●	●												
	Anemometer	40' (12 m)	See note above.	●	●	●	●										
	Rain Collector	40' (12 m)	900' (270 m) from rain collector to console, including cable from junction box to console.	●	●	●	●										
Temperature Sensor	25' (7.6 m)	300' (91 m) from sensor to console, including cable from junction box to console.	●	●	●	●											
Rain Collector Heater	50' (15 m)	120' (36 m) from power unit to AC-power adapter. Requires terminal block.										●	●				

**NUMBER OF SURGE PROTECTORS REQUIRED**

Weather Station	Cable Run	# of Surge Protectors
Vantage Pro2 or Pro2 Plus	Anemometer to Integrated sensor suite	2
	Integrated sensor suite to console	2
Weather Wizard III	Temperature sensor to junction box	1
	Rain collector to junction box	1
	Anemometer to junction box	2
	Junction box to console	4

# Vantage Product Features

- VP2 and Vantage Vue
- VP2 only
- Vantage Vue only

	BAR	HUMIDITY				RAIN			TEMPERATURE			WIND			WITH OPTIONAL SENSORS								
	Barometric Pressure	Inside Humidity	Outside Humidity	Dew Point	Rainfall Amount	Rain Storm Amount	Rain Rate	Inside Temperature	Outside Temperature	Heat Index	Wind Chill	Wind Speed	Wind Direction	Direction of High Speed	Evapotranspiration	Humidity (Extra)	Leaf Wetness	Soil Moisture	Solar Radiation	Temperature (Extra)	Temp-Hum-Sun-Wind	UV Radiation	UV MEDs
Update Interval *	1 min	1 min	50 sec	10 sec	20 sec	20 sec	20 sec	1 min	10 sec	10 sec	10 sec	2 1/2 sec	2 1/2 sec	2 1/2 sec	1 hour	50 sec	15 sec	75 sec	50 sec	10 sec	10 sec	50 sec	50 sec
<b>CONSOLE DISPLAYS</b>																							
Reading at end of update interval	●	●	●	●				●	●	●	●		●			●	●	●	●	●	●	●	●
Total amount for the interval					●	●									●								●
Average reading for the interval											●												
High reading for the interval							●																
<b>SET ALARMS FOR</b>																							
Special Alarms	1				2	3					4			5									6
High Reading		●	●	●			●	●	●	●	●				●	●	●	●	●	●	●	●	●
Low Reading		●	●	●				●	●	●	●				●	●	●	●	●	●	●	●	●
<b>DISPLAYED BUT NOT GRAPHED</b>																							
Current Year High	●	●	●	●				●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Current Year Low	●	●	●	●				●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>GRAPHED &amp; DISPLAYED FOR LAST 24 OF EACH OF THE FOLLOWING (25 FOR VANTAGE VUE)</b>																							
EOP	End-of-15-Minute Period Readings	●																					
	End-of-Hour Period Readings	●	●	●	●			●	●	●						●	●			●			
TOTALS	15-minute Period Totals				●																		
	Hourly Totals				●			●	●	●					●								●
	Daily Totals				●			●	●	●					●								●
	Monthly Totals				●			●	●	●					●								●
	Storm Totals (with start & end date)				●			●	●	●					●								●
	Yearly Totals				●			●	●	●					●								
AVERAGES	10-Minute Averages (2 min. for VV)										●												
	Hourly Averages or Dominant										●	●				●			●				●
	Daily Averages or Dominant											●	●			●			●				●
	Monthly Averages or Dominant											●	●			●			●				●
	Yearly Averages											●	●			●			●				●
HIGHS	One-Minute Highs						●																
	Hourly Highs						●				●												
	Daily Highs	●	●	●	●			●	●	●	●	●				●	●	●	●	●	●	●	●
	Monthly Highs	●	●	●	●			●	●	●	●	●				●	●	●	●	●	●	●	●
	Yearly Highs							●			●												●
LOWS	Hourly Lows										●												
	Daily Lows	●	●	●	●			●	●	●	●					●	●						
	Monthly Lows	●	●	●	●			●	●	●	●					●	●						
	Yearly Low									●													●

\*Update interval may vary depending on station ID and type of station.

**SPECIAL ALARMS**

- 1 **Storm Warning:** Amount of barometric pressure fall.
- 2 **Storm Clearing:** Amount of barometric pressure rise.
- 3 **Flash Flood Warning:** 15-minute rainfall amount.
- 4 **24-hour Rain Alarm:** 24-hour rainfall amount.
- 5 **Rainstorm Alarm:** Rainfall amount for current storm.
- 6 **High Wind Speed and 10-Minute Average Wind Speed Alarms**
- 7 **Daily Evapotranspiration Amount Alarm**
- 8 **Daily UV Dose Alarm**



**The GLOBE Program**

Students of all ages can now participate in the worldwide GLOBE program using protocols developed just for Davis weather stations. See [www.globe.gov](http://www.globe.gov) for details.

GLOBE, The GLOBE Program, and the GLOBE logo are trademarks of the U.S. Government. Use of these trademarks and certification by this company that its products conform to specifications of The GLOBE Program do not imply endorsement of this company or its products by the U.S. Government.



**NIST Traceable Sensors**

In the USA, the National Institute of Standards & Technology (NIST) develops and maintains the standards of measurement to which all others are ultimately traced. Numerous calibrations, tests, and measurement assurance programs are delivered directly to about 10,000 companies. From these companies, NIST-traceable intermediate service providers are the next link in a network that joins together the makers and users of precision instruments. Davis Instruments is proud to participate in this network. Each of our weather stations is carefully manufactured in our California factory. For those users who require NIST-traceability, calibration of new and previously owned sensors is now available. For NIST-calibration of individual sensors, contact us for pricing. Call, fax, or e-mail us for complete details.



Anemometers are wind-tunnel tested in our California factory.

**WEATHER STATION SENSOR ACCURACY, RESOLUTION AND RANGE**

Function		Vantage Pro2	Vantage Vue	Perception II	Weather Wizard III	U.S.A. Units			Metric Units		
						RESOLUTION	RANGE	ACCURACY ±	RESOLUTION	RANGE	ACCURACY ±
AGRICULTURAL	Evapotranspiration	●				0.01"	0 to 199.99"	5%	0.1 mm	0 to 1999.9 mm	5%
	Growing Degree-Days	○				0.1 Degree-Day	Unlimited		0.1 Degree-Day	Unlimited	
	Cooling/Heating Degree-Days	○	✓			0.1 Degree-Day	Unlimited		0.1 Degree-Day	Unlimited	
	Leaf Wetness	●				1	0 to 15	0.5	1	0 to 15	0.5
	Soil Moisture	●				1 cb	0 to 200 cb		1 cb	0 to 200 cb	
BAROMETRIC PRESSURE	Barometric Pressure (Elevation range: -999' to +15,000'; -600 to +4570 m)	✓	✓			0.01" Hg	16" to 32.5" Hg	0.03" Hg	0.1 mm Hg 0.1 mb	410 to 820 mm Hg 540 to 1100 mb or hPa	0.8 mm Hg 1.0 mb or hPa
	Barometric Pressure (Elevation range: -1990' to +12,500'; -600 to +3810 m)			✓			18" to 32.5" Hg	0.05" Hg	0.1 mm Hg 0.1 mb	460 to 820 mm Hg 610 to 1100 mb or hPa	1.3 mm Hg 1.7 mb
	Three-Hour Trend	✓	✓			Slow ≥ 0.02" Hg Rapid ≥ 0.06" Hg	5-Position Arrow		Slow ≥ 0.5 mm (0.7 mb) Rapid ≥ 1.5 mm (2 mb)	5-Position Arrow	
	One-Hour Trend			✓		Change ≥ 0.02" Hg	3-Position Arrow		Change ≥ 0.5 mm (0.7 mb)	3-Position Arrow	
HUMIDITY	Inside Humidity	✓	✓			1%	0% to 100%	3%	1%	0% to 100%	3%
				✓			10% to 90%	5%		10% to 90%	5%
	Outside Humidity	✓	✓			1%	0% to 100%	3%	1%	0% to 100%	3%
	Inside Dew Point	○	○			0.1°F	-60° to +140°F	3°F 5°F	0.1°C	-50° to +60°C	1.5°C 2.5°C
Outside Dew Point	✓	✓			1°F	-105° to +130°F	3°F	1°C	-76° to +54°C	1.5°C	
RAINFALL	Rainfall	✓	✓		●	0.01"	0 to 199.99"	4%	0.2 mm	0 to 6553 mm	4%
							0 to 99.99"			Day: 0 to 999.8 mm Total: 0 to 9999 mm	
	Rate of Rainfall	✓				0.01"	0 to 96"/hr 0 to 40"/hr	5% ≤ 5"/hr	0.1 mm	0 to 2438 mm/hr 0 to 1016 mm/hr	5% ≤ 127 mm/hr
SOLAR & UV	Solar Radiation	●				1 W/m2	0 to 1800 W/m2	5%	1 W/m2	0 to 1800 W/m2	5%
	Solar Energy	○				0.1 Ly	1999.9 Ly	5%	0.1 Ly	1999.9 Ly	5%
	UV Dose	●				0.1 MEDs	0 to 199 MEDs	5%	0.1 MEDs	0 to 199 MEDs	5%
	UV Index	●				0.1	0 to 16	5%	0.1	0 to 16	5%
TEMPERATURE	Inside Temperature	✓	✓	✓	✓	0.1°F	+32° to +140°F	1°F	0.1°C	0° to +60°C	0.5°C
	Outside Temperature (ISS)	✓	✓		✓	0.1°F	-40° to +150°F	1°F	0.1°C	-40° to +65°C	0.5°C
	Outside Temp (Temp Stn)	●				1°F	-40° to +150°F	1°F	1°C	-40° to +65°C	0.5°C
	Soil or Water Temperature	●				1°F	-40° to +150°F	1°F	1°C	-40° to +65°C	0.5°C
	Inside Heat Index	○	○			0.1°F	+30°F to +165°F	3°F 5°F	0.1°C	-1°C to +74°C	1.5°C 2.5°C
				○							
	Outside Heat Index	✓	✓			1°F	-40° to +165°F	3°F	1°C	-40° to +74°C	1.5°C
	Temp-Hum-Sun-Wind Index	●				1°F	-90° to +165°F	4°F	1°C	-68° to +74°C	2°C
Wind Chill	✓	✓		✓	1°F	-110° to +135°F	2°F	1°C	-79° to +57°C	1°C	
TIME/DATE	Time	✓	✓			1 minute	12/24 hours	8 sec/mo 15 sec/mo	1 minute	12/24 hours	8 sec/mo 15 sec/mo
				✓	✓						
	Date	✓	✓			month/day	Leap Year 365 days	8 sec/mo 15 sec/mo	day/month	Leap Year 365 days	8 sec/mo 15 sec/mo
Sunrise & Sunset	✓	✓	○	○	1 minute	12 hours	1 minute	1 minute	24 hours	1 minute	
WIND	Wind Direction	✓	✓			1°	0° to 360°	3° 7°	1°	0° to 360°	3° 7°
				✓							
	Compass Rose	✓	✓		✓	22.5°	16 compass points		22.5°	16 compass points	
	Wind Speed	✓	✓		✓	1 mph 1 knot	2 to 150 mph 2 to 130 knots	5%	0.1 m/s 1 km/hr	1 to 67 m/s 3 to 241 km/hr	5%
	Direction of High Speed	✓	✓			22.5°	16 compass points		22.5°	16 compass points	
Wind Run	○	○		○	0.01 mph 0.01 knot	Unlimited	5%	0.01 m/s 0.01 km/hr	Unlimited	5%	

Except for rainfall, all variables are measured in U.S. units of measure and rounded to the nearest metric unit shown in the "Resolution" column.

- ✓ Included
  - Optional sensor required, shown on console
  - Optional, requires WeatherLink.
- Growing degree-days also requires Ag/Turf Management Module. Solar Energy requires Solar Radiation sensor.

"Resolution" refers to the number of digits or decimal places displayed on the console. For metric units, this is not the actual unit of measure except for rainfall. Our rain collector measures in true 0.01" or 0.2 mm increments. All other weather variables are measured and accumulated in U.S. units of measure, which are then converted to metric units for display purposes.

For complete specifications, visit our website at [www.davisnet.com](http://www.davisnet.com), then click on Support > Weather Support > Specification Sheets.

Weather Wizard III calculates and displays wind chill according to the original National Weather Service Formula. A new formula was adopted in 2001. For wind chill using this formula, view the data using WeatherLink or choose Vantage Pro2 or Vantage Vue instead.

# Things to consider when purchasing a weather station.

## 1. WHAT WEATHER VARIABLES ARE MEASURED AND RECORDED?

Most other stations offer barometric pressure, outside humidity and dew point, daily and yearly rainfall, wind speed and direction, wind chill, and outside temperature. Some also offer inside temperature and humidity, and a few even give you extra outside temperatures and rain rate. Only Vantage Pro2 or Vantage Vue give you those features, plus:

- Additional Rainfall Information: 15-minute, hourly, monthly, and yearly rainfall, and rainfall amounts for each of the last 24 storms.
- Additional Wind Speed Information: 10-minute average wind speed and dominant wind direction. In addition, with Vantage Vue, you get 2-minute average speed, high speed and direction in the last ten minutes.
- Apparent Temperature: Heat index, and with Vantage Pro2's optional solar radiation sensor, the temperature-humidity-sun-wind index.
- Vantage Pro2 optional Solar and UV Radiation Sensors: Greater awareness of the dangers of excessive exposure to the sun.
- For agricultural users: Evapotranspiration, leaf wetness, soil moisture, and soil temperature with Vantage Pro2 optional sensors.

## 2. HOW EASY IS IT TO SET UP?

With most competing stations, you need to install each sensor separately, which adds complication and takes time and effort. Vantage Pro2 and Vantage Vue are factory-assembled to make setup as easy as possible. Just complete a few minor assembly steps, insert the battery, and you're ready to mount the sensor suite. Mounting is further simplified by using our optional tripod. On Vantage Pro2, gain further accuracy by detaching the anemometer from the sensor suite and mounting it separately.

## 3. WHAT IS THE MAXIMUM TRANSMISSION DISTANCE?

The wireless transmission range for most competing stations is generally quite limited. Although range is highly variable (depending not only on the physical features of the land and structure but also on RF interference in the area), Vantage Pro2 and Vantage Vue will almost always outperform the competition. And we offer wireless repeaters should you wish to extend the range even further.

## 4. HOW MANY HIGHS AND LOWS ARE MEASURED AND RECORDED?

Most other stations simply give you the current readings. If highs and lows are available at all, they are usually quite limited. Only Vantage Pro2 and Vantage Vue give you the highs and lows (and/or totals or averages) for just about all weather conditions, with time and/or date for the last 24 days, months, or years for Vantage Pro2, and current and last 25 days, months, or years for Vantage Vue. No other stations on the market even come close. And

not only can you view the data numerically, you can also view on-screen graphs, for instant visual representations of long-term trends.

## 5. HOW OFTEN IS THE INFORMATION UPDATED?

The Vantage Pro2 and Vantage Vue transmitters send data to the console every 2½ seconds. Highly variable conditions (such as wind speed and direction) are updated with each packet, while less variable conditions are updated every 10 seconds. With most competing stations, the update interval is much longer: 30 seconds, or even up to 3 minutes. This may not seem important, but try watching the wind gust, or the rain suddenly come pouring down. It's very disconcerting to look out the window, see something happen weather-wise, and not see it reflected on the console right away.

## 6. HOW IS THE FORECAST GENERATED?

The competition generally bases their forecast on barometric pressure alone, which results in none too accurate a prediction. Vantage Pro2 and Vantage Vue use a sophisticated forecasting algorithm which takes into account not only barometric pressure, but also wind, rainfall, temperature, humidity, and longitude and latitude. The result? A much more accurate forecast. Not perfect, but even the guys with the satellite pictures don't always get it right!

## 7. HOW IS THE FORECAST DISPLAYED?

Competing stations use icons to show the forecast. Vantage Pro2 and Vantage Vue have similar icons, plus Vantage Pro2 has over 80 different forecast messages that scroll across the bottom of the display. None of the other stations have this. The ticker tape also gives additional information depending on which key you press. Both Vantage Pro2 and Vantage Vue are able to display 10-minute average wind speed, the last 15 minutes and last 24 hours of rain. These are only a few examples of Davis stations' unique features. Competing stations don't have anything like this.

## 8. HOW MUCH DATA CAN YOU GRAPH ON THE SCREEN?

With Vantage Pro2 and Vantage Vue, you can graph just about every weather variable, with averages and highs and lows for most, and go back in time for minutes, days, months, and years. The competition typically graphs just one variable—barometric pressure—and typically just for the last 24 hours. With all the graphs on Vantage Pro2, and with the Weather Center feature on Vantage Vue, you can do tons of analysis, even without purchasing a software package. You'll find that the more dramatic the weather is, the more fun it is to look at the graphs. Just how windy is it, and how does it compare to the last wind storm? How much rain did we get this month as compared to last month?

## 9. CAN YOU USE THE STATION AT HIGHER ELEVATIONS?

Our stations can be used up to 15,000 feet (4570 m) in elevation. Many competing stations are limited

to 6,000 feet (1829 m) or below. If you're lucky enough to live and work—or perhaps enjoy a vacation home—in the mountains, you'll find that our Vantage Pro2 and Vantage Vue weather stations work just fine, no matter what the elevation.

## 10. IS THERE A COMPUTER INTERFACE?

If you'd like to do even more analysis, add our WeatherLink data logger and software package. The data logger stores data at the interval you choose (from one minute to two hours) for up to six months. Transfer the data whenever you like, or leave your computer on to have it transfer automatically every day. For some competing stations, no software package is available. Other stations do offer software, but don't include a data logger—so your PC must be on and the software running at all times.

## 11. HOW MANY ALARMS ARE THERE?

With Vantage Pro2 and Vantage Vue, alarms can be set for just about every weather variable, for just about any reason imaginable—up to 70 alarms for Vantage Pro2 and 22 for Vantage Vue. The alarms found on competing stations are generally quite limited.

## 12. WHAT IS THE ACCURACY, RESOLUTION, AND RANGE?

Vantage Pro2 and Vantage Vue generally beat their similarly-priced competition in accuracy, resolution, and range. It can be difficult to find the specs for competing stations. When we do find them, our testing shows that they are a bit, shall we say, optimistic. We are proud to publish our specs in our catalog and on our website, and stand behind them 100%.

## 13. HOW MANY PEOPLE ARE USING THE STATIONS?

There are many, many thousands of happy Davis weather station users around the country and around the world. Check out "Weather World 'Round" in the weather section of [www.davisnet.com](http://www.davisnet.com) under "Cool Stuff" and click on links to visit websites of Davis weather station owners around the world. You'll find that many other Davis weather station owners participate as volunteer observers for the National Weather Service, the National Hurricane Center, and numerous local TV and radio stations. You can also visit [www.weatherlink.com](http://www.weatherlink.com) and see a worldwide map of Davis weather station owners who use our WeatherLinkIP software, which along with other features, creates its own weather website for your weather station.

## 14. HOW LONG HAS THE COMPANY BEEN IN BUSINESS?

Established in 1963, Davis Instruments opened up the home weather station market back in 1989. Our weather stations are assembled and tested right here in Hayward, California, where we have a full staff giving the best customer service and aftermarket support in the business. In addition, Davis Instruments Quality Management System is ISO 9001 certified.



## Think your teen is a safe driver? Don't wait to find out.

Don't wait for a speeding ticket—or worse—to find out how your teen is driving. CarChip® Pro plugs instantly into the OBDII (on-board diagnostics) port in your car or truck, where it continuously logs vehicle and driver performance. Download the data to your PC, and you'll get complete details for each trip plus details on engine performance when and if the vehicle's check engine light comes on. Stores up to 300 hours of driving data. Download the data at any time and clear the memory to start again, or let CarChip Pro automatically overwrite the oldest data.



CarChip Pro plugs instantly and unobtrusively into the OBDII port in your car or truck.



## Wish you could read your car's mind?

By detecting malfunctions early and taking the guesswork out of diagnosing problems, CarChip Pro can help you keep your car in peak running condition. Log any 4 out of 23 possible engine parameters, each of which can affect operation, emissions, and fuel economy. CarChip Pro also has self-setting and audible alarms for speed, hard braking, and quick acceleration.

### 8226 CarChip Pro



### CarChip Pro Records 300 hours of trip details depending on the logging interval and number of parameters selected:

- Time and date for each trip.
- Distance traveled.
- Speed (can be logged as often as every second).
- Idle time.
- Hard accelerations and decelerations.
- Engine diagnostic trouble codes plus the status of engine parameters at the time the codes occurred.
- Time and date every time CarChip is connected or disconnected.
- Up to 4 out of 23 possible engine parameters, recorded every 5 to 60 seconds. Choose from:

RPM	Battery voltage
Throttle position	Timing advance
Engine load	Coolant temperature
Fuel pressure	Air flow rate
Fuel system status	Intake air temperature
Short-term fuel trim	Intake manifold pressure
Long-term fuel trim	O <sub>2</sub> sensor output voltage

### Installation couldn't be easier.

- 1. Locate your car's OBDII connector.** You'll find it inside the car, under the driver's side steering column and dashboard.
- 2. Plug the data logger in.** The blinking light tells you it's installed and ready to go.
- 3. Start driving.** CarChip Pro will start collecting data your very next trip. Later, download to your PC for analysis, graphing, and charting.

CarChip Pro is also available in a fleet model with additional reporting capabilities specially designed for fleet managers. For more information, ask for our Fleet Management Tools catalog.

### Software lets you:

- Review and clear diagnostic trouble codes.
- View summary and detail reports for each trip.
- Sort business and personal trips.
- Set thresholds for excessive speed, acceleration, and braking.
- View emissions readiness status before your next smog check.
- Enter gasoline purchases and calculate mileage.
- Copy data to spreadsheets and text documents for further analysis.

### System requirements:

- Windows 2000/XP/Vista and USB port.

CarChip Pro can be used with most cars and trucks sold in the USA and Canada, model-years 1996 or later. For a list of excluded vehicles, visit [www.carchip.com](http://www.carchip.com). Vehicles sold outside the USA and Canada may or may not be compatible.

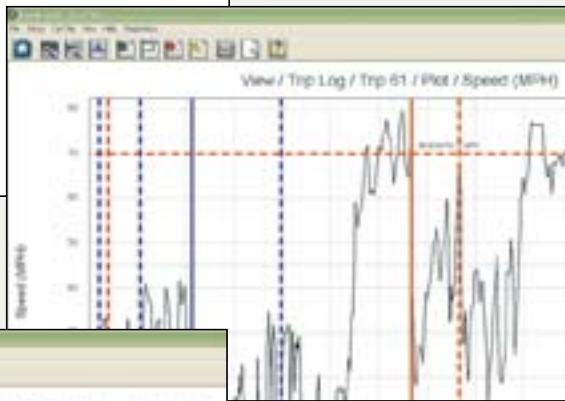
Davis manufactures a complete line of vehicle monitoring systems. CarChip Pro is the all-in-one driving and engine performance monitor. For larger commercial vehicle fleets, Davis makes a fleet version of CarChip, CarChip Fleet Pro, which works with our Fleet Management Software to rank drivers and vehicle performance. Wireless and GPS accessories are also available. For truck and heavy equipment needs, our DriveRight products are the ideal choice. Call for more info or see our web site: [www.carchip.com](http://www.carchip.com).



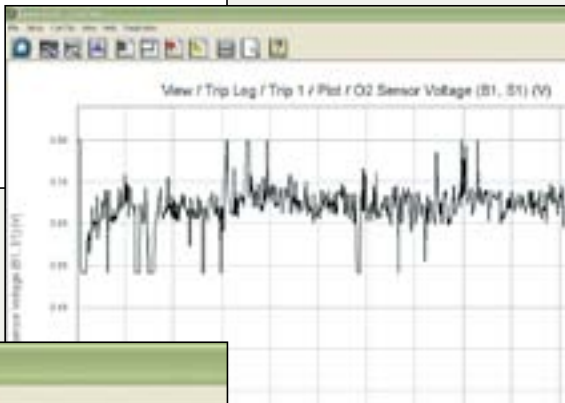
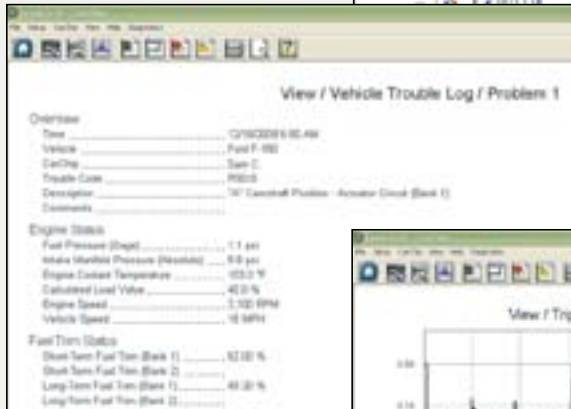
See sample computer screens below:

« Trip log includes:

- Time & Date
- Distance
- Average Speed
- Maximum Speed
- Hard Brakings
- Quick Accelerations



« Trouble log shows diagnostic trouble code and description plus additional details on engine performance.



« Emissions readiness lets you find out if your car will pass the next smog test.

Emissions Readiness

Vehicle: Ford Escape

Status as of: 03/31/06 10:52 AM

Monitor	Supported	Status
Catalyst	Supported	Complete
Evaporative System	Supported	Complete
Secondary Air System	Supported	Complete
Oxygen Sensor	Supported	Complete
Oxygen Sensor Heater	Supported	Complete
EGR System	Supported	Complete
Misfire Monitoring	Supported	Complete
Fuel System Monitoring	Supported	Complete
Comprehensive Monitoring	Supported	Complete

Contact Us

Please contact one of our customer service representatives if you have any questions. We're always glad to help.

Outside the USA or Canada:  
(510) 732-9229

**Customer Service:**  
[sales@davisnet.com](mailto:sales@davisnet.com)

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Fax (510) 670-0589  
[support@davisnet.com](mailto:support@davisnet.com)

**General:**

[info@davisnet.com](mailto:info@davisnet.com)  
Visit our website: [www.davisnet.com](http://www.davisnet.com)

Warranty

We warrant our products to be free of defects in material and workmanship for one year from date of original purchase. While we make every effort to carefully manufacture our products to the highest standards of quality, occasionally parts may be found to be missing, defective, or damaged. If you have a defective part, return the product to us, shipping charges prepaid. Include proof of purchase and a written explanation of the trouble. During the warranty period, we will, at our option, either repair or replace the product free of charge. This warranty does not cover damage due to improper installation or use, lightning, negligence, accident, or unauthorized service, or to incidental or consequential damages beyond the Davis products themselves. Implied warranties are limited in duration to the life of this limited warranty. Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental and consequential damages, so the above limitation may not apply to you. This warranty gives you specific legal rights. You may have other rights, which vary from state to state or country to country.

Details, specifications, and prices are subject to change at any time without notice.

International Orders

We have distributors in many countries throughout the world, and we encourage you to purchase from them. They are in a better position to answer your questions and can often provide on-going service. You can find a distributor in your country by going to [davisnet.com/weather/dealer\\_find.asp](http://davisnet.com/weather/dealer_find.asp). If you can't locate a distributor in your country, please contact us for further assistance.

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Davis Instruments Quality Management System is ISO 9001 certified.

Actual screens may vary

» Speed is recorded every second. Hard brakings are highlighted in red, quick accelerations in blue.

» Oxygen sensor output voltage is just one of the 23 selectable engine parameters you can choose to monitor.



ISO 9001 CERTIFIED COMPANY

Davis Instruments  
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Hayward CA 94545-2778 USA

09050V/PR57

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- **2.5 second update**  
(up to 10X faster than the competition)
- **Post your weather to the Internet without a PC**  
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