

# Over 35 Years of Weather Innovation

1980



#### 1984 | TURBO METER

This hand-held device reads wind speed in miles/hour, knots, feet/minute, or meters/second.



#### 1988 | DIGITAR WEATHER PRO

A micro weather station for measuring basic weather conditions. The Weather Pro is the origin of Davis's home and industrial weather market leadership.



#### 1989 | DIGITAR WEATHER MASTER

A complete weather station with barometer, affordable enough for home use. 1990



#### 1996

New mounting solutions allows you to install many sensors in one location.



#### 1991 | WEATHERLINK

For the ultimate in weather monitoring, link any Davis weather station to an IBM-compatible PC or Macintosh.



#### 1991 | PERCEPTION II

Monitor indoor climate using the most advanced technology available.



#### 2000 | WEATHER ECHO

Take the weather with you wherever you go. The wireless Weather Echo receives and displays data from any of the Davis transmitters.



#### 2001 | VANTAGE PRO

An integrated Sensor Suite paired with the iconic Davis console. The console includes quick-view icons, graphing, and forecasts.



#### 2004 | WINDSCRIBE

An ultrasonic wind meter that uses patented technology to read current wind speed.



#### 2009 | VANTAGE VUE

An accurate and reliable weather station that's tough, sleek, and sets up in minutes.



#### 2008 | WEATHERLINKIP

Uploads data directly to WeatherLink.com without a PC.



#### 2005 | VANTAGE PRO2 PLUS

A wireless, frequency-hopping, integrated Sensor Suite that includes a 24-Hour Fan-Aspirated Radiation Shield, and Solar Radiation and UV Sensors.



#### 2011 | VANTAGE CONNECT

A cellular telemetry data logger that provides remote, real-time weather and sensor readings.



#### 2017 | AEROCONE

This rain collector reduces wind-induced errors with its aerodynamic design.



#### 2017 | ENVIROMONITOR

Create a network of Davis and industry-leading, third-party sensors. View the data anywhere, anytime on WeatherLink.com and the Mobilize app.

2018



#### 2019 | WEATHERLINK LIVE

WeatherLink Live connects to 80+ sensors at a time and live-streams data over Wi-Fi or Ethernet directly to the WeatherLink Cloud.



#### **2018 | WEATHERLINK CLOUD PLATFORM**

A suite of web, mobile, tablet, and API based applications for viewing and managing personal weather data. Access real-time data anywhere, anytime and on any device.

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Identifies the products that can be integrated with the Sensor Transmitter.



Identifies stations suitable for use with GLOBE protocol. See page 37 for details.



Identifies the stations or sensors that can be NIST traceable. See page 37 for details.









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Identifies the products that can be integrated with the Leaf & Soil Moisture/Temperature Station.

ISO 9001 CERTIFIED COMPANY

# What's New?

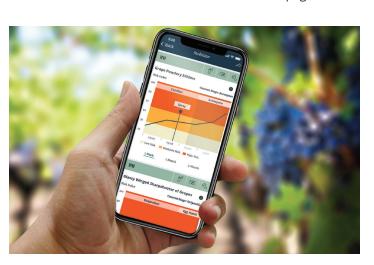




# **New** WeatherLink Live™

## Go Wi-Fi with your weather

Now you can stream your sensor data live, effortlessly, to any smart device in your Local Area Network (LAN). WeatherLink Live receives your data from your outside Sensor Suites and add-on sensors and transmits it via Wi-Fi to the WeatherLink Cloud. Setup couldn't be simpler. (And you can keep your tool box in the garage!) Just download the app, follow the steps, and you'll be viewing your data on your phone app or desktop in minutes. Available Q1 2019. Check it out on page 15.



# **New** WeatherLink Cloud

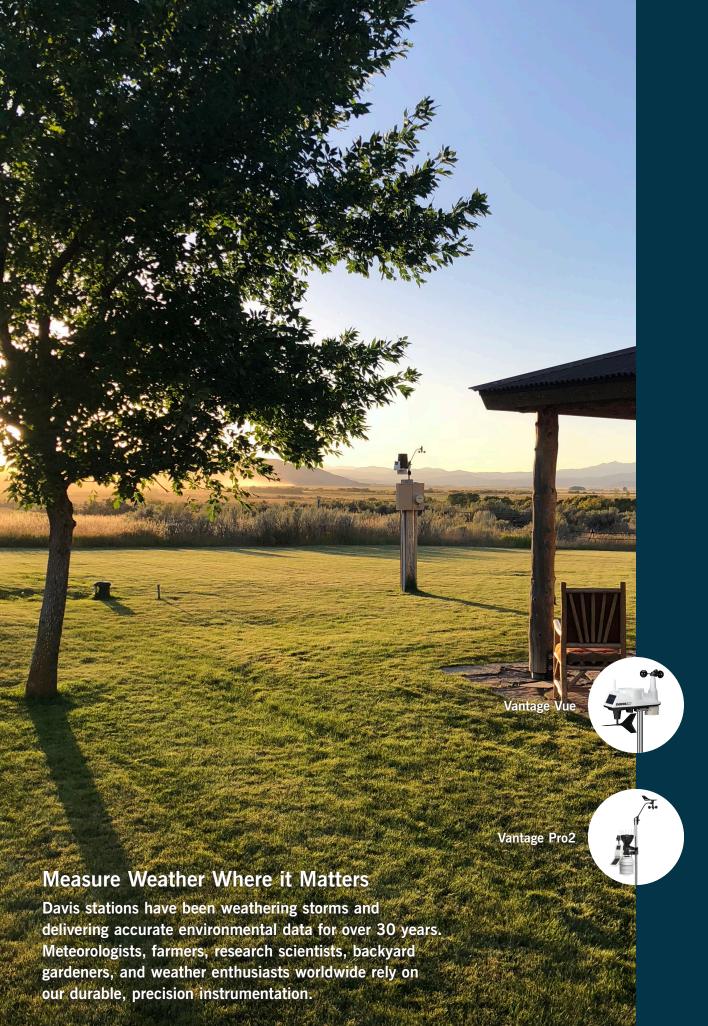
### An all new experience

The new WeatherLink Cloud is here. Accessing, analyzing, and sharing real-time sensor data has never been easier. The new WeatherLink website, mobile apps, and APIs have gone through more than routine updates—we've made fundamental improvements. From design and ease of use to new features, we've elevated every aspect of the WeatherLink experience. Check it out on page 19.

# **New** Integrated Pest Management Report

# New feature in Mobilize app

Davis has researched and developed the most comprehensive disease and pest models available. Available Q1 2019: Integrated Pest Management (IPM) report available in the Davis Mobilize app. This tool will help farmers protect their crops from pest damage with the most accurate, cropspecific risk assessment possible. Check it out on page 27.



# Vantage Vue®: Get serious about weather

Vantage Vue provides accurate, reliable weather monitoring in a self-contained, easy-to-install system. Sleek but tough, Vantage Vue gives you all the weather data you need:

- Inside & Outside Temperature
- Inside & Outside Humidity
- Barometric Pressure

- Wind Speed & Direction
- · Dew Point
- Rainfall

Your outdoor Sensor Suite sets up in minutes and transmits data wirelessly to your console anywhere in your home, school, or business. In addition to displaying current weather conditions and trends, Vantage Vue also boasts the innovative Weather Center button that displays weather variables over the last 25 days.

#### Features:

- Up to 10x faster updates than the competition. (Every 2.5 seconds.)
- Wireless transmission 3x farther than the competition. (1,000 ft./ 300 m from station to console.)
- Easy-to-read backlit screen.
- Glow-in-the-dark keypad.

#### 1. TIME & DATE

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

#### 2. MOON PHASE

Track the eight phases of the moon.

#### 3. FORECAST

Icons let you know to expect sun, partly cloudy, 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 values 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, and months.

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

Allows comparisons 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.

#### 11. USER-FRIENDLY KEYPAD

Domed buttons are easy to feel and press. Glow-in-the-dark keypad buttons give you access to weather information at night. The "DONE" key returns you to the "current" screen from anywhere in the program.

#### 12. GRAPHS

Graphs the last 25 hours, days, or months. View up to 50 graphs for 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, heat index, flood warning, and more.

#### 15. WIND SPEED

See wind speed updates every 2.5 seconds.
Displays wind speed in miles per hour, meters per second, kilometers per hour, or knots.
Provides the average and high wind speed for 2-minute and 10-minute intervals



# Rugged, accurate, affordable

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 small profile Sensor Suite is designed to minimize visual impact in your yard or on your roof.

6250 Vantage Vue PATENTED











Pair with a data collection product (pages 14-17) to access data anywhere, anytime, and on any device with the WeatherLink Cloud.

#### 1. WIRELESS

Frequency-hopping, spreadspectrum radio ensures consistent transmission up to 1,000 ft. (300 m) lineof-sight from Sensor Suite to console.

#### 2. RAIN COLLECTOR

Self-emptying tipping spoon measures rain in 0.01" increments. Metric version measures in 0,2 mm increments.

#### 3. ANEMOMETER

Wind tunnel-tested to 200 mph (320 km/h).

#### 4. WEATHER-**PROOF HOUSING**

Corrosion-resistant cover provides durability in extreme conditions. Electronics are potted or overmolded for added moisture shielding.

#### 5. RADIATION SHIELD

Provides excellent protection from solar radiation and other sources of radiated and reflected heat for accurate temperature and humidity readings.

#### 6. TEMPERATURE & **RELATIVE HUMIDITY**

Provides outside temperature readings from -40° F to 150° F (-40° C to 65° C) and measures relative humidity from 1 to 100%.

#### 7. EASY INSTALLATION

Installs easily and quickly with included mounting hardware kit.

8. WIND DIRECTION

Measures wind

direction in

# when needed.

Allows for more accurate collection

#### 10. BUILT-IN **BUBBLE LEVEL**

9. SOLAR PANEL

Energizes the station

during the day. Onboard supercapacitor provides

power at night. Lithium

battery provides backup

installation and better data



6250 Vantage Vue



 The Sensor Suite mounts on poles from 1.00" to 1.75" (2,54 cm to 4,45 cm) in diameter (pole not included).

# Vantage Pro2<sup>™</sup>: **Professional and rugged**

Vantage Pro2 and Vantage Pro2 Plus offer the professional weather observer or serious weather enthusiast robust performance with a wide range of options and sensors. You'll get your own local forecast, highs/lows, totals or averages, and graphs for virtually all weather variables over the past 24 days, months, or years—all on the console. Vantage Pro2 uses frequency-hopping, spread-spectrum radio to transmit and receive data up to 1,000 ft. (300 m) line-of-sight. Vantage Pro2 is also an excellent choice for emergency professionals, farmers, educators, researchers, municipalities, and others, to monitor wind and moisture conditions, irrigation requirements, and potential flooding.

#### Features:

- Up to 10x faster updates than the competition. (Every 2.5 seconds.)
- Wireless transmission 3x farther than the competition. (1,000 ft./ 300 m from station to console.)
- UV/solar radiation and evapotranspiration updates. (Included with Vantage Pro2 Plus, optional for Vantage Pro2.)
- Large, backlit 3.5"  $\times$  6" (9  $\times$  15 cm) LCD screen.

# 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, partly cloudy, rain, or snow. 12-hour icon forecast plus 24–48 hour ticker-tape forecast at the bottom of the console screen.

#### 3. MOON PHASE

Track the eight phases of the moon.

#### 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.

#### 6. RETRANSMITS

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

#### 7. BAROMETER

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

#### 8. FIXED DISPLAY

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

#### 9. SOLAR RADIATION

Included on Vantage Pro2 Plus. View solar radiation, highs for the day, month, and year, as well as evapotranspiration and Temp/Hum/Sun/Wind (THSW) index. Set alarms for high readings.

#### 10. UV

Included on Vantage Pro2 Plus. View current UV index, UV index for the day; the daily, monthly, and yearly highs; or change scale to see UV in current, hourly, and daily MEDs. Set alarm to warn of high UV dose/index.

# 11. 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.)

#### 12. RAIN

Umbrella icon appears when it is currently raining. View last 24 storm totals with start and end dates. View daily, monthly, or yearly rainfall and rain rate.

#### 13. STATUS INDICATOR

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

#### 14. CONTROL KEYS

Use arrow keys to scroll through data on the graph or view highs and lows over time. "Plus" and "minus" keys simplify data toggling.

#### 15. TICKER-TAPE DISPLAY

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

#### 16. GRAPHS

Graphs 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.

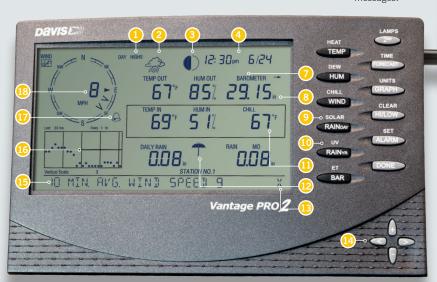
Vertical scale changes depending on what you are graphing.

#### 17. ALARMS

Set more than 70 alarms for multiple functions simultaneously.

#### 18. WIND

Compass rose with 16 points shows current and dominant wind direction. Inside the 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 Sensor Suite (pictured below) that combines our rain collector, temperature and humidity sensors, and anemometer into one package. You can customize your Vantage Pro2 by adding extra consoles or the Sensor Transmitter options shown on page 31. Vantage Pro2 weather stations are available in both wireless and cabled versions. Vantage Pro2 Plus includes UV and Solar Radiation sensors; however, all stations can be customized with either.

Vantage Pro2 stations
(See pages 10-11 for models) PATENTED













Pair with a data collection product (pages 14-17) to access data anywhere, anytime, and on any device with the WeatherLink Cloud.

#### 1. 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 tunneltested to 200 mph (320 km/h).

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

Optional Sensor Transmitter allows you to mount the anemometer even further from the rain collector and the rest of the Sensor Suite.

#### 2. RAIN COLLECTOR

The AeroCone Rain Collector meets the collection area guidelines of the World Meteorological Organization. Reads rainfall amounts in 0.01" increments. Metric versions measure in 0,2 mm increments. Includes improved debris screen and spikes to keep birds from landing.

# 3. PASSIVE RADIATION SHIELD

The most effective passive shelter available. Protects your Temperature/Humidity Sensor from solar radiation and other sources of radiated and reflected heat. Multi-

plate construction for maximum airflow

#### 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 to power the motor-driven fan.

# 5. TEMPERATURE & HUMIDITY SENSORS

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

#### 6. SOLAR PANEL

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

#### 7. WEATHER-RESISTANT SHELTER

Provides protection against the elements for the Sensor Suite's electronic components.

#### 8. SOLAR RADIATION AND UV SENSORS (VANTAGE PRO2 PLUS)

Includes sensors to track solar radiation, evapotranspiration and UV indices. Time measures are programmable to meet your specific needs. Sensors can be added separately

to the Vantage Pro2.

## 9. OPTIONAL MOUNTING POLE

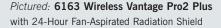
One of several installation options. For more, including our mounting tripod, see page 12.





**6152 Wireless Vantage Pro2**. Includes built-in bubble level for accurate installation. The aluminum-plated tipping bucket in our rain collector is self-emptying, corrosion-resistant, and laser-calibrated for exceptional accuracy.

See page 41-42 for installation diagrams.



# **Weather Stations**

Choose the configuration that's right for you. The Davis Vantage line is offered as a full weather station (Sensor Suite and console) or a stand-alone Sensor Suite (without console).



Davis accuracy in a self-contained, easyto-install system.

Includes solarpowered transmitter. Create a customized professional station with a wide range of options and sensors. Solar-powered transmitter and detachable anemometer.

Choose a cabled station for the most economical installation where lightning risk is minimal. Choose wireless for easiest installation, additional sensor options and reduced risk of lightning damage.

Includes UV & Solar Radiation sensors.

24-Hour Fan Aspiration model achieves maximum accuracy of temperature & humidity readings by circulating the air. Ideal for arid climates.

		and reduced its	or lightning dar	nago.			
The Davis line of Vantage weather stations is 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.	6250 Wireless	6152C Cabled	6152 Wireless	6153 Wireless w/Fan	6162C Cabled	6162 Wireless	6163 Wireless w/Fan
CONSOLE							
Should be run using the included AC-power adaptor. 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 adaptor.	•		•	•		•	•
12-hour advance forecast icons	•	•	•	•	•	•	•
24-48 hour advance forecast ticker-tape		•	•	•	•	•	•
Weather center with scroll-through data screens	•						
SENSOR SUITE							
Anemometer, rain collector, temperature, and humidity sensors	•	•	•	•	•	•	•
Detachable anemometer with 40' (12 m) cable		•	•	•	•	•	•
Solar Radiation Sensor		Optional	Optional	Optional	•	•	•
UV Sensor							
DATA TRANSFER							
100' (30 m) cable		•			•		
Solar-powered wireless transmitter with battery backup	•		•	•		•	•
RADIATION SHIELD							
Standard Radiation Shield	•	•	•		•	•	
Daytime Fan-Aspirated Radiation Shield		Optional	Optional		Optional	Optional	
24-Hour Fan-Aspirated Radiation Shield				•			•
ADD-ONS							
Additional consoles to view data in more than one location	Optional		Optional	Optional		Optional	Optional
Special-purpose Wireless Leaf & Soil Moisture/ Temperature Station			Optional	Optional		Optional	Optional
Sensor Transmitter			Optional	Optional		Optional	Optional

# **Sensor Suites**

Don't need a console? Your data can be pushed directly to the WeatherLink Cloud with a data collection device (pages 14-17) and a Sensor Suite that includes just the outdoor sensors. Sensor Suites are a great choice for those who want to access their data only on their smartphone, tablet, or computer; or who want to integrate the Sensor Suite into an EnviroMonitor system. Choose from wireless or cabled, in a variety of options. (No console included.)



		191			PR.			
Vantage Vue	Vantage Pro2 e Shown here: 6322			GroWea	Vantage Pro2 Plus here: 6820 Shown here: 6328		lus	
6357	6322C	6322	6323	6820C	6820	6327C	6327	6328
Wireless	Cabled	Wireless	Wireless	Cabled	Wireless	Cabled	Wireless	Wireless
			w/Fan					w/Fan
	EM			EM		EM		
SENSOR SUITE								
•	•	•	•	•	•	•	•	•
	•	•	•	•	•	•	•	•
	Optional	Optional	Optional	•	•	•	•	•
	Optional	Optional	Optional	Optional	Optional	•	•	•
DATA TRANSFER								
	•			•		•		
•		•	•		•		•	•
RADIATION SHIELD								
•	•	•		•	•	•	•	
	Optional	Optional		Optional	Optional	Optional	Optional	
			•					•

# Three ways to upgrade your Vantage Pro2

# 1. Choose a wireless model

- Listen to up to eight channels of data.
- Use multiple consoles with one station.
- Move the console wherever you want.

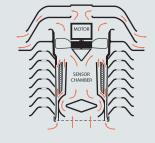
# Sensor Suite

# 2. Choose a Plus model

- Solar and UV sensors come pre-installed.
- Console calculates ET
- Save money over buying separately.



Shown here: Solar and UV sensors, and mounting shelf.



# 3. Choose a model with 24-Hour Fan-Aspirated Radiation Shield

Models 6153, 6163, 6323, and 6328 include our patented 24-Hour Fan-Aspirated Radiation Shield for maximum accuracy of temperature and humidity readings. A motor-driven fan draws a constant airflow through the sensor chamber at 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 slows to 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 sunlight 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.

NIST

All consoles and Sensor Suites are NIST traceable except for the Vantage Vue Sensor Suite.

# Installing your weather station

Davis weather stations give you accurate data wherever they are installed. Whether you want to know the temperature on your back deck, are concerned about the wind speed in your garden, or want to report your data to NOAA, Davis weather stations can be installed to perfectly suit your needs.



Vantage Pro2 on Mounting Tripod

#### **Mounting Pole Kit**

Ideal for mounting a Vantage Sensor Suite, Vantage Connect, or EnviroMonitor Gateway/Node to a preexisting structure such as a deck, fence post, or roof eaves. 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) pole. Outside diameter is 1.31" (33 mm). Includes mounting hardware.

7717 Mounting Pole Kit





#### **Mounting Tripod**

This galvanized steel tripod with tilting brackets makes for an easy installation anywhere, even on a roof or uneven surface. Perfect for mounting any Sensor Suite, Vantage Connect or EnviroMonitor Gateway/Node. Poles measure 36.38" (0,92 m) long. Assemble the two together to make a single 69.75" (1,77 m) pole. Outside diameter is 1.31" (33 mm). For ground installation use 7716A, which includes three 18" (0,46 m) lag bolts.

7716 Mounting Tripod 7716A Mounting Tripod with 18" (0,46 m) lag bolts







Vantage Vue on Mounting Pole

#### **Installation Guidelines**

Mount your Vantage Vue or Vantage Pro2 Sensor Suite:

- 5-7 feet (1,5-2,1 m) above the surface (ground or roof).
- Over a flat area that is gently sloping, regularly mowed, or naturally landscaped, with good drainage.
- Away from heat radiators, such as asphalt or air conditioning units.
- Where you can access the rain collector for maintenance.

- At least 2 feet (0,6 m) above the average maximum yearly snow depth.
- So that the anemometer is not blocked by surrounding obstructions such as trees or buildings.
- The Vantage Pro2 anemometer can be extended from the station with the 40 ft. (12 m) included cable, or by combining with a Sensor Transmitter. (See page 31 for options.)



# Why Davis Instruments:

When you purchase a Davis Instruments weather station, you join a community of weather enthusiasts and professionals around the world that are committed to collecting, analyzing, and sharing accurate weather data. Our products are meant to withstand the harshest environments and many of our customers have enjoyed their stations for over a decade with minimal routine maintenance.

#### Made by "US"

Our products are designed, assembled, and rigorously tested by the Davis team at our headquarters in Hayward, California.

#### **Durability**

Our weather stations go through a minimum of 10 tests before shipping. They have been engineered to withstand corrosion, 200 mph (90 m/s) winds, the scorching sun, and extreme temperatures.

#### **Precision & Accuracy**

Our products provide scientific-grade precision and accuracy. We have spent decades improving and refining every sensor that we make.

#### **Value**

Our products are designed to provide professional-grade instruments at an affordable price. You can find a cheaper station, but you won't be disappointed by a Davis station.



# WeatherLink Network:

# The Davis online community

Join the WeatherLink Network by connecting your weather station to the WeatherLink Cloud to access your data anywhere, anytime on WeatherLink.com and the WeatherLink mobile apps.

See pages 19-21 for more information.



# **New** WeatherLink Live:

# A smart way to stream live data

WeatherLink Live makes getting your data from any Davis sensor simple, reliable, and fast. This data hub uses Davis's dependable, frequency-hopping, spreadspectrum radio to collect data from a network of indoor and outdoor sensors. Access your data from the WeatherLink Cloud on the website and mobile apps.

#### Monitor YOUR environment

Configure a custom network of multiple Davis sensors with one WeatherLink Live.

Add any combination of up to eight of the following:

- Vantage Vue Sensor Suites
- Vantage Pro2 Sensor Suites
- Sensor Transmitters with up to five sensors (pages 31-35)
- Wireless Leaf & Soil Moisture/Temperature Stations (page 31)

#### Welcome to the smart home

- Ask Amazon's Alexa about your weather.
- Connect your data to smart irrigation systems or other IoT/smart home devices.

#### Securely share your data

Contribute your weather data to the global WeatherLink community.

#### Enjoy real-time data

Experience the fastest reporting weather data on the market with any personal device.

#### Never lose data

- Safeguard recorded data with WeatherLink Live's internal auxiliary memory.
- Protect against data loss with redundant battery backup.

#### Effortless setup

- Simple Bluetooth setup using the WeatherLink app.
- No Wi-Fi? No problem. Easily connect to Ethernet with the included cable.

#### Long-range wireless data

Depend on Davis's industry-leading, proprietary, frequency-hopping, spreadspectrum radio to transmit data up to 1,000 ft. (300 m).



Note: WeatherLink Live is not compatible with WeatherLink Computer Software.



# Remote cellular telemetry solutions

Vantage Connect and the EnviroMonitor Gateway combine cellular technology with an integrated data logger to transmit real-time sensor data to the WeatherLink Cloud. From there, you can view data on WeatherLink and Mobilize apps.

These units are self-contained, weather-resistant, and powered by a 5-watt solar-panel. They include a 6-volt rechargeable battery and come with mounting hardware.



#### **Vantage Connect:**

Single Point Cellular Solution

Vantage Vue or Vantage Pro2

Maximum number of Davis transmitters

1,000 ft.

(300 m)Transmitter to Vantage Connect

Wireless Point-to-Point Network Communication

**Davis Compatible Sensors** 

- Perfect for collecting weather and sensor data in remote locations.
- Combine up to eight Davis transmitters configured with a selection of Davis sensors.
- Compatible with both wireless and cabled Sensor Suites.

6621 Vantage Connect, CDMA 6622 Vantage Connect, 2G/3G





#### **EnviroMonitor Gateway:**

Expandable Cellular Mesh Network

GroWeather or Vantage Pro2

Maximum number of **EnviroMonitor Nodes** 

4,000 ft.

(1,200 m)Node to Gateway

Wireless Mesh Network Communication

Davis & **Third-Party** Compatible Sensors

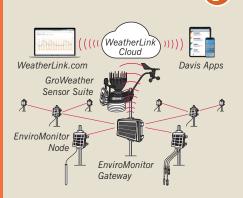


Bluetooth enabled

- Perfect for building a flexible network with multiple sensors.
- Connects with 25+ Nodes, each with up to four sensors.
- Compatible with cabled Sensor Suites.
- · Compatible with Davis and industry-leading, third-party sensors.
- Simple Bluetooth setup using the EnviroMonitor app.

See pages 22-29 for more information on EnviroMonitor.

6801 EnviroMonitor Gateway



#### **Annual Service Plan**

Each Vantage Connect and EnviroMonitor Gateway/Node requires an Annual Service Plan. Annual subscriber fees depend on the selected update interval frequency. The Vantage Connect and EnviroMonitor Gateway require a one-time activation fee (#6645).

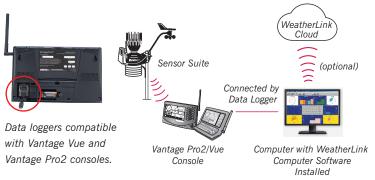
VANTAGE CONNECT			ENVIROMONITOR GATEWAY & NODES				
Update	Annual Service Charge/		Update	Annual Serv	vice Charge/	Annual Serv	vice Charge/
Interval	Product Number		Interval	Product	Number	Product	Number
	Per Vantage Connect			Per Ga	ateway	Per I	Node
5 minutes	Call	6632A	5 minutes	Call	6892	Call	6882
15 minutes	Call	6634A	15 minutes	Call	6894	Call	6884
60 minutes	Call	6636A	60 minutes	Call	6896	Call	6886

#### WeatherLink USB and Serial Data Loggers

The USB and Serial Data Loggers connect the console to a computer running WeatherLink Computer Software. Optionally upload data to the WeatherLink Cloud with an internet-connected computer that is on and running the software. Free Windows and Mac WeatherLink Computer Software is available for download on WeatherLink.com.

6510USB USB Data Logger 6510SER Serial Data Logger





#### Weather Envoy™

Receive data from a Vantage Pro2 Sensor Suite, a Vantage Vue Sensor Suite, or other Sensor Transmitters. Use with a required WeatherLink data logger to push data securely to the WeatherLink Cloud and access for FREE on WeatherLink.com and the WeatherLink Mobile app. From there you can view, share, compare, and download data. With the WeatherLink Computer Software, you can collect and store data from the outdoor sensors and download it directly to your computer.

6316 Wireless Weather Envoy 6316C Cabled Weather Envoy



# Use the data collection device that's right for you











WeatherLink Live	WeatherLink USB	WeatherLink Serial	Vantage Connect	EnviroMonitor
Weather Link Live	WeatherLink USD	Weather Link Senai	vantage Connect	Gateway

Data transmission	Wi-Fi/Ethernet	USB	Serial	Cellular	Cellular
Data upload to WeatherLink Cloud requires computer and software running 24/7	No	Yes	Yes	No	No
Streams live data within LAN	Yes	No	No	No	No
Typical installation location*	Indoor	Indoor	Indoor	Outdoor	Outdoor
Console or Envoy required	No	Yes	Yes	No	No
Storage capacity**	180 days	104 days	104 days	90 days	180 days
Power source	AC/battery back-up	AC/battery via Console/Envoy	AC/battery via Console/Envoy	Solar/battery back-up	Solar/battery back-up
Annual service plan required	No	No	No	Yes	Yes
Product Number	6100	6510USB	6510SER	6621 or 6622	6801

<sup>\*</sup>Data loggers noted as indoor can be installed in a Solar Power Kit for use outdoors. (See page 34.)

<sup>\*\*</sup>Based on data from one Sensor Suite at a 15-minute archive interval.

### **Choose Your View**

Access, analyze, share, and compare your weather data from any connected device, console, or desktop computer. Customize your bulletin dashboard of current conditions, use forecasts, chart historical data, and share your data with the WeatherLink Network and beyond.



# WeatherLink: Best-in-class meteorological data viewing

Our data-viewing options give you access to WeatherLink.com and apps from anywhere on any device via the WeatherLink Cloud or by downloading the WeatherLink Computer Software directly to your computer. You can also combine these two options. Both options are completely FREE, with the ability to upgrade based on your data needs. Pair your software needs with a compatible data-collection device to view and record weather and sensor data.

#### WeatherLink Cloud

The WeatherLink Cloud family of products offers the ultimate in versatility for access to your data. With the completely FREE Basic tier you can view



current conditions on WeatherLink.com or the WeatherLink Mobile app anywhere, on any internet-connected device.

Upgrade to a Pro account for access to all historical data, charting, and raw data exports for a full-featured analysis tool.

WeatherLink Cloud is compatible with all Davis data-collection products. See page 17 for details.

#### WeatherLink Computer Software

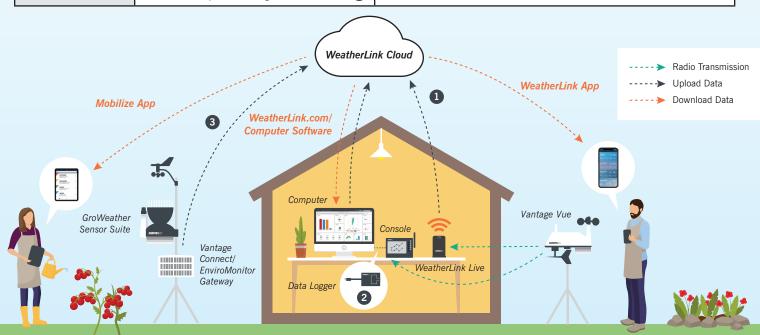
The FREE WeatherLink Computer Software is available for download with a FREE WeatherLink.com account. It allows you to store data directly on your computer's hard drive. The software package includes the ability to graph



multiple variables and export data to popular spreadsheet and database programs.

Use an internet-connected computer turned on 24/7 to share data with the WeatherLink Cloud for FREE. (Data logger required.)

	WeatherLink Cloud Access your data from any connected device	WeatherLink Computer Software Access from a single computer, optionally connect with WeatherLink Cloud
WeatherLink Live	Automatically sends data to WeatherLink Cloud.	<b>Download</b> data from WeatherLink Cloud to Computer Software.  WeatherLink Computer Software is not compatible with WeatherLink Live.
Vantage Connect EnviroMonitor Gateway	0 3	weatherLink Computer Software is not compatible with WeatherLink Live.
WeatherLink USB/Serial Data Logger	Optionally upload data to WeatherLink Cloud for FREE. (Data logger cabled to an internet-connected computer running 24/7)	Data <b>stored</b> and <b>analyzed</b> in WeatherLink Computer Software.

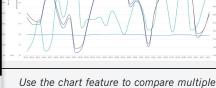


# WeatherLink.com: **All of your data, on the web**



View current conditions bulletin dashboards from the global WeatherLink Network of public stations. Free with Basic





weather data variables at the same time. Upgrade to Pro

Build a custom weather view on the bulletin dashboard. Free with Basic

#### WeatherLink Basic

With the completely FREE WeatherLink Basic account you get a versatile tool to monitor current conditions at home or around the world.

- Create a custom bulletin dashboard of current conditions with 16+ different data types.
- Share a secure station URL for anyone to view your weather data. No account required to view.
- · View local weather forecasts.
- Access the global WeatherLink Network of public stations
- Upload data to third-party sites, like Weather Underground, Globe, and CWOP.
- · Get e-mails and text alerts with preset alarms.
- Use the API to access weather data in XMI or JSON formats.

#### WeatherLink Pro

Enhance your WeatherLink experience by upgrading to Pro. Becoming a Pro unlocks a powerful set of tools.

- Visualize multiple data points at once with historical data
- Analyze and download all raw data records.
- Increase data speeds for third-party uploads and
- · Pro share a station to give Pro capabilities to up to six friends or colleagues.
- Use Mobilize web and mobile tools for smart farming and gardening.



#### WeatherLink App

View your current and forecast conditions from your station and the WeatherLink Network of public stations around the world, all from a mobile phone or tablet.

#### FREE with WeatherLink Basic.

Search "Davis WeatherLink Mobile" on iOS and Android app stores.







#### Mobilize App

Developed to help commercial growers with critical decisions, Mobilize gives any farmer or sophisticated gardener the power to track site-specific conditions related to irrigation, weather, frost, and more. See pages 26-27 for details.

Upgrade to Pro to use Mobilize.







# WeatherLink.com: Plans and pricing

	BASIC	PRO	PRO+
	\$0/mo	Call for Price	Call for Price
<sup>1</sup> Current Conditions	<b>\</b>	<b>✓</b>	<b>✓</b>
<sup>2</sup> Map	<b>\</b>	<b>&gt;</b>	<b>✓</b>
<sup>3</sup> Chart	X	<b>&gt;</b>	<b>&gt;</b>
⁴ Data	×	<b>&gt;</b>	<b>&gt;</b>
<sup>5</sup> Mobilize	X	<b>&gt;</b>	<b>✓</b>
<sup>6</sup> Device Upgrades	0	3	10
<sup>7</sup> Pro Shares	0	6 per upgraded device	10 per upgraded device
8 Third-Party Upload Rate	15 minutes	5 minutes	Up to 1 minute

- 1. Current Conditions: Build and customize your bulletin dashboard to receive current data updates from all of your installed sensors. You can move and resize tiles to see the data just the way you like it.
- 2. Map: Use the WeatherLink map to view and interact with the community of public stations in our worldwide WeatherLink Network. Click on a station to see a summary of current data and click "bulletin" to see the station's customized weather dashboard.
- **3. Chart:** Visualize any of your sensor data with custom line and bar charts on up to four different y-axes. Zoom into an hour of data or out to a full year to view details and trends.
- **4. Data:** Access all of your raw sensor data at the click of a button. You can sort by date/time or data type and export any data set directly to an Excel-friendly .csv file.

- **5. Mobilize:** Use the Davis Mobilize app on iOS or Android to create custom frost, weather, crop, IPM, and irrigation reports to view on WeatherLink.com and mobile. It's robust enough to protect your farm crop from frost—and fun for the data-savvy backyard gardeners looking to perfect their tomato crop.
- **6. Device Upgrades:** Upgrade a device to access historical data, charting, and the ability to Pro Share.
- **7. Pro Shares:** Pro Share your device to give another user access to historical data and charting.
- **8.** Third-Party Upload Rate: This is the rate at which you can upload your device's data to a third-party site such as Weather Underground, GLOBE, or CWOP.

Pro account is FREE with a Vantage Connect or EnviroMonitor Gateway Service Plan.

# Vantage Consoles: **Dynamic data- visualization tools**

Davis consoles have been the primary window to real-time weather data for many users. The industrial-grade devices are loaded with features far beyond any other on the market. Displaying current conditions is just the beginning. From the user-friendly keyboard to the backlit screen, these consoles allow you to graph up to 80 different parameters and set up to 70 different alarms simultaneously. With some of the fastest updates (as fast as every 2.5 seconds) and a wireless transmission distance of up to 1,000 ft. (300 m), it's easy to understand why Davis consoles are trusted tools. See page 32 for details.



6312 Vantage Pro2 Console

6351 Vantage Vue Console

6351 Vantage Vue Console/Receiver 6312 Wireless Vantage Pro2 Console/Receiver



**P22** 

the easily expandable EnviroMonitor system to build a custom network of sensors to help make critical crop decisions.

# EnviroMonitor: Make critical decisions from anywhere at anytime

EnviroMonitor is a simple and cost-effective way to get critical field data continuously transmitted from the field to your mobile devices or computer. Get the timely and meaningful information you need to manage your crops, reduce risks, and save money.





#### **EnviroMonitor Gateway**

The EnviroMonitor Gateway collects all essential data from the Nodes and pushes it securely to the WeatherLink Cloud using cellular connectivity. The data can then be accessed on your smart devices and computers. The solar-powered, cellular Gateway includes a 5-watt solar panel and a rechargeable 6-volt backup battery encased in a weather-resistant housing. Mounting hardware is included. Requires an Annual Service Plan and a one-time activation fee. (See Annual Service Plans on page 29 for details.)

6801 EnviroMonitor Gateway



Nodes connect over a self-optimizing mesh network and transmit critical sensor data to the EnviroMonitor Gateway. The solar-powered Node is self contained and weather resistant. Includes a 3-watt solar panel and mounting hardware. Each EnviroMonitor network can host 25+ Nodes.

Nodes communicate with each other, allowing complete network flexibility around barriers and across distances.



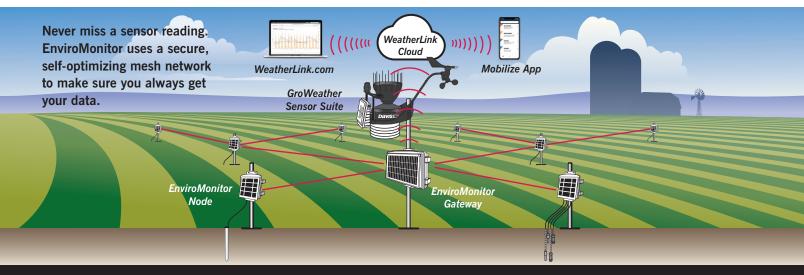
#### **Node Features**

- Connect up to 4 sensors to each Node
- Communication range: Up to 4,000 ft. (1,200 m), Node-to-Node and Node-to-Gateway

Note: Range varies with terrain and environment

- Configures easily with a smartphone
- Rechargeable lithium-ion battery (included) powers the unit at night
- 4 D-cell batteries (not included) provide backup





# Easily Expandable: EnviroMonitor is compatible with hundreds of different Davis and third-party sensors



#### It all starts with the weather

Connect a cabled Davis Sensor Suite to the Gateway to get all the benefits of complete weather monitoring. These rugged, low-maintenance Sensor Suites are available with Solar and/or UV Sensors and a variety of radiation shield options.

See pages 10-11 for Sensor Suite details.

6820C GroWeather Cabled Sensor Suite. with Solar Radiation Sensor

6327C Vantage Pro2 Plus Cabled Sensor Suite. with Solar Radiation and UV Sensors

6322C Vantage Pro2 Cabled Sensor Suite

## **Expand effortlessly with Davis** and third-party sensors

Each Node can support up to four sensors from Davis and other leading sensor manufacturers. EnviroMonitor is an open-sensor platform that is compatible with hundreds of industry-leading sensors from the manufacturers you know and trust.

See pages 33-35 for Davis sensors.



#### Compatibility

EnviroMonitor is compatible with SDI-12, analog voltage (i.e. 0-3V; 0-5V; 0-12V), contact closure, pulse, and I2C sensors. We are constantly integrating new sensors to expand the capabilities of the EnviroMonitor platform and software.

Please contact us if you would like a sensor added.

Supported Sensors: www.davisinstruments.com/em-sensors

































#### Easy to Install



Install and manage your entire EnviroMonitor sensor network with Davis Instruments' EnviroMonitor iOS and Android app. Download for FREE!

See page 27 for more information on the EnviroMonitor app.

#### Measure, Monitor, and Manage



Track all of the data from your EnviroMonitor sensor network with Davis Instruments' Mobilize iOS and Android app. Download for FREE!

See pages 26-27 for more information on the Mobilize app.

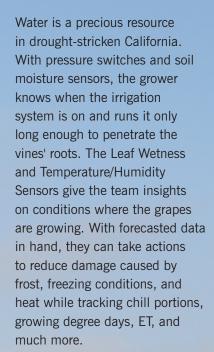
# Use Case: Getting to the root of the issue

Located in California's beautiful Livermore Valley, this historic boutique winery was built in 1889 and is still producing award-winning wines.

To help use resources wisely and reduce the damage brought on by environmental conditions, they recently installed an EnviroMonitor system.

#### The system includes:

- 1 EnviroMonitor Gateway (6800)
- 1 GroWeather Sensor Suite (6820C)
- 4 EnviroMonitor Nodes (6810)
- 3 Watermark<sup>™</sup> Soil Moisture Sensors (6440)
- 1 Leaf Wetness Sensor (6420)
- 1 Temperature/Humidity Sensor (6830)
- 2 Sentek<sup>™</sup> Soil Moisture Probes
- 4 Gems<sup>™</sup> Pressure Switches
- 1 Decagon/Meter™ Soil Moisture Sensor
- 1 Aguacheck<sup>™</sup> Soil Moisture Probe



With this installation, the team has the data they want and the ability to add additional Nodes and sensors when they're ready.

The Fenestra Winery installation has been made publicly available for viewing on WeatherLink.com. Search for "Fenestra Winery" and click "bulletin" to view a selection of weather sensors.



Temperature/Humidity Sensor (6830)



Leaf Wetness Sensor (6420)



Gems Pressure Switch





# Mobilize: Critical field data delivered to your mobile phone

Mobilize is an agriculture-focused, decision-making app with some of the latest advancements in agronomy. You can easily create custom views of your farm, receive alerts, and browse sensor data to track specific report conditions related to weather, frost, irrigation, growth cycle, pest management, and more.



#### **Irrigation Management**

Track soil moisture levels to know when, where, and how much to irrigate.

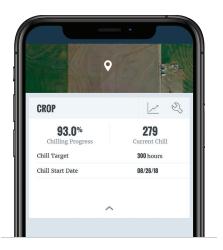
- Custom soil moisture thresholds
- Irrigation alerts
- Evapotranspiration (ET) data
- Past and forecast rain totals



#### **Frost Tracking**

Precise forecasting allows you to stay ahead of critical conditions.

- · Forecast frost conditions
- View real-time temperature threshold alerts
- Wet-bulb temperature (coming soon) and humidity tracking



#### **Crop Management**

Track key growing degree day (GDD) and chill requirements against custom targets by crop type.

- Chill and growing degree day progress tracking
- Integrated forecasts for planning

# WeatherLink.com: Your field data, your way

WeatherLink.com is the web-based portal for accessing all of your EnviroMonitor data. The website displays reports created in Mobilize and provides more ways to utilize your sensor data.

- Build a custom bulletin dashboard of visual data tiles to track key current conditions.
- · Visualize any combination of field data in the chart section.
- Analyze all of your system data in the data section, or export the data into spreadsheet-compatible formats.
- Set custom alerts for specific sensors or calculated conditions.
- Generate and share a daily data summary with anyone on your team.
- Securely share field data with colleagues.



# Forecasting Solutions: Make decisions before problems occur

Mobilize integrates forecasts into reports to help predict growing degree days for harvest, forecast frost conditions before they occur, and estimate future rain to help save water. Decisions are easier when you know what is coming.



#### Weather Monitoring

Improve daily decisions with real-time field conditions that help you plan with confidence.

- Spray confidently with locationspecific wind data
- Document extreme temperature conditions
- · Collect in-field rain data



#### **Integrated Pest Management**

Monitor pest/disease models specific to a long list of crops.

- · Track Pest Risk Index
- Update IPM models with remediation actions
- Track past, current, and future pest stages

Temperature, Humidity and Leaf Wetness sensors and Pro+ WeatherLink plan required.



#### Free Form Report

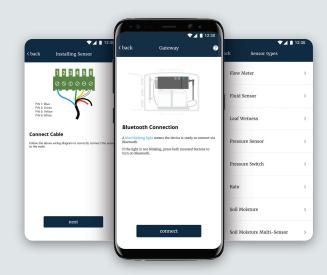
Build a custom report using any Nodes and sensors connected to a specific Gateway.

- Identify key variables to call out at top of report
- Easy-to-read data list of current data readings

# **EnviroMonitor: Effortless configuration**

The EnviroMonitor configuration app is used to easily install, monitor, and interact with your EnviroMonitor hardware and sensor systems.

- Securely connect to Gateways and Nodes with your phone via Bluetooth.
- Easily install and modify sensor configurations on Gateways and Nodes.
- Quickly determine mesh network and Gateway cellular connection strength.
- · Remotely identify and troubleshoot any sensor issues.
- Share system access with team members to allow the ability to modify or view specific systems.



# **EnviroMonitor for** any application

Build your own or pick from our application-specific systems. No matter how you configure your system, EnviroMonitor provides more features for a lower cost than the competition.







ly Farm, My Weather	IPM Systen
nitor field specific weather	Monitor weather
	manage pest cond

#### and litions

#### **Inversion System** Monitor weather and inversion conditions for frost and spray drift

- EnviroMonitor Gateway (6801)
- GroWeather Sensor Suite (6820C)

Мо

- EnviroMonitor Gateway (6801)
- EnviroMonitor Node (6810)
  - Leaf Wetness Sensor (6420)
- GroWeather Sensor Suite (6820C)
- EnviroMonitor Gateway (6801)
- EnviroMonitor Node (6810)
  - 2 Temp/Hum Sensor w/Radiation Shield (6830)
- · GroWeather Sensor Suite (6820C)

Annual		
(15-minu	ite interva	/)

Sensors and Hardware

**Activation Fee** 

**EnviroMonitor First Year Price** 

#### Mobilize Reports & **Agricultural Applications**

**Optional Sensors** 

#### Farm Weather:

- Rainfall
- Frost Alarms
- · Growing Degree Days
- Chill Requirements
- Evapotranspiration
- · Wind Speed & Direction Monitor UV conditions:

### Upgrade to Vantage Pro2 Plus (6327C)

Call

Call

#### Farm Weather Plus:

- Leaf Wetness
- Integrated Pest Management (Requires Pro+ Account)

Add Temp/Hum Sensor (6830)

#### Farm Weather Plus:

Inversion Monitoring for Frost and Minimizing Spray Drift Risk

Call

- Monitor additional canopy Profile wind for spray conditions: conditions: Add extra Anemometer (6410)
  - Manage irrigation:
  - Add Soil Moisture Sensor (6440)

# Soil Moisture Sensor

Set up sensors to trigger alerts when frost is a threat. Stay on top of irrigation needs with soil moisture sensors and a pressure switch.



#### **Center Pivot**

Irrigation is what matters most. Soil moisture sensors throughout the farm will help determine when and how much to irrigate.



#### **Irrigation System** Monitor weather and a single irrigation set

- EnviroMonitor Gateway (6801)
- EnviroMonitor Node (6810)
  - 3 Soil Moisture Sensors (6440)
  - Pressure Transducer (third-party)
- GroWeather Sensor Suite (6820C)

#### Advanced Irrigation System Monitor weather, pump flow and two irrigation sets

- EnviroMonitor Gateway (6801)
- GroWeather Sensor Suite (6820C)
- EnviroMonitor Node A (6810)
  - Flow Meter (third-party)
  - Pressure Transducer (third-party)
- 2x EnviroMonitor Node B (6810)
  - 3 Soil Moisture Probes (6440)
  - Pressure Transducer (third-party)

_
_

Farm Weather & Irrigation System Plus:

#### Call Call

#### Farm Weather Plus:

- · Irrigation Set Monitoring
- · Control Irrigation Costs and Overuse

#### · Multiple Irrigation Set Monitoring

- Monitor Pump Flow

#### Monitor multi-level soil moisture: Upgrade to third-party soil moisture

profile probe

Monitor additional irrigation sets: Add Node and listed sensors

Monitor additional irrigation sets: Add Node B and sensors

Monitor multi-level soil moisture:

Upgrade to third-party soil moisture profile probe

# **Annual Service Plans**

The annual fee is calculated for each Gateway and Node activated and billed on a single anniversary date. EnviroMonitor offers three upload interval choices to meet your needs. A Gateway requires a one-time activation fee (#6645).

Contact us directly for annual service plan information and availability for customers outside the US.

#### **Plans for Gateway**



Update Interval	Annual Service Charge/ Product Number  Per Gateway		
5 minutes	Call	6892	
15 minutes	Call	6894	
60 minutes	Call	6896	

#### Plans for Node



Update Interval	Annual Service Charge/ Product Number Per Node			
5 minutes	Call	6882		
15 minutes	Call	6884		
60 minutes	<b>Call</b> 6886			



#### **Greenhouse and Nursery**

Monitor the weather conditions on your site. Measure temperature and humidity inside each greenhouse for a holistic approach to decision-making.



#### **Row Crops**

Monitoring soil moisture is crucial for effective and economic irrigation. Add precise current weather data to track growing degree days.

### **Exceptional Sensors, Easy Integration**

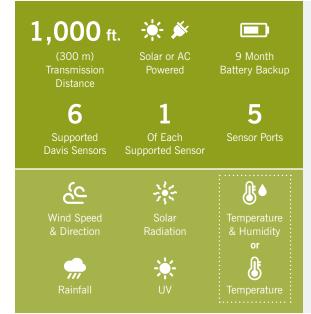
Easily create a flexible network of sensors to measure a wide variety of conditions: rain, wind, temperature, humidity, and more. Whether you're installing sensors throughout your yard, across the city, or covering an entire state, Davis has a solution that's right for you.



# **Build a custom network of Davis sensors**

Add Sensor Transmitters to your WeatherLink Live, Vantage Connect, Weather Envoy and Vantage Pro2 Console to create a custom network of sensors designed to measure your specific environment.





#### **Sensor Transmitters**

Sensor Transmitters are the building blocks of your custom network of sensors. They can be positioned indoors or outdoors and are capable of transmitting data up to 1,000 ft. (300 m). Each transmitter can support up to five sensors, including an Anemometer, Rain Collector, Temperature Probe or Temperature & Humidity Sensor, UV Sensor and Solar Radiation Sensor.

Combine Sensor Transmitters with a WeatherLink Live to take full advantage of the devices' capabilities.

See the ST symbol on pages 33-34 for compatible sensors and page 41 for transmitter configuration options.

Includes transmitter in weather-resistant housing, mounting hardware, solar panel, and backup battery.

#### 6332 Solar-Powered Wireless Sensor Transmitter

Includes transmitter in weather-resistant housing, mounting hardware, backup battery, and 6.5 ft. (2 m) power adaptor cable.

NEW 6331 AC Powered Wireless Sensor Transmitter



#### Wireless Leaf & Soil Moisture/Temperature Station

Robust enough for large-scale agriculture and simple enough for backyard gardening. A fully-populated station can have two Leaf Wetness Sensors, four Soil Moisture Sensors, and four Temperature Probes. Available in two weather-resistant models, without sensors (6345) or with sensors (6345CS). Compatible with 2-Wire Termination Stainless Steel Temperature Probe (6470).

See the SM symbol on page 33 for compatible sensors.

Includes transmitter in weather-resistant housing, mounting hardware, solar panel, and backup battery. Add sensors that meet your requirements.

6345 Wireless Leaf & Soil Moisture/Temperature Station (without sensors)

Includes transmitter in weather-resistant housing, mounting hardware, solar panel, backup battery, 4 soil moisture sensors, and 4 temperature probes.

6345CS Complete Wireless Soil Moisture/Temperature Station with 4 Soil Moisture Sensors and 4 Temperature Probes









#### **Applications**

- Pool
- Greenhouse
- Basement/crawl space
- Garage
- · And many others



Separate the Vantage Pro2 Anemometer up to 1,000 ft. (300 m) with a Sensor Transmitter.



Use a Wireless Leaf & Soil Moisture/ Temperature Station to monitor important growing conditions.



Monitor temperature and humidity where it matters most.

# Add another console to any room

#### Vantage Vue and Wireless Vantage Pro2 Console

Add additional Vantage Vue or Vantage Pro2 Consoles to display weather data in the den, bedroom, kitchen-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 your console as a repeater, retransmitting the data from one console to another and extending the transmission range up to another 1,000 ft. (300 m). With Vantage Pro2 only, an additional console can receive data directly from any of our sensor transmitters (see page 31 & 41 for additional details).

#### 6351 Vantage Vue Console/Receiver







6312 Wireless 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 repeaters in a daisy chain, retransmitting from a single Vantage Pro2 or Vantage Vue Sensor Suite, or Sensor Transmitter. You can also build a network of repeaters and wireless stations, with some repeaters listening to multiple stations, each with their own unique ID. For use with any Davis wireless transmitter and receiver, except WeatherLink Live.

#### Long-Range Wireless Repeater

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. Range varies



depending on antenna height, the terrain and foliage, buildings, other man-made structures, and RF interference. Ideal for agricultural or research applications where long distances are an issue. Solar-powered with lithium backup battery (included). Antennas are sold separately.

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





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

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

#### **Antennas for Long-Range Repeater**

For use with our long-range repeater. 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

- Dipole antennas are found on all Davis wireless weather stations and standard repeaters.
- \*\* Typical distance will be less. Outdoors, line-of-sight with minor obstructions or interference, typical distance is about 50 - 80% of the maximum. Through walls or in areas with high RF interference, typical distance may be as low as 20 - 40% of the maximum.

#### **Standard Wireless Repeater**

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 is 200 ft. to 400 ft.

(60 to 120 m). Solar-powered with lithium backup battery (included).

7627 Standard Wireless Repeater, Solar-Powered



## Sensors



#### 1. 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 of 200 miles per hour (322 km/h). Sealed stainless steel ball bearings for long life. Comes complete with mounting hardware. Includes 40 ft. (12 m) cable.

6410 Anemometer







### 2. Turbo Meter™

Reads wind speed in mph, knots, fpm or m/s. Turbine suspended on sapphire jewel bearings responds to the lightest of winds. 3-digit display offers excellent viewing contrast both in bright sunlight and at night. Requires 3 AAA alkaline batteries (not included). 3 oz (85 g) not including batteries.

271 Turbo Meter





#### 3. AeroCone® Rain Collector with Flat Base\*

Designed to meet the guidelines of the World Meteorological Organization, our self-emptying rain collector is exceptionally accurate. Measures in 0.01" or 0,2 mm increments. Flat Base makes mounting to flat surfaces easy. Includes mounting hardware and 40 ft. (12 m) cable, bird spikes, and debris screen.

6463 Rain Collector









#### 4. AeroCone® Rain Collector with Mountable Base\*

Uses the Vantage Pro2 base for easy mounting on a pole, post, or flat surface. Meets the guidelines of the World Meteorological Organization. Measures in 0.01" or 0,2 mm increments. Includes mounting hardware and 40 ft. (12 m) cable, bird spikes, and debris screen.

6465 Rain Collector with Mountable Base











\*Sensor comes with RJ Connector.





# **10 10** 9. Soil Moisture Sensor

5. Leaf Wetness Sensor\*

Use to monitor the level of surface moisture on foliage 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. New Temperature/Humidity Sensor\*

Features both temperature and humidity sensors inside a protective housing. Ideal for indoor use. Includes mounting hardware, and 25 ft. (7,6 m) cable.

6834 Temperature/Humidity Sensor









#### 7. Temperature/Humidity Sensor with Radiation Shield\*

Features both temperature and humidity sensors inside a radiation shield which protects the sensors from solar radiation and other sources of radiated and reflected heat. Includes 6 plates, hardware for mounting on a fence post or pole, and 25 ft. (7,6 m) cable.

6830 Temperature/Humidity Sensor with **Radiation Shield** 







#### 8. Temperature/Humidity Sensor with 24-Hour Fan-Aspirated Radiation Shield\*

Features both temperature and humidity sensors inside the 24-Hour Fan-Aspirated Radiation Shield which protects the sensors from solar radiation and other sources of radiated and reflected heat. This model includes a solar panel to power the motor-driven fan. Includes 10 plates, hardware for mounting on a fence post or pole, and 25 ft. (7,6 m) cable.

6832 Temperature/Humidity Sensor with

RJ Connector Node Adaptor (part #6860)

needed when using with EnviroMonitor.

24-Hour Fan-Aspirated **Radiation Shield** 



Uses electrical-resistance Watermark soil moisture sensor to measure the moisture level of the soil. Does not require periodic maintenance during the growing season. Simply bury at the desired depth to 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.

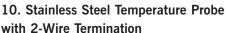
6440 Soil Moisture Sensor







COMPONENTS NOT SHOWN TO SCALE



Multi-purpose temperature probe with 2.5" (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 with 2-Wire Termination









#### 11. Stainless Steel Temperature Probe with RJ Connector\*

Multi-purpose temperature probe with 2.5" (64 mm) long stainless steel housing. Use to measure temperature of air, soil, or water. Use with Weather Envoy or Sensor Transmitters. Includes 25 ft. (7,6 m) cable.

6475 Stainless Steel Temperature Probe with RJ Connector











#### 12. Temperature Probe with RJ Connector\*

Temperature probe with durable plastic housing. Use to measure temperature of air, soil, or water. Use with Weather Envoy or Sensor Transmitters. Includes 25 ft. (7.6 m) cable.

6477 Temperature Probe with RJ Connector











\*Sensor comes with RJ Connector. RJ Connector Node Adaptor (part #6860) needed when using with EnviroMonitor.

See pages 10-11 for our line of Sensor Suites. See page 42 for extension cables and maximum cable lengths.

#### 13. Solar Radiation Sensor\*

Measures the intensity of solar irradiance. enabling display of incident power (Watts per square meter) and cumulative energy (Langleys). Diffuser element and housing are designed specifically for accurate cosine response. Silicon photo diode provides a 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, use the Sensor Mounting Shelf. Use the Universal Mounting Bracket for other applications. Includes 2 ft. (0.6 m) cable.

6450 Solar Radiation Sensor



#### 14. UV Sensor

Measures the intensity of the sunburning portion of the UV spectrum (UVA and UVB), closely matching the Erythema Action Spectrum. Allows you to display UV index, dose rate, and daily and accumulated dose. Latest-technology transducer and newly-designed electronics provide greater accuracy and stability. The comb structure provides improved cosine response accuracy

at zenith angles up to 90 degrees. Two-piece housing minimizes radiation heating, allows convective cooling of the sensor, and prevents the trapping of water or dust. To mount next to a Rain Collector, use the Sensor Mounting Shelf. Use the Universal Mounting Bracket for other applications. Includes 2 ft. (0,6 m) cable.

6490 UV Sensor PATENTED





#### 15. Sensor Mounting Shelf

For mounting Solar Radiation and/or UV Sensors. Rigid shelf with anodized aluminum posts and stainless steel hardware attaches easily next to the rain collector of the Vantage Pro2 Sensor Suite.

6673 Sensor Mounting Shelf

#### 16. Universal Mounting Bracket

For mounting a Solar Radiation Sensor, UV Sensor, or Radiation Shield (7714). Bracket is pre-drilled for easy mounting. Includes mounting hardware.

6670 Universal Mounting Bracket





# **Accessories**



See www.davisinstruments.com/weather/uses to view various ways to use these kits and shelter.

#### 1. Solar Power Kit

Large solar panel powers a Wireless Console or Weather Envoy inside a weather-resistant shelter. (Outdoor sensors are powered by the solar panel on the Sensor Suite). Includes a 5-watt solar panel, weather-resistant shelter, regulator circuit, 1.4-amp-hour 6-volt rechargeable battery, mounting hardware, and 10 ft. (3 m) cable.

6614 Solar Power Kit

#### 2. Heavy-Duty Solar Power Kit

Our large solar panel and a 12-amp-hour battery provide enough power for a Cabled Console and outdoor Sensor Suite or Wireless Console where more power is needed. There is enough room inside the weather-resistant shelter to mount a Weather Envoy. When used with a Vantage Vue or Vantage Pro2 Console, mount the Console inside a Universal Shelter. Includes 5-watt solar panel, weather-resistant shelter, regulator circuit, 12-amp-hour 6-volt rechargeable battery, mounting hardware, and 10 ft. (3 m) cable.

6612 Heavy Duty Solar Power Kit

#### 3. Extra Solar Panel Kit

Provides additional charging power to the battery in your Solar Power Kit (6612 or 6614), Vantage Connect, or EnviroMonitor Gateway for installations where sunlight is limited. The 5-watt solar panel is mounted on a weather-resistant shelter in which a console or Envoy can be mounted. Includes 5-watt solar panel, weatherresistant shelter, mounting hardware, and a 4 ft. (1,2 m) cable.

6616 Extra Solar Panel Kit



#### 4. Universal Shelter

Protects console and other components located outdoors. Weather-resistant enclosure provides protection from the elements for a Vantage Pro2 console or Vantage Vue console with or without a WeatherLink data logger, or for a Weather Envoy with WeatherLink data logger. Includes mounting hardware. Measures 13.75"  $\times$  10"  $\times$  4.18" (34,9 cm x 25,4 cm x 10,6 cm).

6618 Universal Shelter



#### 5. Shelter Angle Bracket

Changes the EnviroMonitor Gateway, Vantage Connect, or Universal Shelter solar panel's angle from 5 degrees to 30 degrees to increase efficiency at lower latitudes. Includes mounting hardware.

#### 6671 Shelter Angle Bracket



#### 6. AC Charger Kit

Charges the battery in a Vantage Connect or EnviroMonitor Gateway where sunlight is too low to use solar. Includes 5.5 ft. (1,6 m) cable.

#### 6710 AC Charger Kit



#### 7. Rain Collector Heater

For older Sensor Suites that do not have the AeroCone. Heater and insulation fit neatly inside the old style rain collector. For use in cold climates to measure freezing rain or the moisture content of snowfall. Requires access to AC power; cannot be run using a solar power kit. Includes 24-watt, 24-volt heater with thermal cut-off switch, control unit, insulating reflective blanket, AC-power adaptor, and 50 ft. (15 m) cable.

# 7720 Rain Collector Heater (no rain collector)

#### 7 & 7a. Rain Collector and Heater

For Sensor Suites with an AeroCone. Temporarily replace your rain cone with a straight-sided rain cone in order to use the heater. In addition to components listed above (in 7), this product includes the rain collector, debris screen, and bird spikes.

7721 Rain Collector and Heater \$240

#### 8. RJ Connector Node Adaptor

Connect sensors with RJ connectors to your EnviroMonitor Node with this adaptor.

6860 RJ Connector Node Adaptor





#### 9. 3-volt Lithium Battery CR123

Replacement 3-volt lithium battery (CR123).

8415 3-volt Lithium Battery CR123



#### 10. 6-volt 12Ah Battery

Replacement 6-volt 12Ah battery for Vantage Connect or EnviroMonitor Gateway.

#### 6712 6-volt 12Ah Battery



#### 11. Radiation Shield

Received a 5-star rating from the World Meteorological Organization. Protects temperature sensors from solar radiation and radiated or reflected heat sources. Multi-plate construction for maximum airflow. Use with Leaf & Soil Moisture/ Temperature Station and all temperature sensors. Or, install your own sensor in the sensor chamber. Sensor chamber: 4.25" x 2.5" (107,9 mm x 63,5 mm). Includes 8 plates, mounting bracket, and mounting hardware.

7714 Radiation Shield Assembly required.

# 12. Daytime Fan-Aspirated Radiation Shield Kit

An economical way to add 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. With no backup battery, the fan only runs during daylight hours and will cease running at night when solar radiation effects are reduced. Includes fan, solar panel, additional radiation shield plates, and hardware.

# 7747 Daytime Fan-Aspirated Radiation Shield Kit PATENTED



# 13. New 24-Hour Fan-Aspirated Radiation Shield

Our patented, 24-Hour Fan-Aspirated Radiation Shield helps maximize accuracy of sensor readings. A motor-driven fan draws a constant airflow through the sensor chamber at 500 feet per minute (2,5 m/s). At night, when the effects of radiation are less, this solar-powered model runs on battery power and the airflow slows to 280 feet per minute (1,4 m/s). Install your own sensor in the sensor chamber. Sensor chamber: 2.24" x 3" (56,8 mm x 76,2 mm). Includes 10 plates, rechargeable batteries, mounting hardware, and 25 ft. (7,6 m) cable.

# 6838 24-Hour Fan-Aspirated Radiation Shield

# 14. New Replacement Motor Kit without Batteries

Replacement motor for the Daytime Fan-Aspirated Radiation Shield. We recommend replacing every two years.

7758 Replacement Motor

# 15. New Replacement Motor Kit with Batteries

Replacement motor for the 24-Hour Fan-Aspirated Radiation Shield. Includes two rechargeable C-batteries. We recommend replacing every two years.

7758B Replacement Motor and Replacement Batteries \$70

#### 16. USB Power Cord

Powers the Vantage Vue Console, Vantage Pro2 Console, WeatherLink Live or the Weather Envoy. Includes 6.5 ft. (2 m) cable.

6627 USB Power Cord

# **Accuracy You Can Rely On**

We subject our products to harsh environmental testing. Every station goes through a minimum of 10 tests before shipping. If it's Davis, its accurate and reliable.



#### HUMIDITY TEMPERATURE RΔIN WIND WITH OPTIONAL SENSORS **Vantage** Console **Features** Outside Temperature Temperature (Extra) Rain Storm Amoun Temperature Direction of High Outside Humidity Rainfall Amount Humidity (Extra) nside Humidity Wind Direction **UV Radiation** Vantage Pro2 and Vantage Vue Wind Speed Dew Point Heat Index Wind Chill Rate **UV MEDs** Vantage Pro2 only Inside 1 Leaf \ Vantage Vue only Soil 10 sec 10 sec 10 sec 50 sec sec Update Interval\* 20 **CONSOLE DISPLAYS** Reading at end of update interval Total amount for the interval Average reading for the interval High reading for the interval **SET ALARMS for** Special Alarms High Reading • Low Reading **DISPLAYED** but not graphed Current Year High • • • Current Year Low GRAPHED & DISPLAYED for last 24 hrs of each of the following (25 hrs for Vantage Vue) End-of-15-Minute Period Readings End-of-Hour Period Readings • • 15-minute Period Totals • Hourly Totals **Daily Totals** • Monthly Totals Storm Totals (with start & end date) Yearly Totals 10-Minute Averages (2 min. for VV) Hourly Averages or Dominant • • Daily Averages or Dominant • Monthly Averages or Dominant • Yearly Averages One-Minute Highs Hourly Highs Daily Highs • • • • • Monthly Highs • • • • • • Yearly Highs Hourly Lows Daily Lows • • • • • Monthly Lows Yearly Low

- \*Update interval may vary depending on station ID and type of station.
- SPECIAL ALARMS
- Storm Warning: Amount of barometric pressure fall.
   Storm Clearing: Amount of barometric pressure rise.
- 2 Flash Flood Warning: 15-minute rainfall amount. 24-hour Rain Alarm: 24-hour rainfall amount.
- 3 Rainstorm Alarm: Rainfall amount for current storm.
- 4 High Wind Speed and 10-Minute Average Wind Speed Alarms
- 5 Daily Evapotranspiration Amount Alarm
- 6 Daily UV Dose Alarm





#### The GLOBE Program

Students of all ages can participate in the worldwide GLOBE program using protocols developed just for Davis weather stations.

See www.globe.gov for details.

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#### 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 approximately 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 provide this calibration service in our California factory utilizing NIST-traceable references for those customers who require it. For users who require this additional service, calibration of new and previously owned sensors is available. For the cost of individual sensors, please contact us for pricing.



Anemometers are wind-tunnel tested in our California factory.

		Vantage Vue	Vantage Pro2	USA Units			Metric Units	Except for rainfall, all v measured in US units o rounded to the nearest shown in the Resolution	f measure and metric unit n column.
Fun	ction	Va	Va	RESOLUTION	RANGE	ACCURACY ±	RESOLUTION*	RANGE	ACCURACY ±
AL.	Evapotranspiration		•	0.01"	0 to 199.99"	5%	0,1 mm	0 to 1999,9 mm	5%
=	Growing Degree-Days		0	0.1 Degree-Day	Unlimited		0,1 Degree-Day	Unlimited	
AGRICULTURAL	Cooling/Heating Degree-Days	1	0	0.1 Degree-Day	Unlimited		0,1 Degree-Day	Unlimited	
1 28	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	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
BARO	Three-Hour Trend	~	~	Slow ≥ 0.02" Hg Rapid ≥ 0.06" Hg	5-Position Arrow		Slow $\geq$ 0,5 mm (0,7 mb) Rapid $\geq$ 1,5 mm (2 mb)	5-Position Arrow	
	Inside Humidity	~	~	1%	1% to 100%	3%	1%	1% to 100%	3%
	Outside Humidity Sensor Suite	~	~	1%	1% to 100%	2%	1%	1% to 100%	2%
Ţ	Outside Humidity (T/H Sensors)		•	1%	1% to 100%	2%	1%	1% to 100%	2%
HUMIDITY	Outside Humidity (VP2 T/H Stations)		•	1%	1% to 100%	2%	1%	1% to 100%	2%
로	Inside Dew Point	0	0	0.1°F	-60° to +140°F	3°F	0,1°C	-50° to +60°C	1,5°C
	Outside Dew Point Vue	~		1°F	-105° to +130°F	3°F	1°C	-76° to +54°C	1,5°C
	Outside Dew Point VP2 Sensor Suite		~	1°F	-105° to +130°F	2°F	1°C	-76° to +54°C	1°C
=	Rainfall	~	~	0.01"	0 to 199.99"	4%	0,2 mm	0 to 6553 mm	4%
₹			1		0 to 96"/hr			0 to 2438 mm/hr	5% ≤ 127
RAINFALL	Rate of Rainfall	V		0.01"/hr	0 to 40"/hr	5% ≤ 5"/hr	0,1 mm/hr	0 to 1016 mm/hr	mm/hr
3	Solar Radiation		•	1 W/m2	0 to 1800 W/m2	5%	1 W/m2	0 to 1800 W/m2	5%
⊃   ⊗	Solar Energy		0	0.1 Ly	1999.9 Ly	5%	0,1 Ly	1999,9 Ly	5%
SOLAR	UV Dose		•	0.1 MEDs	0 to 199 MEDs	5%	0,1 MEDs	0 to 199 MEDs	5%
108	UV Index		•	0.1	0 to 16	5%	0,1	0 to 16	5%
	Inside Temperature	1	~	0.1°F	+32° to +140°F	1°F	0,1°C	0° to +60°C	0,5°C
	Outside Temperature Sensor Suite	V	~	0.1°F	-40° to +150°F	0.5°F	0,1°C	-40° to +65°C	0,3°C
	Outside Temp (T/H Sensors)	<u> </u>	~	0.1°F	-40° to +150°F	0.5°F	0,1°C	-40° to +65°C	0,3°C
	Outside Temp (VP2 Temp or T/H Stations)		•	0.1°F	-40° to +150°F	0.5°F	0,1°C	-40° to +65°C	0,3°C
	Soil or Water Temp (Temp Station)		•	1°F	-40° to +150°F	1°F	1°C	-40° to +65°C	1°C
끭	Inside Heat Index	0	0	0.1°F	+30°F to +165°F	3°F	0,1°C	-1°C to +74°C	1,5°C
	Outside Heat Index Vue	~		1°F	-40° to +165°F	3°F	1°C	-40° to +74°C	1,5°C
ER/	Outside Heat Index VP2 Sensor Suite		~	1°F	-40° to +165°F	2°F	1°C	-40° to +74°C	1°C
TEMPERATURE	Temp/Hum/Wind Index Vue	0		0.1°F	-110° to +165°F	4°F	0,1°C	-79° to +74°C	2°C
F	Temp/Hum/Wind Index VP2 Sensor Suite		0	0.1°F	-110° to +165°F	3°F	0,1°C	-79° to +74°C	1,5°C
	Temp/Hum/Solar/Wind Index VP2 Sensor Suite		•	1°F	-90° to +165°F	4°F	1°C	-68° to +74°C	2°C
	Wind Chill Vue	~		1°F	-110° to +135°F	2°F	1°C	-79° to +57°C	1°C
	Wind Chill Sensor Suite on VP2		~	1°F	-110° to +135°F	2°F	1°C	-79° to +57°C	1°C
	Wet-bulb		_	1°F	-40° to +150°F	2°F	1°C	-40° to +65°C	1°C
	Time	~	~	1 minute	12/24 hours	8 sec/mo	1 minute	12/24 hours	8 sec/mo
TIME/ DATE	Date	~	~	month/day	Leap Year	8 sec/mo	day/month	Leap Year	8 sec/mo
= 2	Sunrise & Sunset	~	~	1 minute	12 hours	1 minute	1 minute	24 hours	1 minute
	Wind Direction	~	~	1°	0° to 360°	3°	1°	0° to 360°	3°
	Compass Rose	~	~	22.5°	16 compass points	-	22,5°	16 compass points	-
	· ·			1 mph	1 to 200 mph	F0/	0,1 m/s	1 to 80 m/s	F0/
WIND	Wind Speed	~	~	1 knot	1 to 174 knots	5%	1 km/hr	1 to 320 km/hr	5%
>	Direction of High Speed	~	~	22.5°	16 compass points		22,5°	16 compass points	
	Wind Run	О	О	0.01 miles 0.01 nautical miles	Unlimited	5%	0,01 kilometers	Unlimited	5%

For complete specifications, visit www.davisinstruments.com/resources/ weather-monitoring/#support then click on Specification Sheets.

 <sup>✓</sup> Included
 Optional sensor required, but shown on console
 Optional and requires WeatherLink.
 Solar Energy requires Solar Radiation sensor.

<sup>\*</sup>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 US units of measure, which are then converted to metric units for display purposes.

**WIRELESS TRANSMITTERS** 

# Which sensors can you use with your transmitter?

See pages 41 for the maximum number of transmitters that can report to a single Vantage Pro2/Vue console, WeatherLink Live, Weather Envoy or Vantage Connect.

•

Included

Optional

4

Maximum sensors for that transmitter

	Product No.	6250 Vantage 6357 Vantage	6152 Vantage 6322 Vantage	6153 Vantage 6323 Vantage	6162 Vantage 6327 Vantage	6163 Vantage 6328 Vantage I	6820 GroWea and Pas	6345 Leaf	6345CS Com	6332 Solar-Pc	6331 AC Pow	6810 EnviroN
Integrated Rain Collector		•	•	•	•	•	•					
Rain Collector	7852									•	•	•
Integrated Anemometer		•										
Detachable Anemometer	6410		•	•	•	•	•			•	•	•
Integrated Temperature/Humidity		•	•	•	•	•	•					
Stainless Steel Temperature Probe with 2-Wire Termination	6470							4	4			•
Temperature Probe with RJ Connector* Stainless Steel Temperature Probe with RJ Connector* Temperature/Humidity Sensor with Radiation Shield	6477									•	•	•
Stainless Steel Temperature Probe with RJ Connector*	6475									•	•	•
	6830									•	•	•
Temperature/Humidity Sensor with 24-Hour Fan-Aspirated Radiation Shield	6832									•	•	•
	6834									•	•	•
Temperature/Humidity Sensor  Passive Radiation Shield	7714	•	•		•		•	•	•	•	•	•
	7747		•		•		•					
Daytime Fan-Aspirated Radiation Shield  24-Hour Fan-Aspirated Radiation Shield				•		•						
Solar Radiation Sensor	6450			•	•	•	•			•	•	•
UV Radiation Sensor	6490			•	•	•	•			•	•	
Sensor Mounting Shelf for UV/Solar	6673			•	•	•	•					•
Leaf Wetness Sensor	6420							2	2			•
Soil Moisture Sensor	6440							4	4			•
Third-party sensors												•

<sup>\*</sup>Can also be used with Weather Envoy and Vantage Connect to replace the internal temperature sensor.

Current Draw & Battery Life*		С	urrent	Draw in N	lilliamperes	Estimated Backup Battery Life in Days*				
		Lights	Lights	With	Data Logger	Without Data	With	Data Logger		
		Off	On	USB/SER†	WeatherLinkIP	Logger	USB/SER†	WeatherLinkIP		
Vantage Vue Console/Receiver		1	160	1	101	9 months	9 months	2 days		
Vantara Dua 2	Wireless	1	160	1	101	9 months	9 months	2 days		
Vantage Pro2	Cabled	10	170	10	110	27 days	27 days	2 days		
\\/ <del> </del>	Wireless	1	N/A	1	101	N/A	4 months	<1 day		
Weather Envoy	Cabled	10	N/A	10	110	N/A	10 days	<1 day		
WeatherLink Live	Wireless			100		Up to 6 days				

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



<sup>†6510</sup>USB USB Data Logger, 6510SER Serial Data Dogger

# Which transmitters can you use with your receiver?

See pages 41 for the maximum number of transmitters that can report to a single Vantage Pro2/Vue console

	t can report to a single Vantage Pro2/Vue console, atherLink Live, Weather Envoy or Vantage Connect.				Fan-Aspirat		Vantage Pro2 Plus with Fan-Aspi	λ.	6620, 6621 or 6622 Vantage Conne	nly	only			oy	Cabled Va
•	Included				ith Fan	sn	s with	er Envo	Vantag	nsole o	onsole		Plus	er Env	6622C Ca
•	Optional		Vue	.02	102 W	Pro2 Plus	2 Plu	Veathe	5622	le Col	702 CC	Pro2	Pro2	Neath	or 662
•	Included but additional can be added			ntage Pr	Vantage Pro2 with	Vantage Pr	itage Pro	eless W	521 or (	Vantage Vue Console only	ntage Pr	antage I	Vantage Pro2 Plus	Cabled Weather Envoy	6621C or
		Product	6250 Vantage	6152 Vantage Pro2	6153 Vai	6162 Vai	6163 Van	6316 Wireless Weather Envoy	620, 66	6351 Vai	6312 Vantage Pro2 Console only	6152C Vantage Pro2	6162C \	6316C (	6620C, 6
	Vantage Vue Console	No.	<b>P.</b>	9	9	9	9	9	9	9	9	9	9	9	9
	Vantage Vue Sensor Suite	6357	•					•	•	•	•				
	Wireless Vantage Pro2 Console	6312	•	7.	<b>9</b>	<b>7</b>	<b>9</b>	<b>9</b>	9	•	•				
	Wireless Vantage Pro2 Sensor Suite	6322		•				•	•	•	•				
	Wireless Vantage Pro2 Sensor Suite with 24-Hour Radiation Shield	6323			•			•	•	•	•				
	Wireless Vantage Pro2 Sensor Suite with UV-Solar	6327				•		•	•	•	•				
	Wireless Vantage Pro2 Sensor Suite with 24-Hour Radiation Shield & UV Solar	6328					•	•	•	•	•				
	Wireless GroWeather Sensor Suite with Solar Radiation Sensor	6820						•	•	•	•				
Suc	Wireless WeatherLink Live	6100	•	•	•	•	•	•		•	•				
Options	Wireless Weather Envoy	6316	•	•	•	•	•	•		•	•				
	Wireless Leaf & Soil Moisture/Temperature Stations	6345		•	•	•	•	•	•		•				
Wireless	Complete Soil Moisture/Temperature Station	6345CS		•	•	•	•	•	•		•				
>	Wireless Temperature Station	6372		•	•	•	•	•	•		•				
	Wireless Temperature/Humidity Station	6382		•	•	•	•	•	•		•				
	Solar-Powered Wireless Sensor Transmitter	6332		•*	•*	•*	•*	•*	•	•	•				
	AC Powered Wireless Sensor Transmitter	6331		•*	•*	•*	•*	•*	•	•	•				
	Standard Wireless Repeater, AC-Powered	7626	•	•	•	•	•	•	•	•	•				
	Standard Wireless Repeater, Solar-powered	7627	•	•	•	•	•	•	•	•	•				
	Long-Range Wireless Repeater, Solar-Powered	7654	•	•	•	•	•	•	•	•	•				
	Solar Power Kit for Wireless (includes 1.4 amp hour 6-volt battery)	6614	•	•	•	•	•	•		•	•				
	Cabled Vantage Pro2 Console	6312C										•	•		
ns	Cabled Weather Envoy	6316C												•	
ptions	Cabled Vantage Pro2 Sensor Suite	6322C										•		•	•
ed 0	Cabled Vantage Pro2 Sensor Suite with UV & Solar	6327C											•	•	•
Cabled	Cabled GroWeather Sensor Suite with Solar Radiation Sensor	6820C												•	•
	Heavy Duty Solar Power Kit (includes 12 amp hour 6-volt battery) **	6612	•	•	•	•	•	•		•	•	•	•	•	•
	Rain Collector Heater (compatible with straight-sided rain cone)	7720		•	•	•	•					•	•		
ns	Mounting Tripod	7716	•	•	•	•	•		•			•	•		•
Installation Options	Mounting Pole Kit	7717	•	•	•	•	•		•			•	•		•
on C	Extra Solar Panel Kit ***	6616							•						•
ıllati	Universal Shelter	6618	•	•	•	•	•	•		•	•	•	•	•	•
Inst	Daytime Fan-Aspirated Radiation Shield	7747		•		•						•	•		
	Sensor Mounting Shelf	6673		•	•	•	•					•			
* On	y when used as a separate transmitter for your station's anemometer. ** Ca		sed on	wirele	ss stati	ons wh		re pow	er is ne	eded.	*** Ca	n be p	aired w	vith 66	12 ar

**SYSTEMS & RECEIVERS** 

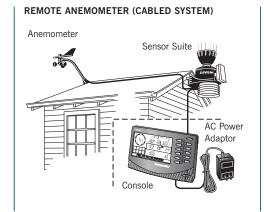
**CABLED** 

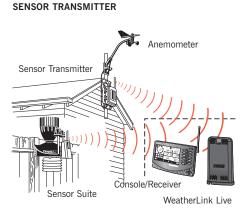
**WIRELESS** 

<sup>6614.</sup> 

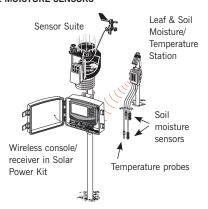
#### **WIRELESS VANTAGE PRO2**

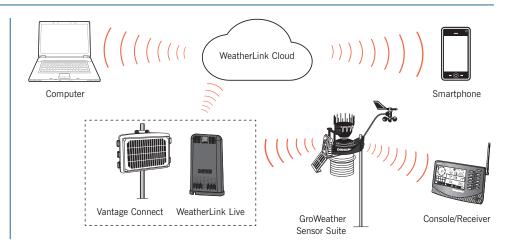




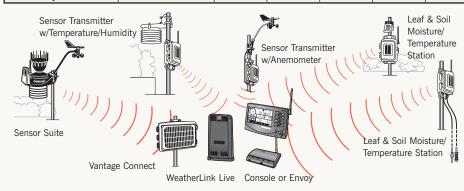


## STATION SHOWING SOLAR POWER KIT & SOIL MOISTURE SENSORS





Sensor Type	WeatherLink Live	Vantag	ge Pro2	Vanta	ge Vue	Weather Envoy	Vantage Connect	EnviroMonitor
	Logged	Shown	Logged	Shown	Logged	Logged	Logged	Logged
Anemometer	8	1	1	1 *	1 *	1	1	80+
Temperature Probe	32	8	3	1 *	1 *	3	3	+08
Temperature/Humidity	8	8	4/3	1/1 *	1/1 *	4/3	4/3	80+
Rain	8	1	1	1 *	1 *	1	1	80+
UV	8	1	1	0	0	1	1	80+
Solar Radiation	8	1	1	0	0	1	1	80+
Leaf Wetness	16	2 **	2 **	0	0	2 **	2 **	80+
Soil Moisture	32	4 **	4 **	0	0	4 **	4 **	80+
Third-Party Sensors	0	0	0	0	0	0	0	80+ ***



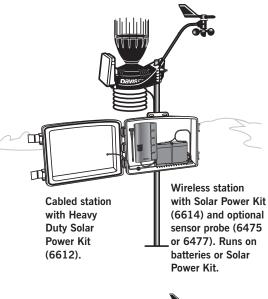
Each WeatherLink Live, Vantage Pro2, Weather Envoy and Vantage Connect console can receive data from up to eight different transmitting stations.

 $\label{eq:shown} \begin{tabular}{ll} "Shown" = Live current conditions seen on the LCD display or WeatherLink \\ \end{tabular}$ 

"Logged" = Stored historical archive records from Weatherlink database

- \* One Sensor Suite or transmitter only.
- \*\* Only if one transmitter has Leaf Wetness only and one has Soil Moisture (Temperature probes allowed on both).
- \*\*\*See page 24 or go to www.davisinstruments.com/em-sensors for supported sensors.

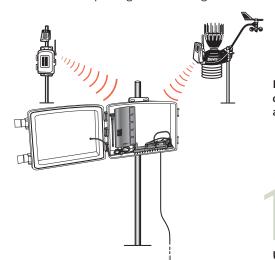
# **Cabled Weather Envoy**



Can be used with one cabled Sensor Suite

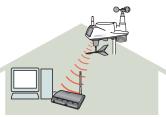
#### **Wireless Weather Envoy**

Can listen to up to eight transmitting stations





Install Weather Envoy close to your computer using the included USB cable and AC adaptor.



Use Weather Envoy in place of Vantage Vue or Vantage Pro2 console.



Retransmit data to Weather Envoy from console



Transmit to both the Weather Envoy and console

EXTENSION CABLES										
Our Standard 4-Conductor Extension Cables include a cou	pler kit (protective shell: cable coupler: and five	7876-008 8'	(2,4 m)							
waterproof, silicone-filled, crimp-style splice connectors) for	7876-040 40' (12 m)									
chart below to determine maximum cable lengths.	7876-100 100' (30 m)									
chart below to determine maximum cable lengths.	7876-200 200' (61 m)									
Product	Cable Use	Included Cable Length	Maximum Cable Length							
Wireless Vantage Pro2	Anemometer to Sensor Suite	40' (12 m)	240' (73 m)*							
Cabled Vantage Pro?	Anemometer to Sensor Suite	40' (12 m)	240' (73 m)*							
Cabled Vantage Pro2	Console to Sensor Suite	100' (30 m)	1000' (300 m)							
Cabled Vantage Pro2 Sensor Suite with Cabled Vantage Connect	Vantage Connect to Sensor Suite	100' (30 m)	1000' (300 m)							
WeatherLink for Vantage Pro2 and Vantage Vue (serial port versions)**	Data Logger to Serial Port	8' (2,4 m)	48' (14,6 m)							
Solar Radiation Sensor (6450)	Sensor to Sensor Suite	2' (0,6 m)	125' (38 m)							
UV Sensor (6490)	Sensor to Sensor Suite	2' (0,6 m)	125' (38 m)							
Stainless Steel Temperature Probe with RJ Connector (6475)	Probe to Wireless Temperature Station, Weather Envoy or	251 (7.6 m)	2001 (61 m)							
Temperature Probe with RJ Connector (6477)	Sensor Transmitter	25' (7,6 m)	200' (61 m)							
Leaf Wetness Sensor (6420)	Sensor to Wireless Leaf & Soil Moisture/Temperature Station	40' (12 m)	200' (61 m)							
Anemometer (6410)	Sensor to Sensor Suite or Sensor Transmitter	40' (12 m)	240' (73 m)*							
Rain Collector (standalone, 7852)	Collector to Sensor Suite or Sensor Transmitter	40' (12 m)	900' (270 m)							
Rain Collector with Mountable Base (7857)	Collector to Sensor Suite or Sensor Transmitter	40' (12 m)	900' (270 m)							
Temperature/Humidity Sensor (6830) (6832)	Sensor to Sensor Transmitter	25' (7,6 m)	25' (7,6 m)							

Anemometer Cables: Maximum displayable wind speed decreases as the length of cable increases. At 140' (42 m) of cable, the maximum wind speed displayed is 135 mph (60 m/s). At 240' (73 m) of cable, the maximum wind speed displayed is 100 mph (45 m/s).

To extend the cables on the Temperature Probe (6470), Soil Moisture Sensor (6440), and Rain Collector Heater (7720), please call us directly.

WeatherLink USB: Extension cables may be purchased from a computer supplier.

# Things to consider when purchasing a weather station

# 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, rainfall amounts, and dates 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.

#### How often is the data updated?

Davis Sensor Suites transmit a data packet every 2.5 seconds. Highly variable conditions like wind speed and direction are updated with every packet, while less variable conditions are updated every 10 to 50 seconds.

#### How accurate is the data?

Davis stations generally beat their similarly-priced competition in accuracy, resolution, and range. We proudly post our specs on our website.

#### How do you access the data?

Davis stations let you access, analyze, and store your data on the console, your computer, the internet, or on your smartphone.

#### On the console

You'll see much more than just current conditions on your console. You'll get highs and lows (and/or totals or averages) for just about all weather conditions, with time and date, for the last 24 (Vantage Pro2) or 25 (Vantage Vue) days, months, or years. You'll see the data numerically and 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. With the graphs and the Weather Center on Vantage Vue, you can do tons of analysis right there on your console.

#### On your computer, the WeatherLink Cloud or your smartphone

With the Davis WeatherLink family, and one of our choices of data-collection devices, you can choose to upload your data to the WeatherLink Cloud. You can access and analyze it 24/7 on WeatherLink.com or your smartphone with the WeatherLink Mobile app.

#### How durable is the station?

There are many, many thousands of Davis stations out in the elements all over the world. Davis stations have endured ice storms and hurricanes. They have transmitted data for years through snow, rain, and ice. They are installed in deserts and at the seashore. They are built to function at high elevations up to 15,000 feet (4570 meters), and to remain robust no matter what conditions they are subjected to. We warranty our stations and offer repair services. We are very proud to say that you can expect your station provide you with weather data for many years.

# How long has the company been in business?

Established in 1963, Davis Instruments opened up the personal weather station market in 1989. Our weather stations are assembled and tested right here in Hayward, California, where we have a full staff giving the best customer services and support in the business.

#### **Limited 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.

#### 30-Day Money-Back Guarantee

If for any reason you are unsatisfied with anything purchased from us, return it within 30 days and we will gladly refund your purchase price. Shipping charges are not refundable.

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