



Vantage VUE™

Console Manual

Model #6351

FCC Part 15 Class B Registration Warning

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment on and off, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modification not expressly approved in writing by Davis Instruments may void the warranty and void the user's authority to operate this equipment.

FCC ID: IR2DWW6351

IC: 3788A-6351

EC EMC Compliance

This product complies with the essential protection requirements of the EC EMC Directive 2004/108/EC; Low Voltage Directive 2006/95/EC; and Eco-Design Directive 2005/32/EC > .5 watt no-load adaptor.

RoHS Compliant

Vantage Vue Console Manual

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And Vantage Vue Weather Stations #6250, 6357

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Chapter 1

Welcome to Vantage Vue™

Your new Vantage Vue™ wireless weather station's console displays and records your station's weather data, provides graph and alarm functions, and interfaces to a computer using our optional WeatherLink® software.

Your Vantage Vue station also includes an outdoor Integrated Sensor Suite (ISS) that transmits outside sensor data to the console via a low-power radio. The console displays all the information coming from the ISS in an easy-to-use format. It can also receive data from a Davis Vantage Pro2® weather station. The *Vantage Vue Quick Reference Guide* included with your station provides an easy to use reference for most console functions.

Console Features: Keyboard & Display



Use the keyboard to access and scroll through current and historical data for individual variables, set and clear alarms, enter calibration values, set up and view graphs, and view detailed weather information available for each variable. The keyboard consists of 12 command keys and four navigation keys. A weather variable or console command is printed on each command key. Just press a key to select the variable or function printed on that key.

Each command key also has a secondary function which is printed above the first row of keys or below the second row of keys. To select the secondary function, press and release 2ND (on the front of the console, lower left corner) and then immediately press the key for that function.

After pressing 2ND, the 2ND icon displays above the moon phase icon on the screen indicating that all secondary key functions are enabled. Keys resume normal operation after the icon disappears (about 7-8 seconds).

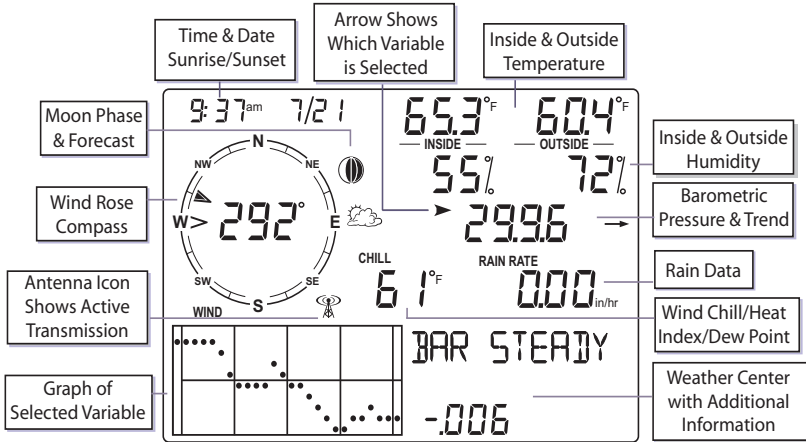
The + and - navigation keys along with the < and > navigation keys are used to select command options, adjust values, and to provide additional functions when used in combination with a command key. An arrow appears next to the variable selected in the display. In Current Weather Mode, the display shows the time and date, the likely forecast within the next 12 hours, current moon phase,



2nd



and weather information for up to 8 different weather variables at a time. It also displays additional information pertinent to a selected variable in the Weather Center in the bottom right section of the console screen.



In This Manual

This manual contains all the information you will need to power, set up, and use your console. It also includes a troubleshooting section for solving some basic console issues.

- See “Installing the Console” on page 3 for information on powering and placing or mounting your Vantage Vue console.
- See “Setup Mode” on page 6 for information on configuring and setting up your console.
- See “Current Weather Mode” on page 15 for information on displaying current weather information.
- See “Troubleshooting and Maintenance” on page 36 for information on troubleshooting console issues and routine maintenance.

Chapter 2

Installing the Console

The Vantage Vue console is designed to give extremely accurate readings. As with any precision instrument, use care in its assembly and handling. Although installing the console is relatively simple, following the steps outlined in this chapter and assembling the Vantage Vue correctly from the start will help ensure that you enjoy all of its features with a minimum of time and effort.

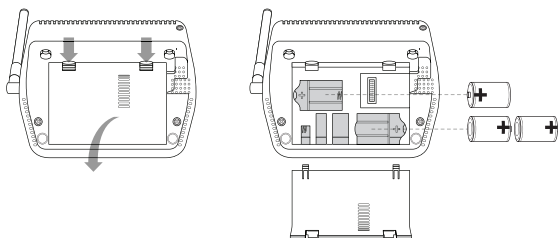
Powering the Console

The Vantage Vue console does not require the use of an AC adapter. You may use the included adapter if you wish, but three C-cell batteries should power a wireless console for up to nine months. You can use either of these or both together, with the batteries providing backup power for the adapter.

Note: When using an AC power adapter, be sure to use the power adapter supplied with your Vantage Vue console. Your console may be damaged by connecting the wrong power adapter. You must use AC power when also using WeatherLinkIP.

Installing Batteries

1. Remove the battery cover located on the back of the console by pressing down on the two latches at the top of the cover.



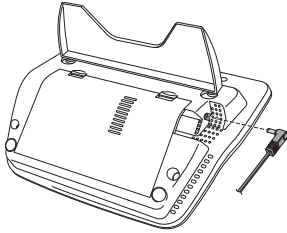
Installing batteries into the Vantage Vue

2. Insert three C batteries into the battery channels as shown.
3. Place the battery cover back onto the console and click it closed.
4. Check to make sure the console runs through a brief self-test procedure successfully.

On power up, the console displays all the LCD segments and beeps two times. A message displays at the bottom of the console, followed by the first screen of Setup Mode. Press DONE to skip the message and enter into Setup Mode. Setup Mode guides you through steps required to configure the station. See “Setup Mode” on page 6 for more information.

Note: The console does not recharge the batteries. Because of this, and because NiCad batteries do not power the console as long as alkaline batteries, we do not recommend using NiCad batteries.

Installing the AC Power Adapter (Optional)



Plugging in the AC adapter

1. Find the power jack located on the left side of the console case.
2. Insert the power adapter plug into the console power jack, then plug the other end of the adapter into an appropriate power outlet.
3. Check to make sure the console runs through a brief self-test procedure successfully. See "Installing Batteries" on page 3 for information on the self-test procedure.

Console Location

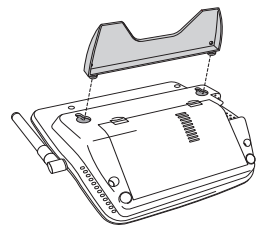
Place the console in a location where the keyboard is easily accessible and the display is easy to read. For more accurate readings, follow these suggestions.

- Avoid placing the console in direct sunlight. This may cause erroneous inside temperature and humidity readings and may damage the unit.
- Avoid placing the console near radiators or heating/air conditioning ducts.
- If you are mounting the console on a wall, choose an interior wall. Avoid exterior walls that tend to heat up or cool down depending on the weather.
- Avoid positioning a wireless console near large metallic appliances such as refrigerators, televisions, heaters, or air conditioners.
- The console antenna does not rotate in a complete circle. Avoid forcing the console antenna when rotating it.
- Be aware of possible interference from cordless phones or other devices. To prevent interference, maintain a distance of 10 feet (3 meters) between the Vantage Vue console and a cordless phone (handset and base).

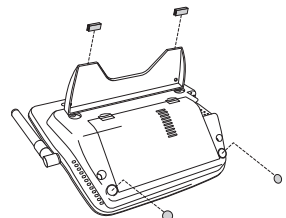
Table & Shelf Placement

The console comes with a kickstand so that the console can be displayed on any flat surface. To install the kickstand:

1. Locate the two keyholes on the back of the console.
 2. Place the two round tabs on the kickstand into the two keyholes and slide the kickstand up into place.
 3. Install the two round rubber feet on the bottom of the console.
4. Install the two rubber channel feet on the kickstand.



Securing the kickstand



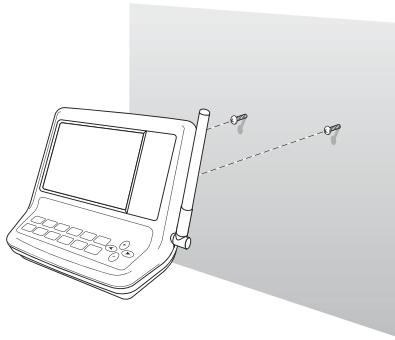
Installing the rubber feet

Wall Mounting

The console mounts to the wall using two keyholes located on the back of the case (the same two keyholes are used to hold the console kickstand in place) and two #6 x 1" pan head self-threading screws included in the hardware kit.

To mount the console on a wall:

1. Use a ruler to mark two mounting hole positions on the wall 4 15/16" inches (125 mm) apart. Use the guide holes on the kickstand as a template for the keyhole spacing.
2. Use a drill and a 3/32" or 7/64" (2.5 mm) drill bit to drill two pilot holes for the screws.
3. Using a screwdriver, drive the two #6 x 1" pan head self-threading screws into the wall. Leave at least 1/8" (3 mm) between the wall and the heads of the screws.
4. Guide the two keyholes on the back of the console over the two screws.



Mounting the console on a wall

Chapter 3

Using Your Weather Station

The console LCD screen and keyboard provide easy access to your weather information. The LCD display shows current and past weather conditions as well as a forecast of future conditions. The keyboard controls console functions for viewing current and historical weather information, setting and clearing alarms, viewing and/or changing station settings, setting up and viewing graphs, and more.

Console Modes

The Vantage Vue console operates in five different modes:

Mode	Description
Setup	Use Setup Mode to enter the time, date, and other information required to calculate and display weather data like latitude, longitude and elevation. See "Setup Mode" on this page.
Current Weather	Use Current Weather Mode to see current weather information, change measurement units, and to set, clear or calibrate weather readings. See "Current Weather Mode" on page 15.
High/Low	Use High/Low Mode to display the daily, monthly or yearly high and low readings. See "Highs and Lows Mode" on page 30.
Alarm	Use Alarm Mode to set, clear, and review alarm settings for up to 30 different variables/settings. See "Alarm Mode" on page 31.
Graph	Use Graph Mode to display your weather data in the graph section of the Console for the current and last 25 time intervals (hours, days, months or even years) in over 50 different graphs. See "Graph Mode" on page 33.

Setup Mode

Setup Mode provides access to the station configuration settings that control how the station operates. Setup Mode consists of a series of screens for selecting console and weather station configuration options.

Setup Mode Commands

Setup Mode displays when the console is first powered. This mode can be displayed at any time to change any of the console options.

Use the following commands to enter, exit and navigate Setup Mode:

- Enter Setup Mode by pressing and releasing 2ND and then Setup.
- Press DONE to move to the next screen in the Setup Mode.
- Press BAR to display the previous screen in the Setup Mode.



- Press the < and > keys to move to the different segments and options in the Setup Mode screens.
- Press the + and - keys to scroll through the different options available.
- Press 2ND and Units to change units of measure when applicable.
- Exit Setup Mode by pressing and holding DONE until the Current Weather screen displays. See “Current Weather Mode” on page 15 for more information.



Screen 1: Time & Date

The very first time you power-up the console, you should enter the correct date and local time.

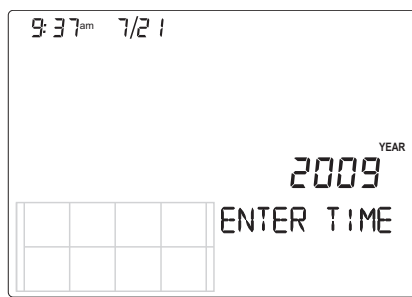
To change the time and date:

1. Press the < and > keys to select the hour, minute, month, day or year segments. The selected time or date setting blinks on and off.
2. Press the + and - keys to adjust a value up or down.

To choose between a 12-hour or 24-hour clock, first select either the hour or minute setting, then press 2ND and immediately press UNITS. This toggles the clock setting between the two clock types.

To choose between a MM/DD or DD.MM display for the date, first select either the day or month setting, then press 2ND and immediately press UNITS. This switches the console from one date display to the other.

3. Press DONE to move to the next screen.



Screen 1: Time & Date

Screen 2: Time Zone

The console is pre-programmed with a combination of US time zones and the names of major cities representing time zones around the world. You can also configure your time zone using the Universal Time Coordinate (UTC, also known as Greenwich Mean Time or GMT) offset.



Note: SUTC offset measures the difference between the time in any time zone and a standard time, set by convention as the time at the Royal Observatory in Greenwich, England. Hayward, California, the home of Davis Instruments, observes Pacific Standard Time. The UTC offset for Pacific Standard Time is -8:00, or eight hours behind Universal Time (UTC). When daylight saving time is observed, an hour is added to the offset time automatically. Use this function in correlation with “Screen 3: Daylight Saving Settings” on page 8.

1. Press the + and - keys to cycle through time zones.
2. If your time zone is not shown, press 2ND then press the + and - keys to set your UTC offset (UTC offset uses 15 minute increments).
3. Press DONE to select the time zone or UTC offset shown on the screen and move to the next screen.

Screen 3: Daylight Saving Settings

In most of the United States and Canada (except Saskatchewan, Arizona, Hawaii) and Europe you should use the AUTO Daylight Saving setting. The console is pre-programmed to use the correct starting and stopping dates for daylight saving time in these areas, based on the time zone setting in Screen 2: Time Zone.

Weather stations located outside North America and Europe, or in areas that do not observe daylight saving time should use the MANUAL setting.



1. Press the + and - keys to choose Auto or Manual.
2. Press DONE to move to the next screen.

Screen 4: Daylight Saving Status

Use this screen to either verify the correct automatic daylight saving status or to set daylight saving manually.



1. If the daylight saving setting is MANUAL, press the + and - keys to turn daylight saving time on or off on the appropriate days of the year. This will advance the time one hour. (Similarly, if you turn daylight saving time off, the time will be set back one hour.)
If you have an AUTO daylight saving setting, the console displays the appropriate setting based on the current time and date.
2. Press DONE to move to the next screen.

Screen 5: Active Transmitters

Screen 5 displays the message "Receiving from..." and shows the ID number of any transmitters being received by the console. The rest of the screen is blank.

If your ISS uses the factory settings and your console is receiving the signal, the screen displays "RECEIVING FROM 1." The antenna icon displays if any station has been received. The antenna icon will not display if the console has not received a signal from a station.



If a Vantage Pro2 ISS or Anemometer Transmitter kit has been installed, its ID number will also be displayed.

Note: A Vantage Vue or Vantage Pro2 ISS; or a Vantage Pro2 Anemometer Transmitter Kit must be powered for the console to recognize it. Refer to the *Integrated Sensor Suite Installation Manual* or other station manual for more information. It may take several minutes for the console to acquire and display a Transmitter ID after power is applied to both units.

1. Make a note of the station number(s) listed on the screen.
2. Press DONE to move to the next screen.

Screen 6: Configuring Transmitter IDs

Setup Screen 6 allows you to change the ISS transmitter ID and to add or remove optional transmitter stations.



The default transmitter ID setting is "1 ISS" (refers to a Vantage Vue ISS), which works for most installations. If your station is using the default transmitter ID setting, press DONE to move to the next screen.

Note: Typically, you can use the default transmitter ID setting of 1 unless a nearby neighbor has a Vantage Pro2 or Vantage Vue station that uses transmitter ID 1.

If you wish to change this default transmitter ID:

1. Press the < and > keys to select a transmitter ID.
When you select a transmitter ID, the ID number is displayed on the screen as well as its current configuration (OFF, ISS, VP2 or WIND).
2. Press the + or - keys to toggle console reception of signals from transmitters using that ID on and off.

Note: Make sure any unused ID numbers are set to OFF.

To change the station type for the transmitter ID:

1. Press GRAPH to change the type of station assigned from ISS to VP2 or WIND.
 - **VP2** - Refers to the Vantage Pro2 ISS. Also refers to a Vantage Vue console or Vantage Pro2 console retransmitting data from a Vantage Pro2 ISS.
 - **WIND** - Refers to the Vantage Pro2 Anemometer Transmitter Kit. Also refers to a Vantage Vue console or Vantage Pro2 console retransmitting data from an anemometer transmitter kit.
2. Press DONE to move to the next screen.

Note: This screen contains functionality for enabling repeaters. If the word "Repeater" displays in the right corner of the screen and you are not using repeaters as part of your network, see "Clearing Repeater ID" on page 51. If you are using repeaters as part of your network see "Wireless Repeater Configuration" (Appendix C) on page 51.

Screen 7: Retransmit

The console can take data it receives from all three station types and retransmit it to other Vantage Vue or Vantage Pro2 consoles using the retransmit feature. By toggling the feature on, the console becomes another transmitter that requires its own unique ID to transmit the data received from the ISS.



1. Press the + or - key to turn the retransmit function on and off. The first available transmitter ID not assigned to a station in Screen 6: Configuring Transmitter IDs will be assigned to the console.

Note: Make sure no other wireless Davis weather station is transmitting on the same ID.

The Vantage Vue console can only retransmit data from either a Vantage Vue ISS, Vantage Pro2 ISS or console, or an Anemometer Transmitter Kit. Data from other stations will not retransmit.

When retransmit has already been enabled, pressing the < or > keys changes the Transmitter ID used for retransmit.

2. Use the > key to scroll through the list of available transmitter IDs and select the ID for your console.
3. Press DONE to move to the next screen.

Note: Make a note of the ID selected for retransmit and the transmitter type (ISS, VP2, WIND) the console is retransmitting. Make sure the console that is receiving the retransmitted data selects the correct transmitter type. See "Screen 6: Configuring Transmitter IDs" on page 9 for more information.

Screens 8 and 9: Latitude and Longitude

The console uses latitude and longitude to determine your location, allowing it to adjust the forecast and calculate the times for sunset and sunrise.

- Latitude measures distance north or south of the equator.
- Longitude measures distance east or west of the Prime Meridian, an imaginary line running north and south through Greenwich, England.

If you do not know your latitude and longitude, there are several ways to find out. Many atlases and maps include latitude and longitude lines. You can also talk to the reference department of your local library, call your local airport, or search on the Internet. An easy way to find your latitude and longitude is to download Google Earth (<http://earth.google.com>).

The more accurate you are, the better; however, a reasonable estimate will work, too.

1. Press the < and > keys to move between fields.
2. Press the + and - keys to change the settings up or down.
3. Press 2ND and then UNITS to select between SOUTH or NORTH.



4. Press DONE to move to the Longitude screen.

1. Press the < and > keys to move between fields.
2. Press the + and - keys to change the settings up or down.
3. To select the eastern or western hemisphere, press 2ND, then UNITS.
4. Press DONE to move to the next screen.



Screen 10: Elevation

Your station's elevation is used in determining your barometric pressure. Meteorologists standardize barometric pressure data to sea level so that surface readings are comparable, whether they're taken on a mountainside or by the ocean. To use this same standardization and ensure consistent readings, enter your elevation in this screen.



If you do not know your elevation, there are several ways to find out. Many atlases and almanacs include elevation for cities and towns. You can also check with the reference department of your local library. Also see reference sources on "Screens 8 and 9: Latitude and Longitude" on page 10.

The more accurate you are, the better; but a reasonable estimate works too.

1. Press the < and > keys to move from one value to another.
2. Press the + and - keys to adjust a numeral up or down.
3. To switch between feet and meters, press 2ND then press UNITS.
4. If your location is below sea level, such as in Death Valley, first enter the elevation as a positive number. Select the "0" immediately to the left of the left-most non-zero digit (the second zero from the left in 0026, for example, or the first zero from the left in 0207) and press and hold the + or - key until it cycles from 0 to 9 and then -.

Note: You can only set the elevation to negative after you have entered a non-zero digit and when the zero in the position immediately to the left of the left-most non-zero digit has been selected. If you need to enter an elevation below -999 feet, select meters and enter the converted number (Take your elevation in feet and multiply by 0.3048).

5. Press DONE to move to the next screen.

Screen 11: Barometric Reduction Setting

The Barometric Reduction Setting screen indicates the method by which barometric pressure to be determined and calculated. The factory default is NOAA, but in this screen you may select a different method.

To change the barometric reduction setting:

- Press + or - to change the barometer reduction setting type, which include:
 - NOAA (Default Setting)** — The barometer is reduced to sea level using a technique that factors in the humidity and temperature of the column of air.
 - ALT SETTING (Altimeter Setting)** — The barometer is reduced to sea level using a “standard” column of air, often referred to as a “standard atmosphere.”
 - NONE** — Uses a raw barometric pressure reading unadjusted for elevation/altitude.
- Press DONE to move to the next screen.



Note: See “Calibrating Barometric Pressure” on page 28 to learn how to fine-tune your barometric pressure to a local source.

Screen 12: Wind Cup Type (Optional)

The Wind Cup Type screen displays if you selected VP2 or WIND in Screen 6 of the Setup Mode. This screen does not display if you have selected a Vantage Vue ISS. See “Screen 6: Configuring Transmitter IDs” on page 9 for more information.

The Wind Cup Type screen contains three options: LARGE, SMALL, or OTHER. In most Vantage Pro2 anemometer or ISS Installations, LARGE is the cup type that is shipped with all Vantage Pro2 anemometers. See the *Vantage Pro2 Console Manual* for more information.

To change the wind cup type:

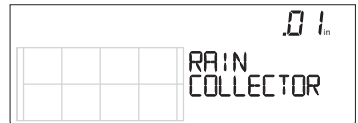
- Press the + and - keys to scroll through the three wind cup options.
- Press DONE to use the selected setting and move to the next screen.



Note: Do not change the wind cup type from LARGE if you are using the wind cups that were shipped with your ISS or Anemometer Transmitter Kit.

Screen 13: Rain Collector

The tipping spoon in the Vantage Vue rain collector has been calibrated at the factory to measure either 0.01” or 0.2mm of rain with each tip depending on the model. This screen is used at the factory for this calibration. The typical user will not need to change it and can skip this screen.



Note: This screen will not change the units on your display. To change the units on your display from inches to mm, or vice versa, see “Selecting Units of Measure” on page 26.

Screen 14: Rain Season

Because rainy seasons begin and end at different times in different parts of the world, you must specify the month you wish your yearly rain data to begin. January 1st is the default.

The date the rain season begins affects yearly rain rate highs and lows as well as the yearly rain totals.



1. Press the + and - keys to select the month for the start of the rainy season.
2. Press DONE to move to the next screen.

Note: This setting determines when the yearly rain total is reset to zero. Davis Instruments recommends a January rain season setting (the default), unless you reside in the west coast of the United States, the Mediterranean Coast, or experience dry winters in the Southern Hemisphere. If so, change the rain season setting to July 1st. If you are performing hydrology studies in any of these climates in the Northern Hemisphere, change the rain season setting to October 1st.

Screens 15 and 16: Cooling and Heating Degree Day Base

The Cooling and Heating Degree Day Base screens let you determine the temperature base that is used to calculate the number of cooling or heating degree days. A cooling degree day is used to determine the amount of energy or fuel used to keep a structure like your home or business cool. A heating degree day is used to determine the amount of energy or fuel used to keep a structure like your home or business warm.

One cooling degree/day is the amount of cooling required to keep a structure cool when the outside temperature remains 1°F **above** the 65°F threshold for 24 hours. One cooling degree/day is also the amount of cooling required to keep that structure at 65°F when the temperature remains 24°F above the 65°F threshold for one hour.

One heating degree/day is the amount of heat required to keep a structure warm when the outside temperature remains 1°F **below** the 65°F threshold for 24 hours. One heating degree/day is also the amount of heat required to keep that structure at 65°F when the temperature remains 24°F below the 65°F threshold for one hour.

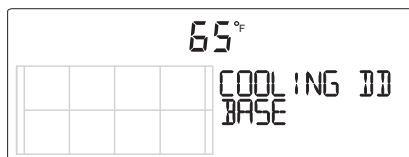
The cooling and heating degree days (similar to growing degree days and chilling requirement in agriculture) are used for agricultural purposes, to determine crop planting, disease and pest management and harvesting. Our optional WeatherLink software (#6510USB, 6510SER, 6555) makes advanced calculations using the degree day totals. Our optional Agricultural/Turf Management Software Module (#6511) adds the special reporting features to the WeatherLink software that include evapotranspiration and chilling requirement.

The Cooling and Heating Degree Day Bases are used to determine the Cooling Degree Day Daily Total and Heating Degree Day Daily Total, which display as part of the Weather Center when the outside temperature variable is selected. See “Inside and Outside Temperature” on page 18 for more information.

A base setting for both the Cooling and Heating Degree Day temperature is not set at the factory, allowing you to choose. A base of 65°F (15°C) is suitable for most applications.

Set your cooling degree day base:

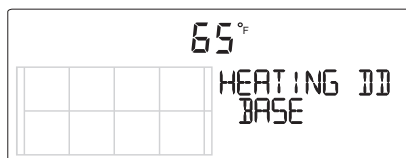
1. Press 2ND and SET. The value of 65° appears. Use the < and > keys to select a segment of the value.
2. Press the + and - keys to adjust the value of the selected segment.
3. Press 2ND and UNITS to change the temperature setting between Fahrenheit and Celsius.
4. Press DONE to move to the next screen.



The Heating Degree Day Base displays:

To set your heating degree day base, follow steps 1 through 4 above.

To turn the degree day function off, press 2ND and then clear. The value changes to dashes.



Note: If a base temperature is displayed, degree day data is being accumulated. If the value shows dashes, the degree day function is off and will not appear in the Weather Center.

Screens 17 and 18: Commentary and Key Beep

Commentary is the extra information and comments on current weather conditions, such as lunar and solar eclipses, meteor showers and other information, that displays on the console in the Weather Center.

Key Beep is a sound that indicates a key has been pressed.

These functions can be turned off or on.

1. Press the + and - keys to toggle the setting to OFF or ON.
2. Press DONE to move to the next screen.

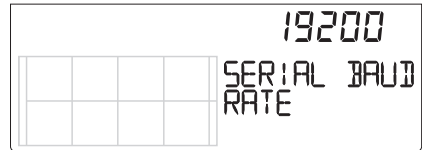


Screen 19: Baud Rate (Optional)

The Baud Rate screen displays only if a WeatherLink data logger is installed in the console. The console uses a serial, USB, or Ethernet port to communicate with a computer. If you are connecting the console directly to your computer via USB or Ethernet connection, leave the setting at 19200, the highest rate for the port.

Note: The baud rate setting on your console must match the baud rate setting in the software on your computer. If you are using WeatherLink for Vantage Vue, refer to WeatherLink Help for instructions on setting the serial port baud rate on your computer.

1. Press the + and - keys to select the baud rate.
Your Vantage Vue console supports baud rates of 1200, 2400, 4800, 9600, 14400, and 19200.
2. Press Done to save the baud rate settings.



Exiting Setup Mode

You have successfully completed all the screens in the Setup Mode. To exit Setup Mode, press and hold DONE for several seconds until the current weather screen appears.

Clear All Command

After you have completed the above setup procedures and have exited the Setup Mode and once the Vantage Vue ISS, Vantage Pro2 ISS or Anemometer Transmitter kit has been installed, please use the Clear All command before putting your weather station into service.

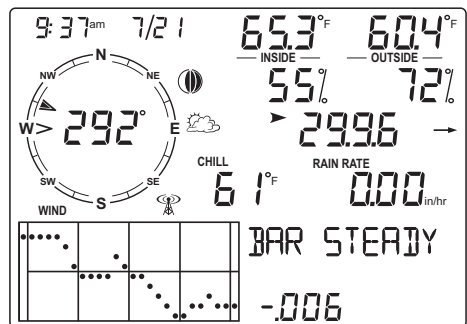
The Clear All command clears all stored high and low weather data including monthly and yearly highs and lows, and clears the alarm settings. The command is recommended to properly clear the console of any erroneous data and initialize the console's data logging function.

1. Press WIND to display Wind Speed on the console.
2. Press 2ND, then press and hold CLEAR for at least six seconds.
3. Release CLEAR when you see "CLEARING NOW" displayed at the bottom of the console's screen.

Current Weather Mode

In the Current Weather Mode you can display the current data readings from your station, select units of measure, and calibrate, set, or clear weather variables. You can see up to eight weather variables on the screen at the same time, as well as the time and date, moon phase and forecast icons, and a graph of the currently selected variable.

A few variables are always visible on the console screen while most variables share their location with one or more variables. You can select any variable not currently on the screen to display it.



Current Weather Mode Commands

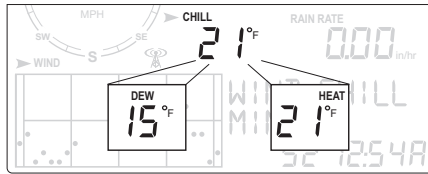
Select a weather variable to display its data on the screen if it isn't already visible, or to toggle the data available for that variable.

Weather variables are selected via the console command keys:

- If the variable is printed on a key, press the key to select the variable.

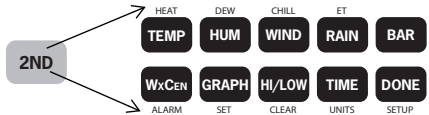


- The same field can display multiple values for each variable. Press the variable key to scroll through all the values
- Multiple variables may share the same field on the display.



Wind chill, dew point, heat index sharing the same field in Current Weather Mode

- If a variable is printed above or below a key, first press and release 2ND, then quickly press the key below the printed variable to select that variable.



After pressing 2ND, the 2ND icon displays on the screen for eight seconds. Command key secondary functions are enabled during this time. The keys return to normal operation after the icon disappears.

- Select a variable and press Wx:CENT to display information pertinent to the selected variable in the Weather Center. Continue to press Wx:CENT to scroll through all the information available for the variable.
- You can also select any variable currently displayed on the LCD screen using the navigation keys. Press the + key to move the selection arrow up the screen. Press the - key to move it down the screen. Push the < key to move it left and push the > key to move it right.



Displaying Weather Variables

The variables are arranged below in the order they are viewed on the console screen; left to right, top to bottom, starting with Time and Date.

Time and Date, Sunrise and Sunset Time, Moon Phase, Forecast Icons

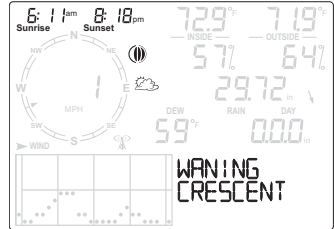
The time and date display in the upper left hand corner of the console screen, above the compass rose.

- Press TIME to display the sunrise and sunset time for the current day. Press TIME again to redisplay the time and date.

TIME

The phase of the moon is described in the Weather Center section of the console when the sunrise and sunset times are displayed. The Moon Phase Icon corresponds to the moon phase description in the Weather Center. See “Moon Phases” on page 42.

The current forecast icon displays underneath the current moon phase icon. The forecast icons show what weather conditions may occur within the next 12 hours. See “Forecast” on page 43 for more information on the forecast icons and descriptions of the forecasted weather they represent.

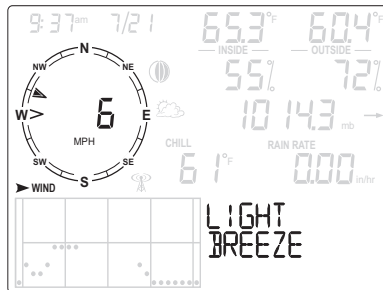


Sunrise and sunset times, moon phase and forecast icons, with the moon phase listed in the Weather Center

Note: See “Screen 1: Time & Date” on page 7 to change the console time and date or to select a 12- or 24-hour clock.

Wind Speed and Direction

Wind speed and direction are displayed in the compass rose in the left section of the console screen:



Wind speed, direction and wind information displayed in the Weather Center

1. Press WIND to select wind speed.

Wind speed may be displayed in miles per hour (m.p.h.), kilometers per hour (km/h), meters per second (m/s), or knots. See “Selecting Units of Measure” on page 26 for more information on changing the unit of measure. The graph will show the last 25 hours of readings.

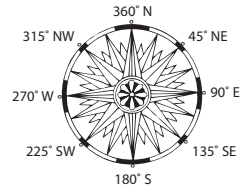
WIND

A solid arrow within the compass rose indicates the current wind direction. Open arrows indicate up to six different 10-minute dominant wind directions to provide a history of the dominant wind directions for the past hour.



2. Press WIND a second time to display the wind direction in degrees instead of the wind speed. The graph will show the last 25 hours of readings.

Each additional WIND key press toggles the display between wind speed and wind direction in degrees. When displayed in degrees, due north displays as 360°.

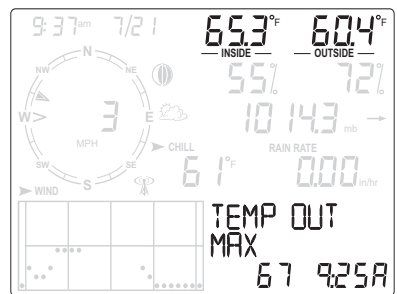


If your anemometer is not pointing due north, you should recalibrate the wind direction reading on your console. See “Calibrating Wind Direction Reading” on page 27 for more information.

3. Press WxCEN to display the weather information available for wind in the Weather Center.
4. Press WxCEN multiple times to scroll through all the wind-related Weather Center screens, which include:
 - **Maximum Wind Speed** — Displays the highest wind speed recorded for the day. Includes the time the speed was recorded.
 - **Last 10 Minute Gust** — Displays the high wind gust in the last 10 minutes with the direction of the highest gust displayed in degrees.
 - **Average Wind Speed** — Displays the average speed over the past two minutes and over the past ten minutes.
 - **Beaufort Scale** — Toggles between a description of the wind speed and how the wind ranks on the Beaufort Scale. See “Beaufort Scale” on page 44
 - **Wind Direction** — Displays the current wind direction in degrees.

Inside and Outside Temperature

Inside and Outside Temperature are displayed in the top right portion on the console screen. The inside temperature is located above the word INSIDE and the outside temperature is located above the word OUTSIDE.



Inside and outside temperature with information displayed in the Weather Center

1. Press TEMP to select the outside temperature.

Temperature may be displayed in degrees Fahrenheit (°F) or Celsius (°C). Temperatures can also be displayed in degrees or in tenths of a degree. See “Selecting Units of Measure” on page 26 for more



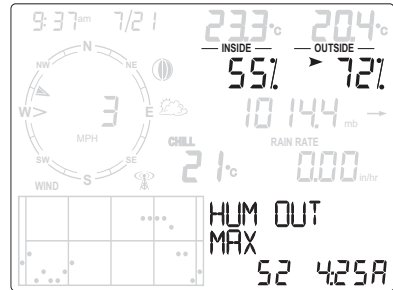
information on changing the unit measure or displaying the temperature in tenths of a degree. If the unit of measure is changed for Inside or Outside Temperature, the unit of measure also changes for all temperature related weather variables, such as Wind Chill, Dew Point and Heat Index.

Note: The unit of measure also affects the Cooling Degree Day and Heating Degree Day Bases and the value entered in both screens is automatically converted to the unit of measure selected. Check the values for both of these bases in the Setup Mode to make sure the value is still accurate for the new unit of measure. See "Screens 15 and 16: Cooling and Heating Degree Day Base" on page 13 for more information.

2. Press WxCEN to display weather information available for the outside temperature variable in the Weather Center.
3. Press WxCEN multiple times to scroll through all the outside-temperature-related Weather Center screens, which include:
 - **Maximum Temperature** — Displays the highest temperature for the day with the time the temperature was recorded.
 - **Minimum Temperature** — Displays the lowest temperature for the day with the time the temperature was recorded.
 - **Temperature Change Per 24 hours** — Displays the difference between the temperature currently recorded and the temperature recorded at the same time the day before.
 - **Temperature Change Per hour** — Displays the difference between the temperature currently recorded and the temperature recorded the hour before. This number is updated every 15 minutes.
 - **Maximum Outside Temperature today and over the last 25 days** — Displays the highest temperature today and over the last 25 days and the date the temperature was recorded.
 - **Minimum Outside Temperature today and over last 25 days** — Displays the lowest temperature today and over the last 25 days and the date the temperature was recorded.
 - **Number of Cooling Degree Days** — Displays the number of cooling degree days logged on the console since it was first powered up or the value was reset. (Displays only if a threshold has been set.)
 - **Number of Heating Degree Days** — Displays the number of heating degree days logged on the console since it was first powered up or the value was reset. (Displays only if a threshold has been set.)
4. Press TEMP again to select the inside temperature.
5. Press WxCEN to display the weather information available for the inside temperatures in the Weather Center.
6. Continue pressing WxCEN to scroll through all the inside-temperature-related Weather Center screens, which include:
 - **Maximum Temperature** — Displays the highest inside temperature for the day with the time the temperature was recorded.
 - **Minimum Temperature** — Displays the lowest inside temperature for the day with the time the temperature was recorded.

Humidity

Inside and Outside Humidity are displayed in the top right portion on the console screen, below the temperature variables. The inside humidity is located below the word INSIDE and the outside humidity is located below the word OUTSIDE.

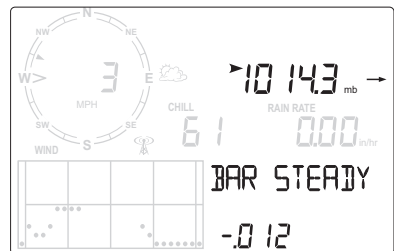


Inside and outside humidity with information displayed in the Weather Center

1. Press HUM to select outside humidity. Humidity is displayed in percent relative humidity. HUM
2. Continue pressing WxCEN to display the information available for outside humidity in the Weather Center and to scroll through the outside humidity-related Weather Center screens, which include:
 - **Maximum Outside Humidity** — Displays the highest humidity measurement for the day and the time it was recorded.
 - **Minimum Outside Humidity** — Displays the lowest humidity measurement for the day and the time it was recorded.
3. Press HUM a second time to select inside humidity.
4. Press WxCEN to display the information available for inside humidity in the Weather Center. Continue pressing WxCEN to scroll through the inside humidity-related Weather Center screens, which include:
 - **Maximum Inside Humidity** — Displays the highest inside humidity measurement for the day and the time it was recorded.
 - **Minimum Inside Humidity** — Displays the lowest inside humidity measurement for the day and the time it was recorded.

Barometric Pressure

Barometric Pressure and pressure trend display below Inside and Outside Humidity.



Barometric Pressure with information displayed in the Weather Center

1. Press BAR to select barometric pressure. Barometric pressure may be displayed in inches (in), millimeters (mm), millibars (mb) or hectoPascals (hPa). See “Selecting Units of Measure” on page 26 for more information on changing the unit measure.
2. Press WxCEN to display the information available for the barometric pressure trend in the Weather Center.
3. Continue pressing WxCEN to scroll through all the barometric pressure related Weather Center screens, which include:
 - **Barometric Pressure Change Per 24 hours** — Displays the difference between the barometric pressure currently recorded and the barometric pressure recorded at the same time yesterday.
 - **Maximum Barometric Pressure** — Displays the highest barometric pressure reading for the day and the time the measurement was recorded.
 - **Minimum Barometric Pressure** — Displays the lowest barometric pressure reading for the day and the time the measurement was recorded.
 - **Altimeter Setting** — Displays the barometric pressure that would display if “ALT SETTING” was selected in Screen 11: Barometric Reduction Setting. The barometric pressure reading and the altimeter setting reading will be the same if the altimeter setting was selected. See “Screen 11: Barometric Reduction Setting” on page 11 for more information.
 - **Absolute Pressure** — Displays the barometric pressure that would display if “NONE” was selected in Screen 11: Barometric Reduction Setting. The barometric pressure reading and the absolute pressure reading will be the same if none was selected. See “Screen 11: Barometric Reduction Setting” on page 11 for more information.
 - **Barometric Pressure Trend** — Describes the current barometric trend and the numeric change in the barometric pressure over the last three hours. The Barometric Pressure Trend listed in the Weather Center corresponds to the pressure trend arrows displayed next to the Barometric Pressure variable. The trends are:
 - **Bar Rising Rapidly** — Refers to a rise in pressure greater than or equal to 0.06" (2 hPa) over the last three hours.
 - **Bar Rising Slowly** — Refers to a rise in pressure greater than or equal to 0.02" (0.7 hPa) but less than 0.06" (2 hPa) over the last three hours.
 - **Bar Steady** — Refers to no change or a change of less than 0.02" (0.7 hPa) either rising or falling over the last three hours.
 - **Bar Falling Slowly** — Refers to a fall in pressure greater than or equal to 0.02" (0.7 hPa) but less than 0.06" (2 hPa) over the last three hours.
 - **Bar Falling Rapidly** — Refers to a fall in pressure greater than or equal to 0.06" (2 hPa) over the last three hours.

BAR

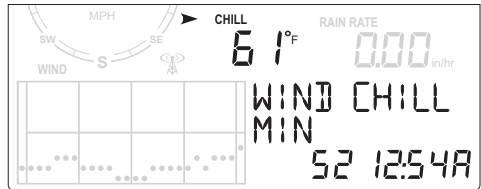
Pressure Trend

The pressure trend arrow indicates the current barometric trend, measured over the last three hours. The pressure trend is updated every 15 minutes. The pressure trend requires three hours of data in order to be calculated so it won't display right away on a new station. The pressure trend is indicated on the console screen, as long as the required data is available.



Wind Chill

Wind Chill shares the same section on the console as Dew Point and Heat Index, below the Barometric Pressure variable, next to the compass rose.



Wind Chill with information displayed in the Weather Center

1. Press 2ND then press CHILL to select Wind Chill. Wind Chill is displayed in either Fahrenheit (°F) or Celsius (°C) in whole degrees. See “Selecting Units of Measure” on page 26 for more information on changing the unit of measure.



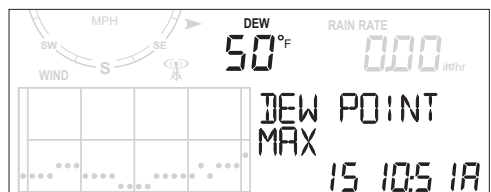
If the unit of measure for any temperature-related weather variable is changed, the unit of measure also changes for all temperature-related variables. See “Inside and Outside Temperature” on page 18 for more information.

The console uses the ten-minute average wind speed to calculate wind chill.

2. Press WxCEN to display the weather information available for Wind Chill in the Weather Center.
3. Press WxCEN twice to scroll through the Wind Chill-related Weather Center screens, which include:
 - **Minimum Wind Chill** — Displays lowest wind chill measurement for the day and the time it was recorded.
 - **Maximum Wind Speed** — Displays the maximum wind speed for the day and the time it was recorded.

Dew Point

Dew Point shares the same section on the console as Wind Chill and Heat Index, below the Barometric Pressure variable, next to the compass rose.



Dew Point with information displayed in the Weather Center