GETTING STARTED GUIDE

WeatherLink®
for Vantage Stations

For Vantage Pro2™, Vantage Vue®, and Weather Envoy™

Product number 6555, 6510USB & 6510SER

Davis ®

Some data logger models may include code based on version 4.2.0 of the FreeRTOS operating system. Complete FreeRTOS source code may be downloaded from http://www.freertos.org.

In addition, some data logger models may include code based on the uIP TCP/IP stack pursuant to the following license:

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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 modifications not expressly approved in writing by Davis Instruments may void the user's authority to operate this equipment.

EC EMC Compliance

This product complies with the essential protection requirements of the EC EMC Directive 2004/108/EC.

Welcome to WeatherLink®

WeatherLink® software and data logger let you connect a Davis Vantage Pro2™, or Vantage Vue® console, or Weather Envoy™ to your personal computer so you can store, view, plot, analyze, export, and print weather data collected by the weather station. You can also upload your data to your ownWeatherlink.com page.

This *Getting Started Guide* will guide you in installing and setting up your new WeatherLink software. It is not meant to be a user manual; the software's extensive Help files contain everything you might need to know about the program's functions and features. Once you have completed these steps and have WeatherLink running, click on **Help** on the top bar for more extensive information about how to use WeatherLink software.
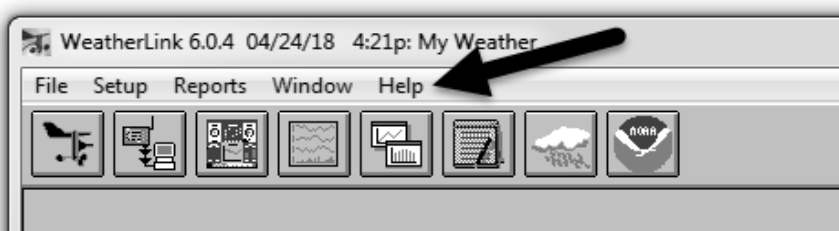
Contents of Package

WeatherLink software is available with three connection types: Ethernet (WeatherLinkIP), USB, and serial.

WeatherLinkIP (# 6555)*:*
- WeatherLinkIP data logger
- 5' (1.5 m) Ethernet cable
- WeatherLink software CD

WeatherLink With USB Connection (# 6510USB)
- Data logger with USB mini-connector
- 8' (2.4 m) USB Mini-B connector cable
- WeatherLink software CD

WeatherLink with Serial Port Connection (# 6510SER)
- Data logger with serial connector
- 8' (2.4 m) cable with connector
- Blue serial port adapter— 9-pin adapter to connect the data logger to a 9-pin serial port.
- Loopback connector: a short piece of cable with a phone plug at one end and a red plastic cap at the other. Used to determine what serial ports are available for the data logger and for troubleshooting communication.
- WeatherLink software CD

Optional Accessories and Add-Ons
- USB-to-serial cables (product number 8434 & 8435)
- Straight through 4-conductor extension cable — For more flexibility in placing your console, add one 40' (12 m) extension cable to extend the distance between your station and the computer (48' [14.4 m] maximum). (Product number 7876-040).
- Agricultural/Turf Management Module (IPM) (product number 6511) offers specialized reports for farmers, growers, and turf managers.
- Integrated Pest Management Modules link your weather data to actual pest risk, giving growers stepped risk levels to warn of specific threats from pests and diseases. IPM modules for specific crops include: Grapes (product number 6571); Apples and Pears (product number 6572); Stone Fruits (product number 6573; Nut Trees (product number 6574).

Computer Requirements

WeatherLink software is compatible with computers running Windows XP or later. The amount of space necessary for the data files depends on the archive interval. Database files containing data stored at a 30-minute archive interval require approximately 36K of disk space per month of data. The file size grows as the archive interval becomes more frequent. For example, data stored at a 1-minute interval requires approximately 1 MB/month while the data stored at a 2-hour interval requires approximately 9K/month.

Other requirements include:

WeatherLinkIP requirements
- Broadband router with one free port.
- An "always-on" connection to the Internet — A high speed DSL or cable internet connection that maintains constant connection to the internet.

WeatherLink USB requirements
- One free USB port

WeatherLink SER requirements
- One free serial port

Software Installation

1. Place the WeatherLink software CD in your CD ROM drive.

    The install program should start automatically. If the install program does not start, select **Run** from the **Start** menu, type D:\SETUP (or the correct letter for your CD ROM drive), and click **OK** to begin the installation.

    A series of dialog boxes display, prompting you to complete the WeatherLink installation.

Note: The **WeatherLink Setup for .NET Framework** dialog box may display. WeatherLink 5.8 or later requires the Microsoft .NET Framework 2.0 to operate. If it is not already installed on your computer, the dialog box displays. Click Accept to install the necessary components.

2. The **License Agreement** dialog box displays.
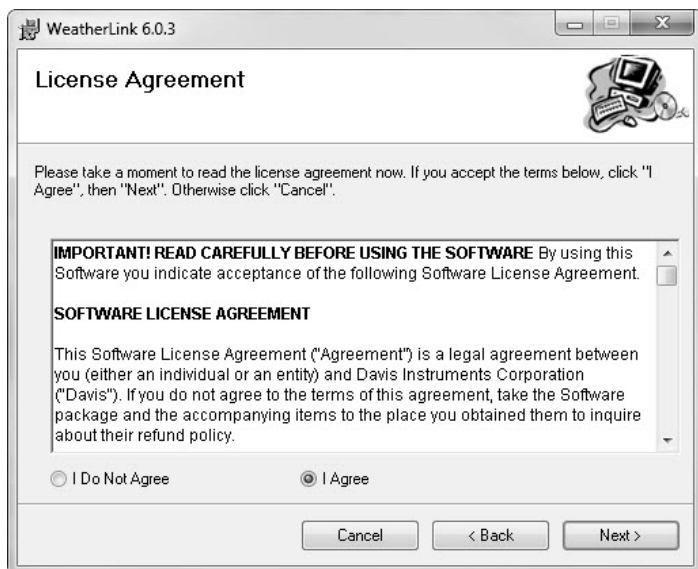
3. Review the license agreement, click **I Agree** and click **Next**. The **Select Installation Folder** dialog box displays.

4. Select the default location to install WeatherLink or find another location by clicking **Browse**.

Note: If you are upgrading your software from a previous version, click **Browse** to search for the directory or folder of the previous version of WeatherLink.

5. Click **Next** once you have selected a location. The **Confirm Installation** dialog box displays.
6. Click **Next** to start the installation. The **Installing WeatherLink** dialog box displays the installation progress. The **Installation Successful** dialog box displays once the software installation has been completed.

Note: During the installation process, the USBXPress Device Driver and the Bridge Driver, two drivers required for USB connections are installed automatically.

7. Click **OK**. WeatherLink has been installed successfully.

Data Logger Installation

WeatherLinkIP Data Logger Installation

1. Write down the Device ID and Key located on the side of the WeatherLinkIP data logger. The Device ID (DID) and Key uniquely identify your data logger on the WeatherLink Network (www.weatherlink.com). They are both required to create a login on WeatherLink.com and are used to connect the WeatherLinkIP data logger to the software.

2. *Vantage Pro2 or Vantage Vue consoles only*: Enter the console's Setup Mode by pressing and holding the DONE button, then pressing the down arrow (-). Entering Setup Mode ensures that the station is not writing any data and saves the current daily weather information to memory.

3. Power down your console or Envoy. Remove the battery cover, the batteries, and AC-power adapter, if present.

Note: Failure to remove power to the console or Envoy before installing or uninstalling any data logger may cause damage to the data logger or console.

4. Firmly insert the WeatherLinkIP data logger into the large receptacle marked **EXPANSION** inside the battery compartment.

Note: *For Weather Envoy:* See the Weather Envoy User Guide instructions for opening the Envoy and installing the data logger. (The manual is available online at www.davisnet.com.)

5. Connect one end of the Ethernet cable to the WeatherLinkIP data logger.
6. Locate a free Ethernet port on your broadband or DSL router/hub and connect the cable to the port.
7. Reconnect the AC adapter and then reinsert the batteries.

Note: A console using a WeatherLinkIP data logger requires use of the AC-power adapter. Battery power can be used for short-term backup power in the event of a power outage, but a console or Envoy with WeatherLinkIP should use the AC-power adapter as its main source of power.

The console beeps four times (Vantage Vue) or three times (Vantage Pro or Pro2); each beep occurring within one second of the others. Once power has been returned to the console, the Setup Mode is automatically displayed.

The Weather Envoy beeps two times, each beep occurring within one second of each other.

8. Replace the battery cover so that the data logger cable exits through the square slot.

9. *Consoles only:* Check the Baud Rate setting. (See "How to Display the Baud Rate" on page 11.) The default value for the Baud Rate setting is 19200, and in most cases will not need to be changed. This value is required when using WeatherLinkIP.
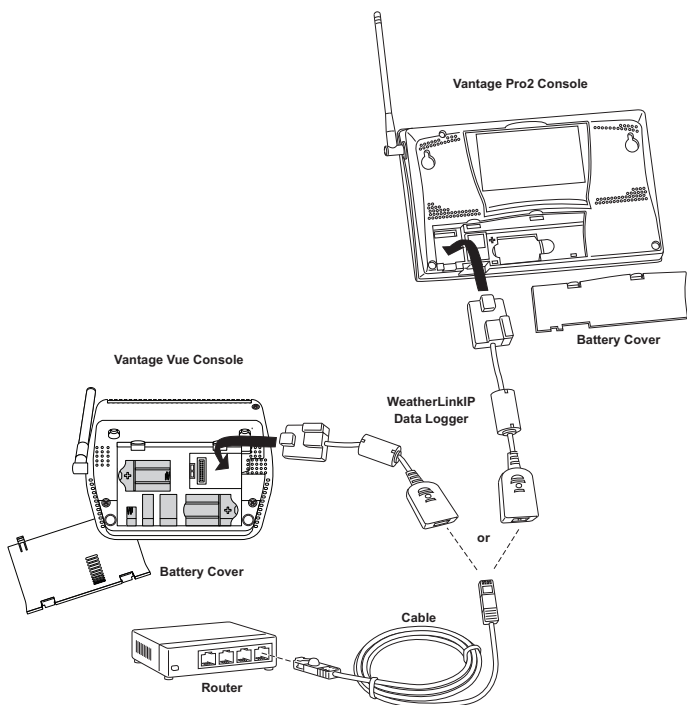
Note: Because WeatherLinkIP is continuously uploading current weather information to www.weatherlink.com, leave the WeatherLinkIP data logger and console connected to your router at all times.

WeatherLink USB Data Logger Installation

1. *Vantage Pro2 or Vantage Vue consoles only*: Enter the console's Setup Mode by pressing and holding DONE, then pressing the down arrow (-). Entering Setup Mode ensures that the station is not writing any data and saves the current daily weather information to memory.

2. Power down your console or Envoy. Remove the battery cover, the batteries, and AC-power adapter, if present.

Note: Failure to remove power to the console or Envoy before installing or unistalling any data logger may cause damage to the data logger or console.

3. Firmly insert the data logger into the large receptacle marked **EXPANSION** inside the battery compartment.

Note: *For Weather Envoy:* See the Weather Envoy User Guide instructions for opening the Envoy and installing the data logger. (The manual is available online at www.davisnet.com.)

4. Insert the USB - Mini B connector into the USB connector of the USB data logger. The connection between the console and the computer can be extended up to 16' (5 m) total length using a USB-to-USB connector cable.

5. Locate a free USB port on your computer and connect the cable to the port.
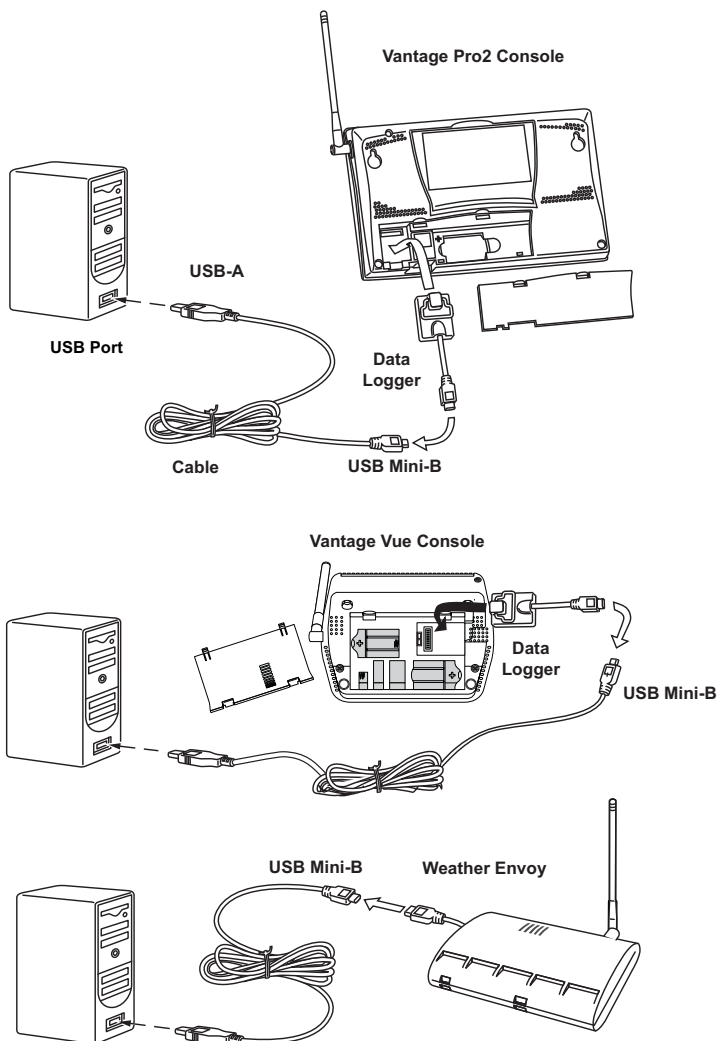
Note: Do not attempt to use more than a 16' extension cable, or the data logger may have difficulty communicating with the computer.

6. Reconnect the AC adapter, if present and then reinsert the batteries.

The console beeps four times (Vantage Vue) or three times (Vantage Pro or Pro2); each beep occurring within one second of the others. Once power has been returned to the console, the Setup Mode is automatically displayed.

The Weather Envoy beeps two times within one second of each other.

7. Replace the battery cover so that the data logger cable exits through the square slot.
8. *Consoles only:* check the Baud Rate setting. The default value for the Baud Rate setting is 19200, and in most cases will not need to be changed. See How to Display the Baud Rate (page 11).

Note: If you have a Weather Envoy, do not change this Baud Rate value in the WeatherLink software. The Baud Rate setting on the console or on the Weather Envoy (always 19200) must be set the same as the WeatherLink Baud Rate setting. See the WeatherLink Online Help for more information.

WeatherLink SER (Serial Port) Data Logger Installation

1. *Vantage Pro2 or Vantage Vue consoles only*: Enter the console's Setup Mode by pressing and holding DONE, then pressing the down arrow (-). Entering Setup Mode ensures that the station is not writing any data and saves the current daily weather information to memory.

2. Power down your console or Envoy. Remove the battery cover, the batteries, and AC-power adapter, if present.

Note: Failure to remove power to the console or Envoy before installing or uninstalling any data logger may cause damage to the data logger or console.

3. Firmly insert the data logger into the large receptacle marked **EXPANSION** inside the battery compartment.

Note: *For Weather Envoy*: See the Weather Envoy User Guide instructions for opening the Envoy and installing the data logger. (The manual is available online at www.davisnet.com.)

4. Firmly insert the data logger with serial connector into the receptacle marked EXPANSION inside the battery compartment.

5. Locate a free serial port on the back of the computer and connect the blue serial port adapter to the port.

6. Insert the cable plug at the end of the short cable coming from the data logger into the receptacle on the end of the 8' (2.4) cable. Then insert the cable plug on the end of the 8' cable into the serial port adapter.
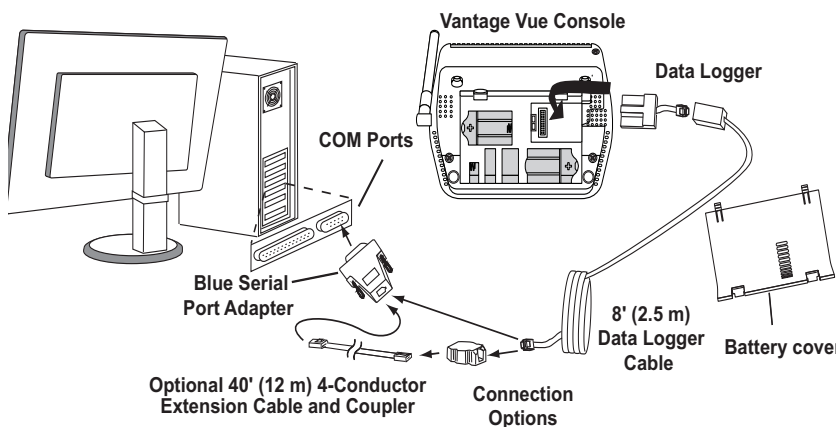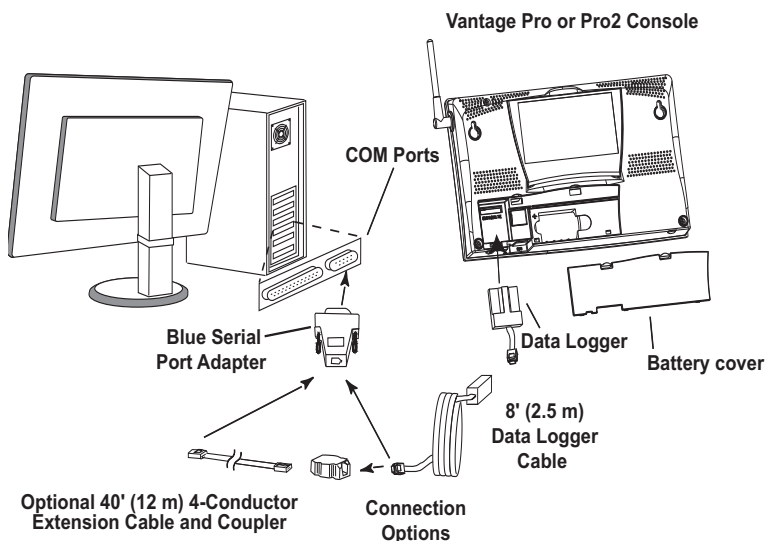
Vantage Pro or Pro2 Console

COM Ports

Blue Serial
Port Adapter

Data Logger

Battery cover

8' (2.5 m)
Data Logger
Cable

Optional 40' (12 m) 4-Conductor
Extension Cable and Coupler

Connection
Options

Vantage Vue Console

Data Logger

COM Ports

Blue Serial
Port Adapter

8' (2.5 m)
Data Logger
Cable

Battery cover

Optional 40' (12 m) 4-Conductor
Extension Cable and Coupler

Connection
Options

7. Reconnect the AC adapter, if present, and then reinsert the batteries.

The console beeps four times (Vantage Vue) or three times (Vantage Pro or Pro2); each beep occurring within one second of the others. Once power has been returned to the console, the Setup Mode is automatically displayed.

The Weather Envoy beeps two times, also occurring within one second of each other.

8. Replace the battery cover so that the data logger cable exits through the square slot.

Note: To extend the cable connection between the console and computer, you may use a 40' (12 m), maximum length, straight-through 4-conductor extension cable.

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9. *Consoles only:* check the Baud Rate setting. The default value for the Baud Rate setting is 19200, and in most cases will not need to be changed. See How to Display the Baud Rate (page 11).

Note: If you have a Weather Envoy, do not change this Baud Rate value in the WeatherLink software. The Baud Rate setting on the console or on the Weather Envoy (always 19200) must be set the same as the WeatherLink Baud Rate setting. See the WeatherLink online help for more information.

Note: The WeatherLinkIP, USB or SER data logger does not require a constant connection with a computer to continue logging and storing data.
WeatherLinkUSB and SER data loggers should remain connected to the console at all times, but the data logger needs to be connected to the computer only when data is being downloaded or when the computer is displaying live data.
However, the WeatherLinkIP data logger should remain plugged into the console and the router at all times because it is constantly pushing data to WeatherLink.com.

How to Display the Baud Rate

The default value for the Baud Rate setting is 19200, and in most cases will not need to be changed. To check to make sure the Baud Rate is correctly set on a **Vantage Pro** or **Vantage Pro2** console, make sure the data logger is installed and then follow these steps:

Vantage Pro2 Console

• Enter the console Setup Mode by pressing and holding DONE, then pressing the (-) key.
• Use the BAR and DONE to scroll to the Baud Rate settings screen:
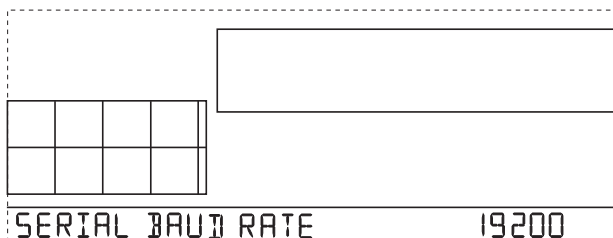
```
SERIAL BAUD RATE          19200
```

Use the up (+) and down (-) arrows to change the Baud Rate setting, if needed. Press and hold DONE to return the console to the current weather mode.

• Use the fastest Baud Rate your computer can handle. 19200 is the fastest Baud Rate available and is the default setting on the console.
• Press DONE when you have the correct Baud Rate on the console screen.

Vantage Vue Console

To display the Baud Rate settings on a **Vantage Vue** console, make sure the data logger is installed and then follow these steps:

• Enter the console Setup Mode by pressing and holding DONE, then pressing the (-) key.
• Press BAR to get to the Baud Rate settings screen:

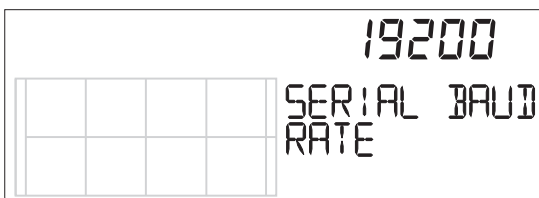```
19200
SERIAL BAUD
RATE
```

Use the up (+) and down (-) arrows to change the Baud Rate setting, if needed. Press and hold DONE to return the console to the current weather mode.

• Use the fastest Baud Rate your computer can handle. 19200 is the fastest Baud Rate available and is the default setting on the console.

Press and hold DONE when you have the correct Baud Rate on the console screen.

# WeatherLink.com Setup

Push your weather data automatically to WeatherLink.com, a web server provided by Davis Instruments that lets you post your weather data via the Internet without having to set up your own web page. Your weather data is automatically saved to our web servers which provide four times the memory storage of a data logger.

- **WeatherLinkIP (6555):** The WeatherLinkIP data logger automatically pushes your current weather information to the web server. The computer does not have to be on to push data to the WeatherLink.com.
- **WeatherLink USB and WeatherLink SER**: WeatherLink 6.04 or later allows users of WeatherLink USB and SER to upload their data to WeatherLink.com, as long as the data logger is connected to the computer, the computer is running, and WeatherLink software is running.
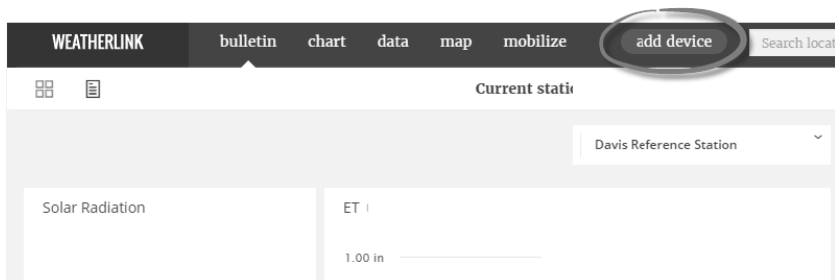
Note: Users of Vantage Connect or EnviroMonitor can also use WeatherLink.com. See their respective manuals to learn how to use your devices with WeatherLink.com.

## Create your account on WeatherLink.com

1. Make sure your data logger is installed and connected to the router (WeatherLinkIP) or your computer (WeatherLinkUSB or SER).
2. Go to www.weatherlink.com and click "**Sign up free.**"
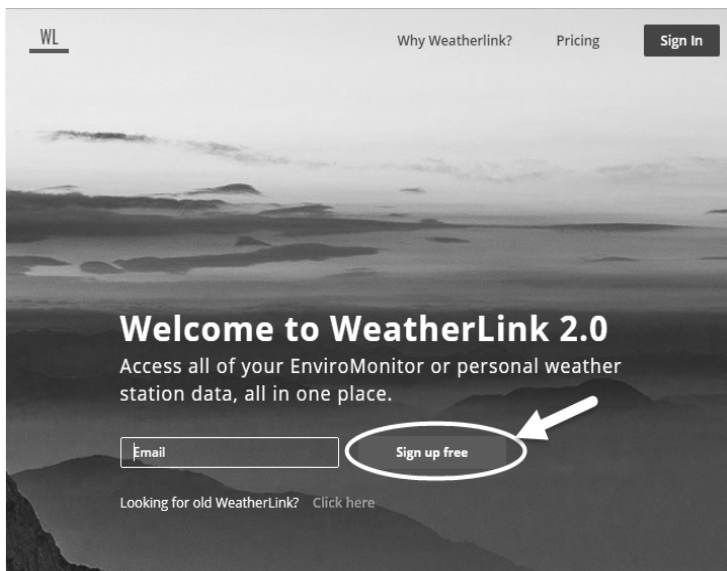


3. Enter your email address, user name, and first and last names. Create a password.
4. Upload a profile image if you choose. Click **Create Account.** (The next screen allows you to upgrade to WeatherLink Pro, or click "**Use WeatherLink Basic**" to proceed with a free account.)
5. The official Davis Instruments station's current data will appear. In the upper right corner, find the green **Add Device** button.

6. Choose your device. (Choose "Data Logger" for WeatherLink USB or SER.) Click Install.



WELCOME TO WEATHERLINK.COM!

Have Davis device to install? Click one of the items below to install. If not feel free to browse our products.

**WeatherLinkIP**

Post your weather data directly to the internet without a PC! Not a web guru? Don't worry— WeatherLinkIP does all the work for you.

Learn More

Install

**Vantage Connect**

Remote weather data, versatile integration. Cellular-based, solar-powered unit sends remote weather station data to the Internet.

Learn More

Install

**Data Logger**

Turn your Davis weather station with a WeatherLink data logger into a station reporting on the WeatherLink Network!

Learn More

Install

**EnviroMonitor**

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

Learn More

Google Play   App Store

7. **WeatherLinkIP:**
   - Enter a name for your station, keeping in mind that this will be the visible name on the WeatherLink.com map. Choose the type of station you have, and indicate the station usage.
   - Enter the Device ID and Key. (It is on a label on the data logger.)
   - Follow the prompts to indicate the location (move the pin on the map or enter an address), time zone, country. If you choose private, your station will not appear on the map.

8. **WeatherLink USB/SER**:
   - Enter a name for your station, keeping in mind that this will be the visible name on the WeatherLink.com map. Choose the type of station you have, and indicate the station usage.
   - Follow the prompts to indicate the location (move the pin on the map or enter an address), time zone, country. If you choose private, your station will not appear on the map.
   - Click **Next.** The next screen will show your Device ID and Key. You will need to enter them in your software. You can also find them by clicking the Device Info icon (it looks like a wrench) in the upper right, under your profile

9. You can review and edit the device information you have entered by clicking the Device Info icon (it looks like a wrench) in the upper right, under your profile.

10. After you set up your software, you can see your data by logging into your WeatherLink.com page.

Note: If you have a WeatherLinkUSB or SER data logger, after you set up your software, you must configure your WeatherLink software to send data to WeatherLink.com. See "Set up uploads to WeatherLink.com" on page 24).

# Software Setup

## Running the Software

To run the software, double-click the **WeatherLink** icon. If no stations have been assigned in the program directory, the software prompts you to add a station (see below for details).

If this is a software upgrade and if there is more than one station in the program directory when the application opens, the last station that was displayed is automatically opened.

## Station Setup

Each station connected to the computer must have its own "station" within the software. The software creates a database for the station and other station-specific information, and requires that the necessary communication settings (communication type, etc) be set.

### Adding a Station

1.  Select **New Station** from the **File** menu. The **New Station** dialog box displays.
2.  Type the desired station name (up to 40 characters/spaces) into the **Station Name** text box. The software uses the first eight characters of the station name (not counting spaces or punctuation marks) as the name of the directory where it saves this station's database and configuration files. The first eight characters of each station name must, therefore, be unique.
3.  Click **OK** to save the new station or click **Cancel** to exit without saving. The software saves the new station, creates a directory and a configuration file for the station, and prompts you to enter the walk-through procedure.

### About the Walkthrough

The software includes a station setup "Walkthrough" to guide you through the weather station configuration. After adding a new station, the **Walkthrough** dialog box automatically displays. Select **Yes** to start the Walkthrough, **No** to cancel it.

The Walkthrough displays a series of dialog boxes. At each step in the process, confirmation boxes are provided to allow you to perform (select OK) or skip (select **Skip**) the step. To continue, select **OK**. To cancel the entire Walkthrough process, select **Cancel**.

Note: You can set up and configure your station by separately selecting all of the necessary setup options from the **Setup** menu.

Note: Please refer to the WeatherLink Online Help for more information about the complete Walkthrough process.

# Communication Port Settings

Use the **Communications Port** dialog box to select the communications type and to test communication between the computer and the station.

Select **Communications Port** from the **Setup** menu or use the Walkthrough to display the dialog box.

Below is an overview for connecting the TCP/IP, USB or Serial communications type in the **Communications Port** dialog box. See the WeatherLink Online Help for more detailed instructions. Also, see the WeatherLink Online Help for complete instructions for a modem connection

## *WeatherLinkIP:*

1. Select **TCP/IP** from the **Communications** field. The areas you need to define for TCP/IP communication become active in the dialog box.



2. Select one of the three available radio buttons that best describes the type of TCP/IP connection you want to setup:
   • **Web Download** — Downloads archive data from www.weatherlink.com.
   Enter the Device ID and Password you created on weatherlink.com.
   Click **OK** to save the web download settings.

Note: While Web Download is selected, the software cannot communicate directly with the weather station.

- **Local Device ID** — Lets the software communicate directly with the station through a Local Area Network (LAN). Use this option if your computer is connected to the same subnet as your WeatherLinkIP data logger.

  Click **Local Device ID**.

  Click **Find** to find the Device ID for the data logger.

  Click **Test** to verify communication.

  Click **OK** to save the Communications Port settings.

- **Remote IP Address** — Connects the WeatherLinkIP data logger and station to the WeatherLink software when the console or Envoy and the computer are in different geographical locations. It requires a static IP and port forwarding, and is an advanced setup option. See the WeatherLink Online Help for more information.

## *WeatherLink USB*

1.  Select **USB** in the **Communications Port** dialog box for direct USB connection. (That is, if you have a USB data logger and you are not using any third-party applications.)

    When the **USB** radio button is selected, the **USB Connection** dialog box displays. Click **OK.**
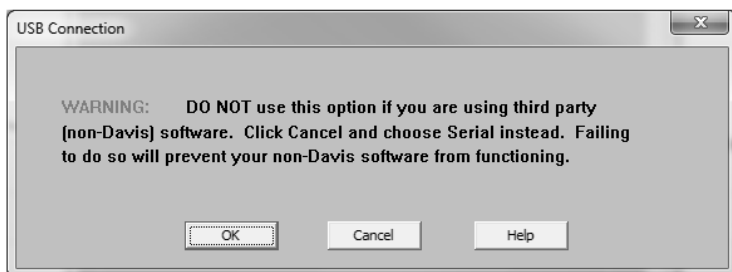


Note: If you have a USB data logger and want to use it with using third party applications, you will need to set up your data logger so that it emulates a COM port connection. You should click **Cancel**, then follow the instructions for a SER connection. See "WeatherLink SER" on page 22.

Note: Once the data logger has been set up as USB direct, it cannot be easily converted to emulate a serial port connection within the software. A utility is included with the WeatherLink software that allows you to convert it from a direct USB data logger to a USB data logger that emulates the COM port. To use this utility, select **CP210X to Serial Converter** in your WeatherLink program group on the Start menu of your computer (Start>AllPrograms>WeatherLink>CP210X to Serial Converter) and run the utility to convert your data logger back to emulate a COM port. Please contact Davis Technical Support ("Contacting Davis Technical Support" on page 27) for more information.

2.  Click **Test** to verify communication.
3.  Click **OK** to save the Communications Port settings.

## *WeatherLink SER*

1. Select Serial in this field if you have a serial data logger, or are using a USB data logger and third party software that requires communication via a COM port.

2. From the drop-down list, elect the communications port number of the port to which you connected the data logger to the computer, or click **Auto-Detect** to find and select the correct COM port being used for your serial port connection.

3. Confirm that the **Baud Rate** drop-down list box is showing **19200** Baud.
   If it is not, click the drop-down list and select **19200**. (Assuming you have not changed the Baud rate on your console. The two must be the same.)

4. Click **Test** to verify communication.

5. Click **OK** to save the Communications Port settings.
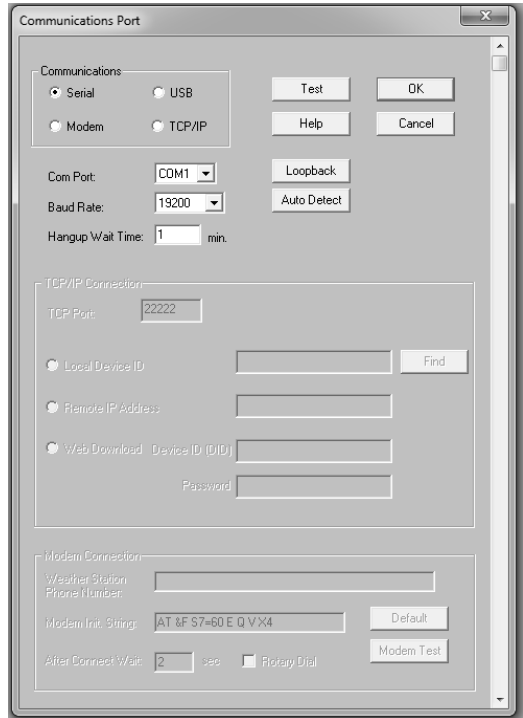
# Set Transceiver IDs

Use the **Set Transceiver** dialog box to view and/or configure your station transmitter IDs and repeater ID assignments and to control the retransmit function. It essentially tells the software which transmitting stations to "listen to" by their ID number.

Note: For Weather Envoy, his dialog box is the only available tool for configuring the transmitter ID and repeater ID settings on your Envoy.

To set transceiver options:

1. Select **Set Transceiver** from the **Setup** menu.
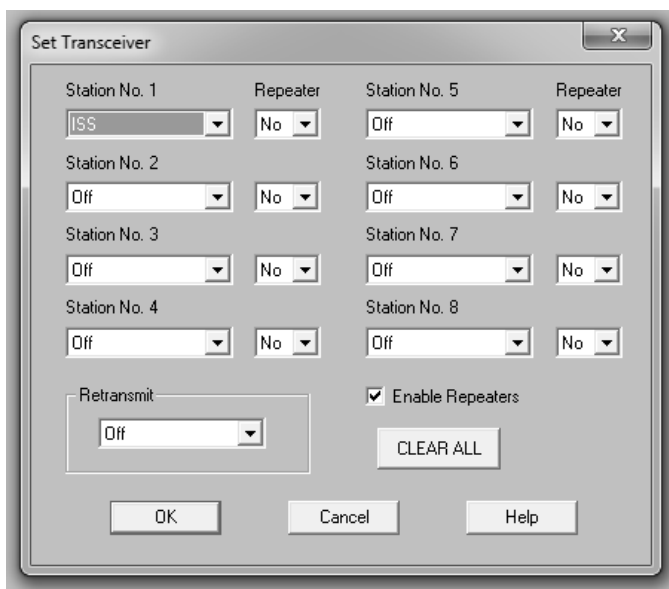


2. Select a Station Type for each of the possible 8 channels your system may be receiving. You must set up each station here to match the ID number you assigned the outside transmitters. For example, if you set your sensor suite to ID 2, you must choose ISS in the Station No. 2 field. If there is no outside transmitting station assigned ID 3, set the Station No. 3 to "Off." See the WeatherLink Online Help System for more information on configuring the stations, the retransmit feature and configuring the Envoy for using repeaters.

## Set up uploads to WeatherLink.com

(WeatherLink USB and SER data loggers only.)

1. From the Setup menu, click on **WeatherLink Network.**
2. Enter the Device ID and Key you received during your WeatherLink.com setup.

Your data will now start uploading to your WeatheraLink.com page. Log in to your account to see your data within a few minutes.

You will see a check mark next to Network Upload when it is on. Use this menu item to toggle upload off and on.
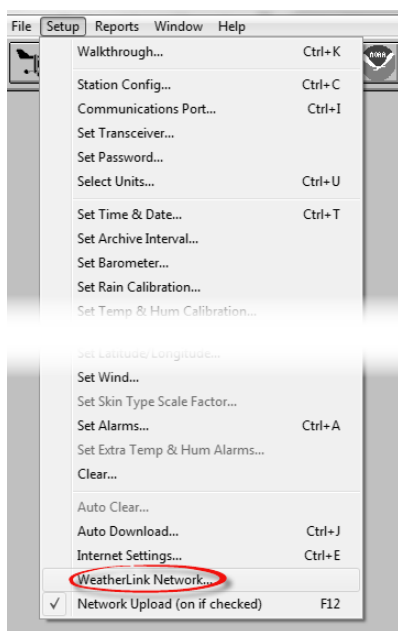


## Install the mobile apps

Once you have set up your account on WeatherLink.com, you will be able to access your current data on your page, as well as on mobile apps from your smartphone.

Install the WeatherLink app on your smartphone.



You can also install the Davis Mobilize app for more agricultural-focused reports and analysis.



Find them by searching for WeatherLink and Davis Mobilize in the iOS App Store or Google Play Store.

# Troubleshooting Guide

The following section answers some of the most commonly asked questions about WeatherLink. Please consult this guide and the online help files before contacting Technical Support.

## Communications Problems

If you are having trouble establishing communication between the weather station and WeatherLink, start by checking the console's own diagnostics. Put the console in Setup mode and then remove all power to the console and restart it by restoring power (with the data logger still attached).

Note: The data logger uses nonvolatile memory, so any previously recorded data is still stored. However, put the console in Setup Mode (by pressing and holding DONE, then pressing the down arrow "-".) before removing power, so that no damage to the data logger occurs.

- A series of beeps sound from the console, each of which occurs when the weather station passes one of its diagnostic tests. Each beep follows the previous after about one second. For Vantage Vue, you should hear four beeps: for Vantage Pro or Pro2, you should hear three beeps; for Weather Envoy, you should hear two beeps.

Note: If you do not hear one or more of these beeps, contact Davis technical support.

- If the console sends four (Vantage Vue); three (Vantage Pro or Pro2) or two (Weather Envoy) beeps, see "Communication Port Settings" on page 17 for instructions on checking communication settings.

### *Troubleshooting WeatherLinkIP Communication*

Note: A console using a WeatherLinkIP data logger requires use of the AC-power adapter. Battery power can be used for short-term backup power in the event of a power outage, but a console or Envoy with WeatherLinkIP should use the AC-power adapter as its main source of power.

1. See if you have a connection to the internet established. Verify that you can access a website from a computer connected to the router that the WeatherLinkIP data logger is using.
2. Check if the green light on the WeatherLinkIP data logger is on. If not, Check the cable connection between your WeatherLinkIP data logger and the broadband router.
3. Leaving the data logger connected to your router, disconnect power from both your router and your console or Envoy.
4. Return power to the router. Wait for at least one minute as the router reboots and re-establishes connections.
5. Return AC power to the console or Envoy.

6.  Check if the green light on the WeatherLinkIP data logger is on. If it is not on, contact Technical Support.
7.  **For consoles:** Hold down the DONE key to exit the Setup Mode.
    **For Weatherlink.com:** Wait five minutes. Log in to your www.weatherlink.com and check that your page is currently being updated.
    **For WeatherLink software**: Open WeatherLink software. From the Setup menu, select **Communications Port**. Select TCP/IP if it is not already selected. Select the communications type under TCP/IP you wish to use. Click **Test**.
    **For local connections:** In the Communications Port dialog box, select Local Device ID and click Find. If the data logger is communicating on the network, the Communications Settings dialog box displays the Device ID and IP address of your data logger. If the dialog box does not display, check connections and try again or contact Technical Support.
    Click **Test** to verify communication between the station and the software.
    **For web download:** In the Communications Port dialog box, verify that the User ID and Password are the same User ID and Password you used when you created your web account on www.weatherlink.com.

### *Troubleshooting USB Communication*

1.  Close the WeatherLink software.
2.  Disconnect the USB cable from the console or Envoy.
3.  Plug the cable back into the console or Envoy.
4.  Open the WeatherLink software again.
5.  **Direct USB connection:**
    *   Open the **Communications Port** dialog box. Select **USB** if USB is not selected in the communications field and follow the prompts.
    *   Click **Test** to verify communication between the station and the software.
    *   If the test is unsuccessful, either the station is malfunctioning or the driver for communicating with USB has not been installed successfully. To verify that the driver is installed, look in Windows' System Properties -> Device Manager -> Universal Serial Bus Controllers and see if the USBXpress Device is listed.
    *   If the driver is listed and there is still no communication between the station and the computer, call Technical Support.
    *   If the drivers is not listed, contact Technical Support for instructions on installing the necessary driver.
6.  **USB emulating COM connection**:
    *   Open the **Communications Port** dialog box. Select **SER** if SER is not selected in the communications field and follow the prompts.

- Click **Test** to verify communication between the station and the software.
- If the test is unsuccessful, either the station is malfunctioning or the driver for communicating with USB has not been installed successfully. To verify that the driver is installed, look in Windows' System Properties -> Device Manager -> Ports and see if the Silicon Labs USB to UART Bridge is listed.
- If the driver is listed and there is still no communication between the station and the computer, call Technical Support.
- If the driver is not listed, contact Technical Support for instructions on installing the necessary driver.
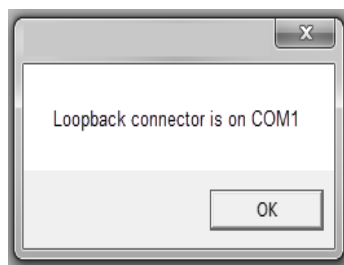
### Troubleshooting Serial Port Communication

1. Check the serial port adapter.Use only the blue serial port adapter supplied with WeatherLink. Older models, or models other than the one supplied with WeatherLinkSER, are not compatible.
2. Check the Baud Rate setting on the console and in the **Communication Port** dialog box in the software. Make sure they have the same number. See "How to Display the Baud Rate" on page 14 for information on how navigate to the Baud Rate Screen on your console. This screen appears only if the data logger is plugged into the console.
3. Test the serial port using the provided loopback connector. Use the **Loopback** loopback connector (the short cable with a phone jack on one end and a red plastic tip on the other) supplied with WeatherLinkSER.

Plug the loopback connector into the adapter.
Select Communications Port from the **Setup** menu. The **Communications Port** dialog box displays.
Click **Loopback**.



*Loopback connector*

The software will display the COM number to which it is connected and the correct COM port is automatically selected in the **Communications Port** dialog box.

If the loopback connector is not found on any COM port, your serial port may not be working. If a connection still does not exist or if



Loopback connector is on COM1

OK

the loopback test identifies the same serial port you have selected, eliminate the following possibilities:

- **Hardware device conflict**—Check the **Device Manager** tab in the **Windows System Properties** dialog box to ensure that Windows recognizes the selected COM port. Consult your computer's documentation to see how to access the System Properties dialog box.
- **The communication port uses a nonstandard device name**— WeatherLink recognizes serial ports named COM1 through COM18 only.
- Your serial port is defective.
- The loopback connector or the WeatherLink adapter plug is bad.

Note: See the WeatherLink Online Help if you are troubleshooting a Modem connection.

# Program Problems

**?** *The barometer graph on the Bulletin does not "fill in" completely.*
When you first load the bulletin, the barometer graph will only fill in completely when you have data in your database for the last six hours. Make sure of the following:

- There is data in your database for the span of the barometer graph.
- The time and date of the stored barometer data is correct in your database.
- The time and date on the PC is correct.
- The time and date on the weather station are correct.
- In the **Station Configuration** dialog box, set the **Download archive data when Bulletin or Summary is started** drop-down box to **Always** or to **Confirm each time**.

**?** *No wind direction reading (or dashes instead of a reading) appears in my database.*
Be aware that if there is no wind speed when the direction is being sampled, wind direction is not recorded. During intervals with very little wind speed, no direction may be recorded.

Note: Because high wind speed is sampled more often, it is possible to have a high wind speed but no wind speed or direction.

**?** *WeatherLink says "No new data to download" but I know there's data there. What can I do?*
The Vantage Pro2 and Vantage Vue systems are "smart" enough to send only data it hasn't already sent to the computer. When you initiate a new download, the program will retrieve the first record after the last record shown in the WeatherLink's Browse Window. To see what records are stored in the logger, create a new station and download the data into this new

database. Because there were no records stored in the station you just created, WeatherLink will download everything it has stored. Wait a few minutes and try downloading data again.

Next, try clearing the archive memory using the clear dialog box. You will lose any data not already downloaded in your archive memory, but all of your calibration numbers and alarm settings will remain intact. If this doesn't work, reboot your weather station (that is, remove and then restore all power to the station). Wait a few minutes then try downloading again.

**?** *When viewing data, dashes appear in place of a value for functions other than wind direction. Why?*

If no data was recorded by a sensor (for example, the sensor was disconnected or radio interference blocked reception), or if bad data was recorded for a sensor (for example, the sensor was malfunctioning), the software dashes out the entry rather than showing invalid data. You can use the record editor to correct these entries.

**?** *The data I want to see, such as solar radiation, soil moisture, or Temp 2 does not display. Why?*

All optional sensors must be enabled in the **Station Configuration** dialog box before the data will be displayed in WeatherLink. If you are not seeing data from a sensor that is installed in your weather station, be sure check the **Station Configuration** in the **Setup** Menu and make sure the sensor has been selected.

# Contacting Davis Technical Support

For questions about WeatherLink software and data logger, please contact Davis Technical Support. We'll be glad to help.

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Note: Please do not return items to the factory for repair before calling to get a Return Materials Authorization number.

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|---|---|
| **Online** | **www.davisnet.com**<br><br>Find copies of user manuals, product specifications, application notes, software updates, and more. |
| **E-Mail** | **support@davisnet.com** |
| **Telephone** | **(510) 732-7814**<br>Monday - Friday, 7:00 A.M.- 5:30 P.M., Pacific Time |

# Tool bar Icons

Open Station · Bulletin Window · Plot Window · Yearly Rainfall · Alarm Indication · Online (Hang Up) · View Help

WeatherLink 5.3 01/29/03 4:02p: Davis Instruments

File  Setup  Reports  Window  Help

Download · Strip Chart Window · Database Window · This Month's NOAA Summary · Print Window · Exit Program
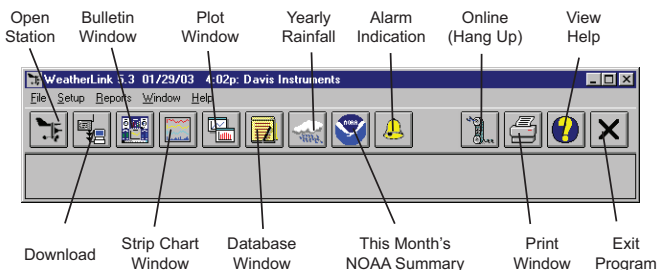
# Hot Keys

## Main Program Window

**Ctrl-A** . . . . . . Set Alarms

**Ctrl-B** . . . . . . View Bulletin

**Ctrl-C** . . . . . . Station Configuration

**Ctrl-G** . . . . . . Degree-Days Report

**Ctrl-H** . . . . . . Hang Up

**Ctrl-I** . . . . . . . Communications Port Settings

**Ctrl-J** . . . . . . Automatic Download

**Ctrl-K** . . . . . . Walkthrough

**Ctrl-L** . . . . . . Download

**Ctrl-O** . . . . . . Open Station

**Ctrl-P** . . . . . . Print Active Window

**Ctrl-Q** . . . . . . Open Plot Window

**Ctrl-R** . . . . . . Yearly Rain Report

**Ctrl-S** . . . . . . Open Strip Charts

**Ctrl-T** . . . . . . Set Time

**Ctrl-U** . . . . . . Select Units

**Ctrl-V** . . . . . . View Download Log

**Ctrl-X** . . . . . . Auto Fax Settings

**Ctrl-Y** . . . . . . View Summary

**Ctrl-Z** . . . . . . Close Window

**F1** . . . . . . . . . Context-Sensitive Help

**F2** . . . . . . . . . Sunrise/Sunset Report

**F7** . . . . . . . . . NOAA This Month

**F8** . . . . . . . . . NOAA This Year

## Strip Chart Window

**ESC** . . . . . . . Halt Redraw

**Ctrl-M** . . . . . Make Default

**Ctrl-P** . . . . . Print Strip Chart

**F1** . . . . . . . . Context-Sensitive Help

**F3** . . . . . . . . Zoom In

**F4** . . . . . . . . Zoom Out

## Plot Window

**ESC** . . . . . . . Halt Redraw

**Ctrl-D** . . . . . Choose Date

**Ctrl-M** . . . . . Make Default

**Ctrl-P** . . . . . Print Plot

**F1** . . . . . . . . Context-Sensitive Help

**F3** . . . . . . . . Zoom In

**F4** . . . . . . . . Zoom Out

**F9** . . . . . . . . Overlay Plots

**F10** . . . . . . . Last Year Plot

## Database Window

**Ctrl-D** . . . . . Choose Date

**Ctrl-N** . . . . . Add Note

**Ctrl-P** . . . . . Print Records

**Enter** . . . . . . Edit Record

**Delete** . . . . . Delete Record

**F1** . . . . . . . . Context-Sensitive Help

## Yearly Rainfall Window

**Enter** . . . . . . Edit Year

**Delete** . . . . . Delete Year