



Quick Start Guide - READ ME FIRST

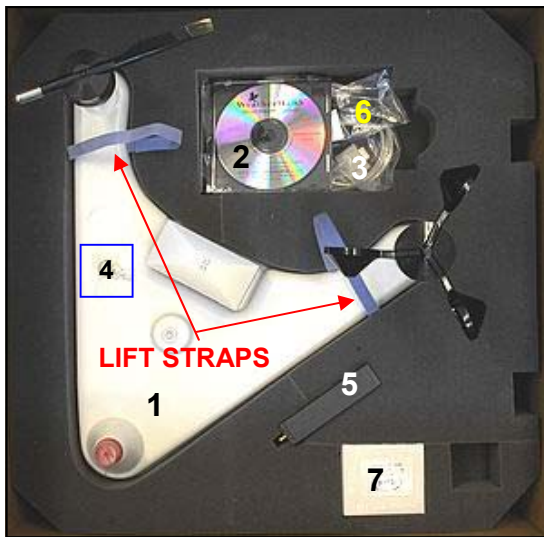
Before You Begin, check the following:

Computer System Requirements

Your computer system must be at least equivalent to the following:

- PC with Windows 95/98/NT/2000/ME or XP operating system.
- An available USB or Serial Port.

IMPORTANT: Your WeatherHawk™ system is supplied with an RS-232 serial cable for communication with your computer (item #3 below). If your computer is only equipped with a USB port, or if your serial port connection is in use by another device, then you will need to acquire a Serial-to-USB Converter Cable before installing your software, or using your WeatherHawk weather station.



1. Opening the boxes:

Remove the top foam packing only from the WeatherHawk box. Before removing the weather station, verify that you have the following items:

1. The WeatherHawk weather station with **lift straps**. (Remove the weather station ONLY by lifting on the straps. The

straps may be removed after station has been lifted from the carton and can be handled by the housing. Do not handle by lifting on the sensors)

2. One Virtual Weather Station™ CD
3. One Serial communications cable (9 pin to 9 pin)
4. Two keys taped in this area for use in the power switch. **DO NOT LOSE.**

Additionally, for wireless weather stations you will have:

5. One RF400 Radio Base Station
6. One antenna
7. One RF400 AC Adapter Power Supply

The following optional items may also have been ordered:

- One Solar Panel. May either be in a separate box or with the station.
- One WeatherHawk weather station AC Adapter Power Supply.
- Installation kits as noted here:



TP1—Tripod/Mast Assembly



TP1-MX—Tripod Mast Extension



TP1-SK-Tripod Stake Kit



TP1-GR Tripod Grounding Kit



TP1-TK Tripod Installation Kit



TP1-GK-Tripod Guy Wire Kit

NOTE: If any items ordered are missing or damaged, please call WeatherHawk Customer Service before installing your system.

2. Install the software

- Close all open programs.
- Insert the Virtual Weather Station CD into your computer.
- The software should auto-run but if it does not, select **RUN** from your **START** window, then select **SETUP.EXE** from the files located on the CD.
- Follow the instructions on the screen to install the Virtual Weather Station.
- After the software installation, **EXIT** Virtual Weather Station. The WeatherHawk weather station is now ready for testing in the following steps.

3. Setup and test your WeatherHawk weather station before installing it outside.

NOTE: The WeatherHawk weather station is supplied with a charged battery which should be adequate for the test phase. It is not recommended that the weather station be operated for extended periods without connection to a power source or the battery may discharge below minimum operating levels.



- On the bottom of the weather station, remove the dust cover from the RS-232 serial data port shown here



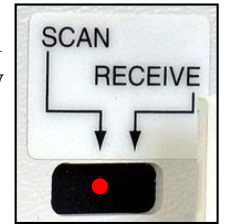
and connect one end of the serial cable supplied with the system. Connect the other end of the cable to the serial data port on your computer.

NOTE: You must make certain that the Serial Port you are using is not already assigned to an open program on you computer.

- Turn on the weather station.



- Start the Virtual Weather Station and monitor the various sensor displays. After a brief delay numerical values should appear, confirming that WeatherHawk is functioning properly.
- Look under the base of the WeatherHawk weather station and identify the small window near the mounting bracket. When the weather station is directly connected to a computer a small RED light will blink every ten seconds to indicate a sensor scan.

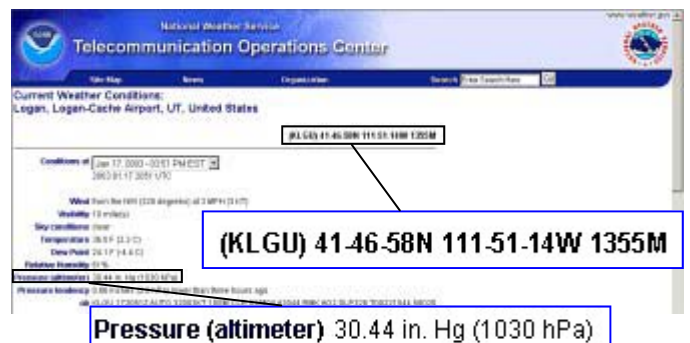


NOTE: The following step may only be done while connected to a working WeatherHawk, as determined above.

4. Local Settings.

While the system should work as supplied, you may want to change the system radio address. If so, please see the “Advanced Radio Settings” document.

- You will need to know your **latitude, longitude, altitude, and current barometric pressure**. You can find this information at <http://weather.noaa.gov/weather/ccus.html> on the web. Select the site nearest you.



Record the information here for future reference.

Latitude (N or S) _____
 Longitude (E or W) _____
 Altitude (in Meters) _____
 Pressure _____
 (Default is Hg. You may chose later which units you wish to use.)

The latitude, longitude, and altitude can also be determined with a portable GPS receiver, or a good topographical map.

Barometric pressure can be obtained from radio or television weather programs.

Enter all local information into the area shown with:

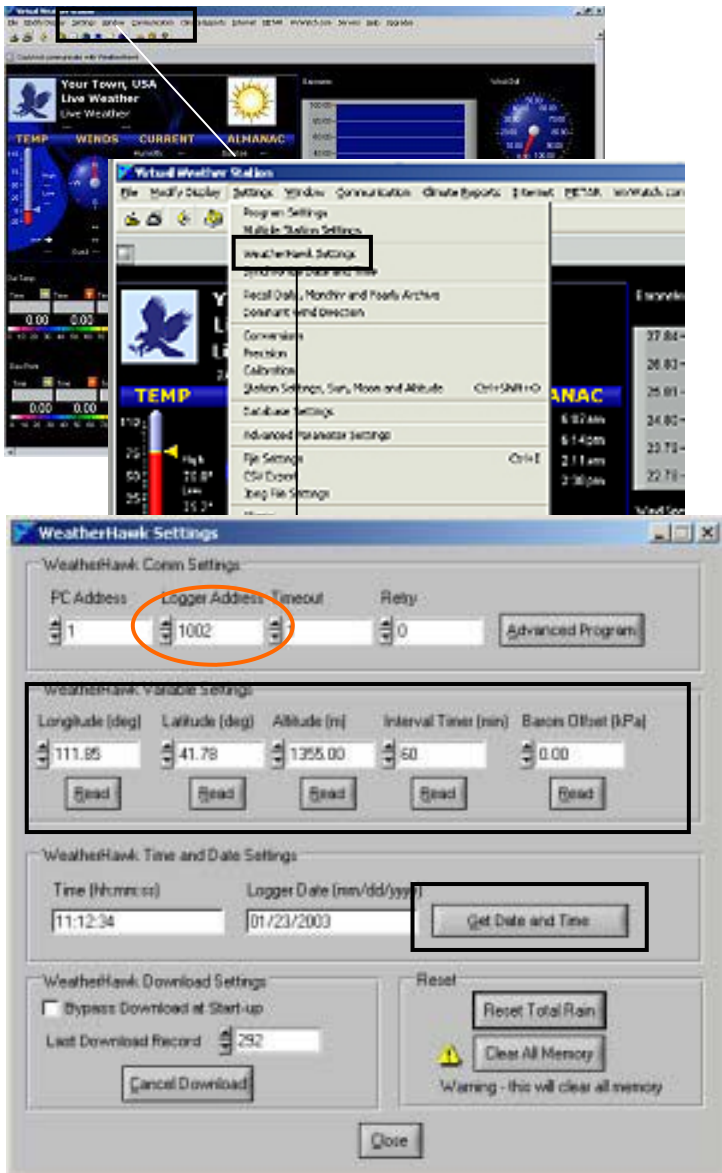
- Latitude (in Decimal Deg.)
- Longitude (in Decimal Deg.)
- Altitude (in Meters)
- *Barometric Offset

*Barometric Offset is calculated by subtracting the actual pressure from the original WeatherHawk Broadcast Display, reading in Hg. Negative numbers are OK and small numbers are quite likely.

- Click on “Get Date and Time” to get the Date and Time from the WeatherHawk.
- Note: The **red circled** value is the station address and may be changed if necessary.
- Close the WeatherHawk settings window.

NOTE: If your weather station is wireless, proceed to step 5 to test the wireless connection.

Otherwise, turn off the WeatherHawk and proceed now to step 6, system installation .



- Click on the Settings menu and chose Weather Hawk Setting from the drop down menu. Enter the parameters, ***in decimal numbers**, into the Virtual weather Software settings outlined in the image above.

*Example, from above, to calculate latitude.:
 41 degrees 46 minutes 58 seconds N
 (Drop the seconds.)
 $41 + (46/60) = 41.78$
 (to be entered as shown above).
 Calculate Longitude by the same formula.

5. Wireless Systems Test

- Exit Virtual Weather Station, disconnect the serial cable from the **WeatherHawk**, and reinstall the protective dust cover on the WeatherHawk serial port.



- The RF400 is supplied with one of two antenna types. Whichever type you have with your system, Install the



antenna onto the RF400 connector labeled **Antenna**.

- Install the serial communications cable between the RF400 and your computer. The male connector end of the serial cable mates to the RF400 connector labeled RS-232, and the female end mates to your computer serial data port.



NOTE: It is possible to misconnect the Serial cable to the RF400 if the incorrect end of the serial cable is connected to the **CS I/O** input to the RF400. However, it will not be possible to connect the other end of the serial connector to your computer serial port due to the resultant connector mismatch.

- Plug the RF400 AC Adapter power supply into a grounded AC wall outlet, and connect the power cable to the **DC Pwr** input on the RF400. The **RED Pwr/Tx** lamp should illuminate.

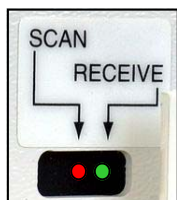


- Start the Virtual Weather Station and monitor the various sensor displays. After a brief delay, numerical values should appear, confirming that WeatherHawk is functioning properly.

- **For wireless configurations**, the **RED** lamp on the RF400 should flicker when it interrogates the weather station, and the **GREEN** lamp should flicker when data is being received from the weather station.



- The WeatherHawk indicator lamps (visible by looking under the base, through the small window near the mounting bracket) will flicker **GREEN** when the base station interrogates the weather station, and flicker **RED** when it responds. The **RED** lamp will also blink at the sensor scan rate set by the user during Virtual Weather software set-up. The default scan rate is every ten seconds.



- Close the Virtual Weather Station and turn off the WeatherHawk station.



6. Install the WeatherHawk weather station in it's permanent location.

Refer to the installation guide.

- There are many possible installation configurations for a WeatherHawk. Refer to the WeatherHawk System Installation Guide for installation tips and sample installations. The sample installations are only a guide as each location and application requirement may be different. For questions not answered in the manual, please call WeatherHawk Customer Service
- After Installation, turn **on** the WeatherHawk weather station power switch and place the key (s) in a safe place. Two keys are provided and it is recommended that the keys be kept in different places. Additional replacement, duplicate keys are available from WeatherHawk if your keys are lost or misplaced.

7. Find help and support

For product support, specifications, and installation troubleshooting, use the following resources:

- The WeatherHawk system manual is located on your CD in a PDF format.
- Go to: www.WeatherHawk.com Frequently Asked Questions (FAQ)
- Call: 866-670-5982 (Toll Free USA)
435-750-1802 (International)
435-750-1749 (FAX)
- E-mail: service@WeatherHawk.com
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NOTE:

1. Virtual Weather Station™ is a trademark of Ambient L.L.C., used by permission.
2. WeatherHawk™ is a trademark of Campbell Scientific, Inc.



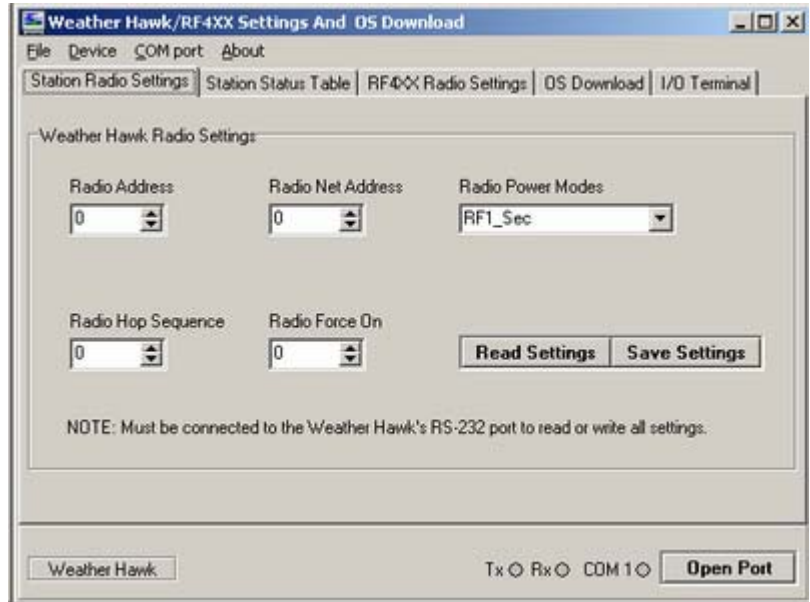
ADVANCED RADIO SETTINGS

To change your radio station settings, do the following: **You must be connected to the WeatherHawk to perform these settings**

If not already running, start Virtual Weather. Click on the Settings drop down menu and then the WeatherHawk menu. From the setup window, click on Advanced Program. You will see the window shown at the right.

Click on Open Port

You may choose any Radio Address, Radio Net Address, and Radio Hop sequence you desire, **within the settings available.**



Settings Must be Identical

Open the RF4XX Radio Settings window.

Follow the instructions in the white large white box to begin.

Set the Radio Address, Net Address, and Hop Sequence to be identical to the Station Radio Setups established above.

Make sure that the Preferred Setting is as indicated with RF on 1 Sec LH (Default) setting.

NOTE: The radio address, net address, and Hop Sequence must be the same for the station and RF4XX radio.

Return to the Station Radio Settings and click on Save Settings.

Close Window and return to Virtual Weather.

