

WS-2812U-IT

Q: Outdoor temperature shows dashes.

A: Dashes means you have lost connection between the display and the outdoor sensor. Batteries are the most common problem.

A: Distance/Resistance can cause loss of sensor signal. If possible avoid having more than 1 wall, window, tree etc., between the display and the sensor. UV coated windows may actually reflect the signal. Stucco walls will absorb the signal.

A: You may find it helpful to orient the Display 90 degrees towards the Thermohygro sensor for better reception.

A: Please, remove the batteries from the Thermohygro sensor for 2 minutes. Replace the batteries in the Thermohygro sensor and after 5 minutes press and hold the UP ARROW on the display until it beeps. Wait 10 minutes. If you do not receive a reading from all your sensors please try the factory reset below.

NOTE: It can take several tries to get the Wind and the Rain to connect. Please install batteries in the Rain and Thermohygro sensors and key the Wind sensor and **allow them to operate in line-of sight of each other for 2 minutes before** powering up the display.

A: Complete a **RESTART**. It is not necessary to bring the sensors in the house unless they have never worked.

FACTORY RESTART:

A Factory Reset will erase the connection between the Display and the Thermo-hygro sensor and allow a fresh connection to be re-established. It is recommended to have the display and all sensors 5-10 feet apart for this restart.

- **ENTER PROGRAM MENU:** Press and hold the SET button until you enter the program menu. Press and release the SET button until you see 'rES oFF' flashing.
- **FACTORY RESET ON:** Use the ▲UP ARROW key or ▼DOWN ARROW key to turn rES on.
- **CONFIRM & COUNTDOWN:** Press the SET key to confirm and a countdown timer will begin counting down from 127. When the timer displays dOnE, you must remove the batteries from the display for 10 minutes.

- **REMOVE BATTERIES FROM THERMOHYGRO AND RAIN:** While the batteries are out of the display, also remove the batteries from the Thermo-hygro sensor and the Rain sensor. Wait 15 minutes.
- **GENTLY KEY THE WIND SENSOR:** Gently key the wind sensor one time to activate the sensor.
- **INSTALL BATTERIES INTO THERMOHYGRO AND RAIN:** Insert fresh alkaline batteries into the Thermohygro sensor and Rain sensor make sure to check polarity with the markings on the battery cover and inside the battery compartment. Wait 2 minutes.
- **INSTALL BATTERIES INTO DISPLAY:** Insert fresh alkaline batteries into the Display. Make sure to check polarity with the markings inside the battery compartment.
- **15 MINUTES:** Wait 15 minutes for the outdoor weather data to display. If the outdoor data displays dashes after waiting for 15 minutes, repeat steps the restart.

Q: Intermittent temperature and/or humidity.

- A:** RF communication may come and go occasionally. This can be normal in some environments (e.g. moister climates). If a sensor goes out, please wait 2-4 hours for it to reconnect on it's own. Please be patience – these stations can reconnect on after many hours out.
- A:** RF communication is not always 100% on. Certain temporary conditions can cause it to go out for a time (e.g. 100% humidity).

If a miss happens:

- The units try for 20 minutes to reconnect.
- After 20 minutes the thermo-hygro stops trying for an hour (to preserve battery life).
- After the 1-hour break, the thermo-hygro sensor will start another 20-minute re-connect cycle.

A: Distance/Resistance can cause loss of sensor signal. If possible avoid

having more than 1 wall, window, tree etc., between the display and the sensor. UV coated windows may actually reflect the signal. Stucco walls will absorb the signal.

A: Check batteries. This is our primary warranty issue.

Q: Outdoor Temperature shows OFL (outside factory limits).

A: Check batteries. This is our primary warranty issue. Over powered or underpowered batteries can cause this reading.

A: Replace sensor

Q: Outdoor temperature and/or humidity is inaccurate.

A: Side-by-side test. Bring the sensor in the house and place it next to the display for 2 hours. Compare indoor and outdoor temperature and humidity. The temperatures should be within 4 degrees to be considered within tolerance. The humidity should be within 14% to be considered within tolerance.

A: If the sensor reads correctly while next to the display then try a different location outside. Look for heat sources such as sunlight, door or window frames, or reflected heat.

WIND:

Q: Wind Cups spinning slow or not spinning.

A: Check for debris or ice in cups.

A: Be sure cups are mounted below mast.

A: Check mounting location to be sure the wind is not being blocked from reaching sensor. The pole the mast is mounted on should not be more than 1 ¼ inch thick. In most cases, the sensor needs to be 4-6ft above the highest point on your roof in order to clear nearby obstructions and read accurately. A 50 –foot clearance in all directions is best.

A: Push up firmly on the center of the cups to reseal them. Occasionally they drop a bit.

Q: Wind cups or directional vane are broken.

A: Replace the wind directional vane:

- Gently remove the piece of plastic in the top center of the vane to reveal the screw that holds the vane to the sensor.
- Remove the screw.
- Gently pull the vane straight up and off of the sensor.
- Carefully place the new vane on the sensor; notice the groove to seat it properly.
- Insert screw through the vane to the sensor and tighten properly.
- **NOTE: do not over tighten.**
- Complete a restart to connect sensor to the display.

A: Replace wind cups.

- In the bottom center of the wind cups is a plastic lock pin. Gently pry the lock pin out of the wind cups.
- Firmly grasp the wind cups and pull straight off the sensor.
- Check to be sure that you have a metal magnet in the wind cups.
- Check to be sure you have a metal bearing in the wind cups or on the stem of the sensor where the cups attach.
- Look at your new wind cups and be sure there is a bearing and magnet in place.
- Install the cups onto the wind sensor and press firmly.
- Insert a new lock pin into the cups and push firmly until the lock pin is flush with the bottom of the cups.
- Complete a restart to connect with the display.

Q: Wind direction is working Wind speed is 0.00.

A: Check that your wind cups are still attached to the sensors. Occasionally they can come off.

Q: Wind reading is dashes or intermittent

A: RF interference is normal; the occasional outage is possible.

A: Check for sources of RF interference such as Ham radio or electric transformers nearby. In the house look to see if the Display is near a cordless phone or wireless router etc.

A: Check the environment is checked for unusual moist/humid conditions (it is a known fact that 'moist' reduces RF signal in electronics).

A: Check that the wind sensor is receiving plenty of sunlight. You can bring it in and place under a lamp for 24-hours if needed.

A: Distance/Resistance can cause loss of sensor signal. If possible avoid having more than 1 wall, window, tree etc., between the display and the Thermohygro sensor. UV coated windows may actually reflect the signal.

A: Try relocating the Wind sensor closer to the Thermohygro sensor. Ideally the Wind and TH sensor should be on the same side of the building and in line-of-sight of each other.

A: Mounting on a metal or white PVC pole may cause RF interference or static.

A: Please note if there are certain times of the day or night that you lose signal. Details are helpful in resolving the problem.

Q: Wind sensor reads OFL:

A: Place wind sensor under a light source for 24-hours.

A: Please note if there are certain times of the day or night this occurs.

A: Check the solar panel for damage or breakdown.

Q: Wind area on the display shows blank (not dashes or numbers):

A: Check that other areas of the display read properly. You may have a problem with the Display.

Q: Wind speed is inaccurate:

A: Check your unit of measure (MPH, KMH, or M/S).

A: How far away is the recording station you are using to compare wind speed. Wind speed can be different in just a few feet.

A: Check to see if you receive the same repetitive wind speed from the sensor multiple times.

A: Check to confirm the direction is working correctly.

A: Mounting on a metal or white PVC pole may cause RF interference or static and inaccurate readings.

- A:** Check that the cups turn freely. Check for insects or debris preventing free movement.
- A:** Be sure the cups are mounted below the mast.
- A:** Check that the cups have not dropped. Push up firmly in the center of the cups to seat properly.
- A:** Be sure the Wind sensor solar panel is receiving plenty of light. The wind sensor should be facing south.
- A:** Check the location of your sensor mounting and the surrounding area for obstructions. In most cases, the sensor needs to be 4-6ft above the highest point on your roof in order to clear nearby obstructions and read accurately. A 50 –foot clearance in all directions is best.
- A:** It is helpful to send pictures if you need to contact customer support.
- Q: Wind direction is dashes:**
- A:** If the speed is working then your wind sensor is bad.
- Q: Wind direction is incorrect:**
- A:** Check that the mast and pole is on the North side of the Wind Sensor.
- A:** Check to see if the direction is sticking in a certain direction. What direction?
- A:** Check to see if the direction only sticks at certain times of the day/night. Please note the times.
- A:** Be sure the Wind sensor solar panel is receiving plenty of light. The wind sensor should be facing south.
- A:** Check that the speed is reading correctly.
- Q: Wind sensor frozen: Freezing rain and wet snow can clog the wind sensor and prevent it from reading speed or temperature.**
- A:** Bring the sensor in the house for 2-3 days. The sensor will need to thaw out and dry out for prevent refreezing.
- A:** The wind sensor will need to have 40-degree temperatures for 3 days to thaw and dry if mounted.

A: The wind sensor does not often freeze as it is always moving.

RAIN:

Q: **What is 1-hour, 24-hour, weekly, monthly and total rain?**

A: The 1-hour and 24-hour rain is recorded in real time with a short delay. As the rain stops falling the 1-hour and 24-hour rainfall totals will slowly count backwards to zero. You cannot reset the 1-hour and the 24-hour rain.

A: The 1-hour rain reflects rain that has fallen from current time and back 1-hour. This is not a midnight to midnight or 7 to 7 system.

A: The 24-hour rain reflects the rain that has fallen from current time and back 24-hours. This is not a midnight to midnight or 7 to 7 system.

A: Weekly rain reflects the rain that has fallen from 12AM Monday through 11:59PM Sunday of the **previous** week. This will always be a week behind and update 12AM Mondays. It is important that Time and Date are set on your station.

A: Monthly rain reflects the previous month's rain and will update 12AM the first day of the month. It is important that Time and Date are set on your station.

A: Total rain will remain until you manually reset this value. Total rain reflects the rain from time of set-up until you reset the total rain.

Q: **View 1-hour, 24-hour weekly, monthly or total rain.**

A: Press the ▼DOWN ARROW to select the rainfall value to display.

Q: **Set Rain Alarms:**

A: In either Mode 1 or Mode 2 display, press and release the MIN/MAX button until the display shows the total rainfall value.

To reset the rainfall reading, press the ▲UP ARROW button. The total rainfall amount will be reset to 0, and the time updated to current time.

NOTE: Until the first rainfall total reset is performed, the time and date of the total rainfall are displayed as "- - -.-.-". After the rainfall total is reset, the rainfall total display will indicate the date and time of the last rainfall total reset.

Q: **Rain count is not accurate.**

A: PLEASE CHECK YOUR SOFTWARE VERSION:
You should be using version **1.5 software** for the WS-2812U-IT

A: Check that your unit of measure (inches or mm) is correct.

A: Complete a Manual Tip Test and a Water Tip Test and compare them:

Manual Tip test: Write down the Total Rain reading or reset the Rain Total to 0.00. Use the eraser end of a pencil to manually tip the rocker of the rain sensor 10 times (five each way). Wait at least 30 minutes for all the rain to collect.

Water Tip Test: Write down the Total Rain reading or reset the Rain Total to 0.00. With Rain Gauge mounted slowly pour water into the funnel to tip the rocker of the rain sensor 10 times (five each way). Wait at least 30 minutes for all the rain to collect.

A: Compare these tests. 10 tips equal .10. If they still read high then contact support.

A: If the tests read low, dismount the rain gauge and re test. One of the most common problems with low rain is that the gauge is mounted too tight.

A: Check that the pin the rocker tips on is pushed in all the way and that the rocker tips freely.

A: Check the funnel and inside of Rain Gauge for insect nests or debris that may cause lack of motion.

A: Check for sources of RF interference such as Ham radio electric Transformers, or other rain gauges nearby. In the house look to see if the Display is near a cordless phone or wireless router etc.

Q: Where to mount sensors:

A: Please test all sensors in the house before mounting. Tip the rain gauge; blow on the wind sensor to be sure everything reads properly. Be sure to allow the sensors to run for 2 minutes before installing batteries into the display.

WIND SENSOR:

A: WIND: Place the Wind sensor as high as you can install it. In most cases 4-6 ft above the peak of your roof (or more) is required for accurate

readings. (Avoid tall trees or other obstructions that may block or reflect the wind). A 50 –foot clearance in all directions is best. For more information on wind speed and obstructions, check this site: <http://www.talentfactory.dk/en/tour/wres/obst.htm>.

- A:** Wind cups should be below the mast.
- A:** Ideally the Wind sensor should have a direct line of sight to the Thermohygro sensor.
- A:** **DIRECTION:** Please note the proper Direction when mounting. The wind sensor has N,**S**, E, W indications on the barrel. The solar panel should be facing South for best light.
- A:** **NOTE:** Be sure not to overtighten the U bolts to mast, as the mast may crack .
- A:** **AVOID:** Transmitting antennas, using PVC pipe (unless electrical grade), and other sources of interference.
NOTE: most recording stations have sensors mounted 33 ft up or higher.

RAIN GAUGE:

- A:** **RAIN:** Install the Rain gauge on a level platform that is stationary. If the gauge isn't level it will read low, and if it isn't stationary wind will cause it to read rain that isn't falling.
- A:** Ideally the Rain sensor should have a direct line of sight to the Thermohygro sensor.
- A:** On the bottom of the sensor there are 4 screw holes that can be used to mount the gauge. First remove the cover. Push down and twist counter clockwise, then pull the cover off. This will give you access to the screw holes.
- A:** **NOTE:** Be sure not to screw the rain sensor down too tightly as that will result in a low or inaccurate reading. It works best to use only 1 screw that is just snug not tight.
- A:** Place the Rain gauge 2-3ft (or more) above the ground. This will prevent dirt from clogging the gauge.
- A:** **NOTE:** You may need to periodically clear debris such as leaves, spider nests etc from the rain gauge, so be sure it is accessible.

A: **AVOID:** Transmitting antennas, using PVC pipe (unless electrical grade), and other sources of interference.

THERMOHYGRO SENSOR:

A: **THERMOHYGRO:** Place the Outdoor sensor vertically, in a well-shaded area that is protected from direct rainfall and sun. The sensor will read high if exposed to the sun. If the sensor gets too wet it will not read accurate humidity. Light incidental exposure to water typically will not harm the sensor.

A: If possible avoid having more than 1 wall, window, tree etc between the Display and the Thermohygro sensor. UV coated windows may actually reflect the signal causing loss of contact.

A: A good location is under the eaves on the north side of the house. You can also build a small roof or box for it if you do not have an overhang. Please be sure it is well vented.

A: Ideally the Wind & Rain sensors should have a direct line of sight to the Thermohygro sensor. It is important that all sensors are on the same side of the house.

A: It is best to mount the sensor with screws as tape can fail causing the sensor to fall. Tape is great for positioning until you determine the best location for your sensor to maintain contact with the display.

A: **NOTE:** Do not place sensor in a plastic bag.

Display

Q: Program Menu

A: There are 5 function keys located on the unit: SET, UP ARROW, DOWN ARROW, ALARM, and MIN/MAX. You begin by pressing and holding the SET button until the display flashes. When you press and release the SET button after each step, you will be moved to the next step.

- **CONTRAST:** Press and hold the SET button. LCD and a number from 1-8 will be flashing. To adjust the Contrast of the LCD display press and release the UP ARROW or DOWN ARROW button. Press and release the SET button.
- **HOUR:** The Hour will now be flashing. Press and release the UP ARROW or DOWN ARROW button until the correct Hour is shown. WATCH the AM/PM.

- **NOTE:** When in the 12h mode, there is only a 'PM' display, which appears under the word TIME. During the 'AM' hours this area will be blank. When the correct hour is shown, press and release the SET button once.
- **MINUTES:** The Minutes will now be flashing. Press and release the UP ARROW or DOWN ARROW button until the correct Minutes are displayed. Press and release the SET button once.
- **12/24-HOUR TIME:** A 12h or 24h will be flashing. To change between 12h and 24h, press and release the UP ARROW or DOWN ARROW button. When your choice is shown on the display, press and release the SET button once.
- **NOTE:** When in 24-hour time the Date will display Day first, then Month.
- **YEAR:** The Year will be flashing. Press and release the UP ARROW or DOWN ARROW button until you have set the correct Year. Press and release the SET button.
- **MONTH:** The Month will be flashing. Press and release the UP ARROW or DOWN ARROW button until you have set correct Month. Press and release the SET button.
- **DATE:** The Date will be flashing. Press and release the UP ARROW or DOWN ARROW button until you have set the correct Date. Press and release the SET button.
- **FAHRENHEIT/CELSIUS:** Degrees Fahrenheit or Celsius will now be flashing in the Wind chill, Indoor and Outdoor temperature areas. Press and release the UP ARROW or DOWN ARROW button to change between Fahrenheit and Celsius. When your choice is shown on the display, press and release the SET button once.
- **WIND SPEED UNIT:** Wind Speed units will now be flashing. Press and release the UP ARROW or DOWN ARROW button to select from mph, m/s, knots, Beaufort, or km/h. When your choice is shown on the display, press and release the SET button once.
- **RAIN UNIT:** Rainfall Inches or Millimeters will now be flashing. Press and release the UP ARROW or DOWN ARROW button to select in or mm. When your choice is shown on the display, press and release the SET button once.
- **PRESSURE UNIT:** The Air Pressure units (inHg or hPa) will now be flashing. Press the UP ARROW or DOWN ARROW button to select inHg or hPa. The Default setting is inHg. Press and release the SET button.
- **RELATIVE PRESSURE SETTING:** The Relative Air Pressure will be flashing. Press the UP ARROW or DOWN ARROW button to adjust the Relative Air Pressure.
- **NOTE:** Refer to your local weather station for an appropriate setting. It is important that this setting be adjusted for local conditions to ensure forecast accuracy. Press and release the SET button.
- **FORECAST SENSITIVITY:** Now the Forecast Sensitivity will be flashing. The default setting of .09 works well in most areas of the country, however in areas with relatively constant pressure this should be set to .06, (within 30 miles of the coast) and in areas with significant pressure changes this

should be set to 0.12 (within 30 miles of the desert). Press the UP ARROW or DOWN ARROW key to adjust. Press and release the SET button.

- **STORM ALARM SENSITIVITY:** The Storm Alarm Sensitivity will now be flashing. The default setting of .15 works well in most areas, however you may need to adjust this level up or down depending on local conditions. Use the UP ARROW or DOWN ARROW button to adjust then press and release the SET button.
- **STORM ALARM:** AON or AOFF will be flashing. This will turn the Storm Alarm ON and Storm Alarm OFF. Use the UP ARROW or DOWN ARROW button to toggle the Storm Alarm ON and OFF, then press and release the SET button.
- **WIND DIRECTION DISPLAY:** The Dash in the Wind Compass will be flashing. Use the UP ARROW or DOWN ARROW button to select the Wind Direction to be displayed in degrees (dash) or letters NNW. Press and release the SET button.
- **FACTORY RESET:** Res off will be displayed. Use the UP ARROW or DOWN ARROW button to select on if you wish to Factory Reset the Weather Center. If you do not wish to restart the weather center, be sure the Res off is showing and press and release the SET button to complete the program menu.
- **NOTE:** To Factory Reset the weather center, select Res on and press the SET button to confirm. The station will begin to count down numbers in the date area. When it is complete it will say Done. The remove the batteries and follow the Restart up procedure.

Q: Change modes of the display.

A: MODES: Press and release SET button to toggle between the display of Mode 1 or Mode 2:

- **Mode 1:** Wind Speed
Outdoor Temperature
24 hr. Pressure History Graph
- **Mode 2:** Wind Gust
Dew Point Temperature
72 hr. Pressure History Graph

Q: Alarms.

A: The following 13 Weather Alarms can be adjusted in ALARM setting mode:

- High and Low pressure alarms
- High and Low indoor temperature alarms
- High and Low indoor humidity alarms
- High and Low outdoor temperature alarms
- High and Low outdoor humidity alarms
- High wind gust alarm
- Wind direction alarm
- Rainfall amount in 24-hour period alarm

A: SET ALARMS

1-In the normal display mode, press and release the ALARM key until you see the value you wish to set an alarm for:

- High or Low **Pressure** alarms
- High or Low **Indoor Temperature** alarms
- High or Low **Indoor Humidity** alarms
- High or Low **Outdoor Temperature** alarms
- High or Low **Outdoor Humidity** alarms
- High **Wind Gust** alarm
- **Wind Direction** alarm
- **Rainfall** amount in 24-hour period alarm.

2-Press and hold the SET button for 2 seconds and you will see the selected value flashing. Press and release the ▲UP ARROW key or ▼DOWN ARROW key to set the alarm value.

NOTE: Hold the arrow key in to change the value faster.

3-Press the ALARM key to confirm the setting. The digit will stop flashing. Repeat these steps with each alarm value you wish to set.

A: ACTIVATE/DEACTIVATE ALARM:

Press the SET button to switch the Alarm On or Off. The (((□))) icon indicates the alarm is switched on.

When you press the SET button the (((□))) icon should disappear and that alarm is off.

Q: Min/Max readings.

A: The weather station will record the maximum and minimum value of the various weather data with time and date of recording automatically. The following stored maximum and minimum weather data can be viewed by pressing the MIN/MAX key in normal display mode.

- MIN/MAX Indoor Temperature
- MIN/MAX Indoor Humidity
- MIN/MAX Outdoor Temperature
- MIN/MAX Dew Point Temperature
- MIN/MAX Outdoor Humidity
- MAX Wind Gust
- Total Rainfall

A: **Reset the MIN/MAX weather data:** To reset the MIN/MAX weather data, you need to reset each of the values independently.

Press and release the MIN/MAX button to show the desired weather data. Press ▲ UP ARROW button. The stored value will be reset to the current value and current time.

A: **Reset Total Rainfall:**

The Total Rainfall measurement is displayed shows the total rainfall accumulated since last reset of the total rainfall amount.

Press and release the MIN/MAX button until the display shows the Total Rainfall value.

To reset the rainfall reading, press the ▲ UP ARROW button. The total rainfall amount will be reset to 0, and the time updated to current time.

NOTE: Until the first rainfall total reset is performed, the time and date of the total rainfall are displayed as '- - -.--.----'. After the rainfall total is reset, the rainfall total display will indicate the date and time of the last rainfall total reset.

Q: **Pressure reads incorrect.**

A: Enter the program menu to select the pressure unit of measure (inHg is common in the USA) and set the actual Relative Pressure numbers on the display. You can set it to a known value from your local reporting station.

Q: **Pressure shows dashes or OFL.**

A: This is generally a power related issue that is easily resolved.

Enter the Program menu and go to rES OFF. Use the UP ARROW or DOWN ARROW button to select ON and the display will start a 2-minute count down. Remove the batteries from the display for a period of 1-hour. Press any button 20 times with power removed.

Remove the batteries from the TH sensor and Rain gauge as well. After 1-hour, install batteries into the Rain gauge, then into the TH sensor and let then sit for 2-minutes. Then install fresh alkaline batteries into the display and let it search for the sensors for 15-minutes.

WS-2812U-IT Heavy Weather PC issues

Q: Software download errors.

A: Make sure you enter the correct URL in your browser search window. The WS-2812U-IT Series software is located at:
<http://www.lacrossetechnology.com/2812/index.php>

- Then scroll about halfway down the page to the link that reads:
Download the PC software: Heavy Weather Pro 2800 version 1.5.
(Note: The date on the download may change if a more current version is posted.)
- On Internet Explorer, you should be presented with a box titled “File Download – Security Warning”. Press the **Save** button in the window and follow directions on the screen.
- If Save is non-responsive, or makes reference to binary file types, etc. – you may have another application conflicting with the download. Some software applications try to auto-detect downloads to process them for you (e.g. anti-virus, anti-spyware, photo album). Note: The download is straight http – there are no ftp file types to set.
- Check your browser for Add-Ons that may conflict with the download (these may have been installed by other applications and can be temporarily disabled). In IE8 you can select **Tools|Manage Add-ons**. For other browsers, consult your browser Help.
- If you already installed more than one browser, on occasion two browsers conflict. Try uninstalling one browser.
- If you have only one browser installed, try an alternate browser. We suggest you try one alternate! Unless you are technically experienced, your operating system is best limited to it’s default browser (i.e. IE7 or IE8 on Windows) and one alternative. Viable alternatives are:
 - a. Firefox: <http://www.mozilla.com/en-US/firefox/ie.html>

- b. Chrome: <http://www.google.com/chrome>
- c. Opera: <http://www.opera.com/>
- d. Safari: <http://www.apple.com/safari/>

A: If the above steps do not resolve the problem, then you will need to take a USB drive to another PC, download and save the file there. The file is too large to email and it is not cost-effective to ship CDs. Please make sure both locations have appropriate anti-virus software to protect you in carrying the software across locations.

Q: Sync USB stick to display.

A: DOWNLOAD SOFTWARE: Please download the Heavy Weather 2800 software from website <http://www.lacrossetechnology.com/2812/>.

A: INSTALL USB DEVICE: Install the USB communication device; simply plug it into any available USB port on the computer where you have installed the Heavy Weather Pro software application. No driver installation is necessary because the USB device is self-registering. Once the Heavy Weather Pro software is installed and synchronized, it will automatically connect to the USB device.

A: NOTE: Although the USB communication device can be installed on any USB port connected to your computer, using a non-powered USB hub or extension cable increases the chance for interruptions between the USB communication device and your computer. Where obstructions are an issue, a good quality 6ft USB extension cable can be used if it is directly connected to either a powered hub or a port on the computer itself.

A: For best performance, we recommend that the USB device be connected to a USB port directly on your computer. An externally powered USB hub can be used, but **avoid using a self powered USB hub or extension cable longer than 6ft.** These USB extension devices cannot generate sufficient power to maintain ongoing communication.

A: SYNCHRONIZE: Synchronize the Weather Station to the software: Press and hold the DOWN ARROW until the station beeps. Click the Synchronize button on the software. The weather station will display 'SCn-PC' while trying to connect. Once connected you will see PC on the display. Wait a moment to see the software "come active" with current data.

Q: TROUBLESHOOTING:

A: Error: Weather Station cannot be found.

Repeat the synchronization process, we need to put both the weather station and the software into synch mode again. To do this press the down arrow on the display, then click the Synchronize button on the 'Synchronize message box (on the software).

A: **Error:** Please start the WV5 Communications Service to receive data from your weather Station.

- **START WV5 SERVICE:**
Go to START, CONTROL PANEL, ADMINISTRATIVE TOOLS, SERVICES (not Component Services).
- Scroll down and look for **WV5 Communication**.
If it is not "started" please 'START' the service.
If it is "started" please "STOP" the service and "RESTART" the service. (upper left of screen)
- Go to the software and select EXTRAS, then RESYNCHRONIZE and press an hold the DOWN ARROW on the display the press the SYNCHRONIZE button on the software.

Q: Lose sync with display.

A: Move the display closer to the USB stick. Avoid placing display near cordless phone or wireless router which may cause interference.

A: Go to the software and select EXTRAS, then RESYNCHRONIZE and press an hold the DOWN ARROW on the display the press the SYNCHRONIZE button on the software.

Q: High rain readings in software.

A: PLEASE CHECK YOUR SOFTWARE VERSION:
You should be using version **1.5 software** for the WS-2812U-IT

A: Spikes in your rain reading on the computer can be caused be radio frequency interference or loss of signal while connected to the computer.

A: When your weather station is connected to the computer while loss of signal from the sensors, or a restart occurs, there can be a spike in rainfall on the computer history file. (Often 70-80 inches). This can also occur

during loss of power or connection during a storm. Please close the Heavy Weather first when resetting the weather station and transmitter.

Q: How to delete history data.

A: You can delete individual lines of history data (dataset) or delete an entire history file.

Delete Datasets:

- To delete a dataset, make sure you have the Current Weather window displayed. Then Select the Data tab in the lower left corner of the Weather/Data window.
- **Warning:** Double check that you are on the correct history.dat file before you begin deleting any data.
- **Note:** You can also delete records from a history file by highlighting them and hitting the DELETE key on your keyboard.

Delete History File:

- **History.dat:** This original filename contains the accumulated uploads of data from the display. Since the display's storage limit is 1,750 records, history.dat can aggregate uploads over a long time.
- To delete a complete history file, find the appropriate file on your computer. RIGHT-CLICK the History File Name and select DELETE. See below to find the history file on your operating system.
 - **Windows XP:** Open My Computer, then click on Drive C: (or the appropriate drive on which your operating system is installed). Select Documents and Settings and open the folder with your <user name>. Select My Documents and open the HeavyWeather folder. All history.dat files are stored in the History folder.
 - **Vista:** Open Computer, then click on Drive C: (or the appropriate drive on which your operating system is installed). Select Users and open the folder with your <user name>. Select the Documents folder and open the HeavyWeather folder. All history.dat files are stored in the History folder.
 - **Windows 7:** Open Computer, then click on Drive C: (or the appropriate drive on which your operating system is installed). Select Users and open the folder with your <user name>. Select the My Documents folder and open the HeavyWeather folder. All history.dat files are stored in the History folder.

- **NOTE:** Downloading the history to the computer does not remove it from the display unit. The display unit will keep all data and overwrite the older data over time.
- **NOTE:** You can also create a new history file by using the application menu options. Go to Extras, options, and click the square button at the end of Recording History file. Type a new filename and click ok.
- **NOTE:** Smaller files are easier to manage and less prone to risk; therefore most users make a new history.dat file on some convenient regular basis (e.g. annually).

Q: Exporting the Heavy Weather data file to MS Excel.

A: To import into Excel:

- In Heavy Weather Pro, Double-click the history file name that you wish to export, from the left hand column. (If you do not have a list in the left, click View, History Files).
- Go to FILE and select EXPORT AS TEXT. Create a file name in the pop up box. Please note the location of this file. Ex. C:\Program Files\HeavyWeather\January.
- Open Excel. Select File, Open. When the open box appears, on the bottom under FILES OF TYPE select TEXT FILES.
- On the top where it says LOOK IN, select the file location. Ex. C:\Program Files\HeavyWeather
- With the Heavy Weather folder open, you should see the text file you just created (January).
- Select that file and a 3-step Wizard will appear. On the first screen choose DELIMITED. Then select 'Next'.
- On the second screen under Delimiters select SEMICOLON.
- Click 'Next', and the last box will appear. No need to change anything unless you would like the date formatted differently. Click finish. Your data should appear in Excel. You may need to adjust the cell width.

Q: Windows 7

A: Driver problems can interfere with the WV5 Communication service load and corrupt it, especially on Windows 7 64-bit. You may need to uninstall and re-install the **2812 Heavy Weather software** after updating your

computer's drivers. If you have an error in the uninstall, simply reboot the PC before the re-install step. This releases the corrupt service from the system services.

A: **Note:** Inadequate video drivers in particular tend to be documented on trouble-shooting sites as the most common problem.

Q: **Data Storage:**

A: Your WS-2812U-IT display station will record up to 1750 data sets that can be downloaded to your computer. This station will not "empty" when data is downloaded. The station will continue to record and overwrite the oldest data.

Q: **Will my Heavy Weather Pro software work on a Mac operating system?**

A: We do not support the Mac for the 2800 software, including Windows running in emulation mode on a Mac.

- We have not performed testing on a Mac, including the Windows emulation mode.
- Even when you are running "Windows", in that state it is just a simulation of Windows, as opposed to the complete operating system. Additionally, it is still running on Mac hardware. There may be differences related to drivers, etc. that prevent connection.
- You may want to look at Weather display (weather-display.com) a 3rd party software program that operates with many of our weather stations. They offer a 30-day free trial.

Q: **Compatible 3rd party programs. La Crosse Technology cannot trouble shoot a 3rd party program.**

- **Weather Display** <http://www.weather-display.com/index.php>. Is a 3rd party program compatible with the WS-2812U-IT (via the currdat.lst file updated by Heavy Weather Pro software)
- **Weather Underground** Heavy Weather uploader (WUHU) http://home.comcast.net/~wuhu_software/. This is a 3rd party program that works with the WS-2812U-IT by uploading the Heavy Weather Pro currdat.lst file to Weather Underground and CWOP.
- **Virtual Weather Station:** <http://www.ambientweather.com/virtualstation.html>. This third party program is compatible with the WS-2812U-IT (via the currdat.lst file updated by Heavy Weather Pro software)

Q: How to use Heavy Weather Publisher to upload weather information to your personal website or to e-mail current weather information to friends and family.

A: NOTE: You will not be able to report Absolute Pressure as the WS-2812U-IT does not record this feature.

- Open Heavy Weather Publisher and select or create your Image to upload or e-mail. Be sure you are receiving current information from your weather station and the Heavy Weather basic program.
- Select the EXPORT tab on the right and click on the TEST button on the lower right. This will open up a Test web page with the Publisher Image. If this does not appear you will need to contact your Internet Service Provider to determine your connection issue.
- If the Test is successful, fill in the required fields and Save. Then click on the box in front of the image to upload and it should que.