327-1417BW FAQS

The links below will work in most PDF viewers and link to the topic area by clicking the link. We recommend Adobe Reader version 10 or greater available at: http://get.adobe.com/reader

TABLE OF CONTENTS

BATTERIES

✓ Half of all warranty issues can be resolved with fresh batteries of the appropriate voltage.
✓ We suggest name brand alkaline batteries.
✓ Use batteries dated at least six years in advance of the current year. Batteries dated earlier than six years from now may still work, but may be unstable in performance.
✓ Alkaline batteries manufactured this year will have an expiration date 10 years in the future. Battery technology has improved and batteries will maintain voltage longer in storage. However, the environment the batteries reside in for the 10 years can deplete the power.
✓ Good name brand alkaline batteries make less noise, which reduces the chance of RF (radio frequency) interference from the battery compartment. A minimum voltage of 1.48V for each battery is necessary for proper performance.

WEATHER STATION FACTORY RESTART

The factory reset will return the wind speed station to its default settings. This will clear all previous recorded history, so you may want to write down data before taking this step.
1. Hold down both the WARNING and ALERTS button together for 5 second. This will clear all recorded weather data and reset the station's settings back to default
2. The weather station will fully populate, clear all records, then return to a normal display and search for outdoor sensors.
3. While searching for the outdoor sensors the Wind Speed, and Outdoor
4. Temperature/Humidity will show dashes.
5. Once connected to the outdoor sensors (allow 3 minutes) the Wind Speed, and
6. Temperature/Humidity will show current readings.
7. In the absence of wind, this reading will show 0.00.

Dashes = Not connected to sensor
Zero or current readings = Connected to sensor.

BATTERY CHANGE

TX141Wv2 Sensor:
1. Grab the vented portion of the sensor and turn counter clockwise.
2. Remove old batteries and install fresh "C" batteries.
3. Carefully align and turn vented portion clockwise to tighten.
4. Hold the WIND button on the weather station for 3 seconds to search for the sensor.

POWER REQUIREMENTS

- ✓ 2-C batteries power the wind/thermo-hygro sensor
- ✓ 3-AAA Alkaline batteries for the wind speed station

COMPATIBLE SENSORS

- ✓ TX141Wv2 Wind Speed/Thermo-hygro sensor
- ✓ TX141TH-BCH Add-on channel 2 or channel 3 for additional temperature/humidity readings.
- ✓ The above 433MHz sensors will read to this wind speed station.

ADD-ON SENSORS

You can add up to two TX141TH-BCH* sensors for extra temp/humidity readings on channels 2 or 3. (Wind Sensor uses channel 1).
1. Remove the battery cover from all the sensors (leave battery covers off until all sensors are received by the wind station).
2. Set the first additional sensor to Channel 2 and insert 2 AA batteries.
3. Set the second additional sensor to Channel 3 and insert 2 AA batteries.
4. Hold the TEMP button on the wind station for 5 seconds to search for sensors.
5. Press the TX button on each sensor.
6. When connection is established, the temperature & humidity for each of the selected channels will appear.
7. Install the battery covers on each sensor.
8. Keep sensors and the wind station 5-10 feet apart for 15 minutes to establish a solid connection.
9. After 15 minutes, place the remote sensors in appropriate shaded locations.
10. Press and release the -/CH button to view channels 1, 2 or 3 on the wind station when multiple sensors are used.

*Additional sensors are sold separately & are available for purchase here: www.lacrossetechnology.com/tx141th-bch-temperature-humidity-sensor

WIND/THERMOHYGRO SENSOR
DASHES SHOWN FOR OUTDOOR TEMPERATURE/HUMIDITY/WIND SPEED

- ✓ Dashes means there is lost connection between the display and the outdoor sensor.
- ✓ Batteries are the most common problem.
- ✓ Distance/Resistance can cause loss of sensor signal. Avoid having more than one wall, window, tree etc., between the display and the sensor. UV coated windows may actually reflect the signal. Stucco walls will absorb the signal.
- ✓ It may be helpful to orient the weather 90 degrees towards the sensor for better reception.
- ✓ Sensors operate best when elevated at least 6 feet.
- ✓ Remove the batteries from the sensor for 2 minutes. Replace the batteries in the Thermohygro sensor and after 5 minutes press and hold the TEMP button for 5 seconds. Wait 10 minutes. If the unit does not receive a reading from all the sensors, please try the factory reset.

INACCURATE OUTDOOR TEMPERATURE/HUMIDITY

- ✓ The thermo-hygro sensor reads the environment. When the sensor reads high during the day but not at night it is a <u>mounting</u> problem.
- ✓ **Side-by-side test**: Bring the wind/thermo-hygro sensor in the house and place it next to the station for 2 hours.
- ✓ Compare indoor and outdoor temperature. The temperatures should be within 4 degrees to be within tolerance. The humidity should be within 14% to be within tolerance.
- ✓ If the sensor reads correctly when next to the wind speed station then try a different location outside.
- ✓ Look for heat sources such as sunlight or reflected heat.

OUTDOOR READINGS ARE STUCK OR OFL

- ✓ Check <u>batteries</u>. Overpowered or underpowered batteries can cause this reading.
- ✓ Replace sensor.

INTERMITTENT SENSOR READINGS

- ✓ RF (radio frequency) 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 its own. Please be patience – these stations can reconnect on, after many hours out.
- ✓ RF (radio frequency) 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:
- ✓ Hold the WIND button for 5 seconds to search for sensor.
- ✓ The units try for 20 minutes to reconnect. After 20 minutes, the sensor stops trying for an hour (to preserve battery life). After the 1-hour break, the sensor will start another 20-minute re-connect cycle.
- ✓ <u>Distance/Resistance</u> can cause loss of sensor signal. Avoid having more than one wall, window, tree etc., between the display and the sensor. UV coated windows may actually reflect the signal. Stucco walls will absorb the signal.
- ✓ Check <u>batteries</u>. This is our primary warranty issue.

SENSOR DRAINS BATTERIES QUICKLY

- ✓ Test a new set of alkaline batteries. Write down the date of installation and the voltage of the batteries.
- ✓ When the batteries fail, please note the date and voltage again. This is helpful in determining the problem.
- ✓ Check the <u>distance</u> and resistance between the sensor and station. Sensors at the end of the range may work while batteries are fresh but not after they drain a bit.
- ✓ Check for leaking batteries, which may damage the sensor.

FAHRENHEIT/CELSIUS

✓ Enter the program menu to select in Fahrenheit (°F) or Celsius (°C).

HI | LO TEMPERATURE/HUMIDITY RECORDS

Press and release the TEMP button to view HI/LO, temperature and humidity readings with time/date stamp. Press and release TEMP again to view the next value.
• Outdoor temperature HIGH
• Outdoor temperature LOW

• Outdoor humidity HIGH
• Outdoor humidity LOW

• Indoor temperature HIGH
• Indoor temperature LOW

• Indoor humidity HIGH
• Indoor humidity LOW

• Feels like HIGH
• Feels like LOW
• Dew Point
Note: Dew Point Temperature is not time/date stamped.

RESET HI | LO TEMPERATURE/HUMIDITY RECORDS

✓ Press and release the TEMP button to view individual HI | LO readings.
✓ Hold the MINUS button for five seconds to reset **each individual** value.
✓ Individual readings will reset to current temperature, humidity, etc.

WIND CUPS SPINNING SLOW OR NOT SPINNING

✓ Check for debris or ice in cups.
✓ Check mounting location. Look for obstructions that prevent the wind from reaching the sensor.
✓ In most cases, the wind sensor needs to be 4-6ft above the highest point on the roof in order to clear nearby obstructions and read accurately.
✓ A 50-foot clearance in all directions is best.
✓ Push down firmly on the center of the cups to reseat them.
✓ Cups are replaceable.

REPLACE WIND CUPS

Replace wind cups:
1. Loosen the screw on side of cups
2. Remove cups
3. Install new cups
4. Tighten screw

Note: The screw in the wind cups will fit on the flat side of the metal stem on the sensor.

WIND SPEED IS 0.00

- ✓ Check that the wind cups attach to the sensor. Occasionally they can come off.
- ✓ Check that the cups seat properly by pushing on the center of the cups.
- ✓ Check that the cups spin freely.

WIND SPEED IS INACCURATE

- ✓ Check the unit of measure (MPH, KM/H or M/S).
- ✓ Check to see if the Wind speed station receives the same repetitive wind speed recording from the sensor multiple times.
- ✓ Confirm the direction is working correctly.
- ✓ Check that the cups turn freely.
- ✓ Check for obstructions that prevent clear wind flow to the cups.
- ✓ Check mounting. In most cases, the wind sensor needs to be 6 feet or more above the highest point on the roof in order to clear nearby obstructions and read accurately. A 50-foot clearance in all directions is best.
- ✓ It is helpful to send pictures of the sensor mounting, if you need to contact customer support.
- ✓ Check that your batteries are fresh in the thermo-hygro sensor and the Wind speed station.

UNDERSTANDING WIND READINGS

Current Wind Speed:
The current wind speed, which represents the highest speed in the past 30 seconds. This should correspond to the wind graph.

Top Wind Speed: Highest recorded wind speed in time interval. Default is 1 hour, controlled by the
Wind History feature, details below.

Wind Speed History:
Press and release the WIND button to view the maximum wind history values.
- One Hour: past 60 minute period (default Top Speed record, already shown)
- 24-hour: Past 24-hour period, from last record
- 7 Days: Past 7-day period, from last record
- Month: Defined by Calendar Month i.e. January 1 - January 31
- Year: Defined by Calendar Year i.e. January 1 - December 31
Note: After 5 seconds, all readings default back to the 1-hour top wind speed.

Wind Speed Graph:
- ✓ The wind speed graph with sections based on current wind speed.
- ✓ One segment will flash indicating current wind speed.

Feels Like Temperature:
Wind Speed | Temperature | Humidity combined:
- When outdoor temp is higher than 80°F, displays heat index

- When outdoor temp is lower than 50˚F, displays wind chill
- When outside of the above ranges will display current outdoor temperature.

<div align="center">**RESET WIND SPEED HISTORY**</div>

- Press the WIND button to view individual wind speed readings.
- Hold the MINUS button for five seconds to reset **each individual** value.
- Wind speed reading will reset to current wind speed.

<div align="center">**SENSOR AREA IS BLANK (NO DASHES OR NUMBERS)**</div>

✓ Check that other areas of the station read properly. There may be a problem with the station.

<div align="center">**ALERTS: WIND, TEMP, HUMIDITY**</div>

Setting alert value and arming individual alerts are separate functions.

- Hold the ALERTS button for 3 seconds to enter alert set mode.
- High Wind Speed ON | OFF will flash.

Alert ON:
1. Press the + or - buttons to arm the alert.
2. Press the ALERTS button and the alert value will flash
3. Press the + or - buttons to set the alert value (Hold to set quickly).
4. Press ALERTS button to move to next alert.

Alert OFF:
1. Alerts are OFF unless armed. If you do not wish to set an alert, simply press the ALERTS button again to move to the next alert.

Alerts setting order:
- High Wind Speed ON/OFF (CURRENT wind)
- High Wind Speed Value 0-99mph (0-159kph)

- Outdoor LOW Temperature ON/OFF
- Outdoor LOW Temperature Value -40°F to 140°F (-40°C to 60°C)
- Outdoor HIGH Temperature ON/OFF
- Outdoor HIGH Temperature Value -40°F to 140°F (-40°C to 60°C)

- Outdoor LOW Humidity ON/OFF
- Outdoor LOW Humidity Value 10%RH to 99%RH
- Outdoor HIGH Humidity ON/OFF
- Outdoor HIGH Humidity Value 10%RH to 99%RH

- Indoor LOW Temperature ON/OFF
- Indoor LOW Temperature Value 32°F to 99°F (0°C to 37°C)
- Indoor HIGH Temperature ON/OFF
- Indoor HIGH Temperature Value 32°F-99°F (0°C to 37°C)

- Indoor LOW Humidity ON/OFF

- Indoor LOW Humidity Value 10%RH to 99%RH
- Indoor HIGH Humidity ON/OFF
- Indoor HIGH Humidity Value 10%RH to 99%RH

ACTIVE ALERT

✓ When armed alert value is reached, station will beep five times each minute, until it is out of alert range.
✓ The flashing alert icon will indicate which alert is sounding.
✓ Press any button to stop the alert sound.
✓ The alert icon will flash while value is in alert range.

Disarm Alert:
1. Hold the ALERTS button for 3 seconds to enter alert set mode.
2. Press and release ALERTS button until you see the alert you wish to disarm.
3. Press the + or - buttons to disarm the alert.
4. Press the WARNING button to exit.

FROST AND STORM WARNINGS

1. Hold the **WARNING** button for 3 seconds to view frost and storm warnings.
2. Press and release the **+** or **-/CH** buttons to activate/deactivate frost and storm warnings.
3. Press and release the **WARNING** button to confirm and move to the next item.
Note: The warning values are not programmable. You can only activate/deactivate the frost or storm warning.
✓ This station offers the option of active Frost and Storm alerts.
✓ Simply activate the alerts to use them.

Note: When setting FROST alerts for channels two & three, user will select channel first (1, 2, 3) then select outdoor alert. FROST Alerts cannot be set for channel 2 & 3 if no additional sensors are connected.

Frost Warning:
✓ When the outdoor temperature is between: 28 °F to 37 °F (-2 °C to 3 °C), and the frost warning is active a Frost Warning will alert you with a flashing snowflake icon and the station will sound.
✓ Outside of this range, the frost warning is not active.
✓ Weather station will beep five times each minute, for 5 minutes. After 5 minutes, the warning icon will flash until frost warning is out of range.

Storm Warning:
✓ When the barometric pressure drops more than 2.5hPa in a 3 hours period, the storm warning will flash and the station will sound.
✓ The storm warning icon (alert triangle) will flash storm and storm icons (clouds, rain, lightning) will flash and sound for 1 minute.

- ✓ After 1 minute, the warning icon will flash for a period of 1 hour.
- ✓ Press any button to stop the sound. Storm warning icon will still flash.

MOUNTING/POSITIONING

First, set everything up in the house to be sure it works before mounting the sensors outside.

TX141Wv2 sensor:
• For the most accurate wind speed readings, mount the TX144W sensor as the highest object for 50 feet in all directions.
• Mount sensor vertically with the wind cups on top.
• The maximum wireless transmission range to the wind station is over 330 feet (100 meters) in open air, not including walls or trees.

1. Insert mounting pole into sensor.
2. Tighten screws
3. Insert bottom of pole into mounting bracket
4. Tighten knob to secure
5. Use screws through the bottom of the mounting bracket to attach.
6. The sensor may be mounted from the bottom or side.

Use your own mounting pole:
- ✓ Insert your own mounting pole into the sensor.
- ✓ Tighten screws

Optional: Add-on TX141TH-BCH sensor
- To mount the sensor, either use the hole at the top to hang it from the back using a nail, or insert one mounting screw through the front.
- Mount the TX141TH-BCH sensor on a north-facing wall or in any shaded area. Under an eave or deck rail is preferred.
- The maximum wireless transmission range to the weather station is over 330 feet (100 meters) in open air, not including walls or floors.
- Mount the sensor vertically, to allow moisture to drain out properly.
- http://bit.ly/TH_SensorMounting

DISTANCE/RESISTANCE/INTERFERENCE

Distance:
- ✓ The maximum transmitting range in open air is over 330 feet (100 meters) between the sensors and the Wind speed station.
- ✓ Consider what is in the signal path between the Wind speed station and the sensors.
- ✓ Consider the distance the Wind speed station is from other electronics in the home.

Resistance:

- ✓ Obstacles such as walls, windows, stucco, concrete, and large metal objects can reduce the range.
- ✓ When considering the distance between the sensor and the Wind speed station (330 feet, 100 meters open air) cut that distance in half for each wall, window, tree, bush or other obstruction in the signal path.
- ✓ Closer is better.
- ✓ Do not mount the sensors on a metal fence. This significantly reduces the effective range.

Interference:
- ✓ Consider items in the signal path between the sensors and the station.
- ✓ Simple relocation of the sensors or the Wind speed station may correct an interference issue.
- ✓ Windows can reflect the radio signal.
- ✓ Metal will absorb the RF (radio frequency) signal.
- ✓ Stucco held to the wall by a metal mesh will cause interference.
- ✓ Transmitting antennas from: ham radios, emergency dispatch centers, airports, military bases, etc. may cause interference.
- ✓ Electrical wires, utilities, cables, etc. may create interference if too close.
- ✓ Vegetation is full of moisture and reduces signal.
- ✓ Dirt: Receiving a signal through a hill is difficult.

WEATHER STATION
12-HOUR TIME FORMAT

- ✓ Time display: 12-hour or 24-hour format.
- ✓ Default is 12-hour time.
- ✓ Use the Program Menu to switch time formats.

POWER REQUIREMENTS

- ✓ 3-AAA Alkaline batteries power the wind speed station.

MANUALLY SET TIME: PROGRAM MENU

- ✓ The **SET** button will move through the program menu.
- ✓ The **+ or -** button will adjust values.
- ✓ Press the **WARNING** button at any time to exit.

Program Menu:
- Beep On/Off
- Hour
- Minutes
- 12/24 Hour time format
- Year
- Month
- Date
- Fahrenheit/Celsius
- MPH | KMH

The **SET** button will move through the program menu. To change a value use the **+ or -** button.

1. Hold the SET button five seconds so that BEEP and the word ON will flash. Press and release the + or - button to turn this to OFF to avoid beep sounds when pressing a button. Confirm with the SET button and move to the hour.
2. The hour will flash. Press and release the + or - button to select the correct hour. Confirm with the SET button and move to the minutes.
3. The minutes will flash. Press and release the + or - button to adjust the minutes. Confirm with the SET button and select 12/24 hour time format.
4. 12HR FORMAT will flash. Press and release the + or - button to select the correct hour. Confirm with the SET button and move to the year
5. The year will flash. Press and release the + or - button to select the correct year. Confirm with the SET button and move to the month.
6. The month will flash. Press and release the + or - button to select the correct month. Confirm with the SET button and move to the date.
7. The date will flash. Press and release the + or - button to select the correct date. Confirm with the SET button and move to F/C.

Note: The Day of the Week will set automatically when the year, month and date are set.

8. °F will flash. Press and release the + or - button to select Fahrenheit or Celsius. Confirm SET button and select MPH or KMH for wind speed.
9. MPH will flash. Press and release the + or - button to select MPH or KMH wind speed units.
   Press the SET button to confirm and exit.

TIME IS INCORRECT

- ✓ This station has manual set time.
- ✓ Use the Program Menu to set time.

FORECAST ICONS INACCURATE

The Wind speed station predicts weather condition of the next 12-hours based on the change of atmospheric pressure with 70-75% accuracy.
Note: As weather conditions cannot be 100% correctly forecasted we are not responsible for any loss caused by an incorrect forecast.

Animated Forecast Icons:
- ✓ Sunny
- ✓ Partly Sunny
- ✓ Cloudy
- ✓ Rain
- ✓ T-Storm
- ✓ Snow

Note: The "snow" icon appears when the temperature is below 32°F (0°C) and the forecast is rainy or stormy.

- ✓ The Wind speed station calibrates barometric pressure based on its location over a period to generate an accurate, personal forecast. Please allow 7-10 days for barometer calibration.

- ✓ The forecast station samples the barometric pressure every twelve minutes. These samples are averaged hourly and daily then stored in nonvolatile memory.

- ✓ **IMPORTANT**: As the Wind speed station builds memory, it will compare the current average pressure to the past forty day average pressure for increased accuracy. The longer the Wind speed station operates in one location the more accurate the forecast icons will be.

- ✓ Install fresh alkaline batteries with correct polarity.

WEATHER STATION IS BLANK: NO LETTERS, NUMBERS OR DASHED LINES

- ✓ Check that the batteries connect correctly.
- ✓ <u>Batteries</u> may be overpowered or underpowered.
- ✓ Remove batteries from Wind speed station.
- ✓ Press any button 20 times. Leave the batteries out of the Wind speed station for 2 hours.