

328-1414BW FAQs

We are weather enthusiasts like you and know proper running equipment is important. These FAQs provide valuable information on setup, positioning, and troubleshooting your station. We recommend Adobe Reader version 10 or greater available at: <http://get.adobe.com/reader>

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BATTERIES: WHAT DO I NEED TO KNOW ABOUT BATTERIES?

- Good fresh batteries are important for best performance in your sensors and as backup in your clock.
- Batteries with an expiration date of 2028, were manufactured in 2018.
- We recommend batteries with an expiration date 6 years in advance of the current year for best performance.
- A minimum voltage of 1.48 v per battery is required for best performance.
- Lithium batteries may be used in outdoor sensors. Alkaline batteries for the clock.

HARDWARE: SENSORS AND STATION

Your 328-1414BW station comes with:

TX145WSDTHv2 or TX145WSDTHv3 Sensor with Wind Speed, Wind Direction, Temperature and Humidity

TX145R Rain Sensor

Transmission for both sensors is at 433MHz RF.

WHAT ARE THE POWER REQUIREMENTS FOR THIS STATION?

TX145WSDTHv2 or TX145WSDTHv3: 3 “AA” batteries

TX145R: 2 “AA” batteries

328-1414BW: 3 “AA” batteries

All batteries are sold separately.

SETUP: HOW DO I SETUP MY STATION?

1. Insert batteries into your sensors and station.
2. Enter Basic Settings.
3. Allow up to 10 minutes for sensors to connect.
4. Place your sensors outside in appropriate locations.

MOUNTING: WHERE DO I MOUNT/POSITION MY SENSORS?

TX145WSDTHv2 or TX145WSDTHv3 Breeze Sensor:

- Place your wind sensor two times higher than any large object within 50 feet. Wind does not pass through hard objects, it is distorted by them. If your sensor is too close you will measure the air turbulence and not actual wind speed.
- Place away from trees. Wind passing through trees moves slower than wind in open areas.
- Mount your sensor in a vertical position with the wind cups on top.
- Maximum transmission distance from your multi-sensor to your station, in open air is 400 feet (121.92meters).
- Use the included mounting bracket or your own mounting pole (no more than 1 inch outer diameter to fit). Secure to the sensor with screws provided. Tighten the screws to snug (do not over tighten).
- Solar panel must face south to provide correct Wind Direction.
- General Wind Sensor mounting video: http://bit.ly/wind_sensor_mounting

TX145R:

- Mount the Rain Sensor horizontally and ensure its level.
- The sensor should be mounted more than 3 feet above ground.
- Your Rain sensor needs to be in an open area for accurate readings.
- Make sure the base of your Rain Sensor is not in a depression.
- This Rain Sensor has drainage holes in the bottom to allow it to self-empty.
- View sensor mounting video at: bit.ly/Rain_SensorMounting

WHERE TO I PLACE MY STATION?

Your station is designed for flexible placement on a desk or countertop, or to position on the wall. When the stand is closed, it provides wall mounting holes.

- Position within reach of an outlet that is always active. Some outlets in living rooms and in bedrooms may only be active when the light switch is on.
- Best reception occurs when only one wall is between your station and each sensor outside.
- Position your station six feet from other electronics and wireless devices. If you suspect RF (radio frequency) interference, simply move your weather station a few feet.

WHAT IS DISTANCE | RESISTANCE | INTERFERENCE?

Distance:

- The maximum transmitting range in open air is over 330 feet (100 meters) between each sensor and your station.
- Consider the signal path from your station to each sensor as a straight line.
- Consider the distance the station is from other electronics in the home.

Resistance:

- Each obstacle: walls, windows, vegetation, stucco, concrete, and large metal objects will reduce the effective signal range by about one-half.
- Mounting your sensors on a metal fence can significantly reduce the effective signal range.

Interference:

- Consider electronics in the signal path between the sensors and your station.
- Simple relocation of the sensors or the 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.

WEATHER STATION READINGS

HOW DO I INTERPRET THE CURRENT WIND READINGS?

- **WIND SPEED:** 31 second **highest** wind speed. Samples every 3 seconds
- **Top (1 HR):** Top Wind Speed in the past 60 minute period, from last record (10 minutes a timestamp, total 6 records) (default record no time stamp).
- **Compass Rose:**
 - The Compass Rose displays the cardinal directions with visual indicators.
 - The large diamond on the rose indicates the wind direction.
 - The smaller triangles should be display next to the big triangle to create more emphasis to the direction and let the user know that the direction variates constantly.
- **Prevailing Wind Direction** 16 Cardinal directions only (midpoint) over the past 1 hour period. Updates the top of each hour. Can be displayed in letters or degrees.

- **Wind Speed Trend Indicators:**
 - The Wind Speed Trend Indicator shows trends in wind speed over the past 60 minutes.
 - The Trend Arrows will update every 15 minutes based on the “Now” Wind Speed readings from the past 60 minutes.

HELP ME UNDERSTAND THE WIND HISTORY READINGS.

1. Press and release the WIND button to view the maximum Wind Records values (Top Speed).
2. When viewing MONTH, use PLUS button to toggle through the current month and past 11 months top speed.

Note: All other readings will disappear for 5 seconds.

- **1 Hour Top Speed**- Updates each hour and shows the highest wind speed in the past 60 minutes.
- **24 Hour Wind Speed** – Shows the top speed in the past 24 hours from the last record. This is a rolling 24 hour period and not a set midnight to midnight reading. This means it updates each hour to show you the past 24 hours.
- **7 Days** - Shows the top speed in the past 7 days from the last record. This is a rolling 7 day period, not a Monday through Sunday record. Updates at midnight each day.
- **Month** – Shows top wind speed for the current month. Record is from the first day of the month to the last day of the month. When in the middle of the month, it will show the readings from the first day of the month to the last full day. Example: If today is the 15th of the month, the top speed is from the 1st to the 14th. After midnight, the 15th will be included.
Note: Press and release the PLUS (+) button to view up to 11 previous months or history.
- **Year** – Shows top wind speed for the current year. January 1, through December 31st.

HOW DO I RESET THE WIND HISTORY READINGS?

Your wind speed history readings are reset individually.

1. Press and release the WIND button to view the history reading you wish to reset.
2. Hold the MINUS (-) button for 5 seconds to reset that value to current wind speed.
3. Press and release the LIGHT button to exit.

HOW OFTEN DOES MY WIND SENSOR UPDATE?

- Your Breeze Wind Sensor checks for any change in Wind Speed every 31 seconds, with samples every 3 seconds within that 31 seconds.
- Any change of 0.8km Wind Speed will cause the sensor to send the top speed for that 31 seconds.
- If there is no change in wind speed, the sensor will transmit every 3 minutes to preserve battery life.

HOW DO I VIEW THE RAINFALL READINGS

1. Press and release the RAIN button to view different rain readings.
2. When viewing MONTH, use PLUS button to toggle through the current month and past 11 months rainfall.

Note: All other readings will disappear for 5 seconds. Rainfall readings will stay on user selection.

- 1 HOUR: Last one hour rain fall (12 consecutive 5 minutes rainfall accumulated total). Example: current time is 6:49, 1HR rain is accumulated total between 5:50 and 6:49.
- 24 HOURS: Based on past 24 hours accumulated rain total. At each full hour, 1HR is recorded. This is a running total.
- 7 DAYS: Accumulated last 7 consecutive 24HR rain. At each day 0:00, 24HR rain is recorded. Not a subject to the calendar. Be sure time is set.
- 1 MONTH: Defined by Calendar Month i.e. January 1 - January 31
Example: January 1-January 31. At the first month calendar day 0:00, month rain is reset to 0. Accumulated rain from 1st of xx (month) to current day xx (month). Current month will show in date area.
- 1 YEAR: **Current month plus past 11 months total.**
Example: current is date is Nov.10, 2016. Year rain is Jan 1, 2016 –Oct 31 2016 month totals, plus the current month (Nov 1-10) rain. Current Year will show in time display.
- TOTAL: Total rainfall since powered on or reset.

Note: As time passes without rain, the One hour, 24 hour, and 7 day rain totals will count down to zero. **Example:** Station recorded 0.4 inches of rain between noon and 1:00pm on the previous day.

- It continued to rain until the 24 hour rain reading from 11:00am today, back to noon the previous day was 1.2 inches.
- Then the 24 hour reading from noon today, back to 1:00pm the previous day shows 0.8 inches. The 0.4 inches of rain from noon-1:00pm on the previous day has dropped off the 24 hour total.

HOW DO I RESET RAINFALL READINGS?

- Press the RAIN button to view individual rain readings.
- Hold the MINUS button for five seconds to reset the individual value.
- Rainfall reading will reset to 0.00

HOW DO I SET THE PRESSURE?

Pressure:

- Relative Pressure reading will come from the sensor inside the station.
- Pressure can rotate with Rain readings.

Set Pressure:

1. Hold the MODE/PRESSURE button for 2 seconds. PRESSURE will show, INHG will flash. Press the + or - button to select HPA.
2. Press the MODE/PRESSURE button to confirm and move to Pressure Value. The Pressure Number will flash. Press the + or - button to adjust to your local reading. Hold the + or - buttons to adjust quickly.
3. Press PRESSURE to confirm and exit.

HOW DO I VIEW PRESSURE OR 24 HOUR RAINFALL READINGS?

- Press the MODE/PRESSURE button to toggle Pressure and 24 hour rainfall or Cycle between the two readings.

HOW DO I VIEW MY HI AND LO TEMPERATURE/HUMIDITY READINGS?

Your high and low temperature and humidity readings are recorded with time and date of occurrence. Each time a new high or low reading is recorded, that reading with time and date of occurrence will show.

To view your HI | LO records, simply press and release the TEMP button.

Viewing order:

- Outdoor HI Temperature
- Outdoor LO Temperature
- Outdoor HI Humidity
- Outdoor LO Humidity

- Indoor HI Temperature
- Indoor LO Temperature
- Indoor HI Humidity
- Indoor LO Humidity

- Feels Like HI
- Feels Like LO
- Dew Point

Note: Dew Point does not have a time/date of occurrence.

HOW DO I RESET THE TEMPERATURE/HUMIDITY READINGS?

Your temperature and humidity readings are reset individually.

1. Press and release the TEMP button to view the reading you wish to reset.
2. Hold the MINUS (-) button for 5 seconds to reset individual temperature or humidity value to current temperature, humidity, time and date.
3. Press and release the LIGHT button to exit.

HOW OFTEN DOES MY TEMP/HUMIDITY SENSOR UPDATE?

- Your Wind/TH Sensor checks for any change every 31 seconds.
- Any change of +/- 0.5°C, or Hum +/- 2% RH will cause the sensor to send a reading.
- If there is no change in temperature or humidity, the sensor will transmit every 3 minutes to preserve battery life.

WHAT IS FEELS LIKE AND DEW POINT TEMPERATURE?

Feels Like temperature indicates both Wind Chill and Heat index on stations with wind speed

- **Feels Like Temperature shows Wind Chill:** When the temperature is *below 50°F*, and generally a 5 mph sustained wind speed, the Feels like Temperature is showing Wind Chill.
- **Feels Like temperature shows Heat Index:** When the temperature is *above 80°F*, the Feels like temperature is showing the Heat Index.
- **Feels Like temperature shows Current Temperature:** When temperature is between 51°F and 80°F, the Feels like temperature will *remain the same* as the outdoor temperature regardless of humidity or wind speed.

HI ALERT  LO ALERT 

Important:

- Alerts are defaulted to be OFF.
- The alerts menu is in the order listed below.
- When alert is ON, the alert value flashes to be set. No additional button press required.
- Leave an alert OFF (disarmed) press the ALERT button to skip setting that alert value.
- The HI or LO alert icon will show when the alert is active.
- When armed alert value is reached, station will beep 5 times each minute, until out of alert range. The flashing alert icon will indicate it is a LO or HI alert.
- Press any button to stop the temp alert sound. The alert icon will flash while value is in alert range.

Alert Setting Order:

- High Wind Speed Value 0-111.8 (0-178kmh)

- 24 Hour Rainfall
- Outdoor HI Temperature
- Outdoor LO Temperature
- Outdoor HI Humidity
- Outdoor LO Humidity
- Indoor HI Temperature
- Indoor LO Temperature
- Indoor HI Humidity
- Indoor LO Humidity

1. Hold the ALERTS button 2 seconds to enter Alert Settings. (ALERT OFF and Alert Type will show for selected area)
2. Press and release the + or – button to turn alert ON
3. When the alert is ON, the alert value is flashing. Use the + or – buttons to set.
4. Hold the + or – buttons to scroll quickly.
5. Press and release ALERTS button to move to next item.
6. Leave an alert OFF (disarmed) and press the ALERTS button to skip setting that alert value
7. The alert icon will show when the alert is active.
8. When armed alert value is reached, station will beep 5 times each minute, until out of alert range. (1 second beep once, sound for 5 seconds, wait 55 seconds and then repeat began to ring for 5 seconds.)
9. The flashing Alert Icon will indicate if it is a LO or HI alert.
10. Press any button to stop the temp alert sound. The alert icon will flash while value is in alert range.

TIME: DOES THIS STATION HAVE ATOMIC TIME?

Yes:

- The station will only search for the atomic signal at UTC 7:00, 8:00, 9:00, 10:00, and 11:00.
- If there is no WWVB reception, the station will search for the atomic time signal every 2 hours until the WWVB time is received.
- The Atomic Time Signal Icon (Tower) will flash while searching. The tower icon will be solid when it has connected.
- From normal time display, press and release the **SET** button to manually search for the WWVB time signal.
- The entire Atomic icon will flash when searching. No signal strength indication.

HOW DO I MANUALLY SET THE TIME?

1. Hold the **SET** button 2 seconds to enter settings mode.
2. Press the + or - button to adjust the flashing values.
3. Hold the + or - button to adjust quickly.
4. Press the **SET** button to confirm adjustments and move to the next item.
5. Press the **ALERTS** button at any time to exit.

Settings Order:

- Greeting HELLO
- Language (English, Spanish, & French)
- Beep ON/OFF
- Atomic ON/OFF
- DST: Automatic, Always ON, OFF
- Time Zone
- 12HR/24HR
- Hour
- Minute
- Year
- Month
- Date
- Month/Date or Date/Month
- Fahrenheit/Celsius
- Wind Speed MPH or KMH
- Wind Direction Letters or Degrees
- Rainfall Inches or Millimeters
- THANK YOU

Settings Menu

1. On startup or if you hold the SET button for 2 seconds to enter setting mode. HELLO, will show for two seconds, then automatically move to language. **ENGLISH** will show. Press the + or - button to change to another language (Español, Français or Deutsch). Press the SET button to select Beep ON/OFF.
2. **BEEP OFF** will show. Press the + or – button to turn beep sound OFF. Press the SET button to move to 12/24 hour time.
3. **ATOMIC ON** will show. Press the + or – button to turn Atomic Time OFF. Press the SET button to move to DST selection.
4. **DST AUTOMATIC** will show. Press the + or – button to select DST ALWAYS ON or DST ALWAYS OFF. Press the SET button to move to Time Zone
5. **EASTERN** will show. Press the + or – button to select a different Time Zone. Press the SET button to move to 12/24 hour time
6. **12/24 FORMAT** will show. 12HR flashes. Press the + or - button to turn select 24 hour time format.
7. Press SET to confirm and move to the hour. **HOUR** will show. The hour flashes. Press the + or - button to choose the hour.
8. Press SET to confirm and move to the minutes. **MINUTES** will show. Minutes flash. Press the + or - button to choose the minutes.
9. Press SET to confirm and move to the year. The **YEAR 2020** will show. Year will flash. Press the + or - button to change the year.
10. Press SET to confirm and move to the month. The **MONTH** will show. The Month will flash. Press the + or - button to change the month.
11. Press SET to confirm and move to the date. **DATE** will show. Date will flash. Press the + or - button to change the date.

12. Press SET to confirm and select Month/Date or Date/Month display. The **MONTH/DATE** will show. Press the + or - button to select DATE/MONTH.
13. Press SET to confirm and move to the temperature unit. **FAHRENHEIT °F** will show. °F will flash. Press the + or - button if you prefer °C (Celsius).
14. Press SET to confirm and move to wind units. **WIND SPEED** will show. **MPH** will flash. Press the + or - button to select KMH.
15. Press SET to confirm and move to the wind direction. **WIND DIR LETTERS** will show. **NNE** will flash. Press the + or - button to select DEGREES.
16. Press SET to confirm and move to the rain units. **RAIN** will show. **INCHES** will flash. Press the + or - button to select MILLIMETERS.
17. Press SET to confirm. **THANK YOU** shows for 2 seconds, then exit the setting menu.

Note: After 10 seconds with no button press, station returns to normal time display.

HOW MANY TIME ZONES ARE AVAILABLE?

Seven Selectable Time Zones from:

ATLANTIC, EASTERN, CENTRAL, MOUNTAIN, PACIFIC, ALASKA, & HAWAII

WHAT ARE THE DAYLIGHT SAVING TIME (DST) SETTINGS?

DST Automatic: Changes Spring and Fall

DST Always On: Does not change to standard time in Fall

DST Always Off: Does not change to DST in the Spring.

WEEKDAY: HOW DO I CORRECT THE DAY OF THE WEEK?

- The day of the week will set when the Year, Month, and Date are set. If your day of the week is incorrect, yet the month and date are correct, please go the [program menu](#) and check the YEAR setting.

DOES THIS STATION HAVE 12 HOUR AND 24 HOUR TIME OPTIONS?

- Yes, you can select 12 hour or 24 hour time format in the [program menu](#).

FORECAST ICONS: WHAT DO THE FORECAST ICONS MEAN?

The forecast icons predict weather condition over the next 12-hours based on the change of atmospheric pressure with about 70-75% accuracy. As weather conditions cannot be 100% correctly forecasted, we are not responsible for any loss caused by an incorrect forecast.

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.

- Your station calibrates barometric pressure based on its location over time to generate an accurate, personal forecast. Please allow 7-10 days for barometer calibration.

Note: As the Station builds memory, it will compare the current average pressure to the past forty day average pressure for increased accuracy. The longer the Station operates in one location the more accurate the forecast icons will be.

WHAT ARE THE DAY & NIGHT FORECAST?

- The SUN icon will show in daylight hours and the MOON icon will show during night time hours if the forecast is for SUNNY or PARTLY SUNNY.
- The time of the SUN or MOON showing, (7am-7pm Day, 7pm-7am Night)

WHAT DO THE TREES SHOW?

The tree foliage will change twice per year. The dates are programmed into the weather station for automatic change.

Summer: April 1 – October 31

Winter: November 1 – March 31

SUMMER



WINTER



FACTORY RESET: HOW DO I FACTORY RESET MY STATION?

To factory reset your station:

1. Hold the ALERTS and RAIN buttons together for 5 seconds.
2. When your station resets it will look for all sensors. Allow at least ten minutes to reacquire the sensors.

WHY DOESN'T THE TEMPERATURE/HUMIDITY READINGS ON MY STATION MATCH THE WEATHER REPORT?

- Your temperature and humidity readings are from your sensor at your location. Your local reporting station can be miles away so readings will differ.

TEMP ACCURACY: WHY DOES MY THERMO-HYGRO SENSOR READ INACCURATELY?

- The thermo-hygro sensor reads the environment. Since your Temperature/Humidity readings come from the Wind/TH sensor they may occasionally be inaccurate if the sunlight hits the sensor.
- If this is a common occurrence you can purchase a TX141TH-Bv3 sensor and replace the Temperature/Humidity Reading from the Wind/TH sensor.

HOW TO REPLACE THE TH READING FROM THE WIND TH SENSOR?

The new Wind Speed, Wind Direction Sensor with Temperature/Humidity may cause inaccurate temperature readings in some locations. Because of this, you have the option to remove the TH sensor reading (from the TX145WSDTHv3) and adding an additional TH sensor to read in the OUTDOOR area of the display.

1. From normal time display; Press the MINUS button - Outdoor Temp/Humidity will flash.
2. Hold the MINUS button 5 seconds to delete Temp Humidity reading only (From WIND/TH or TX141TH-Bv3 sensor). Station will search for Temp Humidity reading (from any sensor). Hold the TEMP button to search for TH reading (from any sensor) as well.
3. Press TX button on the add-on sensor to force a signal.

However, please take note that if the Display could not receive signal from TX141THB-v3 in the 3 mins, the Display will accept the Wind/TH sensor as the Outdoor sensor instead. With such, in case the user decides to switch back from TX141TH-Bv3 to Wind/TH, there is still a way.

Note: The Outdoor Sensor icon will only show when the Outdoor temperature/humidity reading is coming from the add-on TH sensor. Only 1 TH reading can show.

WHAT DOES A READING OF “HI” OR “LO” MEAN?

- If your outdoor temperature reading shows “HI” or “LO”, check that your [batteries](#) are good.
- Overpowered or underpowered batteries can cause this reading.
- If batteries are good, replace the outdoor sensor.
- If your temperature is fine but your humidity is reading “HI” or “LO” or dashes, your humidity may be below 10% Relative Humidity. Your sensor does not read below 10% humidity.

TEMP INTERMITTANT: WHY DOES MY TEMP/HUMIDITY READING COME AND GO?

- 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 patient – 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:

- If sensor loses connection to the station for any reason, the station will show dashes after 30 minutes.
- The station will search for 5 minutes every hour to reconnect with sensor.
- Be sure you have good [batteries](#). Manually search for your sensor.

Try this:

- Bring your sensor within 10 feet of your station and make sure it is connected to the station.
- After 15 minutes move the sensor into the next room with a wall between the sensor and the station for 1 hour.
- If there is no loss of signal in that hour, move the sensor just outside.
- Continue moving the sensor back to its original location.
- If you lose connection, look for sources of [interference](#).

WHY ARE MY WIND CUPS NOT SPINNING?

- Check for debris or ice preventing cups from moving.
- 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 reseal them.
- Cups are replaceable.

CAN I REPLACE MY WIND CUPS?

Occasionally, a bad storm with hail or debris that will damage your wind cups. These are easily replaced.

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 READING 0.00: WHY DO I ONLY SEE 0.00 FOR WIND SPEED?

The 0.00 means your wind sensor is connected to your station.

- Check that the cups spin freely. Something may be preventing movement.
- Are your wind cups unbroken? After a storm it is good to check this.

WIND DASHES: WHY ARE THERE DASHES FOR WIND READINGS?

Dashes indicate the connection is lost between your station and the wind sensor.

- My first thought is always to check that my [batteries](#) are good. If it has been working and now is not, low batteries are the most common connection problem.
- Is the WIND/TH sensor receiving full sunlight on the solar panel? Is the switch ON?
- Next, check your [distance, resistance and interference](#). If everything was working previously at the same location, this is likely not the issue. However sometimes there is new growth on trees or bushes that cause another barrier. Radio Frequency (RF) signal does not travel well through foliage due to the moisture content.
- Occasionally adding a new wireless electronic device to the home will cross the signal path for the sensor. If this occurs, try moving your station a few feet or turning the station 90 degrees for a better angle to receive the sensor signal.
- Press the SENSOR button until you see your sensor ID. Hold the PLUS (+) button for 3 seconds and your station will search for your individual sensor.
- If you regain connection while the sensor is mounted, great. If you do not regain connection, bring the sensor within 10 feet of the station and search again.

WIND AND TEMP INTERMITTANT: WHY DO MY READINGS COME AND GO?

- 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 patient – 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).
- Check that your sensor is receiving full sun on the solar panel.

If a miss happens:

- If your wind sensor loses connection to the station for any reason, the station will show dashes after 30 minutes.
- The station will search for 5 minutes every hour to reconnect with wind sensor.

Try this:

- Bring your wind sensor within 10 feet of your station and make sure it is connected to the station.

- After 15 minutes move the wind sensor into the next room with a wall between the sensor and the station for 1 hour.
- If there is no loss of signal in that hour, move the wind sensor just outside.
- Continue moving the wind sensor back to its original location.
- If you lose connection, look for sources of [interference](#).

WIND ACCURACY: WHY IS MY WIND SPEED INACCURATE?

- What are you comparing your wind speed to? Your local reporting station is miles from your location and should not be used for comparison.
- Check the unit of measure (MPH, or KMH).
- Check to see if your station receives the same repetitive wind speed recording from the sensor multiple times.
- 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.

RAIN INTERMITTANT: WHY DO MY RAIN READINGS COME AND GO?

- 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:

- If your rain sensor loses connection to your station for any reason, the station will show dashes after 30 minutes.
- The station will search for 5 minutes every hour to reconnect with rain sensor.
- Be sure you have good [batteries](#). Manually search for your sensor.

Try this:

- Bring your rain sensor within 10 feet of your station and make sure it is connected to the station. Your station will show 0.00 for rain when connected and no rain has occurred.
- After 15 minutes move the rain sensor into the next room with a wall between the sensor and the station for 1 hour.
- If there is no loss of signal in that hour, move the rain sensor just outside.
- Continue moving the rain sensor back to its original location.
- If you lose connection, look for sources of [interference](#).

RAIN LOW: WHY IS MY RAINFALL READING LOW?

- Low rain readings indicate the rain sensor and station are connected.
- Check that the rocker tips freely.
- Check the funnel and the inside of the rain sensor for insect nests or debris that may cause loss of rocker motion.
- Be sure to mount the rain sensor level.

Complete a Tip Test:

Write down the Total Rain reading or reset the Rain Total to 0.00. With rain sensor mounted slowly pour water into the funnel to tip the rocker of the rain sensor 10 times. Wait at least 2 minutes for all the rain to collect. Repeat three times.

- Compare these tests. If they are the same, then your rain is reading correctly. If the rain readings are different, repeat the test 3 times to avoid human error. Then look for causes such as mounting too tight or debris clogging the funnel.

RAIN HIGH: WHY IS MY RAINFALL READING HIGH?

- Check for sources of RF (radio frequency) interference such as other wireless rain sensors, ham radios or electric transformers.
- Keep the station six feet from cordless phones or wireless routers etc.

Complete a Tip Test:

Write down the Total Rain reading or reset the Rain Total to 0.00. With rain sensor mounted slowly pour water into the funnel to tip the rocker of the rain sensor 10 times. Wait at least 2 minutes for all the rain to collect. Repeat three times.

- Compare these tests. If they still read high then contact support.

HOW CAN I CLEAN THE RAIN SENSOR?

1. Remove rain funnel (open locking tabs on both sides and pull off funnel)
2. Gently remove debris or insects inside the rain sensor.
3. Clear debris from drain vents.
4. Clear debris from the rain funnel.
5. Reinstall the rain funnel.

Note: Do not oil the rain sensor.