

WS-9077UN-IT FAQs

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Batteries

- ✓ Half of all warranty issues can be resolved with fresh batteries of the appropriate voltage.
- ✓ We suggest name brand alkaline batteries for indoor displays such as Weather Stations.
- ✓ 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 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.
- ✓ **Outdoor Transmitters:** Use Alkaline batteries (or Lithium for temperatures below - 20°F/- 28.8°C)
- ✓ **Weather Station:** Use alkaline batteries. Overpowered or underpowered batteries may cause loss of indoor readings, missing segments, dim display etc.

Weather Station Factory Restart

FACTORY RESTART:

- ✓ **RESTART DISTANCE:** For best results please bring the outdoor transmitter in the house and place 5-10 feet from the display unit.
- ✓ **REMOVE POWER:** Remove batteries from the transmitter and from the weather station.
- ✓ **DISCHARGE ELECTRICITY:** With the power removed, press one of the buttons on the display at least 20 times to clear all memory. Please do this even if the display is blank to remove any random electricity. Verify the display is blank.
- ✓ **UNPOWERED FOR 15 MINUTES:** Let the weather station and transmitter rest without batteries for 15 minutes.
- ✓ **IMPORTANT:** Failure to allow a weather station to rest for 15 minutes can result in failure to connect with the outdoor transmitter or missing segments on the display.
Note: The instruction manual describes a setup for a new unit that has not had time to build up residual electricity.
- ✓ **BATTERIES:** Please be sure you are using fresh batteries testing to a minimum of 1.48, on a voltmeter that reads in numbers.
- ✓ **TRANSMITTER:** Place batteries into the outdoor transmitter first. Make sure batteries are installed according to the diagrams in the battery compartment.
- ✓ **WEATHER STATION:** Install batteries into the weather station according to the diagram in the battery compartment.
- ✓ **CONNECTION:** Allow the transmitter and display to remain 5 feet apart for 15 minutes to establish a strong connection. Do not press buttons at this time. You should see a reading on the outdoor temperature area in the first minute.
- ✓ See the section on [mounting](#) and [distance/resistance/interference](#) for details on mounting the outdoor transmitter.

Outdoor Temperature Transmitter

Compatible Outdoor Transmitters

- ✓ A TX29U-IT outdoor transmitter is compatible with this Weather Station.

Power Requirements

- ✓ 2-AA [batteries](#) power the outdoor transmitter.
- ✓ We recommend alkaline batteries for the transmitter.

Dashes shown for Outdoor Temperature

- ✓ Dashes means the connection is lost between the Weather Station and the outdoor transmitter.
- ✓ [Batteries](#) often resolve the connection.
- ✓ [Distance/Resistance](#) can cause loss of connection between the transmitter and the Weather Station.
- ✓ [Reorientation](#) of the Weather Station 90 degrees towards the outdoor transmitter may provide better reception.
- ✓ Complete a [factory restart](#).

Outdoor Temperature Changes Constantly

- ✓ The Weather Station can read up to three outdoor transmitters.
- ✓ Check the channel indicator. If it switches between 1, 2 or 3, your Weather Station is reading additional transmitters.
- ✓ **Note:** When first powered up it is natural for the Weather Station to search across all three channels for up to 15 minutes for outdoor transmitters.
- ✓ You may have an additional [compatible](#) outdoor transmitter within range.
- ✓ Occasionally a neighbor will have a compatible outdoor transmitter that is within [range](#).

Inaccurate Outdoor Temperature Reading

- ✓ The outdoor transmitter reads the environment. When mounted in the home it will read inside temperature.
- ✓ When the transmitter reads high during the day but not at night it is a [positioning](#) problem.
- ✓ Side-by-side test: Bring the outdoor transmitter in the house and place it next to the Weather Station for 2 hours.
- ✓ Compare indoor and outdoor temperature. The temperatures should be within 4 degrees to be within tolerance.
- ✓ If the transmitter reads correctly when next to the Weather Station then try a different location outside.
- ✓ Look for heat sources such as sunlight, door or window frames, or reflected heat.

Intermittent Outdoor Temperature

- ✓ RF (radio frequency) communication may come and go occasionally. This can be normal in some environments (e.g. moister climates). If transmitter signal is lost, please wait 2-4 hours for the signal to reconnect on its own.
- ✓ Move the outdoor transmitter to a closer location.
- ✓ Check [Channels](#): Confirm that the channel selected on the outdoor transmitter matches the channel shown on the Weather Station.

- ✓ **Freezer test:** Confirm the Weather Station is reading the correct outdoor transmitter. Place the transmitter in the freezer for an hour and watch the temperature drop on the Weather Station.
- ✓ **Indoor distance test:** Please complete the Restart with transmitter and Weather Station 5-10 feet apart and inside to establish a strong connection.
- ✓ After 15 minutes if there is a reading in the outdoor temperature area, move the transmitter to another room with one wall between the transmitter and the Weather Station. Observe to see if the temperature remains on consistently for 1-hour.
- ✓ If the temperature remains while in the house then it is likely a [distance/resistance](#) issue. Move the transmitter to different locations outside to find a location where the temperature reading will hold.
- ✓ [Distance/Resistance](#) can cause loss of transmitter signal.
- ✓ Check [Batteries](#).

Outdoor Temperature Shows OFL

- ✓ OFL stands for Outside Factory Limits.
- ✓ The outdoor transmitter is sending a signal and the weather station is receiving the signal.
- ✓ Check [Batteries](#). Overpowered or underpowered batteries can cause this reading.
- ✓ Replace outdoor transmitter.

Outdoor transmitter fell and no longer works

- ✓ If there is no physical damage to the outdoor transmitter, the fall may not have caused internal damage.
- ✓ An outdoor transmitter that has fallen into a puddle or other standing water or snow may have water damage.
- ✓ Transmitters are water resistant, not waterproof.
- ✓ A fall can shock the transmitter or the [batteries](#) in the transmitter.
- ✓ Batteries that have fallen on a hard surface may be damaged and unable to function properly.
- ✓ Complete a [Restart](#) with fresh 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.

Outdoor Transmitter 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 [distance](#) and [resistance](#) between the transmitter and Weather Station. Transmitters 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 transmitter.
- ✓ Battery life is over 24 months when using reputable battery brands for both Alkaline and Lithium batteries.

Fahrenheit/Celsius

- ✓ Enter the [program menu](#) to change the temperature reading from Fahrenheit to Celsius.

MIN/MAX Temperature Readings

VIEW INDOOR MIN/MAX RECORDS: Press and release the IN button to advance through the Minimum, Maximum and Current Indoor Temperatures records. The Time and Date will flash to show when the Minimum or Maximum Temperature occurred.

RESET INDOOR MIN/MAX RECORDS:

- ✓ Hold the IN button for five seconds. The record resets to the current day's reading.

VIEW OUTDOOR MIN/MAX RECORDS: Press and release the OUT button to advance through the Minimum, Maximum, and Current Outdoor Temperature records.

RESET OUTDOOR MIN/MAX RECORDS:

- ✓ Hold the OUT button for five seconds. The record resets to the current day's reading.

TIP: When using [multiple transmitters](#), use the CH button to view MIN or MAX temperature on the other channels.

Channels

The Weather Station will accommodate up to three remote outdoor transmitters (TX29U-IT). The channel selection (CH) button on the Weather Station allows you to see the temperature in various locations: outdoors, baby's room, greenhouse, basement, etc.

- ✓ Press and release the CH button to view channel 1, 2 or 3 on the display when multiple transmitters are used.

Note: You cannot change channels if only one transmitter is connected.

Multiple Outdoor Transmitters

To connect multiple remote transmitters to the Weather Station:

- ✓ Remove the battery cover from all the transmitters and the weather station.
- ✓ Leave unpowered for at least 15 minutes.
- ✓ Install 2-AA [batteries](#) into the first outdoor transmitter.
- ✓ Install 2-AA batteries into the weather station.
- ✓ When you see a reading on channel 1 in the outdoor temperature area, install 2-AA batteries into the second outdoor transmitter.
- ✓ When you see a reading on channel 2 in the outdoor temperature area, install 2-AA batteries into the third outdoor transmitter.
- ✓ When RF (radio frequency) connection is established, the temperatures of the selected channels will appear on the main unit.
- ✓ Allow the transmitters and the Weather Station to stay 5-10 feet apart for 15 minutes to establish a solid connection.

Note: Start all transmitters within 2 minutes of installing batteries in the weather station.

- ✓ After 15 minutes, place the remote transmitters in appropriate locations within range of the display.
- ✓ Press and release the CH button to view channel 1, 2 or 3 on the display when multiple transmitters are used.

Mounting/Positioning Outdoor Transmitter

- ✓ Mount outdoor temperature transmitters vertically and under a bit of an overhang.

- ✓ Protect the outdoor transmitter from standing rain or snow, and from the overhead sun, which can cause it to read incorrectly. Generally, mounting under an eave or deck rail works well.
- ✓ Construct a small roof or box for the transmitter if you do not have an overhang. Please be sure the box has vents.
- ✓ Mount the transmitter on the North side to prevent sun from causing incorrect readings.
- ✓ Mount at least 6 feet in the air for a strong signal.
- ✓ Outdoor transmitters are water resistant but not water proof.
- ✓ Avoid more than one wall between the transmitter and the Weather Station.
- ✓ Do not mount near electrical wires, transmitting antennas or other items that will interfere with the signal.
- ✓ RF (radio frequency) signals do not travel well through moisture or dirt.
- ✓ Place the outdoor transmitter and the Weather Station in the desired shaded locations, and wait approximately 1-hour before permanently mounting the transmitter to ensure that there is proper reception.
- ✓ Do not mount the transmitter on a metal fence. This significantly reduces the effective range.

MOUNT

- ✓ Remove the mounting bracket from the remote temperature transmitter.
- ✓ Place the mounting bracket over the desired location (wall or table).
- ✓ Through the three screw holes of the bracket, mark the mounting surface with a pencil.
- ✓ Screw mounting bracket onto the mounting surface. Ensure that the screws are flush with the bracket.
- ✓ Insert the remote temperature transmitter into the bracket.

Note: Mounting with adhesive tape is not recommended as a permanent mounting solution. Only use the adhesive tape during set-up process.

Position Weather Station

- ✓ The Weather Station has a wide base to sit on a desk or table.
- ✓ Choose a location 6 feet or more from electronics such as cordless phones, gaming systems, televisions, microwaves, routers, baby monitors, etc., which can prevent signal reception.
- ✓ Place within range of the outdoor transmitter.
- ✓ Be aware of electrical wires and plumbing within a wall. This will interfere with signal reception.
- ✓ The maximum transmitting range in open air is 330-feet (100 meters).
- ✓ Obstacles such as walls, windows, stucco, concrete, and large metal objects can reduce the range.
- ✓ For best WWVB reception, orientate the Weather Station with the front of the back facing Ft. Collins Colorado.

Distance/Resistance/Interference

Distance:

- ✓ The maximum transmitting range in open air is over 330-feet (100 meters) between the outdoor transmitter and the Weather Station.
- ✓ Consider what is in the signal path between the Weather Station and the transmitter.
- ✓ Consider the distance the Weather Station is located away from other electronic 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 transmitter and the Weather Station (330 feet 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 transmitter on a metal fence. This significantly reduces the effective range.

Interference:

- ✓ Consider items in the signal path between the transmitter and the Weather Station.
- ✓ Sometime a simple relocation of the transmitter or the Weather Station will correct the interference issue.
- ✓ Windows can reflect the radio signal.
- ✓ Metal will absorb the RF (radio frequency) signal.
- ✓ Stucco is held up by a metal mesh that can absorb the signal..
- ✓ Transmitting antennas (ham radio, emergency dispatch center, airports, military base etc.)
- ✓ Electrical wires (utilities, cable etc.)
- ✓ Vegetation is full of moisture and reduces signal.
- ✓ Dirt: Trying to receive a signal through a hill is difficult.

Weather Station

12-Hour or 24-Hour Time Format

- ✓ Displays the time in 12-hour or 24-hour format
- ✓ Default is 12-hour time.
- ✓ Use the [Program Menu](#) to switch time formats.

Power Requirements

- ✓ 2-AA alkaline [batteries](#) power this Weather Station.

Dashes, OFL or Stuck Indoor Temperature

- ✓ This is generally a power related issues.
- ✓ [Batteries](#) may be overpowered or underpowered. Remove batteries from Weather Station.
- ✓ Press any button 20 times. Leave the Weather Station unpowered for 1-2 hours.
- ✓ Install fresh alkaline batteries with correct polarity.
- ✓ If the indoor temperature is still dashes or OFL, the Weather Station may need replacement.

Inaccurate Indoor Temperature Reading

- ✓ **Side-by-side test:** Bring the outdoor transmitter in the house and place it next to the Weather Station for 2 hours.
- ✓ Compare indoor and outdoor temperature. The temperature should be within 4 degrees to be within tolerance.
- ✓ Look for heat sources such as sunlight, door or window frames, or reflected heat of cold.

Time is off by hours

- ✓ Check to see if the [WWVB](#) Tower icon appears on the Weather Station. If not, the Weather Station has not received a WWVB time signal in the past 24-hours.
- ✓ Reposition the Weather Station with the front or back facing Colorado.
- ✓ Enter the [Program Menu](#) and check that the RCC setting is ON.
- ✓ Check that the Time Zone selected correctly reflects your location. Adjust the time zone in the [Program Menu](#).

- ✓ Check that the DST indicator is correct for your location (most areas observe DST so this should be ON). Adjust the DST indicator in the [Program Menu](#).

Forecast icons inaccurate

The weather forecasting feature is estimated to be 75% accurate. The weather forecast is based solely upon the change of air pressure over time. In areas where the weather is not affected by the change of air pressure, this feature will be less accurate.

Weather Icons

Three possible weather icons will show in the LCD:

Sunny—indicates that the weather is expected to improve (not that the weather will be sunny).

Sun with Clouds—indicates that the weather is expected to be fair (not that the weather will be sunny with clouds).

Clouds with Rain—indicates that the weather is expected to get worse (not that the weather will be rainy).

The weather icons change when the unit detects a change in air pressure. The icons change in order, from “sunny” to “partly sunny” to “cloudy” or the reverse. If the symbols do not change then the weather has not changed, or the change has been slow and gradual.

Manually Set Time/Date: Program Menu

There are four function buttons: SET, IN, OUT, and CH. Begin by holding the SET button until the display flashes. When you press and release the SET button after each step, you will move to the next step. Exit the programming mode at any time by pressing the CH button.

- ✓ **CONTRAST:** Press and hold the SET button for five seconds. LCD and a number from 0-7 will flash. To increase or decrease the contrast of the LCD display, press and release the IN button. Press and release the SET button once.
- ✓ **TIME ZONE:** The Time Zone will flash, showing a number following by the letter h. Use the IN to change the Time Zone. Please note North American Time Zones are [negative numbers](#): -4h Atlantic, -5h Eastern, -6h Central, -7h Mountain, -8h Pacific, -9h Alaskan and -10h Hawaiian. Press and release the SET button once.
- ✓ **DAYLIGHT SAVING TIME:** DST will show with either 0 (Off) or 1 (On) flashing. Most states use DST, so this should be set to 1. However if your location does not use DST, use the IN button to turn it 0. Press and release the SET button once.
- ✓ **RADIO-CONTROLLED TIME:** RCC will show with ON or OFF flashing. Use the IN button to set the RCC signal. Press and release the SET button once.
- ✓ **12/24-HOUR TIME MODE:** Either 12h or 24h will flash on the display. Use the IN button to change from 12-hour to 24-hour time. Press and release the SET button once.
- ✓ **TIME:** The Time will flash. Use the [IN](#) button to advance the [Hour](#). If using 12-hour Time Mode, be sure to set the Hour for am or pm. Use the [OUT](#) button to advance the [Minutes](#). Press and release the SET button once.
- ✓ **YEAR:** The Year will flash. Use the IN button to set the Year. Press and release the SET button once.
- ✓ **MONTH AND DATE:** The Month and Day will flash. Use the [IN](#) button to advance the [Month](#). Use the [OUT](#) button to advance the [Date](#). Press and release the SET button once.
- ✓ **SNOOZE TIME:** Although numbers will flash, this feature is not active on this unit. Press and release SET button once.
- ✓ **FAHRENHEIT OR CELSIUS:** A degree symbol will flash, followed by F or C. Use the IN button to change to your preference. Press and release the SET button once.
- ✓ **FORECAST SENSITIVITY:** Two air pressure tendency arrows will appear and a flashing number will appear under the forecast icon. Press and release the IN button to select the desired forecast sensitivity setting.
- ✓ **Note:** The lowest number is used near the coastline, the highest number is for the desert, and middle number is for everywhere else. Press and release the SET button once to exit.

No WWVB Tower Icon

- ✓ The Weather Station has not received a WWVB time signal in the past 24-hours.
- ✓ Enter the [Program Menu](#) and check that the RCC setting is ON.
- ✓ Position the Weather Station for better reception.
- ✓ Be sure you have good batteries in the Weather Station.
- ✓ Allow up to 5 nights to receive the time signal.

Weather Station has missing segments

- ✓ This is generally a power related issues.
- ✓ [Batteries](#) may be overpowered or underpowered. Remove batteries from Weather Station.
- ✓ Press any button 20 times. Leave the Weather Station unpowered for 1-2 hours.
- ✓ Install fresh alkaline batteries with correct polarity.

Weather Station is dim

- ✓ Most Weather Stations have a gray background. Place the Weather Station at eye level. Is it still dim?
- ✓ Weather Stations that sit in the sunlight can develop a cloudy film over time.
- ✓ This is generally a power related issues.
- ✓ [Batteries](#) may be overpowered or underpowered. Remove batteries from Weather Station.
- ✓ Press any button 20 times. Leave the Weather Station unpowered for 1-2 hours.
- ✓ Install fresh alkaline batteries with correct polarity.

Weather Station has distorted display

- ✓ On a brand new Weather Station, check for thin plastic films of printed scratch guard that may be on the LCD screen of the Weather Station. This thin piece of plastic has printed numbers for store displays. This can make the Weather Station display appear “frozen”.
- ✓ With all power removed the Weather Station should be blank.
- ✓ If numbers still appear, please check for scratch guard.
- ✓ Check that the [batteries](#) are installed correctly.
- ✓ This is generally a power related issue.
- ✓ [Batteries](#) may be overpowered or underpowered. Remove batteries from Weather Station.
- ✓ Press any button 20 times. Leave the batteries out of the display for 2 hours.

Weather Station display is frozen

- ✓ On a brand new Weather Station, check for thin plastic films of printed scratch guard that may be on the LCD screen of the Weather Station. This thin piece of plastic has printed numbers for store displays. This can make the Weather Station display appear “frozen”.
- ✓ With all power removed the Weather Station should be blank.
- ✓ If numbers still appear, please check for scratch guard.
- ✓ Check that the batteries are installed correctly.
- ✓ This is generally a power related issue.
- ✓ [Batteries](#) may be overpowered or underpowered. Remove batteries from Weather Station.
- ✓ Press any button 20 times. Leave the batteries out of the display for 2 hours.

Weather Station is blank: No letters, numbers or dashed lines

- ✓ Check that the batteries are installed correctly.
- ✓ [Batteries](#) may be overpowered or underpowered. Remove batteries from Weather Station.
- ✓ Press any button 20 times. Leave the batteries out of the display for 2 hours.

Weather Station 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 for leaking batteries, which may damage the Weather Station.
- ✓ Battery life is over 24 months when using reputable battery brands.