

WS-9640U-IT 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>

CONTENTS

WS-9640U-IT FAQs	1
Batteries	2
Weather station Factory Restart	2
Outdoor Temperature Transmitter	3
Compatible Outdoor Transmitters	3
Fahrenheit/Celsius	3
Ice Alarm	3
MIN/MAX Records	3
Flashing Outdoor Temperature	3
Dashes shown for Outdoor Temperature	4
Inaccurate Outdoor Temperature Reading	4
Intermittent Outdoor Temperature	4
Outdoor Temperature Is Stuck or OFL	4
Outdoor Transmitter Fell and No Longer Works	5
Outdoor Transmitter Drains Batteries Quickly	5
Mounting/Positioning Outdoor Transmitter	5
Position Weather station	6
Distance/Resistance/Interference	6
Weather station	7
Supported Time Zones	7
12-Hour or 24-Hour Time Format	7
Power Requirements	7
Does the Weather station Have a Backlight?	7
Weather Forecast	7
Dashes, OFL or Stuck Indoor Temperature	8
Inaccurate Indoor Temperature Reading	8
Time is off by hours	8
Daylight Saving Time	9
Manually Set Time/Date: Program Menu	9
No WWVB Tower Icon	10

Weather station Has Missing Segments.....	10
Weather station Has Distorted Display	10
Weather Station Display Is Frozen	10
Weather station is Blank: No Letters, Numbers or Dashed Lines	10

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

- ✓ Remove all batteries from outdoor sensor and weather station.
- ✓ Press one of the buttons on the weather station at least 20 times to clear all memory.
- ✓ Verify that the weather station is blank before proceeding (there may be lines painted on the screen).
- ✓ Leave both units without power for 15 minutes (very important).
- ✓ Insert fresh batteries into the outdoor sensor.
- ✓ Insert fresh batteries into the weather station.
- ✓ Keep the outdoor sensor 5-10 feet from the weather station.
- ✓ When RF connection is established, the temperature will appear on the station. Allow the outdoor sensor and weather station to sit together for 15 minutes to establish a strong connection.
- ✓ Do not press buttons for 15 minutes.
- ✓ For optimum 915MHz transmission, the outdoor transmitter should be a distance of no more than 330 feet (100 meters, open air) from the Weather station.
- ✓ 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 comes packaged with this Weather station.
- ✓ The TX37U-IT and TX45U-IT (915MHz) transmitters are compatible with this Weather station.

Fahrenheit/Celsius

- ✓ Use the [program menu](#) to select Fahrenheit or Celsius temperature display.

Ice Alarm

This weather station has a unique ICE ALARM feature. When the alarm is on, and the measured outdoor temperature has dropped below 39.2 degrees, the ice alarm will be triggered. The alarm duration is about 1.5 minutes.

- **ACTIVATE:** Press the ICE ALARM button on the reverse of the unit. The icon *! Will appear to the next to the weather-person icon.
- **DEACTIVATE:** Press the ICE ALARM button, making sure the *! icon is no longer displayed.

MIN/MAX Records

VIEW: Press and release the MIN/ MAX button to view:

- Maximum Outdoor Temperature
 - Minimum Outdoor Temperature
 - Current Outdoor Temperature
 - Maximum Indoor Temperature
 - Minimum Indoor Temperature
 - Current Indoor Temperature
- The Date and Time of each MIN/MAX Temperature recording will be displayed.

RESET: Press the MIN/ MAX button to view the MIN/ MAX display. Press and hold the MIN/MAX button for about 5 seconds. This will reset all temperatures to Current.

Flashing Outdoor Temperature

- ✓ The outdoor Temperature reading will flash when the connection is first lost or intermittent between the weather station and the outdoor transmitter.
- ✓ [Distance/Resistance](#) is generally the cause of intermittent connection or loss of connection between the transmitter and the weather station.
- ✓ Check the [position](#) of the weather station. Turn the weather station 90 degrees towards the outdoor transmitter for better reception.
- ✓ Try the [quick connect](#) or [factory restart](#).
- ✓ [Batteries](#) often resolve the connection issue.

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.
- ✓ Try the [factory restart](#).

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. See the section on [accuracy](#) for details.
- ✓ 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.
- ✓ **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 on 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 Is Stuck or OFL

- ✓ The last outdoor reading may remain (not change) for several hours when connection is lost.

- ✓ The outdoor temperature reading will flash when the connection is first lost or intermittent between the weather station and the outdoor transmitter.
- ✓ 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.

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.

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 is vented.
- ✓ 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

- ✓ Choose a location for the transmitter that is within range of the weather station and under an overhang for accuracy.
- ✓ Install one mounting screw into a wall leaving approximately ½ inch (12.7mm) extended.
- ✓ Place the transmitter onto the screw, using the hanging hole on the backside.
- ✓ Gently pull the transmitter down to lock the screw into place.

Note: Always ensure that the transmitter locks onto the screw before releasing.

Position Weather station

- ✓ Mount the Weather station near an exterior wall with the front or back facing toward Ft. Collin Colorado for best WWVB reception.
- ✓ The weather station should be six feet from other electronics or wireless devices to best receive the outdoor temperature transmitter signal.

Foldout Table Stand:

A foldout table stand is located on the back of the weather station.

- ✓ Pull the stand out from the bottom center edge of the weather station, below the battery compartment.
- ✓ Extend the foldout table stand and place the weather station in an appropriate location.

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 to the wall by a metal mesh.
- ✓ 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

Supported Time Zones

This weather station offers 13 time zones: 0 (GMT) to -12

12-Hour Time Format

- ✓ Only has 12 hour time format.

Power Requirements

- ✓ 2-AA alkaline batteries power the weather station

Does the Weather station Have a Backlight?

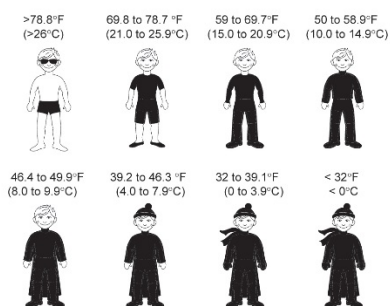
- ✓ No, this weather station does not have a backlight.
- ✓ Generally, an a/c power cord is required for products to have a backlight.
- ✓ This weather station does not use a/c power cord.

Weather Forecast

This station has 3 distinct ways of Forecasting Weather:

WEATHER PERSON: Weather Person dress is displayed based on Outdoor Temperature and Air Pressure.

- ✓ The Weather Person Icon represents CURRENT TRENDS in Temperature and Air Pressure combined.



FORECAST ICONS: Forecast icons such as sun, sun with clouds, and clouds with rain are predicting what you will see 6-12 hours in the future not what you see currently. All forecasting is 75% accurate.

- ✓ Sun means pressure is raising and weather should be improving not that it would be sunny.
- ✓ Sun with clouds means pressure is steady.
- ✓ Clouds with rain mean pressure is falling not that you will have rain or snow.

Note: After set up, readings for Weather Forecasts should be disregarded for the next 48-60 hours. This will allow sufficient time for the weather station to collect air pressure data at a constant altitude and therefore result in a more accurate forecast.

WEATHER TENDENCY INDICATOR (Up or Down arrows): Working together with the weather icons is the Weather Tendency Indicators. When the Indicator Points Upwards, it means that the Air-pressure is Increasing and the weather is expected to improve, but when Indicator Points Downwards, the Air-pressure is Falling and the weather is expected to become worse. This is forecasting 6-12 hours in the future.

Dashes, OFL or Stuck Indoor Temperature

- ✓ 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 weather station unpowered for 1-2 hours.
- ✓ Insert 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. See the section on accuracy for details.
- ✓ 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.
- ✓ 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.
- ✓ Large buildings, metal roofed buildings and buildings or rooms full of electrical and/or radio equipment make it difficult to receive the WWVB time signal.

Daylight Saving Time

- ✓ Dependent on your location, position of the weather station in your home, and atmospheric interference, it may take up to 5 nights for the change from Daylight Savings Time to Standard Time and vice-versa to occur.
- ✓ Check for a WWVB Tower Icon showing on your Weather station. The tower icon indicates you have received the WWVB signal from Ft Collins CO in the past 24-hours.
- ✓ Check that the weather station is in the correct Time Zone.
- ✓ Check whether the DST indicator is ON or OFF. If the indicator is OFF the weather station will not change.
- ✓ Check for fresh batteries. Without proper batteries, the antenna will have a harder time picking up the signal.
- ✓ Position the Weather station in a window (with the front or back) facing Ft. Collins, Colorado and leave for up to five nights. If you do not have a window facing this direction, locate the Weather station near an outside wall and point the unit in this general direction.

Manually Set Time/Date: Program Menu

PROGRAM MENU:

There are four function keys located on the back of the unit: +, SET, MIN/MAX, and ICE ALARM. When you press and release the SET button after each step, you will be moved to the next step. Exit the programming mode at any time by pressing the MIN/MAX button

1. **TIME ZONE:** Press and hold the SET button for five seconds. A **Zo** will appear on the bottom along with a flashing number from 0 (zero) to minus 12. Please note North American Time Zones are negative numbers. Press and release the PLUS button to select from the following U.S. Time Zones: -4 Atlantic; -5 Eastern; -6 Central; -7 Mountain; -8 Pacific; -9 Alaskan; -10 Hawaiian. Press and release the SET button.
2. **DAYLIGHT SAVING TIME:** (DST) will flash with either OFF or ON. Most states use DST, so this should be ON. Use the PLUS button to change from OFF/ON. Press and release the SET button.
3. **HOURL:** The Hour will flash. Use the PLUS button until the correct hour is shown. WATCH for the AM/PM indicator.
4. **MINUTES:** The Minutes will flash. Use the PLUS button until the correct minutes are displayed. Press and release the SET button.
5. **YEAR:** The Year will flash. Use the PLUS button to select the correct Year. Press and release the SET button.
6. **MONTH:** The Month will flash. Use the PLUS button to select the current month. Press and release the SET button.
7. **DATE:** The Date will flash. Use the PLUS button until you have set the correct date. Press and release the SET button.
8. **WEEKDAY:** The Day of the Week will flash. Use the PLUS button to select the correct day. Press and release the SET button.
9. **FAHRENHEIT OR CELSIUS:** A degree symbol will flash, followed by C or F. Use the PLUS button to change to your preference. Press and release the SET button.

No WWVB Tower Icon

- ✓ The weather station has not received a WWVB time signal in the past 24-hours.
- ✓ Position the weather station for better reception.
- ✓ Allow up to 5 nights to receive the time signal.

Weather station Has Missing Segments

- ✓ 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 weather station unpowered for 1-2 hours.
- ✓ Insert 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 upper and lower screen of the weather station. This thin piece of plastic has printed numbers for store displays.
- ✓ This film will be easy to peel off the LCD.
- ✓ 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 the weather station.
- ✓ Press any button 20 times. Leave the batteries out of the display for 2 hours.
- ✓ Insert fresh alkaline batteries into the weather station.

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 upper and lower 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.
- ✓ Insert fresh alkaline batteries into the weather station.

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.
- ✓ Insert fresh alkaline batteries into the weather station.