

WS-9023U-IT 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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GENERAL INFORMATION

BATTERIES: WHAT DO I NEED TO KNOW ABOUT BATTERIES?

- Good fresh batteries are important for best performance in your sensor and as backup in your station.
- Batteries are manufactured 10 years in advance of the date on the battery.
- We recommend batteries with an expiration date no more than 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 sensor. Alkaline batteries for the station.

HARDWARE: SENSOR AND STATION

Your WS-9023U-IT station comes with:

TX21U-IT Thermo-hygro sensor that reads Temperature and Humidity.

Your sensor operates at 915MHz RF.

Transmission range is 330 feet (100 meters) open air.

WHAT ARE THE POWER REQUIREMENTS FOR THIS STATION?

TX21U-IT: 2-AA batteries

WS-9023U-IT: 2-AA batteries

SETUP: HOW DO I SETUP MY STATION?

1. Install batteries into your sensor.
2. Install batteries into the station.
3. Let sensor and station sit within 10 feet of each other for several minutes to lock the sensor signals to the display.

MOUNTING: WHERE DO I MOUNT/POSITION MY SENSOR?

TX21U-IT:

- Place your thermo-hygro sensor at least 6 feet off the ground.
- For accurate temperature readings your sensor needs to be shaded from the sun in a well vented area.
- Mount your sensor vertically to allow moisture to drain out the bottom.
- Preferred location is on a north facing wall under an eave or deck rail.
- Avoid placing near a metal roof that will cause it to read high on sunny days.
- Avoid other sources of heat such as soffit vents, and window or door frames.
- For accurate humidity readings, avoid placement near vegetation and lakes or other bodies of water when possible.
- Place your sensor in a well-vented area. Trapped moisture will cause inaccurate readings.
- Maximum transmission distance from your thermos-hygro sensor to your station, in open air is 330 feet (100 meters).

WHERE TO I PLACE MY STATION?

Your station is designed for flexible placement on a desk or countertop, or to position on the wall.

- Best reception occurs when only one wall is between your station and your sensor outside.
- Position you 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 your sensor and your station.
- Consider the signal path from your station to your 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 sensor on a metal fence can significantly reduce the effective signal range.

Interference:

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

HOW DO I VIEW MY MIN AND MAX TEMPERATURE/HUMIDITY READINGS?

1. Press and release the MIN/MAX/+ button both the Minimum Indoor Temperature and Outdoor Temperature and Humidity will show. Press and release the MIN/MAX/+ button.
2. Both the Maximum Outdoor Temperature and Outdoor Temperature and Humidity will show. Press and release the MIN/MAX/+ button to return to the current readings.

Note: If using multiple outdoor sensors press and release the SET/CH button to get to the desired sensor and then press the MIN/MAX/+ button to show each channel's recorded readings.

HOW DO I RESET THE TEMPERATURE/HUMIDITY READINGS?

Reset: Press and hold the MIN/MAX/+ button for 5 seconds and all the Minimum and Maximum readings will be reset.

HOW DO I MANUALLY SET THE TIME?

The SET button will move you through the program menu. The MIN/MAX button will change a value.

Setting order:

12/24 hour time

Hour

Minutes

1. Hold the SET button for 5 seconds and a 12h or 24h will appear on the top line. To change between 12h and 24h, press and release the MIN/MAX button.

Note: 12 hour time will show temperature in Fahrenheit. 24-hour time will show Temperature in Celsius.

2. The Hour will now be flashing. Press and release the MIN/MAX button until the correct hour is shown. WATCH the AM/PM.
3. The Minutes will now be flashing. Press and release the MIN/MAX button until the correct minutes are displayed. Press and release the SET button once more and you are done.

Note: When in the 12h mode, there is only a 'PM' display, which appears under the word TIME. During the 'AM' hours this area will be blank. When the correct hour is shown, press and release the SET button once.

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](#).

TROUBLESHOOTING

FACTORY RESET: HOW DO I FACTORY RESET MY STATION?

- A factory reset is a great way to return your station to “out of the box” condition.

To factory reset your station:

1. Remove batteries from your sensor and your station. Press any button on the station 20 times to help discharge collected power.
2. Wait 15 minutes then insert batteries into the sensor and the station and allow both pieces to sit together for 15 minutes.

DASHES TEMP/HUMIDITY: WHY DOES MY THERMO-HYGRO SENSOR SHOW DASHES ON THE STATION?

Dashes indicate the connection is lost between your station and the outdoor 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.
- 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 causing 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.
- When you have good batteries, and good location, hold the SENSOR button for three seconds to search for your 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.

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

- Your temperature and humidity readings are from you 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 INCCURATELY?

- Press the SET/CH button to be sure your station is not reading multiple sensors.
- The thermo-hygro sensor reads the environment. If your sensor reads high during the day but not at night it is a [mounting](#) problem.
- **Side-by-side test:** Bring the thermo-hygro sensor in the house and place it next to your 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 your station then try a different location outside.
- Look for heat sources such as sunlight, door or window frames, or reflected heat that may cause inaccurate readings.
- If your temperature is reading low, and location is not an issue, you may have a bad sensor.

WHAT DOES A READING OF "OFL" MEAN?

- If your outdoor temperature reading shows "OFL", check that your [batteries](#) are good.
- Overpower or underpowered batteries can cause this reading.
- If batteries are good, replace the outdoor sensor.

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](#).

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 AM I GOING THROUGH BATTERIES QUICKLY?

- Test a new set of [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 sensor.

HOW DO I CHANGE BETWEEN FAHRENHEIT AND CELSIUS?

- On your station enter the [program menu](#) to select 12h = Fahrenheit and 24h = Celsius temperature display on the station.

HOW DO I VIEW OTHER SENSORS ON MY STATION?

Explanation: The forecast station will accommodate up to three remote [outdoor transmitters](#). Compatible sensor are TX-21U-IT, TX29UDTH-IT.

- Press and release the SET/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.

HOW DO I CONNECT ADDITIONAL SENSORS TO MY STATION?

To connect multiple remote transmitters to the forecast station:

1. Place all sensors and station on the table with batteries out for at least 15 minutes.
2. Insert batteries in the **first** outdoor transmitter.
3. Insert batteries into the back of the **station**.
4. When the reading appears in the outdoor temperature area, move to the second transmitter.
5. Insert batteries in the **second** outdoor transmitter.
6. The outdoor temperature area should show a temperature reading on channel 1 and on channel 2.
7. When the readings appear in the outdoor temperature area (channel 2), move to the third transmitter.
8. Insert batteries in the **third** outdoor transmitter.
9. When RF (radio frequency) connection is established, the respective temperature & humidity for each of the selected channels (1, 2, or 3) will appear on the main unit. Allow the transmitters and wireless forecast station to sit near each other for 15 minutes to lock in the signals.
10. Press and release the SET/CH button to view channel 1, 2 or 3 on the station.

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