

CA80987 FAQs

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Batteries

Explanation: Many problems are resolved with fresh batteries of the appropriate voltage. Many items sent in under warranty work when tested with fresh batteries. Batteries manufactured this year will have an expiration date 10 years (or more) 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.

- We suggest name brand Alkaline batteries for indoor displays.
- Use Alkaline or Lithium batteries in the outdoor sensors.
- A minimum voltage of 1.48V for each battery is necessary for proper performance.
- Use batteries dated more than 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.
- Good name brand batteries make less noise, which reduces the chance of RF (radio frequency) interference from the battery compartment.

Temperature Station Factory Restart

Explanation: The factory restart returns the temperature station and outdoor sensor to an “out-of-the-box” state and often resolves an issue.

Factory Restart:

1. Remove all power from outdoor sensor and temperature station.
2. Press one of the buttons on the temperature station at least 20 times to clear all memory.
3. Verify that the temperature station is blank before proceeding (there are some painted lines that will not disappear).
4. Leave batteries out of both units for 15 minutes (very important).
5. Insert fresh Alkaline batteries into the temperature station.
6. Insert fresh batteries into the outdoor sensor.
7. Press the TX button on the outdoor sensor to transmit RF signal.
8. Keep the outdoor sensor 5-10 feet from the temperature station.
9. When RF connection is established, the temperature will appear on the station. Allow the outdoor sensor and temperature station to sit together for 15 minutes to establish a strong connection.
10. Do not press buttons for 15 minutes.
 - For optimum 433MHz transmission, place the outdoor sensor no more than 330 feet (100 meters, open air) from the temperature station.
 - See the section on [mounting](#) and [distance/resistance/interference](#) for details on mounting the outdoor sensor.

Outdoor Temperature Sensor

Compatible Outdoor Sensors

- The TX141-Bv3 outdoor sensor comes packaged with this temperature station.
- The TX141-B (all versions), and TX141-A (all versions) (433MHz) outdoor sensors are compatible with this temperature station.

Quick Connect

Explanation: Use the quick connect for a temperature station and outdoor sensor that have been working but lost connection due to interference or low batteries. This is not a thorough factory reset.

1. Bring the outdoor sensor and temperature station together inside and place the units 5-10 feet apart with nothing between them.
 2. Hold the SENSOR SEARCH button on the temperature station. The outdoor temperature area will flash.
 3. Remove battery cover from the outdoor sensor and press and release the TX button to send the signal.
 4. Wait for 2 minutes for the outdoor temperature to appear on the temperature station.
- Factory Restart: If the above procedure does not work, please try the factory reset.

Outdoor Temperature Signal Strength

Explanation: The temperature station will search for the outdoor temperature outdoor sensor for 3 minutes after batteries are installed or the SENSOR SEARCH button is held for 3 seconds.

- The antenna symbol will flash during reception.
- The temperature display will be dashes "---".
- If synchronization fails once, the antenna will lose one bar.
- If synchronization fails twice, the antenna will lose two bars.
- If RF (radio frequency) reception fails five times, the antenna symbol will show without bars.
- The antenna will show full display with successful RF (radio frequency) reception.

Dashes show for Outdoor Temperature

Explanation: Dashes mean the connection is lost between the temperature station and the outdoor sensor.

- Batteries often resolve the connection.
- Distance/Resistance can cause loss of connection between the outdoor sensor and the temperature station.
- Turn the temperature station 90 degrees towards the outdoor sensor to provide better reception. This allows more antenna surface to face the outdoor sensor signal.
- Try the quick connect or factory restart.

Power Requirements

- 2-AA batteries power the outdoor sensor.
- We recommend Alkaline batteries for the outdoor sensor.
- You may choose to use Lithium batteries for temperatures below -20°F/-28.8°C.

Inaccurate Outdoor Temperature Reading

Explanation: High outdoor temperature readings are generally a location issue. Low outdoor temperature readings are power related or a sensors going bad.

- The outdoor sensor reads the environment where it is mounted. When mounted inside the home, it will read inside temperature.
- When the outdoor sensor reads high during the day, but not at night, it is a positioning problem.
- Look for heat sources such as sunlight, door or window frames or reflected heat.

Side-by-side test: Bring the outdoor sensor in the house and place it next to the temperature station for 2 hours.

- Compare indoor and outdoor temperature. The temperatures should be within 4 degrees to be within tolerance.

- If the outdoor sensor reads correctly when next to the temperature station, try a different location outside.

Intermittent Outdoor Temperature

Explanation: Intermittent problems are the hardest to resolve. RF (radio frequency) communication may come and go occasionally. This can be normal in some environments (e.g. moister climates). If outdoor sensor signal is lost, please wait 2-4 hours for the signal to reconnect on its own.

- Move the outdoor sensor to a closer location.
- [Distance/Resistance](#) can cause loss of outdoor sensor signal.
- Check [Batteries](#).

Freezer test: Confirm the temperature station is reading the correct outdoor sensor. Place the outdoor sensor in the freezer for an hour and watch the temperature drop on the temperature station.

Indoor distance test: Please complete the [Restart](#) with outdoor sensor and temperature 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 outdoor sensor to another room with one wall between the outdoor sensor and the temperature 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 outdoor sensor to different locations outside to find a location where the temperature reading will hold.

Outdoor Temperature is stuck or HH.H, LL.L

Explanation: These symbols are error messages indication the outdoor sensor is outside of its readable range.

- Check [Batteries](#). Overpowered or underpowered batteries can cause this reading.
- Replace outdoor sensor.

Note: 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.

Outdoor 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.
- Check the [distance](#) and [resistance](#) between the outdoor sensor and temperature station. Outdoor 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 outdoor sensor.
- Battery life is over 24 months when using reputable battery brands for both Alkaline and Lithium batteries.

Outdoor sensor fell. The sensor no longer works

Explanation: If there is no physical damage to the outdoor sensor, the fall may not have caused internal damage. A fall can shock the outdoor sensor or the batteries in the outdoor sensor. 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.

Note: An outdoor sensor that has fallen into puddle, snow, or other standing water, will likely have water damage and needs to be replaced. Outdoor sensors are water resistant, not waterproof.

Temperature Trend Arrows

Explanation: The indoor and outdoor temperature trend indicators will update every 30 minutes or less. These trends represent temperature changes over the past three hours.

- UP ARROW: Temperature rose more than 2°F /1°C in the past three hours
- RIGHT ARROW: Temperature has not changed more than 2°F /1°C in the past three hours
- DOWN ARROW: Temperature fell more than 2°F /1°C in the past three hours

MIN/MAX Temperature readings

Explanation: The temperature station shows the daily minimum and maximum temperatures each day starting at midnight (12:00 AM). The temperature station automatically resets the MIN/MAX temperatures at midnight (12:00 AM).

- View MIN data: Press and release the MIN TEMP button to view the minimum Indoor and Outdoor Temperatures.
- Reset MIN data: Hold the MIN TEMP button for 5 seconds and the Indoor and all Outdoor Minimum Temperatures will reset. The temperature area will show dashes briefly then return to current temperatures.
- View MAX data: Press and release the MAX TEMP button to view the maximum Indoor and Outdoor Temperatures.
- Reset MAX data: Hold the MAX TEMP button for 5 seconds and the Indoor and all Outdoor Maximum Temperatures will reset. The temperature area will show dashes briefly then return to current temperatures

Mounting/Positioning Outdoor sensor

First: Place the outdoor sensor in the desired shaded location and the temperature station in the home. Wait approximately 1 hour before permanently mounting the outdoor sensor to ensure that there is proper reception.

POSITION

- Mount outdoor temperature outdoor sensors vertically.
- Protect the outdoor sensor from standing rain or snow and from the overhead sun, which can cause it to read incorrectly.
- Mounting under an eave or deck rail works well.
- If you choose, you can construct a small roof or box for the outdoor sensor. Be sure a box has vents.
- Mount the outdoor sensor on the North side where to prevent sun from causing incorrect readings.
- Mount at least 6 feet in the air for a strong RF (radio frequency) signal.
- Outdoor sensors are water resistant, not waterproof.
- Avoid more than one wall between the outdoor sensor and the temperature station.
- The maximum transmitting range in open air is over 330 feet (100 meters).
- Obstacles such as walls, windows, stucco, concrete and large metal objects can reduce the range.
- 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.
- Do not mount the outdoor sensor on a metal fence. This significantly reduces the effective range.

MOUNT

Option 1:

- Install one mounting screw (not included) into a wall.
- Place the outdoor sensor onto the screw (hanging hole on the backside).
- Gently pull down to lock the screw in place.

Option 2:

- Insert the mounting screw through the front of the outdoor sensor and into the wall.
- Tighten the screw to snug (do not over tighten).

Position Temperature Station

- The temperature station has a wide base to sit on a desk or table.
- Place within range of the outdoor sensor.
- 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.
- Choose a location 6 feet or more from electronics such as cordless phones, wireless gaming systems, televisions, microwaves, routers, baby monitors, etc., which can prevent signal reception.
- Be aware of electrical wires and plumbing within a wall. This will interfere with RF (radio frequency) signal reception.

Distance/Resistance/Interference

Distance:

- The maximum transmitting range in open air is over 330 feet (100 meters) between the outdoor sensor and the temperature station. This range is in open air with ideal conditions.
- Consider what is in the signal path between the temperature station and the outdoor sensor.
- Avoid placing electronic in the signal path between the temperature station and the outdoor sensor.

Resistance:

- Obstacles such as walls, windows, stucco, concrete and large metal objects can reduce the range.
- When considering the distance between the outdoor sensor and the temperature 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.
- Windows reflect the RF (radio frequency) signal.
- Metal absorbs the signal and reduces the range.
- Stucco has a metal mesh that absorbs the signal.
- Do not mount the outdoor sensor on a metal fence. This significantly reduces the effective range.

Interference:

- Consider items in the signal path between the outdoor sensor and the temperature station.
- Sometimes a simple relocation of the outdoor sensor or the temperature station will correct the interference.
- Windows can reflect the radio signal.
- Metal will absorb the RF (radio frequency) signal.
- Stucco has a metal mesh that absorbs signal.
- Avoid transmitting antennas: (ham radios, emergency dispatch centers, airports, military bases, etc.)
- Electrical wires (utilities, Cable, etc.)
- Vegetation is full of moisture and reduces signal.
- It is difficult for RF (radio frequency) signal to travel through a hill.

Temperature Alerts

Explanation: The outdoor temperature alerts are set in two separate steps.

- Set the alert value.
- Arm/Disarm the alert.

Select Temperature Alert Values:

Hold the TEMP ALERT button for five seconds to select and set temperature alert values.

1. OUTDOOR HI alert will flash. Press the ARROW buttons to set the alert value, and press the TEMP ALERT button to confirm and switch to OUTDOOR LOW setting.
2. OUTDOOR LO alert will flash. Press the ARROW buttons to set the alert value, and press the TEMP ALERT button to confirm and exit.

Note: After selecting temperature alert values, use the next step to arm or disarm individual alerts.

Arm/Disarm Temperature Alerts

1. In normal mode, hold then release the TEMP ALERT button to toggle the alerts:
 - Outdoor HI
 - Outdoor LO
2. Press the UP ARROW button to arm the selected alert. The alert icon (bell) appears next to the alert, when the alert is active.
3. Press the DOWN ARROW button to disarm the selected alert.

Note: When no temperature alerts are set, the Temperature Alert area will show ALERTS OFF.

Active Temperature Alert

- When temperature alert sounds, the corresponding alert icon (bell) will flash.
- The alert beeps once every minute, until the temperature is out of alert range.
- Press any button to stop alert. The alert symbol will still show.

Temperature Station

How tall are the time numbers?

The time numbers are 0.5 inches tall.

Power Requirements

- 2-AA Alkaline batteries power this temperature station.

12-Hour or 24-Hour time format

- Time can display in 12-hour (am, pm) or 24-hour format.
- Default is 12-hour time.
- Use the [Program Menu](#) to switch time formats.

Fahrenheit/Celsius

- Use the [program menu](#) to switch between Fahrenheit and Celsius.

Dashes, HH.H, LL.L or stuck Indoor Temperature

Explanation: These symbols are error messages indication the indoor sensor is outside of its readable range. For indoor readings, this is generally a power related issue.

- [Batteries](#) may be overpowered or underpowered. Remove batteries from the temperature station.
- Press any button 20 times. Leave the temperature station unpowered for 1-2 hours.
- Install fresh Alkaline batteries with correct polarity.
- If the indoor temperature is still shows dashes, HH.H or LL.L, the temperature station may need replacement.

Inaccurate Indoor Temperature Reading

Explanation: When the indoor temperature is inaccurate, it is often due to the location of the display or overpowered/under powered batteries. You can test the accuracy at you home.

Side-by-side test: Bring the outdoor sensor in the house and place it next to the temperature 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 or cold near the temperature station.

Check [batteries](#).


Set Time Alarm

In normal mode, hold the TIME ALARM button for three seconds to enter alarm set mode.


1. HOUR: The Hour will flash, use the ARROW buttons to set the hour, and press TIME ALARM button to confirm and switch to minutes.
2. MINUTES: The Minutes will flash, use the ARROW buttons to set the minutes, and press TIME ALARM button to confirm.
3. Press the SETTINGS button to return to normal mode.

Note: When no buttons are pressed for ten seconds, the temperature station will save the last change and default back to normal mode

Activate/Deactivate time alarm

- In normal mode, press and release the TIME ALARM button once to show alarm time.
- Press and release the TIME ALARM button repeatedly to turn ON/OFF alarm.
- The alarm icon  appears when alarm is active.
- Note: The alarm will ring for 2 minutes then turn off if no buttons are pressed.

Snooze Alarm

- When the alarm sounds, press the TIME ALARM button to snooze the alarm for 10 minutes.
- The snooze option can repeat three times.
- The alarm icon  will flash while the snooze feature is active.
- Note: while the alarm sounds press any button except the TIME ALARM button to turn the alarm off.

Time is off by hours

- This temperature station has manual set time.
- Use the [program menu](#) to set the time.

Manually Set Time/Date: Program Menu

Hold the TIME/DATE button for three seconds to enter time set mode.

1. YEAR: The Year will flash, use the ARROW buttons to choose the year, and press the TIME/DATE button to confirm and move to the month.
2. MONTH: The Month will flash, use the ARROW buttons to choose the month, and press the TIME/DATE button to confirm and move to the date.
3. DATE: The Date will flash; use the ARROW buttons to choose the date. Press the TIME/DATE button to confirm and move to 12/24 hour time format.
4. 12/24-HOUR: The time format 12H will flash, use the ARROW buttons to choose 12-hour or 24-hour time format and press the TIME/DATE button to confirm and move to hour.
5. HOUR: The Hour will flash, use the ARROW buttons to choose the hour, and press the TIME/DATE button to confirm and move to minutes.
6. MINUTES: The Minutes will flash, use the ARROW buttons to choose the minutes, and press the TIME/DATE button to confirm and move to Fahrenheit/Celsius.
7. FAHRENHEIT/CELSIUS: °F or °C will flash. Use the ARROW buttons button to select Fahrenheit or Celsius. Press and release the TIME/DATE button to confirm and exit the program menu.

Note: When no buttons are pressed for ten seconds, the temperature station will save the last change and default back to normal mode.

Temperature station is dim

Explanation: Most temperature stations have a gray background. Place the temperature station at eye level, to determine if it is dim. Temperature stations that sit in the sunlight can develop a cloudy film over time.

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

Temperature station has distorted or frozen display

Explanation: On a brand new temperature station, check for thin plastic film of printed scratch guard that may be on the screen of the temperature station. This thin piece of plastic has printed numbers for store displays. When the batteries are installed, the "real" numbers show behind the printed scratch guard and create distortion.

- With all power removed, the temperature station should be blank.
- If numbers still appear, please check for scratch guard.

Power:

- Check that the batteries are installed correctly.
- This is generally a power related issue.
- [Batteries](#) may be overpowered or underpowered.
- Remove batteries from temperature station.
- Press any button 20 times. Leave the batteries out of the display for 2 hours.
- Insert batteries into the temperature station.

Temperature 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 temperature station.
- Press any button 20 times. Leave the batteries out of the display for 2 hours.
- Insert batteries into the temperature station.

Temperature 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 temperature station.
- Battery life is over 12 months when using reputable battery brands.

Temperature station has missing segments

Explanation: When parts of numbers, letters, or pictures are missing on the display, it is often power related.

- [Batteries](#) may be overpowered or underpowered. Remove batteries from temperature station.
- Press any button 20 times. Leave the temperature station unpowered for 1-2 hours.
- Install fresh alkaline batteries with correct polarity.