# 308-1910 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 Wireless Thermometers.
- ✓ 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.

# Wireless Thermometer Factory Restart

- 1. Remove all batteries 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 may be lines painted on the screen that will show when power is removed).
- 4. Leave both units without power for 15 minutes (very important).
- 5. Insert fresh batteries into the temperature station.
- 6. Insert fresh batteries into the outdoor sensor.
- 7. Keep the outdoor sensor 5-10 feet from the temperature station.
- 8. 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.
- 9. Do not press buttons for 15 minutes.
- 10. PLACE SENSOR OUTSIDE: For optimum 433MHz transmission, place the outdoor sensor a distance of no more than 200 feet (60 meters, open air) from the Wireless Thermometer.
- ✓ See the section on mounting and distance/resistance/interference for details on mounting the outdoor sensor.

## **Outdoor Temperature Sensor**

#### Compatible Outdoor Sensors

✓ The TX191 or TX19 (433MHz) will work with this station.

#### Power Requirements

- ✓ 2-AA <u>batteries</u> power the outdoor sensor.
- ✓ We recommend alkaline batteries for the sensor.

Dashes shown for Outdoor Temperature

- Dashes mean the connection is lost between the wireless thermometer and the outdoor sensor.
- ✓ This thermometer only reads to negative four degrees Fahrenheit. Below that, the outdoor temperature number will go to dashes.

- ✓ <u>Batteries</u> often resolve the connection.
- ✓ <u>Distance/Resistance</u> can cause loss of connection between the sensor and the Wireless Thermometer.
- ✓ Reorientation of the Wireless Thermometer 90 degrees towards the outdoor sensor may provide better reception. This allows more antenna surface to face the sensor signal.
- ✓ Try the <u>factory restart</u>.

## Inaccurate Outdoor Temperature Reading

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

# Outdoor Temperature Changes Constantly

- ✓ You may have an additional compatible outdoor sensor within <u>range</u>.
- $\checkmark$  Occasionally a neighbor will have a compatible outdoor sensor that is within range.

# Intermittent Outdoor Temperature

- ✓ RF (radio frequency) communication may come and go occasionally. This can be normal in some environments (e.g. moister climates). If 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.
- ✓ Freezer test: Confirm the wireless thermometer is reading the correct outdoor sensor. Place the sensor in the freezer for an hour and watch the temperature drop on the Wireless Thermometer.
- ✓ Indoor distance test: Please complete the <u>Restart</u> with sensor and wireless thermometer 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 sensor to another room with one wall between the sensor and the wireless thermometer. 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 <u>distance/resistance</u> issue. Move the sensor to different locations outside to find a location where the temperature reading will hold.
- ✓ <u>Distance/Resistance</u> can cause loss of sensor signal.
- ✓ Check <u>Batteries</u>.

## Outdoor Sensor fell, now the sensor does not work.

- ✓ If there is no physical damage to the outdoor sensor, the fall may not have caused internal damage.
- ✓ A fall can shock the sensor or the batteries in the sensor. Batteries that have fallen on a hard surface may be damaged and unable to function properly.
- ✓ An outdoor sensor that has fallen into a puddle, snow, or other standing water, it may have water damage.
- ✓ Sensors are water resistant, not waterproof.
- ✓ Complete a <u>Restart</u> with fresh batteries.
- ✓ Use <u>Batteries</u> dated at least six years in advance of the current year.

# Outdoor Temperature is Stuck or HH.H OR LL.L.

- ✓ The last outdoor reading may remain (not change) for several hours when connection is lost.
- ✓ Check <u>Batteries</u>. Overpowered or underpowered batteries can cause this reading.
- ✓ Replace outdoor sensor.

## Outdoor Sensor drains batteries quickly.

- ✓ Test a new set of alkaline batteries. Write down the date of installation and the voltage of the batteries.
- $\checkmark$  When the batteries fail, please note the date and voltage again.
- ✓ Check the <u>distance</u> and <u>resistance</u> between the sensor and Wireless Thermometer. 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 sensor.

# View and reset MIN/MAX Temperature readings.

- ✓ Press the MIN/MAX button several times to view the MIN/MAX temperatures.
- ✓ Hold MIN/MAX button for 3 seconds to reset all the indoor and outdoor temperatures to current temperatures.

# Mounting/Positioning Outdoor Sensor

- ✓ Mount outdoor temperature sensors vertically and under a bit of an overhang.
- ✓ 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.
- Construct a small roof or box for the sensor if you do not have an overhang. Please be sure it is well vented.
- ✓ Mount the sensor on the North side 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 but not waterproof.
- ✓ Avoid more than one wall between the sensor and the Wireless Thermometer.
- ✓ Do not mount near electrical wires, transmitting antennas or other items that will <u>interfere</u> with the signal.
- ✓ RF (radio frequency) signals do not travel well through moisture or dirt.
- ✓ Place the outdoor sensor and the Wireless Thermometer in the desired shaded locations, and wait approximately 1 hour before permanently mounting the sensor to ensure that there is proper reception.
- ✓ Do not mount the sensor on a metal fence. This significantly reduces the effective <u>range</u>.

## MOUNT

- ✓ Choose a location for the sensor that is within <u>range</u> of the Wireless Thermometer and under an overhang for accuracy.
- ✓ Mount the sensor vertically and under a bit of an overhang.
- Protect the sensor from standing rain or snow, and from the overhead sun, which can cause it to read incorrectly.
- Outdoor sensors are water resistant but not waterproof. Mounting under an eave or deck rail works well.
- ✓ It is best to mount the sensor with screws as tape can fail causing the sensor to fall.
- Tape is great for positioning to determine the best location for the sensor to maintain contact with the display.
- ✓ <u>Distance/Resistance</u> can cause loss of sensor signal. Avoid more than one wall, window, tree etc., between the display and the sensor. UV coated windows may actually reflect the signal. Stucco walls will absorb the signal.
- ✓ It is best to mount the sensor on the North side of the building to prevent sun from causing incorrect readings.

## Position Wireless Thermometer

- $\checkmark$  The wireless thermometer has a pull out stand to sit on a desk or table.
- ✓ Place the wireless thermometer within <u>range</u> of the outdoor sensor.
- Choose a location at least six feet 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.
- ✓ The maximum transmitting range in open air is 100 feet (30 meters).
- ✓ Obstacles such as walls, windows, stucco, concrete and large metal objects can reduce the range.

# Distance/Resistance/Interference

## **Distance:**

- ✓ The maximum transmitting range in open air is over 100 feet (30 meters) between the outdoor sensor and the Wireless Thermometer. This range is in open air with ideal conditions.
- ✓ Consider what is in the signal path between the Wireless Thermometer and the sensor.
- Consider the distance the Wireless Thermometer is located away from electronics 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 sensor and the Wireless Thermometer (100 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 is attached to the wall with a metal mesh that absorbs the signal.
- ✓ Do not mount the sensor on a metal fence. This significantly reduces the effective range.

## Interference:

- ✓ Consider items in the signal path between the sensor and the Wireless Thermometer.
- ✓ Sometimes a simple relocation of the sensor or the Wireless Thermometer will correct the interference issue.
- ✓ Windows can reflect the radio signal.
- ✓ Metal will absorb the RF (radio frequency) signal.
- ✓ Stucco is backed by a metal mesh that holds it to the wall.
- Transmitting antennas (ham radio, emergency dispatch centers, airports, military bases, etc.) may cause interference.
- ✓ Electrical wires (utilities, cable, etc.)
- ✓ Vegetation is full of moisture and reduces signal.

# **Wireless Thermometer**

# Power requirements

✓ 2-AAA alkaline batteries power the Wireless Thermometer.

## 12-Hour or 24-Hour time format

✓ From time mode, press and release the 12/24h button to select 12 hour or 24-hour time readout.

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

- ✓ This is generally a power related issue.
- <u>Batteries</u> may be overpowered or underpowered. Remove batteries from wireless thermometer.
- ✓ Press any button 20 times. Leave the wireless thermometer unpowered for 1-2 hours.
- ✓ Install fresh alkaline batteries with correct polarity.
- ✓ If the indoor temperature is still dashes or HH.H OR LL.L, the wireless thermometer may need replacement.

#### Inaccurate Indoor Temperature reading

- ✓ Side-by-side test: Bring the outdoor sensor in the house and place it next to the Wireless Thermometer 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 items that will reflect heat of cold to the Wireless Thermometer.

## Fahrenheit/Celsius

✓ From time mode, press and release the F/°C button to select Fahrenheit or Celsius temperature readout.

#### Time is off by hours.

- ✓ This wireless thermometer has manual set time.
- ✓ Use the program menu to set the time.

# Manually Set Time/Date: Program Menu

From Time Mode hold the TIME button for 3 seconds to enter time set mode.

- **HOUR**: The Hour will flash. Press and release the ARROW buttons to select the correct hour. Press and release the TIME button once to move to the minutes.
- **MINUTES:** The Minutes will flash. Press and release the ARROW buttons to select the correct hour. Press and release the TIME button once more to exit the program menu.

## Time Alarm

Note: Setting the alarm time is one-step. Turning the alarm ON or OFF is a separate step.

- Hold the ALARM button to enter alarm set mode. The letters "AL" will show between the hours and minutes
- Press the UP ▲ or DOWN ▼ button to adjust values.
- Press the ALARM button to confirm adjustments and move to next item.
- In alarm mode, press the ALARM button to turn the alarm ON and OFF.

#### Settings order:

- 1. Hour
- 2. Minutes

Press ALARM to exit, or wait 30 seconds without pressing buttons to return to the normal time display.

#### Activate/Deactivate the Alarm

From Time mode, press and release the **ALARM** button once to switch to Alarm mode. The letters "**AL**" will appear between the hours and the minutes.

- Press the **ALARM** button to turn the alarm ON. The bell icon will show above the seconds.
- Press the **ALARM** button again to turn the alarm OFF. The bell icon will disappear.

## Snooze (Temporarily silences alarm)

- When the alarm sounds, press the **SNOOZE** button to silence the alarm for 5 minutes.
- The alarm icon will flash.
- The snooze function can be repeated.
- Press any button except SNOOZE to turn the alarm off for 24 hours.

#### Wireless Thermometer is Dim.

- ✓ Most wireless thermometers have a gray background. Place the wireless thermometer at eye level. Is it still dim?
- ✓ Wireless thermometers that sit in the sunlight can develop a cloudy film over time.
- ✓ This is generally a power related issue.
- ✓ <u>Batteries</u> may be overpowered or underpowered. Remove batteries from Wireless Thermometer.
- ✓ Press any button 20 times. Leave the Wireless Thermometer unpowered for 1-2 hours.
- ✓ Install fresh alkaline batteries with correct polarity.

#### Wireless Thermometer has a Distorted Display.

- ✓ On a brand new Wireless Thermometer, check for thin plastic films of printed scratch guard that may be on the screen of the wireless thermometer. This thin piece of plastic has printed numbers for store displays.
- ✓ With all power removed, the wireless thermometer should be blank.
- ✓ If numbers still appear, please check for scratch guard.
- ✓ Check that the batteries are installed correctly.
- ✓ <u>Batteries</u> may be overpowered or underpowered.
- ✓ Remove batteries from Wireless Thermometer.
- ✓ Press any button 20 times. Leave the batteries out of the display for 2 hours.
- ✓ Insert fresh batteries into the wireless thermometer.

#### Wireless Thermometer has missing segments.

- ✓ This is generally a power related issue.
- ✓ Check that the batteries are installed correctly.
- ✓ <u>Batteries</u> may be overpowered or underpowered.
- ✓ Remove batteries from wireless thermometer.
- ✓ Press any button 20 times. Leave the batteries out of the display for 2 hours.
- ✓ Insert fresh batteries into the wireless thermometer.

#### Wireless Thermometer Display appears Frozen.

- ✓ On a brand new Wireless Thermometer, check for thin plastic films of printed scratch guard that may be on the screen of the Wireless Thermometer. This thin piece of plastic has printed numbers for store displays. This can make the wireless thermometer display appear "frozen".
- ✓ With all power removed, the wireless thermometer should be blank.
- ✓ If numbers still appear, please check for scratch guard.

- $\checkmark$  This is generally a power related issue.
- ✓ Check that the batteries are installed correctly.
- <u>Batteries</u> may be overpowered or underpowered.
  Remove batteries from Wireless Thermometer.
- ✓ Press any button 20 times. Leave the batteries out of the display for 2 hours.
- $\checkmark$  Insert fresh batteries into the wireless thermometer.

#### Wireless Thermometer is Blank: No letters, numbers or dashed lines.

- ✓ Check that the batteries are installed correctly.
- ✓ <u>Batteries</u> may be overpowered or underpowered.
- ✓ Remove batteries from wireless thermometer.
- ✓ Press any button 20 times. Leave the batteries out of the display for 2 hours.
- $\checkmark$  Insert fresh batteries into the wireless thermometer.