308-1410GR 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.

- \checkmark We suggest name brand Alkaline batteries for indoor displays.
- \checkmark 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 at least six years in advance of the current year. Batteries dated earlier than six vears 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.

Wireless thermometer Factory Restart

Explanation: The factory restart returns the wireless thermometer and outdoor sensor to an "out-of-thebox" state and often resolves an issue.

Factory Restart:

- 1. Remove all power from outdoor sensor and wireless thermometer.
- 2. Press one of the buttons on the wireless thermometer at least 20 times to clear all memory.
- 3. Verify that the wireless thermometer is blank before proceeding (some lines are painted on and will not disappear).
- 4. Leave batteries out of both units for 15 minutes (very important).
- 5. Insert fresh Alkaline batteries into the wireless thermometer.
- 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 wireless thermometer.
- 9. When RF connection is established, the temperature will appear on the station. Allow the outdoor sensor and wireless thermometer 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 200 feet (60 meters, open \checkmark 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 TX141-B outdoor sensor comes packaged with this wireless thermometer.
- The TX141-B and TX141-A (433MHz) outdoor sensors are compatible with this wireless thermometer.

Quick Connect

Explanation: The quick connect is used for a wireless thermometer and outdoor sensor that have been working but lost connection due to interference or low batteries. This is not a thorough factory reset.

- Bring the outdoor sensor and wireless thermometer together inside and place the units 5-10 feet 1. apart with nothing between them.
- 2. Hold the MIN/MAX/+ button on the wireless thermometer. 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 wireless thermometer.
- Factory Restart: If the above procedure does not work, please try the factory reset. \checkmark

Outdoor Temperature Signal Strength

Explanation: The wireless thermometer will search for the outdoor temperature outdoor sensor for 3 minutes after batteries are installed or the MIN/MAX/+ button is held for 3 seconds.

- The antenna symbol will flash during reception. \checkmark
- ✓ The temperature display will be dashes "---".
- \checkmark 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 wireless thermometer and the outdoor sensor.

- \checkmark Batteries often resolve the connection.
- ✓ Distance/Resistance can cause loss of connection between the outdoor sensor and the wireless thermometer.
- ✓ Turn the wireless thermometer 90 degrees towards the outdoor sensor to provide better reception. This allows more antenna surface to face the outdoor sensor signal.
- Try the <u>quick connect</u> or <u>factory restart</u>.

Power Requirements

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

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 \checkmark 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 wireless thermometer for 2 hours.

- Compare indoor and outdoor temperature. The temperatures should be within 4 degrees to be within \checkmark tolerance.
- \checkmark If the outdoor sensor reads correctly when next to the wireless thermometer, 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. \checkmark
- Distance/Resistance can cause loss of outdoor sensor signal.
- ✓ Check <u>Batteries</u>.

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

Indoor distance test: Please complete the Restart with outdoor 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 outdoor sensor to another room with one wall between the outdoor 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 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. \checkmark
- 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 wireless thermometer. 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.

Replacement Outdoor Sensors

- ✓ Visit your local Retailer or La Crosse Technology® Store <u>http://store.lacrossetechnology.com/</u> **Note:** Be sure to order the correct model and frequency to avoid receiving the incorrect item.
- ✓ Call La Crosse Technology® Store at 608-785-7939 or e-mail from our website if you are unsure about the correct item to order. Each item carries the original new product warranty and includes access to La Crosse Technology technical support.

Temperature Trend Arrows

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

- VIEW MINIMUM: Press MAX/MIN/+ button to show the minimum temperature record.
- RESET MINIMUM: With the minimum temperatures displayed, press and hold the MAX/MIN for 2 seconds to manually clear the MIN records in memory.
- VIEW MAXIMUM: Press MAX/MIN/+ button again, to show the maximum temperature records. In maximum memory display mode,
- RESET MAXIMUM: With the maximum temperatures displayed, press and hold the MAX/MIN/+ button for 2 seconds to manually clear the MAX records in memory.

Mounting/Positioning Outdoor sensor

First: Place the outdoor sensor in the desired shaded location and the wireless thermometer 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.
- \checkmark 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 wireless thermometer.
- ✓ The maximum transmitting range in open air is over 200 feet (60 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 <u>interfere</u> 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 <u>range</u>.

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 Wireless thermometer

- \checkmark The wireless thermometer has a wide base to sit on a desk or table.
- ✓ Place within <u>range</u> of the outdoor sensor.
- ✓ The maximum transmitting range in open air is 200 feet (60 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 200 feet (60 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 outdoor sensor.
- ✓ Avoid placing electronic in the signal path between the wireless thermometer 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 wireless thermometer (200 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.
- \checkmark 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 wireless thermometer.
- Sometimes a simple relocation of the outdoor sensor or the wireless thermometer will correct the \checkmark interference.
- ✓ Windows can reflect the radio signal.
- ✓ Metal will absorb the RF (radio frequency) signal.
- \checkmark 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.) \checkmark
- Vegetation is full of moisture and reduces signal. \checkmark
- It is difficult for RF (radio frequency) signal to travel through a hill. \checkmark

Wireless Thermometer

How tall are the time numbers?

The time numbers are 0.5 inches tall.

Power Requirements

✓ 2-AA Alkaline batteries power this wireless thermometer.

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 wireless thermometer. \checkmark
- Press any button 20 times. Leave the wireless thermometer unpowered for 1-2 hours. \checkmark
- ✓ Install fresh Alkaline batteries with correct polarity.

 \checkmark If the indoor temperature is still shows dashes, HH.H or LL.L, the wireless thermometer 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 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 reflected heat or cold near the wireless thermometer.

Check batteries.

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

The SET/°F/°C button moves through the program menu. The MIN/MAX/+ button changes the value.

12/24-HOUR TIME: Hold the SET/°F/°C button for 2 seconds, 12H will flash. Press and release the MIN/MAX/+ button to select 24-hour time format. Press and release the SET button once to move to the hour

HOUR: The Hour will flash. Press and release the MIN/MAX/+ button until the correct hour is shown. Press and release the SET button once to move to the minutes.

MINUTES: The Minutes will flash. Press and release the MIN/MAX/+ button until the correct minutes are displayed. Press and release the SET button once more to exit the program menu.

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

Wireless thermometer is dim

Explanation: Most wireless thermometers have a gray background. Place the wireless thermometer at eve level, to determine if it is dim. Wireless thermometers 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 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 distorted or frozen display

Explanation: On a brand new wireless thermometer, check for thin plastic film of printed scratch quard that may be on the screen of the wireless thermometer. 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 wireless thermometer should be blank.
- If numbers still appear, please check for scratch guard. \checkmark

Power:

- Check that the batteries are installed correctly.
- ✓ This is generally a power related issue.
- ✓ Batteries may be overpowered or underpowered.
- Remove batteries from wireless thermometer. \checkmark

- ✓ Press any button 20 times. Leave the batteries out of the display for 2 hours.
- ✓ Insert 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.
- ✓ Insert batteries into the wireless thermometer.

Wireless thermometer 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 wireless thermometer.
- ✓ Battery life is over 12 months when using reputable battery brands.

Wireless thermometer has missing segments

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

- ✓ <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.