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AC adapter

- ✓ The design of this weather station is to use AC adapter (5-volt) as primary power source.
- ✓ When operating with the AC adapter cord, the [backlight](#) can be on continually.
- ✓ When operating on AC adapter, batteries are optional and are not required in the weather station.
- ✓ The [backlight](#) will turn off or operate at high or low intensity at your discretion.

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.

- ✓ Use Alkaline or Lithium batteries in the **outdoor sensor**.
- ✓ 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 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.

Weather Station Factory Restart

Explanation: The factory restart returns the weather station and outdoor sensor to an "out-of-the-box" default state and often resolves an issue.

Factory Restart:

1. Remove all power (batteries and AC) from outdoor sensor and weather station.
 2. Press one of the buttons on the weather station at least 20 times to clear all memory.
 3. Verify that the weather station is blank before proceeding (there may be lines painted on the screen that will show when there is no power).
 4. **Leave both units without power for 15 minutes** (very important).
 5. Insert the AC adapter cord into the wall outlet then into the weather 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 weather station.
 9. 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.
 10. Do not press buttons for 15 minutes.
- ✓ For optimum 433MHz transmission, place the outdoor sensor no more than 300 feet (91 meters, open air) from the weather 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-Bv2 outdoor sensor comes packaged with this weather station.
- ✓ The TX141-B, TX141-A, TX141-Av2 (433MHz) outdoor sensor is compatible with this weather station.

Quick Connect

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

1. Bring the outdoor sensor and weather station together inside, and place the units 5-10 feet apart with nothing between them.
 2. Hold the MINUS button for 5 seconds. The outdoor temperature area will show dashes.
 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 weather station.
- ✓ [Factory Restart](#): If the above procedure does not work, please try the factory reset.

Outdoor Temperature Signal Strength

Explanation: The weather station will search for the outdoor temperature outdoor sensor for 3 minutes after batteries are installed or when the MINUS 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 weather station and the outdoor sensor.

- ✓ [Batteries](#) often resolve the connection.
- ✓ [Distance/Resistance](#) can cause loss of connection between the outdoor sensor and the weather station.
- ✓ Turn the weather 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 sensor 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: Place the outdoor sensor right next to the weather 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 weather 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 weather station is reading the correct outdoor sensor (not a neighbor's sensor). Place the outdoor sensor in the freezer for an hour and watch the temperature drop on the weather station.

Indoor distance test: Please complete the [Restart](#) with outdoor sensor 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 outdoor sensor to another room with one wall between the outdoor sensor 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 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 indicating 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 weather 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 need to be replaced. Outdoor sensors are water resistant, not waterproof.

Replacement Outdoor sensors

- ✓ Visit your local Retailer or La Crosse Technology® Store

<http://store.lacrossetechnology.com/>

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 the store 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 indoor and outdoor temperature (2°F / 1°C) trend indicators update every 30 minutes or less. These trends represent temperature changes over the past three hours.

Example: At 11:00, the trend arrows will reflect changes in temperature since 8:00. At 11:30, the trend arrows will reflect changes in temperature since 8:30, etc.

Up Arrow:

- ✓ Temperature has **risen** in the past 3 hours.

Right Arrow:

- ✓ Temperature has **not changed** in the past 3 hours.

Down Arrow:

- ✓ Temperature has **fallen** in the past 3 hours.

HI/LO Temperature readings

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

Press the PLUS button once to view:

- ✓ Outdoor HI
- ✓ Outdoor LO
- ✓ Indoor HI
- ✓ Indoor LO

Mounting/Positioning Outdoor sensor

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

POSITION

Outdoor:

- ✓ 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.
- ✓ Do not mount the outdoor sensor on a metal fence. This significantly reduces the effective [range](#).
- ✓ Outdoor sensors are water resistant, not waterproof.

Indoor:

- ✓ Mount the Outdoor Sensor indoors to monitor high mold risk areas like in a crawl space or a basement.

Indoor or Outdoor:

- ✓ Mount outdoor temperature sensor **vertically**.
- ✓ Avoid more than one wall between the outdoor sensor and the weather station.
- ✓ The maximum transmitting range in open air is over 300 feet (91 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.

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 Weather station

- ✓ The weather station has a pull out stand to sit on a desk or table or can be wall mounted.
- ✓ Place within [range](#) of the outdoor sensor.
- ✓ The maximum transmitting range in open air is 300 feet (91 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 300 feet (91 meters) between the outdoor sensor and the weather station. This range is in open air with ideal conditions.
- ✓ Consider what is in the signal path between the weather station and the outdoor sensor.
- ✓ Avoid placing electronics in the signal path between the weather station and the outdoor sensor.

Resistance:

- ✓ Obstacles such as walls, floors, windows, stucco, concrete and large metal objects can reduce the range.
- ✓ When considering the distance between the outdoor sensor and the weather station (300 feet (91 meters) 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 weather station.
- ✓ Sometimes a simple relocation of the outdoor sensor or the weather 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.

Weather Station

Power Requirements

- ✓ This weather station is powered by a 5 volt AC adapter.
- ✓ Alternatively, optional 2-AA alkaline batteries may be used.

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.

Backlight

AC adapter: The backlight is on continuously when operating the weather station with the 5-volt AC adapter.

Note: When the AC adapter is NOT in use, the HI-LOW-OFF light feature is not available.

- ✓ **HIGH:** The backlight is defaulted to HI at setup when the AC adapter is in use.
- ✓ **LOW:** Press the LIGHT button to dim the backlight.
- ✓ **OFF:** Press the LIGHT button again to turn the backlight off.
- ✓ Press the LIGHT button to return to full strength.

Note: When the backlight is off, press any button to activate the backlight for 10 seconds.

Battery power: When operating on battery power only, press and release the any button and the backlight will show for 10 seconds.

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.

- ✓ Check that the AC adapter cord is inserted into a working outlet.
- ✓ [Batteries](#) may be overpowered or underpowered. Remove batteries from the weather station.
- ✓ Press any button 20 times. Leave the weather 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 weather 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 weather 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 weather station.

Check [batteries](#) and AC adapter cord.

Manually Set Time/Date: Program Menu

- ✓ Hold the MODE button for 3 seconds to enter setting mode.
- ✓ Use the + or - buttons to adjust a value.
- ✓ Press the MODE button to confirm and advance.
- ✓ Press the LIGHT button at any time to exit.

Setting Order:

1. Language (English, Spanish, French)
2. Beep ON/OFF
3. 12 hour or 24 hour time format
4. Hour
5. Minutes
6. Year
7. Month
8. Date
9. Fahrenheit/Celsius

Note: Day of the week will automatically set when year, month and date are set.

PROGRAM MENU

1. Hold the MODE button for 3 seconds.
2. ENGLISH will show. Press the + or - buttons to select (Français or Español)
3. Press the MODE button to confirm and move to BEEP ON/OFF.
4. BEEP ON will show. Press the + or - buttons to turn the beep noise off.
5. Press the MODE button to confirm and move to 12/24 hour time.
6. 12h will show. Press the + or - buttons to choose 24 hour time format.
7. Press the MODE button to confirm and adjust the hour.
8. The Hour will flash. Press the + or - buttons to turn adjust.
9. Press the MODE button to confirm and move to the minutes.
10. The Minutes will flash. Press the + or - buttons to turn adjust the minutes.
11. Press the MODE button to confirm and move to the year.
12. The Year will flash. Press the + or - buttons to turn adjust the year.

13. Press the MODE button to confirm and move to the month.
14. The Month will flash. Press the + or - buttons to turn adjust the month.
15. Press the MODE button to confirm and move to the date.
16. The Date will flash. Press the + or - buttons to turn adjust the date.
17. Press the MODE button to confirm and select Fahrenheit or Celsius.
18. The °F will flash. Press the + or - buttons to select Celsius.
19. Press the MODE button to confirm and exit.

Weekday/Date display

- ✓ Press and release the MODE button to choose between weekday or date display.

Weather station is dim

- ✓ Press and release the **LIGHT** button to determine if the backlight is on HIGH or LOW.
- ✓ Clock must operate on AC power for backlight to stay on.

Weather station is blank: No letters, numbers or dashed lines

- ✓ Check that the AC adapter. Is it correctly installed and connects to an active outlet.
- ✓ Batteries may be overpowered or underpowered. Remove batteries from alarm clock.
- ✓ Press any button 20 times. Leave the alarm clock unpowered for 1-2 hours.
- ✓ Power clock with AC adapter only to determine if batteries were an issue.

Weather station has missing segments

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

- ✓ Check that the AC adapter. Is it correctly installed and connects to an active outlet.
- ✓ Batteries may be overpowered or underpowered. Remove batteries from alarm clock.
- ✓ Press any button 20 times. Leave the alarm clock unpowered for 1-2 hours.
- ✓ Power clock with AC adapter only to determine if batteries were an issue.