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CONTENTS

AC Power

- ✓ The design of this weather station is to use AC power (5-volt) as its power source.
- ✓ When operating with the AC power cord, the backlight can be on continually.
- ✓ 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 **remote 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 remote sensor to an "out-of-the-box" default state and often resolves an issue.

Factory Restart:
1. Remove all power (batteries and AC) from remote 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 power cord into the wall outlet then into the weather station.
6. Insert fresh batteries into the remote sensor.

7. Press the TX button on the remote sensor to transmit RF signal.
8. Keep the remote sensor 5-10 feet from the weather station.
9. When RF connection is established, the temperature will appear on the station. Allow the remote 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 915MHz transmission, place the remote 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 remote sensor.

Quick Connect

Explanation: Use the quick connect for a weather station and remote 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 remote sensor and weather station together inside, and place the units 5-10 feet apart with nothing between them.
2. Hold the ▲ button for 5 seconds. The remote temperature/humidity area will show dashes.
3. Remove battery cover from the remote sensor and press and release the TX button to send the signal.
4. Wait for 2 minutes for the remote temperature to appear on the weather station.

✓ Factory Restart: If the above procedure does not work, please try the factory reset.

Remote Temperature Sensor

Compatible Remote sensors

✓ The TX143TH remote sensor comes packaged with this weather station. It is the only compatible sensor.

Dashes show for Remote Temperature

Explanation: Dashes mean the connection is lost between the weather station and the remote sensor.
✓ Batteries often resolve the connection.
✓ Distance/Resistance can cause loss of connection between the remote sensor and the weather station.
✓ Turn the weather station 90 degrees towards the remote sensor to provide better reception. This allows more antenna surface to face the remote sensor signal.
✓ Try the quick connect or factory restart.

Power Requirements

✓ 2-AA batteries power the remote sensor.

- ✓ We recommend Alkaline batteries for the remote sensor.
- ✓ You may choose to use Lithium batteries for temperatures below -20°F/-28.8°C.

Inaccurate Remote Temperature Reading

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

- ✓ The remote sensor reads the environment where it is mounted. When mounted inside the home, it will read inside temperature/humidity.
- ✓ When the remote 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 remote sensor right next to the weather station for 2 hours.

- ✓ Compare indoor and remote temperature. The temperatures should be within 4 degrees to be within tolerance.
- ✓ If the remote sensor reads correctly when next to the weather station, try a different location outside.

Intermittent Remote 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 remote sensor signal is lost, please wait 2-4 hours for the signal to reconnect on its own.

- ✓ Move the remote sensor to a closer location.
- ✓ Distance/Resistance can cause loss of remote sensor signal.
- ✓ Check Batteries.

Freezer test: Confirm the weather station is reading the correct remote sensor (not a neighbor's sensor). Place the remote sensor in the freezer for an hour and watch the temperature drop on the weather station.

Indoor distance test: Please complete the Restart with remote 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 remote temperature area, move the remote sensor to another room with one wall between the remote 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 remote sensor to different locations outside to find a location where the temperature reading will hold.

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

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

✓ Check Batteries. Overpowered or underpowered batteries can cause this reading.
✓ Replace remote sensor.

Note: The last remote reading may remain (not change) for several hours when connection is lost. The remote temperature reading will flash when the connection is first lost or intermittent.

Remote 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 remote sensor and weather station. Remote 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 remote sensor.
✓ Battery life is over 24 months when using reputable battery brands for both Alkaline and Lithium batteries.

Remote Humidity goes to dashes when temperature is cold.

✓ The remote temperature/humidity sensor designed to work with this weather station may drop the remote humidity and dew point reading in cold temperatures.
✓ The humidity and dew point will return when the temperature rises. This is how the sensor came from the factory. The temperature itself will continue to read.

Remote sensor fell. The sensor no longer works

Explanation: If there is no physical damage to the remote sensor, the fall may not have caused internal damage. A fall can shock the remote sensor or the batteries in the remote 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: A remote sensor that has fallen into puddle, snow, or other standing water, will likely have water damage and need replacement. Remote sensors are water resistant, not waterproof.

Replacement Remote 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/Humidity Trend Arrows

Explanation: The indoor and remote temperature (2°F / 1°C) and humidity (3% RH) 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 or humidity since 8:00. At 11:30, the trend arrows will reflect changes in temperature or humidity since 8:30, etc.

Up Arrow:
✓ Temperature has **risen** in the past 3 hours.
✓ Humidity has **risen** in the past 3 hours.
Right Arrow:
✓ Temperature has **not changed** in the past 3 hours.
✓ Humidity has **not changed** in the past 3 hours.
Down Arrow:
✓ Temperature has **fallen** in the past 3 hours.
✓ Humidity has **fallen** in the past 3 hours.

MIN/MAX Temperature readings

✓ 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).
✓ There is no manual reset of MIN/MAX values.

Heat Index/Dew Point

Heat Index:
✓ Heat Index combines the effects of heat and humidity.
✓ Heat Index is what the temperature feels to a human being.
✓ As humidity increases, the body is unable to cool effectively.
✓ The temperature will feel warmer.

Dew Point Temperature:
✓ Dew Point Temperature is the saturation point of the air, or the temperature to which the air has to cool in order to create condensation.
✓ The higher the dew points, the higher the moisture content of the air at a given temperature.

Mounting/Positioning Remote sensor

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

POSITION

Outdoor:
- ✓ Protect the remote 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 remote sensor. Be sure a box has vents.
- ✓ Mount the remote 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 remote sensor on a metal fence. This significantly reduces the effective range.
- ✓ Remote sensors are water resistant, not waterproof.

Indoor or Outdoor:
- ✓ Mount remote temperature sensor **vertically**.
- ✓ Avoid more than one wall between the remote 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 remote 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 remote 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 remote 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 remote 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 remote sensor.
- ✓ Avoid placing electronics in the signal path between the weather station and the remote sensor.

Resistance:
- ✓ Obstacles such as walls, floors, windows, stucco, concrete and large metal objects can reduce the range.
- ✓ When considering the distance between the remote sensor and the weather station (300 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 remote sensor on a metal fence. This significantly reduces the effective range.

Interference:
- ✓ Consider items in the signal path between the remote sensor and the weather station.
- ✓ Sometimes a simple relocation of the remote 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.

Set Temperature Alerts

1. Press the **DISPLAY** button to select the Indoor or Outdoor page.
2. Hold the **ALERT** button for 3-5 seconds
3. The low temperature alert value will flash.
4. Press the ▼ or ▲ buttons to adjust the low alert values.
5. Press the **ALERT** button to confirm & move to activate the alert.
6. Press the ▼ or ▲ buttons to turn the low alert ON/OFF.
7. Press the **ALERT** button to confirm & move to the high temperature alert. The high alert will flash.
8. Press the ▼ or ▲ buttons to adjust the values.
9. Press the **ALERT** button to confirm & move to activate the alert.
10. Press the ▼ or ▲ buttons to turn the high alert ON/OFF.
11. Press the **ALERT** button to confirm & exit alert settings.

Active Temperature Alerts/Turn Alerts OFF

- ✓ Active alert emits a series of beeps once per minute with a flashing yellow alert ON icon.

Turn Alert Off:
- ✓ Hold the **ALERT** button for 3-5 seconds. The low alert value will flash.
- ✓ Press the **ALERT** button until the yellow alert ON icon is flashing.
- ✓ Press the ▼ or ▲ buttons to turn the alert OFF.

Note: Change the value of the alert higher/lower if desired and leave the alert ON.

Weather Station

Power Requirements

- ✓ This weather station is powered by a 5 volt AC power adapter

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

The backlight is adjustable. Press the LIGHT button to select:
- ✓ **HIGH**
- ✓ **LOW**
- ✓ **OFF**

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

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 power cord is inserted into a working outlet.
- ✓ Press any button 20 times. Leave the weather station unpowered for 1-2 hours.
- ✓ Insert the AC cord into the wall outlet then into the weather station.
- ✓ 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. You can test the accuracy at your home.

Side-by-side test: Bring the remote sensor in the house and place it next to the weather station for 2 hours.
- ✓ Compare indoor and remote 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 the AC power cord.

Set Time Alarm

In normal mode, hold the ALARM button for three seconds to enter alarm set mode.
1. HOUR: The **Hour** will flash, use the ▲ or ▼ buttons to set the hour, and press ALARM button to confirm and switch to minutes.
2. MINUTES: The **Minutes** will flash, use the ▲ or ▼ buttons to set the minutes, and press ALARM button to confirm and exit.

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

Activate/Deactivate time alarm

- ✓ In normal mode, press and release the ALARM button once to show alarm time.
- ✓ Press and release the 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 LIGHT button to snooze the alarm for 10 minutes.
- ✓ The alarm icon 🔔 will flash while the snooze feature is active.
- ✓ **Note:** When the alarm sounds, press any button to turn the alarm off for one day.

Time is off by hours

- ✓ Time is manually set.

Manually Set Time/Date: Program Menu

Note: Time and date may be set from any display screen.
- •Hold the SET button to enter time set mode.
- •Press the ▼ or ▲ buttons to adjust the values.
- •Press the SET button to confirm adjustments and move to the next item.

1. Hold the SET button to enter time set mode.
2. **12H** will flash in the time display.
3. Press and release the ▼ or ▲ buttons to select 24-hour time.
4. Confirm with the SET button and move to the hour.
5. The **hour** digit will flash.

6. Press and release the ▼ or ▲ buttons to select the hour.
7. Press and release the SET button to set the minutes.
8. The **minute's** digit will flash.
9. Press and release the ▼ or ▲ buttons to select the minutes.
10. Confirm with the SET button and move to the year.
11. The **year** will flash.
12. Press and release the ▼ or ▲ buttons to set the year (up to 2099).
13. Press the SET button again to confirm and to enter the month setting.
14. The **month** will flash.
15. Press and release the ▼ or ▲ buttons to set the month.
16. Press the SET button again to confirm and enter the date setting.
17. The **date** will flash.
18. Press and release the ▼ or ▲ buttons to set the date.
19. Confirm all calendar settings with the SET button to confirm and move to select Fahrenheit/Celsius.
    Note: The day of the week will set automatically once the year, month and date are set.
20. **°F** will flash.
21. Press and release the ▼ or ▲ buttons to select Fahrenheit or Celsius.
22. Confirm with the SET button and exit the program menu.

Forecast Icons Inaccurate

THIS WEATHER STATION LEARNS OVER TIME!
Please allow 3-4 weeks for barometer calibration to generate an accurate forecast.

IMPORTANT: As the Weather station builds memory, it will compare the current average pressure to the past forty day average pressure for increased accuracy. The longer the   Weather station operates in one location, the more accurate the forecast icons will be.

Weather Forecast Icons: This Weather station has six forecast icons that predict the weather condition of the next 12-hours based on the change of atmospheric pressure. The weather forecast is about 70-75% correct. As weather conditions cannot be 100% correctly forecasted we are not responsible for any loss caused by an incorrect forecast.

✓ Sunny (clear)
✓ Partly Cloudy
✓ Cloudy
✓ Stormy
✓ Rainy
✓ Snowy (temp below 32 °F)
The icons forecast the weather in terms of getting better or worse and not necessarily sunny or rainy, as each icon indicates.

Day/night and seasonal forecast changes

The entire background of the Forecast Display will change daily between night images and day images.
Note: Day and Night start times, vary by season.

The Outdoor page will show the day/night changes with the forecast icon.

Spring: March 20th to June 20th   **Day Starts:** 6:53am **Night Starts:** 7:57pm
Summer: June 21st to Sept. 20th   **Day Starts:** 6:18am **Night Starts:** 8:19pm
Autumn: Sept. 21st to Dec. 20th   **Day Starts:** 6:50am **Night Starts:** 5:15pm
Winter: Dec 21st to Mar 19th   **Day Starts:** 7:18am **Night Starts:** 5:48pm

Note: *Average* sunrise and sunset times were used because of the different sunrise and sunset times across the United

The tree foliage will change seasonally on the dates listed above.
Spring: Some green leaves on the tree.
Summer: Tree covered in green leaves.
Autumn: Leave turning colors.
Winter: Tree is almost bare of leaves.

Four display modes

The weather station offers four photo-color display screens for your enjoyment. View what you want to see.

Press the **DISPLAY** button to select:
·   Forecast page
·   Indoor page
·   Outdoor page
·   Comfort page

FORECAST DISPLAY
Beautiful display with a tree that changes foliage with the seasons and a forecast background that changes for daytime and nighttime. Temperature, humidity and forecast data on one screen.

1. Outdoor humidity and temperature with trends
2. Day/Night forecast icons and forecast tendency
3. Photo-color forecast scenes picture background
4. Indoor humidity and temperature
5. Time
6. Alarm Time with Snooze
7. Perpetual Calendar (Day/Month/Date)

INDOOR DISPLAY
The Indoor display highlights the indoor temperature, humidity and comfort information. The comfort information is based off the indoor temperature and humidity. Indoor temperature alerts.

1. Time, alarm time with snooze and calendar
2. Indoor comfort level indicator
3. Indoor humidity and trend with daily MIN/MAX
4. Indoor temperature and trend with daily MIN/MAX

5. Indoor temperature alerts (LOW/HI)
6. Outdoor temperature and humidity

OUTDOOR DISPLAY
Pressure history graph, forecast icon with tendency plus temperature/humidity information and temperature alerts.

1. Time, alarm time with snooze and calendar
2. Sensor strength indicator
3. Barometric pressure history graph
4. Day/Night forecast icons and forecast tendency
5. Outdoor humidity and trend with daily MIN/MAX
6. Outdoor temperature and trend with daily MIN/MAX
7. Heat Index/Dew Point readings
8. Outdoor Temperature Alerts (LOW/HI)
9. Indoor temperature and humidity

COMFORT DISPLAY
It is all about your comfort. Indoor and outdoor temperature and humidity are compared, to suggest when to open or close your window to achieve ideal comfort in your home.

1. Outdoor air condition
2. Open/Close window suggestion to achieve ideal indoor comfort
3. Outdoor temperature and humidity
4. Time, alarm time with snooze and calendar
5. Indoor temperature and humidity
6. Indoor comfort level indicator

Open/close window parameters.

The Open/Close Window Indicator is a suggestion to achieve ideal indoor comfort

Open Window:

- Humidity: 32-75%
- Temperature: 62- 78 degrees

When both outdoor temperature and humidity are in this range, the window stays open. If either the humidity or the temperatures are out of this range, the window goes to the closed position.

Closed Window:

- Humidity: 1-32% and 76- 100
- Temperature: -40 to 61 and 79 to 140 degrees

When either the outdoor temperature or humidity are in this range, the window stays closed.

Weather station is dim

Explanation: Most weather stations have a dark background. Place the weather station at eye level, to determine if it is dim. Weather stations that sit in the sunlight can develop a cloudy film over time.
- ✓ This is generally a power related issue.
- ✓ Remove the AC power. Press any button 20 times. Leave the weather station unpowered for 1-2 hours.

Weather station has distorted or frozen display

Explanation: On a brand new weather station, check for thin plastic film of **printed scratch guard** that may be on the screen of the weather 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 weather station should be blank.
- ✓ If numbers still appear, please check for scratch guard.

Power:
- ✓ This is generally a power related issue.
- ✓ Remove AC power from weather station.
- ✓ Press any button 20 times. Wait for 2 hours.
- ✓ Insert AC cord into the weather station.

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

- ✓ This is generally a power related issue.
- ✓ Remove AC power from weather station.
- ✓ Press any button 20 times. Wait for 2 hours.
- ✓ Insert AC cord into the weather station.

Weather station has missing segments

Explanation: When parts of numbers, letters, or pictures are missing on the display, it is often power related.
- ✓ Remove AC power from weather station.
- ✓ Press any button 20 times. Wait for 2 hours.
- ✓ Insert AC cord into the weather station.