Weather Station with Lightning
model 01071

CONTENTS

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SAVE THIS MANUAL FOR FUTURE REFERENCE.

ACU▸RITE®

Congratulations on your new AcuRite product. To ensure the best possible product performance, please read this manual in its entirety and retain it for future reference.
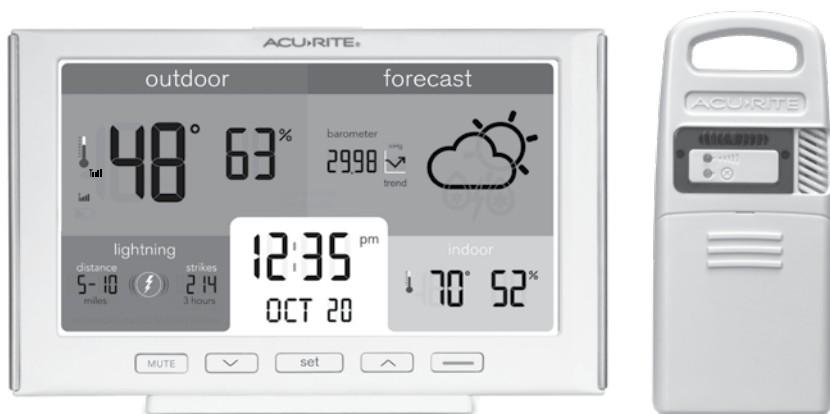
Unpacking Instructions

Remove the protective film that is applied to the LCD screen prior to using this product. Locate the tab and peel off to remove.

Package Contents

1. Display with Tabletop Stand
2. Outdoor Sensor
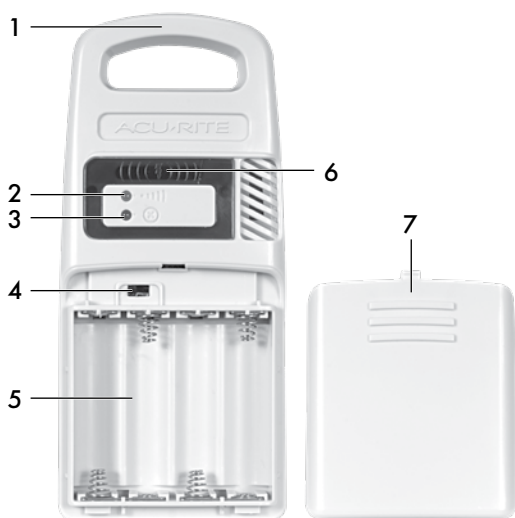3. Instruction Manual
4. Power Adapter

IMPORTANT	PRODUCT MUST BE REGISTERED TO RECEIVE WARRANTY SERVICE

PRODUCT REGISTRATION
Register online to receive 1-year warranty protection
www.**acurite**.com/product-registration

Features & Benefits   Outdoor Sensor

1. **Integrated Hanger**
   For easy placement.

2. **Wireless Signal Indicator**
   Flashes when data is being sent to the display.

3. **Interference Indicator**
   Flashes when interference is detected (see page 10).

4. **A-B-C Switch**
   ID code that must match display's A-B-C switch to ensure units synchronize.

5. **Battery Compartment**

6. **Lightning Strike Indicator**
   Indicates a lightning strike has occurred within 25 miles (40 km).

7. **Battery Compartment Cover**

NOTE: Under no circumstances shall the Lightning Detection Sensor, Chaney Instrument Co. or the Primex Family of Companies be held responsible for any damages whatsoever that may result from the use of or inability to use this product, including without limitation any indirect, incidental, special, exemplary or consequential damages, which are expressly disclaimed. This disclaimer of liability applies to any damages or injury caused by any failure of performance, error, omission, inaccuracy, interruption, deletion, defect, delay in operation or transmission software virus, communication failure, theft or destruction or unauthorized access to, alteration of, or use of the product, whether for breach of contract, tortuous behavior (including, without limitation, strict liability), negligence, or under any other cause of action, to the fullest extent permissible by law. This does not affect any statutory rights which may not be disclaimed. The contents of this product, including all lightning and weather data are provided "as is" and without warranty or condition of any kind, express or implied, including, without limitation, any warranty of merchantability or fitness for a particular purpose. Chaney Instrument Co. & the Primex Family of Companies do not warrant that this product or the data that it provides will be free of errors, interruptions, viruses or other harmful components. Chaney Instrument Co. & the Primex Family of Companies do not warrant the accuracy or reliability of any lightning strike alerts, weather data or other information provided by the product. Chaney Instrument Co. & the Primex Family of Companies reserve the right to alter the product or withdraw it from the market at its sole discretion.

Features & Benefits

Front of Display
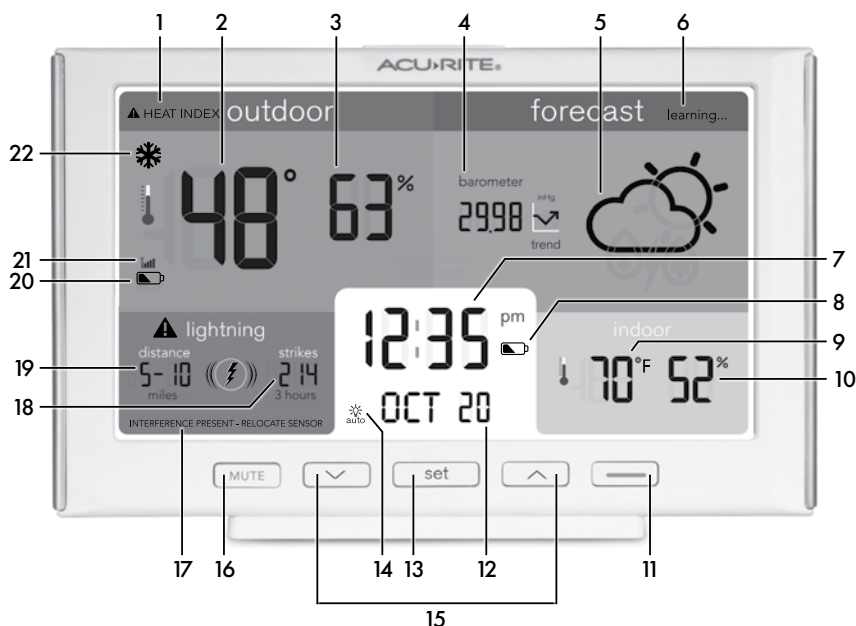
1. Heat Index Alert
Indicates when the heat index is above 90°F (32°C).

2. Current Outdoor Temperature

3. Current Outdoor Humidity

4. Current Barometric Pressure
Arrow icon indicates the direction pressure is trending.

5. Weather Forecast 12 Hours in Advance
Self-Calibrating technology pulls data from the outdoor sensor to generate a hyperlocal, personalized forecast.

6. Learning Mode Icon
Disappears after weather forecast self-calibration is complete.

7. Time

8. Display Low Battery Indicator

9. Current Indoor Temperature

10. Current Indoor Humidity

11. Records Button
For viewing high and low records.

12. Date

13. set Button
For setup preferences.

14. auto Icon
Indicates the display is in auto-dimming brightness mode (see page 8).

15. ∧ and ∨ Buttons
For setup preferences.

16. MUTE Button
Silences the audible lightning alert.

17. Interference Indicator
Indicates when interference is detected (see page 10).

18. Strike Counter
Displays most recent total of lightning strikes that has been detected (today, this week, this month).

19. Estimated Distance to Storm Front
Updates with latest lightning strike detected today.
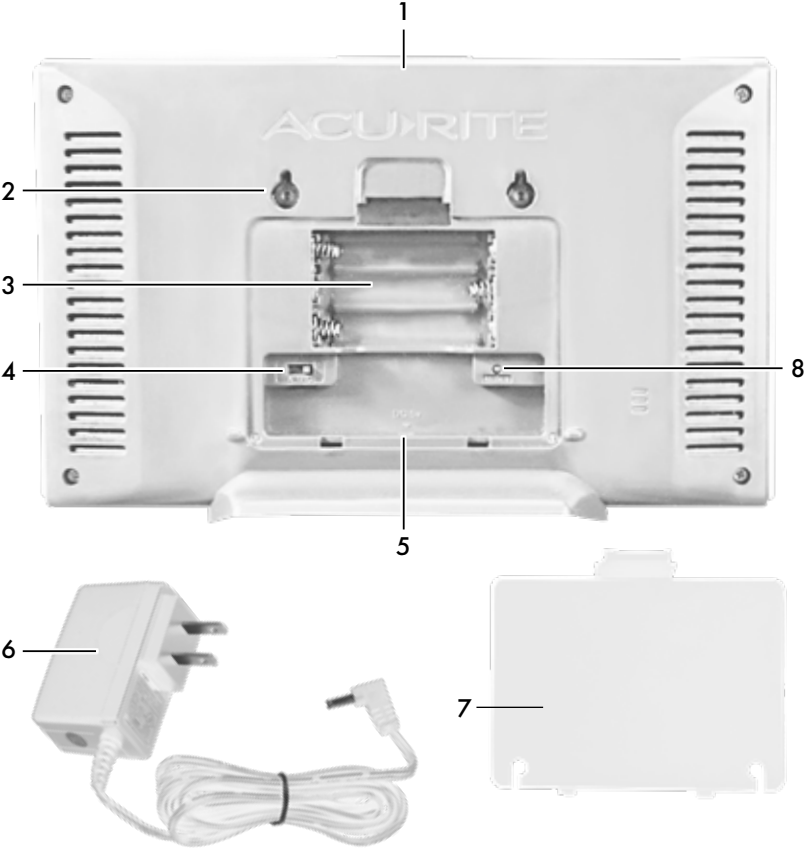
20. Sensor Low Battery Indicator

21. Outdoor Sensor Signal Strength

22. Freeze Alert Indicator
Indicates temperature is below freezing (32°F; 0°C).

4

Features & Benefits

Back of Display

1. **Backlight Button**
   For momentary backlight and dimmer settings.

2. **Integrated Hangers**
   For easy wall mounting.

3. **Backup Battery Compartment**

4. **A-B-C Switch**
   ID code that must match sensor's A-B-C switch to ensure units synchronize.

5. **Plug-in for Power Adapter**

6. **Power Adapter**

7. **Battery Compartment Cover**

8. **RESET Button**
   For full reset to factory defaults.

Sensor Setup

❶ Set the A-B-C Switch

The A-B-C switch is located inside the battery compartment. Slide to set the channel to A, B or C. However, you must select the same letter choices for both the sensor and the display in order for the units to synchronize.

❷ Install or Replace Batteries

AcuRite recommends high quality alkaline or lithium batteries in the wireless sensor for the best product performance. Heavy duty or rechargeable batteries are not recommended.

The sensor requires lithium batteries in low temperature conditions. Cold temperatures can cause alkaline batteries to function improperly. Use lithium batteries in the sensor for temperatures below -4°F/ -20°C.
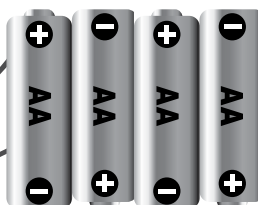
1. Slide off the battery compartment cover.

2. Insert 4 x AA batteries into the battery compartment, as shown. Follow the polarity (+/-) diagram in the battery compartment.

3. Replace the battery cover.

❶ **A-B-C Switch**

A B C
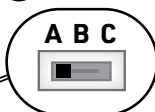
❷ **Install Batteries**
4 AA batteries

LITHIUM BATTERIES	**-40ºF** (-40ºC)	(70ºC) **158ºF**
ALKALINE BATTERIES	**-4ºF** (-20ºC)	(70ºC) **158ºF**

PLEASE DISPOSE OF OLD OR DEFECTIVE BATTERIES IN AN ENVIRONMENTALLY SAFE WAY AND IN ACCORDANCE WITH YOUR LOCAL LAWS AND REGULATIONS.

BATTERY SAFETY: Clean the battery contacts and also those of the device prior to battery installation. Remove batteries from equipment which is not to be used for an extended period of time. Follow the polarity (+/-) diagram in the battery compartment. Promptly remove dead batteries from the device. Dispose of used batteries properly. Only batteries of the same or equivalent type as recommended are to be used. DO NOT incinerate used batteries. DO NOT dispose of batteries in fire, as batteries may explode or leak. DO NOT mix old and new batteries or types of batteries (alkaline/standard). DO NOT use rechargeable batteries. DO NOT recharge non-rechargeable batteries. DO NOT short-circuit the supply terminals.
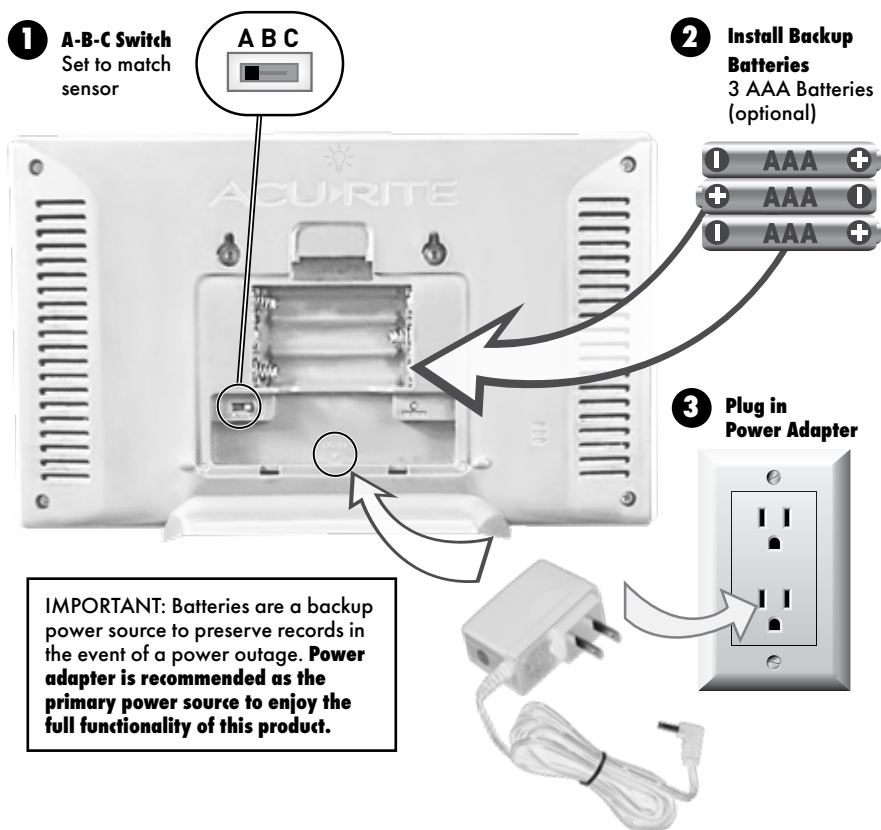
Display Setup

1 Set the A-B-C Switch

Locate the A-B-C switch inside the battery compartment. Set the A-B-C switch to A, B or C. You must select the same letter choices for both the display and the sensor in order for the units to synchronize.

2 Install or Replace Backup Batteries (optional)

1. Remove the battery compartment cover.

2. Insert 3 x AAA alkaline batteries into the battery compartment, as shown. Follow the polarity (+/−) diagram in the battery compartment.

3. Replace the battery cover.

3 Plug in Power Adapter

For the best performance, plug in the power adapter as the main power source for this product.

1 **A-B-C Switch**
Set to match sensor

A B C

2 **Install Backup Batteries**
3 AAA Batteries (optional)

AAA
AAA
AAA

3 **Plug in Power Adapter**

IMPORTANT: Batteries are a backup power source to preserve records in the event of a power outage. **Power adapter is recommended as the primary power source to enjoy the full functionality of this product.**

Set the Time, Date & Units

Press and release the "set" button, located on the front of the display, to enter SET MODE. Once in set mode, the preference you are currently setting will blink on the display.

To adjust the currently selected (flashing) item, press and release the "$\wedge$" or "$\vee$" buttons (press and HOLD to fast adjust).

To save your adjustments, press and release the "set" button again to adjust the next preference. The preference set order is as follows:

CLOCK HOUR
CLOCK MINUTE
CALENDAR MONTH
CALENDAR DATE
CALENDAR YEAR
UNITS SCALE (U.S. standard or metric)

You will automatically exit SET MODE if no buttons are pressed for 10 seconds. Enter SET MODE at any time by pressing the "set" button.

Display Backlight Settings

This weather station's color display features three different lighting settings: High (100%) brightness, Medium (60%) brightness and Low (15%) brightness.

When display is powered with the power adapter, backlight remains on at 100% brightness. Press the "☼" button once to dim to 60% brightness; press again to dim to 15%, press a third time to enter AUTO-DIM mode.

NOTE: Pressing and holding the "☼" button for 5 seconds will disable the backlight. Once any button is pressed, the backlight will return to your selected setting.

AUTO-DIM MODE: Automatically adjusts display brightness based on time of day.
6:00 a.m. - 9:00 p.m. = 100% brightness
9:01 p.m. - 5:59 a.m.= 15% brightness

Placement for Maximum Accuracy

AcuRite sensors are sensitive to surrounding environmental conditions. Proper placement of both the display and the outdoor sensor are critical to the accuracy and performance of this product.

Display Placement

Place the display in a dry area free of dirt and dust. Display stands upright for tabletop use or is wall-mountable.

Outdoor Sensor Placement

Sensor must be placed outside to observe outdoor conditions. Sensor is water-resistant and is designed for general outdoor use, however, to extend its life place the sensor in an area protected from direct weather elements.

Hang the sensor using the integrated hang holes or hanger, or by using string (not included) to hang it from a suitable location, like a well covered tree branch. The best location is 4 to 8 feet (1 to 2 meters) above the ground with permanent shade and plenty of fresh air to circulate around the sensor.

Important Placement Guidelines

• To ensure accurate temperature measurement, place units out of direct sunlight and away from any heat sources or vents.

• Display and outdoor sensor must be within 330 ft (100 m) of each other.

• To maximize wireless range, place units away from large metallic items, thick walls, metal surfaces, or other objects that may limit wireless communication.

• To prevent wireless interference, place both units at least 3 ft (90 cm) away from electronic devices (TV, computer, microwave, radio, etc.).

AT LEAST 3 feet (.9m) APART

TV

(330 feet maximum)
(100 meters)
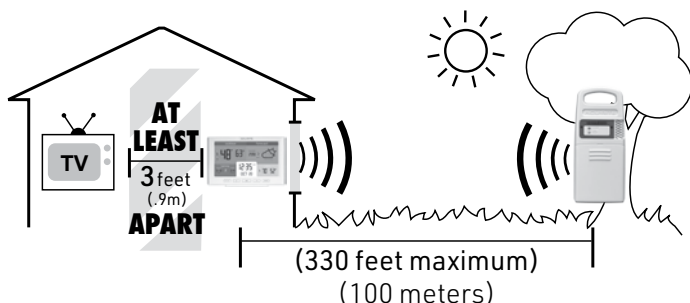
Setup is Complete

The sensor will now synchronize with the display. It may take a few minutes for synchronization to complete. Please refer to the troubleshooting section of this manual if anything appears to be functioning improperly.

Lightning Detection

The sensor detects cloud-to-cloud, cloud-to-ground and intra-cloud lightning. When lightning is detected, the sensor will beep and the strike indicator will flash for each of the first 10 strikes. After 10 strikes, the sensor will enter silent mode but will continue to flash. The sensor will stay in silent mode for 2 hours after the last lightning detection.

The display will also have an audible and visual alert when lightning is detected. To temporarily silence the lightning alert, press and release the "MUTE" button. This will silence all alerts for the current storm detected. To permanently silence all current and future lightning alerts, press and hold the "MUTE" button for 10 seconds. Pressing the "MUTE" button after that will reactivate the audible alerts.

False Detection

This sensor features advanced technology to distinguish between lightning strikes and interference, however in rare cases the sensor may "false detect" lightning activity due to interference. In these situations, verify there is no lightning in the area and then relocate the sensor. If the false detections persist, identify and relocate the source of interference or relocate the sensor.

Interference

The sensor features enhanced interference rejection capabilities to prevent false lightning detection. When the sensor cannot detect lightning due to interference from nearby equipment, the sensor's interference indicator will flash.

- Electric motors (windshield wiper motor or fan motors in cars, hard drive and optical drive motors on your PC and AV equipment, well pumps, sump pumps)

- CRT monitors (PC monitors, TV's)

- Fluorescent light fixtures (turned off or on)

- Microwave ovens (while in use)

- PC's and mobile phones

WARNING: Take shelter IMMEDIATELY when lightning is present, whether or not it has been detected by the Lightning Detection Sensor. If you are concerned about lightning strikes, follow all safety precautions to keep yourself and others safe. DO NOT rely on this Lightning Detection Sensor as your only source for warnings about potentially deadly lightning strikes or other severe weather conditions.

Using the Weather Station
Learning Mode

Self-calibrating forecasting uses a unique algorithm to analyze changes in pressure over a time period (called Learning Mode) to determine your altitude. After 14 days, the Learning Mode icon disappears from the display screen. At this point, the self-calibrated pressure is tuned in to your location and the unit is ready for superior weather prediction.

Weather Forecast

AcuRite's patented self-calibrating forecasting provides your personal forecast of weather conditions for the next 12 to 24 hours by collecting data from the sensor in your backyard. It generates a forecast with pinpoint accuracy - personalized for your exact location.

STORMY & WINDY	SNOW LIKELY	SNOW / RAIN MIX LIKELY	RAIN LIKELY	CLOUDY
(flashing = stormy)		(flashing)		

Barometric Pressure

Subtle variations in barometric pressure greatly affect the weather. This weather station displays the current pressure with an arrow icon to indicate the direction the pressure is trending (FALLING, STEADY, or RISING).

High & Low Records

Today's high and low records are displayed for indoor and outdoor temperature and humidity. Today's records automatically clear at 12:00am midnight every day.

Press the "Records" button to cycle through high and low recorded values for outdoor and indoor temperature and humidity.

Troubleshooting

Problem	Possible Solution
No outdoor sensor reception ▏▁▃▄ no bars	If the wireless signal indicator shows no bars: • Relocate the display and/or the outdoor sensor. The units must be within 330 ft (100 m) of each other. • Make sure both units are placed at least 3 feet (.9 m) away from electronics that may interfere with the wireless communication (such as TVs, microwaves, computers, etc.). • Use standard alkaline batteries (or lithium batteries in sensor when temperature is below -4˚F/-20˚C). Do not use heavy-duty or rechargeable batteries. NOTE: It may take a few minutes for display and sensor to synchronize after batteries are replaced.
Outdoor temperature is flashing or showing dashes	Flashing of the outdoor temperature is generally an indication of wireless interference. 1. Bring both the sensor and display indoors and remove batteries from each. 2. Make sure the A-B-C switches on both units match. 3. Reinstall batteries in the outdoor sensor. 4. Reinstall batteries in the display. 5. Let the units sit within a couple feet of each other for a few minutes to gain a strong connection.
Inaccurate forecast	• Weather Forecast icon predicts conditions for the next 12 to 24 hours, not current conditions. • Has the ⟳ icon disappeared from the display? Learning Mode must complete before forecast and pressure will be accurate. • Allow unit to run continuously for 33 days. Battery removal or resetting the display will restart Learning Mode. After 14 days, forecast should be fairly accurate, however, Learning Mode calibrates for a total of 33 days.
Inaccurate temperature or humidity	• Make sure both the display and sensor are placed out of direct sunlight and away from any heat sources or vents (see page 8). • Make sure both units are positioned away from moisture sources (see page 8).
Display screen not working	• Check that the power adapter is plugged into the display and an electrical outlet. • Reset the display by pressing the reset button, located on the back of the display. Date and time will need to be entered after a reset.
Interference Indicator is flashing	• Relocate the sensor. • Make sure the sensor is placed at least 3 feet (.9 m) away from electronics that may cause interference (see page 10).

If your AcuRite product does not operate properly after trying the troubleshooting steps, **visit www.acurite.com/support**

Care and Maintenance

Display Care

Clean with a soft, damp cloth. Do not use caustic cleaners or abrasives. Keep away from dust, dirt and moisture. Clean ventilation ports regularly with a gentle puff of air.

Outdoor Sensor Care

Clean with a soft damp cloth. Do not use caustic cleaners or abrasives.

Calibration

The indoor/outdoor temperature and humidity readings, and barometric pressure can be calibrated on the display to improve accuracy. Calibration can improve accuracy when sensor placement or environmental factors impact the data accuracy.

1. To access calibration mode, press AND HOLD the "∧" "set" and "∨" buttons simultaneously for at least 5 seconds.

2. To adjust the currently selected (flashing) item, press and release the "∧" or "∨" buttons to calibrate the data value higher or lower than the actual reading.

3. To save your adjustments, press and release the "set" button to adjust the next preference. The "⚲" icon will remain illuminated next to calibrated values.

   The preference set order is as follows:

   OUTDOOR TEMPERATURE
   OUTDOOR HUMIDITY
   INDOOR TEMPERATURE
   INDOOR HUMIDITY
   BAROMETRIC PRESSURE (must be set to MANUAL mode to calibrate)*

   *To change from AUTO to MANUAL pressure mode and vice versa, press AND HOLD the "set" button for 10 seconds. "manual" will appear above the barometric pressure to indicate that manual mode has been activated. Press and HOLD the "set" button for 10 seconds to return to AUTO mode.

After 10 seconds of inactivity, the display will save the adjustments and exit calibration mode. Note: Calibrations will be erased if the display is reset or if batteries are removed and the power adapter is unplugged.

Specifications

LIGHTNING DETECTION RANGE	1 - 25 miles / 1.6 - 40km
TEMPERATURE RANGE	Outdoor: -40˚F to 158˚F; -40˚C to 70˚C
	Indoor: 32˚F to 122˚F; 0˚C to 50˚C
HUMIDITY RANGE	Outdoor: 1% to 99% RH
	Indoor: 1% to 99% RH
WIRELESS RANGE	330 ft/ 100 m depending on home construction materials
OPERATING FREQUENCY	433 MHz
POWER	Display: 5V, 100mA power adapter 3 x AAA alkaline batteries (optional)
	Sensor: 4 x AA alkaline or lithium batteries
DATA REPORTING	Outdoor: 16 second updates
	Indoor: 60 second updates

FCC Information

This device complies with part 15 of FCC rules. Operation is subject to the following two conditions:
1- This device may NOT cause harmful interference, and
2- This device must accept any interference received, including interference that may cause undesired operation.
WARNING: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
 • Reorient or relocate the receiving antenna.
 • Increase the separation between the equipment and the receiver.
 • Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
 • Consult the dealer or an experienced radio/TV technician for help.
NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user authority to operate the equipment.
This device complies with Industry Canada licence-exempt RSS standard(s).
Operation is subject to the following two conditions:
(1) This device may not cause interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation of the device.

Customer Support

AcuRite customer support is committed to providing you with best-in-class service.
For assistance, please have the model number of this product available and visit acurite.com/support

▶ Installation Videos   ▶ Register your Product

▶ Instruction Manuals   ▶ Replacement Parts

▶ Submit Feedback & Ideas

IMPORTANT

PRODUCT MUST BE REGISTERED
TO RECEIVE WARRANTY SERVICE

PRODUCT REGISTRATION
Register online to receive 1-year warranty protection
www.**acurite**.com/product-registration

Limited 1-Year Warranty

AcuRite is a wholly owned subsidiary of Chaney Instrument Company. For purchases of AcuRite products, AcuRite provides the benefits and services set forth herein.

For purchases of Chaney products, Chaney provides the benefits and services set forth herein. We warrant that all products we manufacture under this warranty are of good material and workmanship and, when properly installed and operated, will be free of defects for a period of one year from the date of purchase.

Any product which, under normal use and service, is proven to breach the warranty contained herein within ONE YEAR from date of sale will, upon examination by us, and at our sole option, be repaired or replaced by us. Transportation costs and charges for returned goods shall be paid for by the purchaser. We hereby disclaim all responsibility for such transportation costs and charges. This warranty will not be breached, and we will give no credit for products which have received normal wear and tear not affecting the functionality of the product, been damaged (including by acts of nature), tampered, abused, improperly installed, or repaired or altered by others than our authorized representatives.

Remedy for breach of this warranty is limited to repair or replacement of the defective item(s). If we determine that repair or replacement is not feasible, we may, at our option, refund the amount of the original purchase price.

THE ABOVE-DESCRIBED WARRANTY IS THE SOLE WARRANTY FOR THE PRODUCTS AND IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. ALL OTHER WARRANTIES OTHER THAN THE EXPRESS WARRANTY SET FORTH HEREIN ARE HEREBY EXPRESSLY DISCLAIMED, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTY OF MERCHANTABILITY AND THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

We expressly disclaim all liability for special, consequential, or incidental damages, whether arising in tort or by contract from any breach of this warranty. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

We further disclaim liability from personal injury relating to its products to the extent permitted by law. By acceptance of any of our products, the purchaser assumes all liability for the consequences arising from their use or misuse. No person, firm or corporation is authorized to bind us to any other obligation or liability in connection with the sale of our products. Furthermore, no person, firm or corporation is authorized to modify or waive the terms of this warranty unless done in writing and signed by a duly authorized agent of ours.

In no case shall our liability for any claim relating to our products, your purchase or your use thereof, exceed the original purchase price paid for the product.

Applicability of Policy

This Return, Refund, and Warranty Policy applies only to purchases made in the United States and Canada. For purchases made in a country other than the United States or Canada, please consult the policies applicable to the country in which you made your purchase. Additionally, this Policy applies only to the original purchaser of our products. We do cannot and do not offer any return, refund, or warranty services if you buy products used or from resale sites such as eBay or Craigslist.

Governing Law

This Return, Refund, and Warranty Policy is governed by the laws of the United States and the State of Wisconsin. Any dispute relating to this Policy shall be brought exclusively in the federal or State courts having jurisdiction in Walworth County, Wisconsin; and purchaser consents to jurisdiction within the State of Wisconsin.

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