ACU>RITE.

Rain Gauge Station model 01608 / 06042M



CONTENTS

Unpacking Instructions 2	2
Package Contents 2	2
Product Registration 2	2
Features & Benefits: Sensor 2	2
Features & Benefits: Display 3	3
Features & Benefits: Rain Gauge5	5
• ·	
Setup 6	5
Setup 6 Sensor Setup 6	
•	5
Sensor Setup 6	5
Sensor Setup 6 Rain Gauge Setup	57
Sensor Setup	5 7 8

Rain Gauge Installation 10
Placement Guidelines11
Programmable Rain Alarm12
Rainfall Tracking12
Troubleshooting14
Care & Maintenance15
Calibration15
Replace Intelli-Time® Battery 17
Specifications18
FCC Information18
Customer Support19
Warranty19

Questions? Contact Customer Support at (877) 221-1252 or visit www.**AcuRite**.com.

SAVE THIS MANUAL FOR FUTURE REFERENCE.



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. Wireless sensor
- 3. Rain gauge
- 4. Instruction manual

Image: Support and Support Support Forum warranty protection www.AcuRite.com Support Forum Support Forum Archived Products

Features & Benefits



WIRELESS SENSOR

- 1. Integrated Hanger For easy placement.
- 2. Wireless Signal Indicator Flashes when data is being sent to the display.
- 3. Battery Compartment

4. A-B-C Switch

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

5. Battery Compartment Cover

Features & Benefits 20 19 outdoor 1 18 17 heat index dew point 2 16 15 Tai 🛋 today's rainfall 3 ⊿ ((4)) 14 13 indoor 5 10 F 12 6 11 pressure 7 10 STORM 8 JRITE 1 9

DISPLAY FRONT

- 1. Current Outdoor Temperature Arrow icon indicates the direction temperature is trending.
- 2. Rain Gauge Low Battery Indicator
- 3. Rain Gauge Signal Strength
- 4. (((ৰ))) Rain Alarm Icon Indicates the alarm is set.
- 5. Current Indoor Temperature Arrow icon indicates the direction temperature is trending.
- 6. Display Low Battery Indicator
- 7. Pressure Trend Indicator Arrow icon indicates direction pressure is trending.
- 8. Storm Alert Indicator Activates when a storm is approaching.

9 🔫 Button

Access rainfall records (yesterday, this week, this year, last year, all time) and all-time records for temperature and humidity.

10. Date

11. Intelli-Time® Clock

Automatically updates itself for Daylight Saving Time.

12. Current Indoor Humidity Arrow icon indicates direction humidity

Arrow icon indicates direction humidity is trending.

- 14. Today's Rain Indicator Illustrates rainfall collection up to 1 inch (25 mm).

15. Rainfall Total

For current mode selected.

16. Dew Point

Displays dew point calculation when temperature is 79°F (26°C) or below.

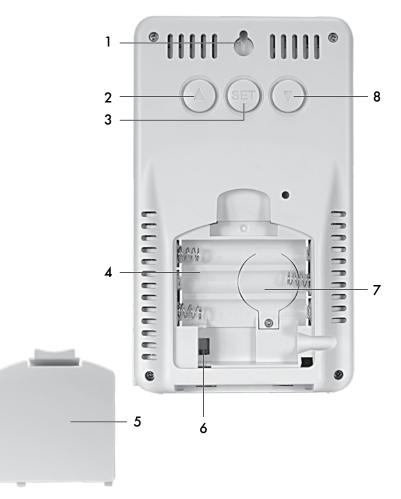
17. Heat Index

Displays heat index calculation when temperature is 80°F (27°C) or above.

18. Current Outdoor Humidity Arrow icon indicates direction humidity is trending.

- 19. Wireless Sensor Signal Strength
- 20. Sensor Low Battery Indicator

Features & Benefits



DISPLAY BACK

1. Integrated Hang Hole For easy wall mounting.

2. 🔺 Button

For setup preferences and viewing today's HIGH temperature and humidity records.

- 3. SET Button For setup preferences.
- 4. Battery Compartment

5. Battery Compartment Cover

6. A-B-C Switch

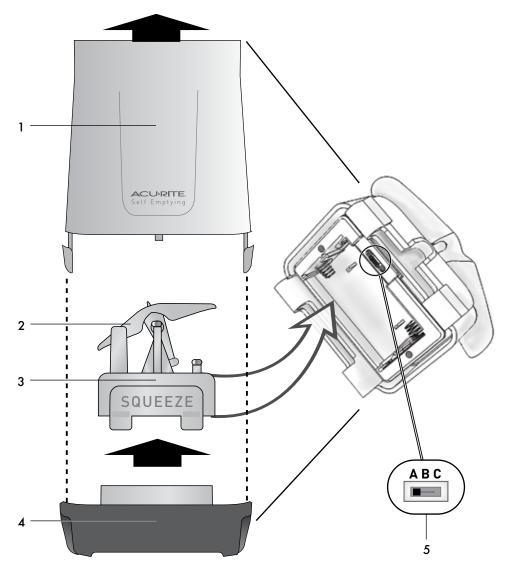
ID code that must match the wireless sensor and rain gauge's A-B-C switches to ensure units synchronize.

7. Intelli-Time® Battery Compartment

8. **V** Button

For setup preferences and viewing today's LOW temperature and humidity records.

Features & Benefits



RAIN GAUGE

- 1. Rain Gauge Cover
- 2. Rain Gauge Tipping Cups Collects and empties rain for continuous rain measurement.
- 3. Battery Compartment & Electronics Box
- 4. Rain Gauge Base
- 5. A-B-C Switch

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

SETUP

Sensor Setup



Set the A-B-C Switch

The A-B-C switch is located inside the battery compartment. It can be set to A, B or C. However, you must select the same letter choices for the wireless sensor, rain gauge and the display in order for the units to synchronize.

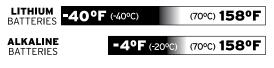
Install or Replace Batteries

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. Take note of the A-B-C switch setting inside the battery compartment for display setup.
- 2. Insert 2 x AA batteries into the battery compartment, as shown. Follow the polarity (+/-) diagram in the battery compartment.
- 3. Replace the battery cover.

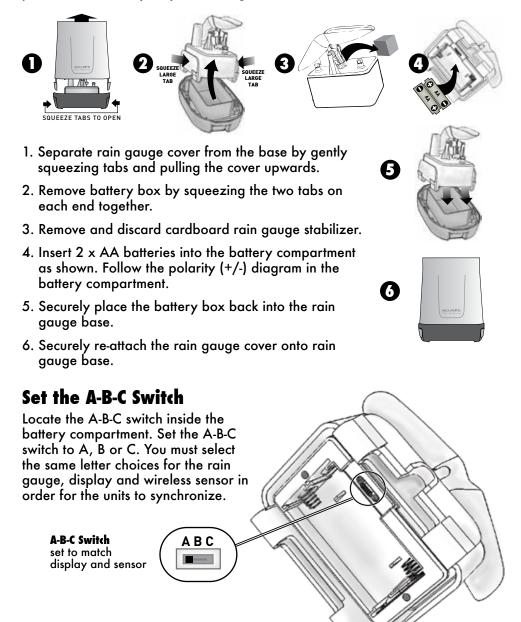




Rain Gauge Setup

Install or Replace Batteries

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



Display Setup

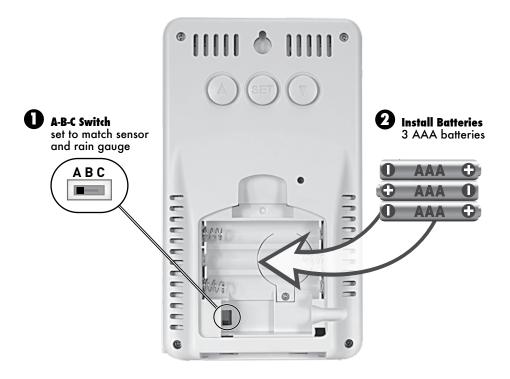


Set the A-B-C Switch

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 the display, wireless sensor and rain gauge in order for the units to synchronize.

Install or Replace Batteries

- 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.



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 recharaeable batteries. DO NOT recharae non-rechargeable batteries. DO NOT short-circuit the supply terminals.

Intelli-Time® Clock

Intelli-Time products are pre-programmed with the correct time and date. Intelli-Time technology instructs the time and date to set themselves. All you need to do is select your Time Zone and Daylight Saving Time preferences. The clock will then automatically set itself and change for Daylight Saving Time.

Set the Time, Date & Units

Press and HOLD the SET button to enter SETUP MODE. Once in setup mode, the preference you are currently setting will blink on the display.

To adjust the currently selected (flashing) item, press and release the " \blacktriangle " or " \P " buttons located on the back of the display (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:

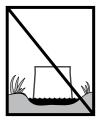
RAIN ALARM (ON or OFF) TIME ZONE (AST EST CST MST PST AKT HAT) AUTO DST* (Daylight Saving Time ON or OFF) CLOCK HOUR CLOCK MINUTE CALENDAR MONTH CALENDAR DATE CALENDAR YEAR TEMPERATURE SCALE (°F or °C) RAINFALL UNITS (inches or mm)

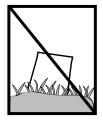
*If you live in an area that observes Daylight Saving Time, DST should be set to ON, even if it is not currently Daylight Saving Time.

You will automatically exit SETUP MODE if no buttons are pressed for 10 seconds. Enter setup mode at any time by pressing and HOLDING the SET button.

Rain Gauge Installation

- To ensure accurate rain measurement, the rain gauge MUST be placed on a flat, level surface.
- Ensure the rain gauge is not placed in a low spot that could become flooded or in an area where there are obstructions above it.

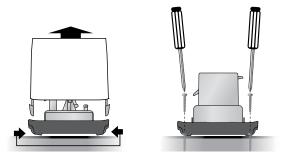








- 1. Separate the rain gauge cover from the rain gauge base.
- 2. Locate the two holes on the rain gauge base.
- 3. Fasten the rain gauge base to a sturdy surface, like a deck railing or a fence post, with screws (included) using hand tools. (Power tools may slip during installation, causing damage to the rain gauge.)



Setup is Complete

The rain gauge and wireless 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.

Placement for Maximum Accuracy

AcuRite sensors are sensitive to surrounding environmental conditions. Proper placement of the display, wireless sensor and rain gauge 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.

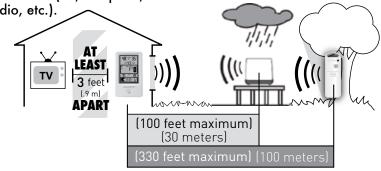
Wireless Sensor Placement

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 above the ground with permanent shade and plenty of fresh air to circulate around the sensor.

Important Placement Guidelines

- To maximize communication, install the rain gauge at least 3 ft (.9m) above the ground.
- Display and rain gauge must be within 100 ft (30 m) of each other.
- To ensure accurate temperature measurement, place display and wireless sensor out of direct sunlight and away from any heat sources or vents.
- Display and wireless 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 all units at least 3 ft (.9 m) away from electronic devices (TV, computer, microwave, radio, etc.).



Programmable Rain Alarm

Set a Daily Rain Alarm:

When the rain alarm sounds, the display emits an audible alert and flashes the rainfall total. The alarm can be customized to notify you when your programmed value is reached. The alarm automatically resets at 12:00am midnight every day.

- Press and HOLD the "SET" button to enter setup mode. Use the "▲" or "▼" buttons until "(",")" appears on the display.
- 2) Press the "SET" button and use the "▲" or "▼" buttons to adjust the alarm value.
- 3) Press the "SET" button to save your settings. The alarm is now programmed and turned on.

Disable a Rain Alarm:

- Press and HOLD the "SET" button to enter setup mode. Use the "▲" or "▼" buttons until "⁽⁽⁴⁾)" appears on the display.
- 2) Press the "SET" button to save your settings. The alarm is now turned off.

NOTE: The RAIN ALARM and STORM ALERT are NOT intended to be a safety device or warning system.

Silence an Alarm:

Once the alarm value is met, the alarm will sound for 1 minute, then silence itself. While the alarm is sounding, you may manually silence the alarm by pressing any button.

Barometric Pressure

Subtle variations in barometric pressure greatly affect the weather. This rain gauge station displays the current barometric pressure trend with an arrow icon to indicate the direction the pressure is trending (falling, steady or rising).

Rainfall Tracking

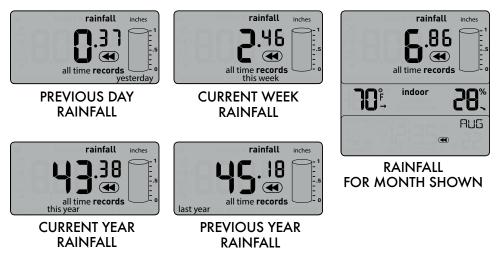
This rain gauge station features enhanced tracking of historical rainfall data. The rain indicator illustrates today's rain collection up to 1 inch (25 mm).

Press the "◀" button to review historical rainfall records.

Records are shown in the following order:

PREVIOUS DAY TOTAL CURRENT WEEK TOTAL MONTHLY TOTALS WITH RAIN FOR CURRENT YEAR CURRENT YEAR TOTAL PREVIOUS YEAR TOTAL

Rainfall History



All-Time High & Low Records

All-time high and low records are displayed for indoor and outdoor temperature and humidity with a timestamp for when the record was set.

View all-time high and low records for temperature and humidity by pressing the "◄" button on front of the display until temperature and humidity records are shown.

To manually clear all-time LOW recorded values, press and hold the " $\mathbf{\nabla}$ " button located on the back of the display for 2 seconds while viewing the record you wish to clear.

To manually clear all-time HIGH recorded values, press and hold the "▲" button located on the back of the display for 2 seconds while viewing the record you wish to clear.

Daily 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.

View today's high or low records for temperature and humidity by pressing the "▲" or "▼" buttons located on the back of the display. Press and release again to cycle through available records.

To manually clear today's LOW recorded values, press and release the " ∇ " button located on the back of the display to view low records, then press and hold the " ∇ " button for 2 seconds while viewing the record you wish to clear.

To manually clear today's HIGH recorded values, press and release the "▲" button located on the back of the display to view high records, then press and hold the "▲" button for 2 seconds while viewing the record you wish to clear.

Troubleshooting

Problem	Possible Solution
No wireless sensor or rain gauge reception T	 If the wireless signal indicator shows no bars: Relocate the display and/or the wireless sensor. The units must be within 330 ft (100 m) of each other. Relocate the display and/or the rain gauge. The units must be within 100 ft (30 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.
Display screen not working	 Check that the batteries are installed correctly. Batteries may need to be replaced.
Outdoor temperature and/or humidity is flashing or showing dashes	 Flashing of the outdoor temperature and/or humidity is generally an indication of wireless interference. 1. Bring the wireless sensor and display indoors and remove at least one battery from each. 2. Reinstall the battery in the wireless sensor. 3. Reinstall the battery in the display. 4. Let the units sit within a couple feet of each other for about 20 minutes to gain a strong connection.
Inaccurate temperature or humidity	 Make sure both the display and wireless sensor are placed out of direct sunlight and away from any heat sources or vents (see page 11). Make sure the display is positioned away from moisture sources (see page 11).
Can the rain gauge remain outdoors in freezing temperatures?	No, the rain gauge should be brought indoors when there is a possibility of freezing temperatures. Water expands when it freezes. If any water is left within the rain gauge during a freeze, it can crack the plastic and cause permanent damage.

If your AcuRite product does not operate properly after trying the troubleshooting steps, visit www.AcuRite.com or call (877) 221-1252 for assistance.

Care & 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.

Wireless Sensor Care

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

Rain Gauge Care

Clean with a soft damp cloth. Do not use caustic cleaners or abrasives that could mar the polished surface of the rain gauge or tipping cups. If the collector becomes dirty, rain water may not flow correctly through the rain gauge. Some environmental conditions may require more frequent, periodic cleaning of the collector. After a cleaning, it is recommended to apply a small amount of liquid water repellent (found in the automotive section) to the tipping cups and collector funnel for optimal rain collection.

The rain gauge cannot be used in the winter during freezing temperatures. Water expands when it freezes. If any water is left within the unit during a freeze, it can crack the plastic and permanently damage the unit.

Calibration

Calibrate Temperature & Humidity

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

- 1. To access calibration mode, press AND HOLD the "▲", "▼", and "SET" buttons for at least 10 seconds.
- 2. Once in calibration mode, the preference you are currently setting will be shown on the display
- Press the "▲" or "▼" buttons to calibrate the data value higher or lower from the actual reading.
- 4. Press the "SET" button to confirm the calibration adjustment. The "c" icon will remain illuminated next to calibrated values.
- 5. The next adjustable data will appear, indicating it is ready to be calibrated. Repeat Steps 1 - 4 to calibrate additional data.

The preference set order is as follows:

OUTDOOR TEMPERATURE OUTDOOR HUMIDITY INDOOR TEMPERATURE INDOOR HUMIDITY After 20 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 the batteries are removed.

Calibrate the Rain Gauge

The rain gauge can be calibrated to improve accuracy.

Items Needed: rain gauge, display, plastic cup, pin, screw driver

- 1. First, place the rain gauge on a level surface.
- 2. Place the display close by so you can monitor it during calibration.
- 3. Make a pin hole in the bottom of a plastic cup. Hold the cup over the rain gauge and fill it with exactly 1 cup (8 oz.) of water, allowing the water to slowly drip into the rain gauge. You should hear the internal cups tipping and see the water drain through the rain gauge.
- 4. A few seconds after each cup tip, the display will display rainfall in approximately 0.01" (0.2 mm) or more increments.
- The cup of water should take more than 20 minutes to empty; a quicker period will result in an inaccurate calibration. Try to simulate a normal steady rainfall. When the cup is empty of water, the display should register 1.68" (42.67 mm).

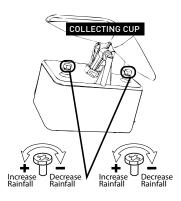
Tips

- There should be nearly an equal number of water drops between cup tips. If not, then adjust the calibration screws beneath the tipping lever until an equal number of water drops are tipping the cups. Then, restart the calibration procedure.
- If you don't hear the cups tipping and see water dripping alternately out of each drain, there may be an issue with the rain gauge or it's adjustment.

Adjustment

If the rain gauge doesn't register close to 1.68" (42.67 mm) after the cup is empty, make an EQUAL adjustment to the two calibration screws, located beneath the tipping cups. Turn screws counter-clockwise to increase rainfall; turn screw clockwise to decrease rainfall.

- To adjust the rainfall reading by 2% turn both screws 1/4 of a turn.
- To adjust the rainfall reading by 4% turn both screws 1/2 of a turn.
- To adjust the rainfall reading by 8% turn both screws 1 full turn.



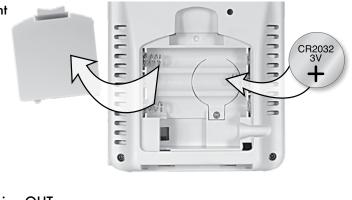
2 CALIBRATION SCREWS

Replace Intelli-Time Clock Battery

Intelli-Time technology is powered by a pre-installed coin-cell battery that stores the time and date settings. The battery has a shelf life of several years. Time and date will need to be entered after replacing Intelli-Time battery. To replace the Intelli-Time battery:

- Locate the coin cell battery compartment door in the battery compartment of the display. Unscrew and remove the compartment cover.
- Insert 1 x CR2032

 coin cell battery
 into the battery
 compartment,
 as shown. Install
 battery with "+"
 positive terminal facing OUT.



3. Screw in the battery cover.



Specifications

TEMPERATURE RANGE	Outdoor: -40°F to 158°F; -40°C to 70°C
	Indoor: -4°F to 122°F; -20°C to 50°C
HUMIDITY RANGE	1% to 99% RH
RAINFALL MEASUREMENT	0.01 inches (0.25 mm) and up
WIRELESS RANGE	Wireless Sensor: 330 ft/100m depending on home construction materials
	Rain Gauge: 100 ft/30m depending on home construction materials
OPERATING FREQUENCY	433 MHz
POWER	Display: 3 x AAA alkaline batteries
	Wireless Sensor: 2 x AA alkaline or lithium batteries
	Rain Gauge: 2 x AA alkaline batteries
DATA REPORTING	Wireless Sensor: 16 second updates
	Indoor: 60 second updates
	Rain Gauge: 60 second updates

FCC Information

This device complies with part 15 of FCC rules. Operation is subject to the following two conditions:

This device may NOT cause harmful interference, and
 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).

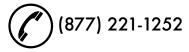
Operation is subject to the following two conditions:

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-inclass service. **For assistance**, please have the model number of this product available and contact us in any of the following ways:



Visit us at www.**AcuRite**.com

- Installation Videos
- ► Register your Product

Submit Feedback & Ideas

- Instruction Manuals
 Support User Forum
- Replacement Parts

IMPORTANT

PRODUCT MUST BE REGISTERED TO RECEIVE WARRANTY SERVICE

PRODUCT REGISTRATION Register online to receive 1 year warranty protection www.AcuRite.com

Limited One Year Warranty

At AcuRite, we proudly uphold our commitment to quality technology. Chaney Instrument Co. warrants that all products it manufactures to be of good material and workmanship, and to be free of defects when properly installed and operated for a period of one year from the date of purchase.

We recommend that you visit us at www.AcuRite.com for the fastest way to register your product. However, product registration does not eliminate the need to retain your original proof of purchase in order to obtain warranty benefits.

Chaney Instrument Co. warrants that all products it manufactures to be of good material and workmanship, and to be free of defects when properly installed and operated for a period of one year from the date of purchase. Remedy for breach of this warranty is limited to repair or replacement of the defective item(s). 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 Chaney, and at its sole option, be repaired or replaced by Chaney. Transportation costs and charges for returned goods shall be paid for by the purchaser. Chaney hereby disclaims all responsibility for such transportation costs and charges. This warranty will not be breached, and Chaney will give no credit for products it manufactures which have received normal wear and tear, been damaged (including by acts of nature), tampered, abused, improperly installed, damaged in shipping, or repaired or altered by others than authorized representatives of Chaney.

The above-described warranty is expressly in lieu of all other warranties, express or implied, and all other warranties are hereby expressly disclaimed, including without limitation the implied warranty of merchantability and the implied warranty of fitness for a particular purpose. Chaney expressly disclaims 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. Chaney further disclaims all liability from personal injury relating to its products to the extent permitted by law. By acceptance of any of Chaney's products, the purchaser assumes all liability for the consequences arising from their use or misuse. No person, firm or corporation is authorized to assume for Chaney any other liability in connection with the sale of its products. Furthermore, no person, firm or corporation is authorized to modify or waive the terms of this paragraph, and the preceding paragraph, unless done in writing and signed by a duly authorized agent of Chaney. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

For in-warranty claims: Chaney Instrument Co. 965 Wells St., Lake Geneva, WI 53147

ACU>RITE



Weather

Stations



Temperature & Humidity



Weather Alert Radio





Kitchen Thermometers & Timers

Clocks

It's more than accurate, it's ACU RITE.

AcuRite offers an extensive assortment of precision instruments, designed to provide you with information you can depend on to Plan your day with confidenceTM.

www.**AcuRite**.com

©Chaney Instrument Co. All rights reserved. AcuRite is a registered trademark of the Chaney Instrument Co., Lake Geneva, WI 53147. All other trademarks and copyrights are the property of their respective owners. AcuRite uses patented technology. Visit www.AcuRite.com/patents for details.