# ACU▶RITE.

# Weather Forecaster
## model 02081

## CONTENTS

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

# 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.
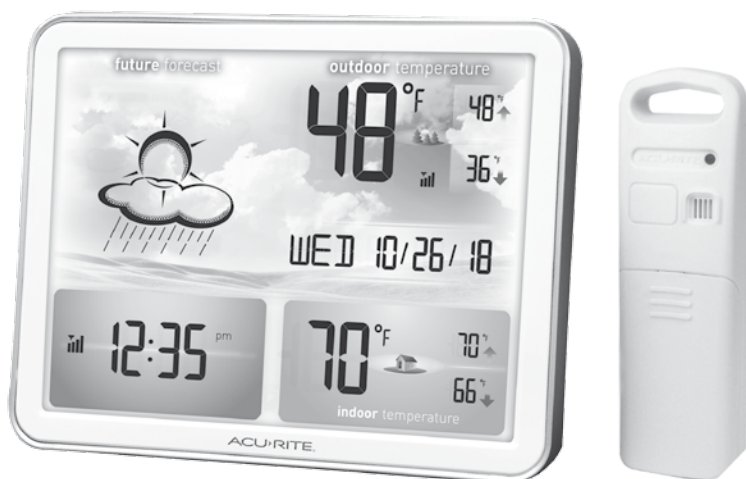
## Unpacking Instructions

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
2. Outdoor Sensor
3. Power Adapter
4. Instruction Manual

| IMPORTANT | PRODUCT MUST BE REGISTERED TO RECEIVE WARRANTY SERVICE |
|---|---|

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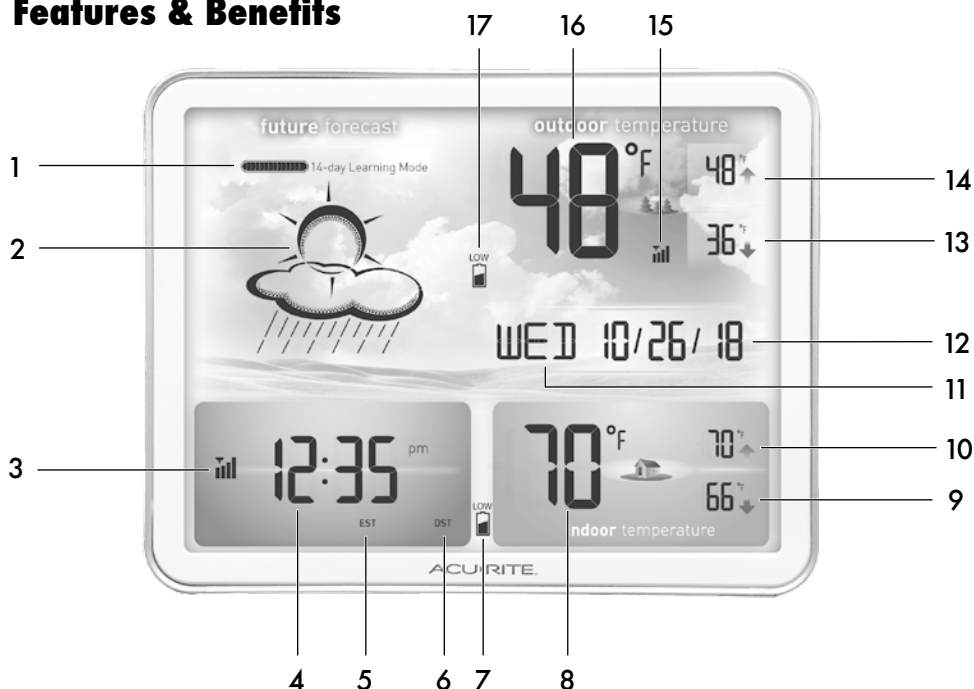## www.**AcuRite**.com

## Features & Benefits



## OUTDOOR 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



# DISPLAY

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

2. **12 to 24 Hour Weather Forecast**
   Self-Calibrating Forecasting pulls data from the outdoor sensor to generate your personal forecast.

3. **Atomic Clock Signal Strength**

4. **Atomic Clock**
   Maintains time with split-second accuracy and automatically updates for daylight saving time.

5. **Selected Time Zone**

6. **Daylight Saving Time Indicator**

7. **Display Low Battery Indicator**

8. **Current Indoor Temperature**

9. **Indoor Low Temperature Record**
   Lowest temperature recorded since midnight.

10. **Indoor High Temperature Record**
    Highest temperature recorded since midnight.

11. **Day of the Week**

12. **Date**

13. **Outdoor Low Temperature Record**
    Lowest temperature recorded since midnight.

14. **Outdoor High Temperature Record**
    Highest temperature recorded since midnight.

15. **Outdoor Sensor Signal Strength**

16. **Current Outdoor Temperature**

17. **Sensor Low Battery Indicator**
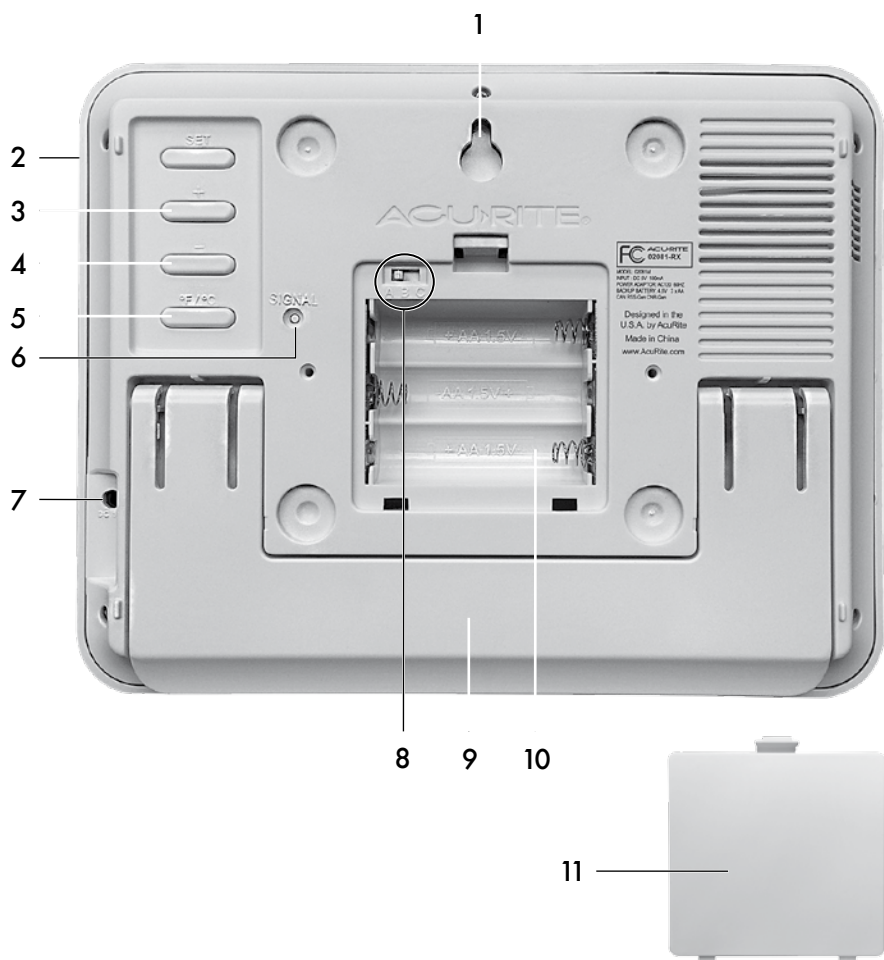
# BACK OF DISPLAY

**1. Integrated Hang Hole**
For easy wall mounting.

**2. SET Button**
For setup preferences.

**3. + Button**
For setup and backlight preferences.

**4. — Button**
For setup and backlight preferences.

**5. °F/°C Button**
Press to select temperature units.

**6. SIGNAL Button**
Press to manually search for atomic signal.

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

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

**9. Fold-out Tabletop Stand**

**10. Battery Compartment**

**11. Battery Compartment Cover**

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# Sensor Setup

**❶ 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 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 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.

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.

❶ **A-B-C Switch** set to match display

A B C

❷ **Install Batteries** 2 AA batteries

AA AA

| LITHIUM BATTERIES | 4 | F | 4 | c | (70ºC) | 158ºF |
|---|---|---|---|---|---|---|
| ALKALINE BATTERIES | 4 | F | 2 | c | (70ºC) | 158ºF |

# Display Setup

## ❶ 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.

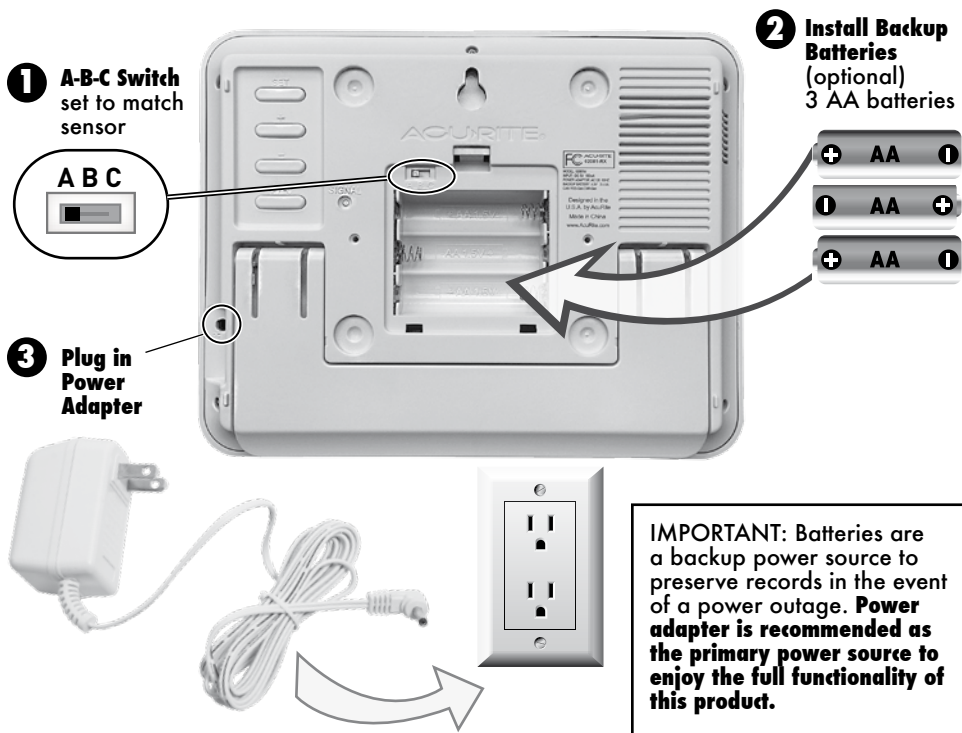## ❷ Install or Replace Batteries
(optional)

1. Remove the battery compartment cover.

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

3. Replace the battery cover.

## ❸ Plug in Power Adapter

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

❶ **A-B-C Switch** set to match sensor

A B C

❸ **Plug in Power Adapter**

❷ **Install Backup Batteries** (optional) 3 AA batteries

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.**

**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.

# Atomic Clock

AcuRite atomic clocks use a radio-controlled signal (RCC) to synchronize to the correct time broadcast by the National Institute of Standards and Technology (NIST) Radio Station WWVB, located near Fort Collins, Colorado. WWVB broadcasts the current time and date with split-second accuracy.

The atomic clock and calendar will maintain the correct time and date, and automatically update for daylight saving time to provide the most accurate timekeeping standard possible.

Please note: Signal reception is normally better at night and when the weather is clear. The atomic signal generally takes a few hours to synchronize, so it is important to manually set the time and date after powering on the display.

# Set the Time & Date

The display will automatically enter SET MODE after the unit has powered on. Enter SET MODE at any time by pressing the "SET" button, located on the back of the display. 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 "+" or "–" 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:

TIME ZONE ( PST MST CST EST AST HAST AKST)
DST (Daylight Saving Time ON or OFF)*
CLOCK HOUR
CLOCK MINUTE
CALENDAR MONTH
CALENDAR DATE
CALENDAR YEAR

You will automatically exit SET MODE if no buttons are pressed for 30 seconds. Enter SET MODE at any time by pressing the "SET" button.

*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.

# Select Degrees Fahrenheit or Celsius

To select between degrees Fahrenheit (°F) or Celsius (°C) temperature units, press the "°F/°C" button located on the back of the display.

# 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 the display is powered with the power adapter (recommended), the backlight remains on at 100% brightness by default. Adjust the backlight brightness by pressing and releasing the "+" or "−" buttons.

Using battery power alone, the backlight is available momentarily for 10 seconds by pressing and releasing the "+" or "−" buttons.

# Placement for Maximum Accuracy

AcuRite sensors are sensitive to surrounding environmental conditions. Proper placement of both the display and 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 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 (.9 m) away from electronic devices (TV, computer, microwave, radio, etc.).

# Setup is Complete

AT LEAST
3 feet
(.9 m)
APART

TV

(330 feet maximum)
(100 meters)
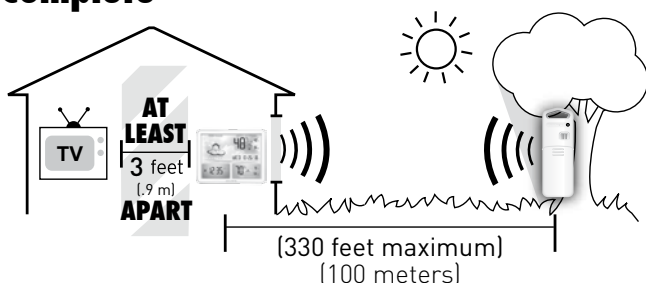
The sensor will now synchronize with the display. It may take a few minutes for synchronization to complete. Please refer to the troubleshooting section of this manual if anything appears to be functioning improperly.
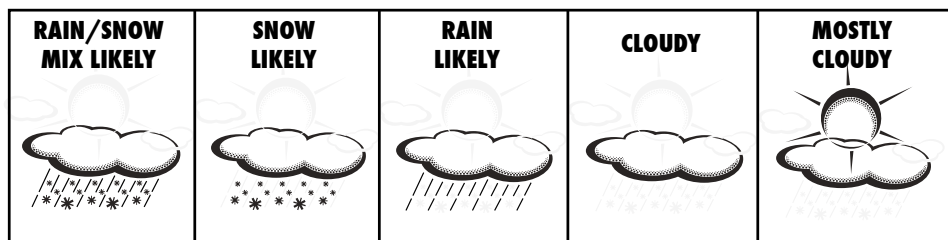
# Using the Weather Forecaster

## 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.

| RAIN/SNOW MIX LIKELY | SNOW LIKELY | RAIN LIKELY | CLOUDY | MOSTLY CLOUDY |
|---|---|---|---|---|

**View the complete list of icons at www.AcuRite.com/acurite-icons**

## Troubleshooting

| | |
|---|---|
| **No outdoor sensor reception**<br><br>📶 no bars | If the wireless signal indicator shows no bars:<br>• Relocate the display and/or the outdoor sensor. The units must be within 330 ft (100 m) of each other.<br>• 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).<br>• 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 power adapter is plugged into the display and an electrical outlet. |
| **Outdoor temperature is flashing or showing dashes** | Flashing of the outdoor temperature is generally an indication of wireless interference.<br>1. Bring both the sensor and display indoors and remove at least one battery from each.<br>2. Make sure the A-B-C switch on both units match.<br>3. Reinstall the battery in the outdoor sensor.<br>4. Reinstall the battery in the display.<br>5. Let the units sit within a couple feet of each other for about a few to gain a strong connection. |

| | |
|---|---|
| **Inaccurate forecast** | • Weather Forecast icon predicts conditions for the next 12 to 24 hours, not current conditions.<br>• Has Learning Mode icon disappeared from the display? Learning Mode must complete before forecast and pressure will be accurate.<br>• 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** | • Make sure both the display and sensor are placed out of direct sunlight and away from any heat sources or vents (see page 8). |
| **Atomic signal or time syncing problems** | • Press the SIGNAL button on the back of the display to manually search for the atomic clock signal.<br>For additional troubleshooting, please visit:<br>http://www.nist.gov/pml/div688/grp40/radioclocks.cfm |

**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.

### Outdoor Sensor Care
Clean with a soft damp cloth. Do not use caustic cleaners or abrasives.

## Specifications

| | |
|---|---|
| **TEMPERATURE RANGE** | Outdoor: -40°F to 158°F; -40°C to 70°C |
| | Indoor: 32°F to 122°F; 0°C to 50°C |
| **WIRELESS RANGE** | 330 ft / 100 m depending on home construction materials |
| **OPERATING FREQUENCY** | 433 MHz |
| **POWER** | Display: 5v power adapter<br>3 x AA alkaline batteries (optional) |
| | Sensor: 2 x AA alkaline or lithium batteries |
| **DATA REPORTING** | Outdoor Data: 16 second updates |
| | Indoor Data:  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.

# 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 contact us in any of the following ways:

(877) 221-1252

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

► Installation Videos      ► Register your Product

► Instruction Manuals      ► Support User Forum

► 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

# 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.



| 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, designedto provide you with information you can depend on to Plan your day with confidence™.

www.AcuRite.com

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