# ACU>RITE.

Instruction Manual



This product requires an AcuRite 5-in-1 Weather Sensor (sold separately) to be operational.

## CONTENTS

Unpacking Instructions	2
Package Contents	2
Product Registration	
Features & Benefits:	
Setup	7
Placement Guidelines	
Using the Weather Station	9

Expand the System	. 11
Troubleshooting	. 12
Care & Maintenance	. 14
Specifications	. 14
FCC Information	. 14
Customer Support	. 15
Warranty	

**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 LED screen prior to using this product. Locate the tab and peel off to remove.

## **Package Contents**

- Display with Tabletop Stand
   Power Adapter
- 3. Mounting Bracket
- 4. Instruction Manual

#### PRODUCT MUST BE REGISTERED лроrta TO RECEIVE WARRANTY SERVICE

#### PRODUCT REGISTRATION

Register online to receive 1 year warranty protection

## www.AcuRite.com

## Features & Benefits Display



## **BACK OF DISPLAY**

- 1. Plug-in for Power Adapter
- 2. Display Stand
- 3. Mounting Bracket For easy wall mounting.

## FRONT OF DISPLAY

#### 4. 🍄 Button

For menu access and setup preferences.

#### 5. $\vee$ Button

For setup preferences and cycling through messages on the Weather Overview dashboard.

#### 6. 🗆 Button

Press to view a different dashboard.

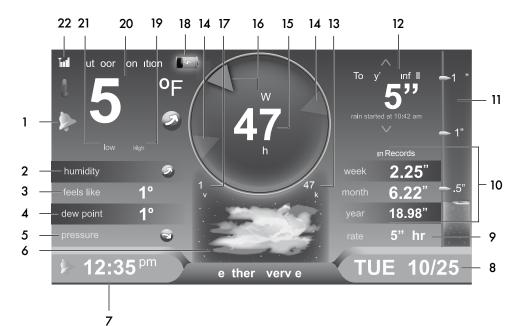
#### 7. ^ Button

For setup preferences and cycling through messages on the Weather Overview dashboard.

#### 8. 🗸 Button

For setup preferences.

#### Features & Benefits Weather Overview Dashboard



 ((<)) Alarm ON Indicator Indicates alarm is activated to emit an

Indicates alarm is activated to emit an audible alert when conditions exceed your presets (see page 9).

2. Current Outdoor Humidity Arrow icon indicates direction

humidity is trending.

#### 3. Current "Feels Like" Temperature

#### 4. Seasonal Information

Heat Index calculation displays when temperature is 80°F (27°C) or higher. Dew Point calculation displays when temperature is 79°F (26°C) or lower. Wind chill calculation displays when temperature is 40°F (4°C) or lower.

#### 5. Barometric Pressure

Arrow icon indicates direction pressure is trending.

#### 12 to 24 Hour Weather Forecast Self-Calibrating Forecasting pulls data from your 5-in-1 sensor to generate your personal forecast.

7. Clock

8. Date & Day of the Week

## 9. Rainfall Rate/Most Recent Rainfall

Displays rainfall rate of current rain event, or total from the most recent rainfall.

#### 10. Rainfall History

Displays rainfall records for current week, month & year.

#### 11. Today's Rain Indicator

Illustrates rainfall collection up to 2 inches (50 mm) once rain is detected.

#### 12. Messages

Displays weather information and messages (see page 14).

#### 13. Peak Wind Speed

Highest speed from the last 60 minutes.

## 14. Previous 2 Wind Directions

## 15. Current Wind Speed

Background color changes based on current wind speed.

#### 16. Current Wind Direction

#### 17. Average Wind Speed

Average wind speed over the past 2 minutes.

#### 18. Sensor Low Battery Indicator

#### 19. Outdoor High Temperature Record Highest temperature recorded since midnight.

#### 20. Current Outdoor Temperature

Arrow indicates direction temperature is trending.

## 21. Outdoor Low Temperature Record

Lowest temperature recorded since midnight.

#### 22. 5-in-1 Sensor Signal Strength

#### Features & Benefits Indoor Overview Dashboard



- 1. Current Indoor Temperature Arrow indicates direction temperature
- is trending. 2. Daily High & Low
  - Temperature Records

Highest and lowest temperature recorded since midnight.

#### 3. Daily High & Low Humidity Records

Highest and lowest humidity recorded since midnight.

4. Current Indoor Humidity Arrow indicates direction humidity is trending.

#### 5. Humidity Level Indicator Indicates a high, low or ideal humidity comfort level.

#### SETUP

## **Display Setup**

#### **Plug Power Adapter into Electrical Outlet**



## Settings

After powering on for the first time, the display will automatically enter setup mode. Follow the on-screen instructions to set up the display.

To adjust the currently selected item, press and release the "  $\wedge$  " or "  $\vee$  " buttons.

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

TIME ZONE (PST, MST, CST, EST, AST, HAST, NST, AKST) AUTO DST (Daylight Saving Time YES or NO)\* CLOCK HOUR CLOCK MINUTE CALENDAR MONTH CALENDAR DATE CALENDAR YEAR PRESSURE UNITS (inHg or hPa) TEMPERATURE UNITS (or for °C) WIND SPEED UNITS (mph, km/h, knots) RAINFALL UNITS (inches or mm) DISTANCE UNITS (miles or kilometers) AUTO DIM (YES or NO)\*\* AUTO CYCLE (OFF, 15 sec., 30 sec., 60 sec., 2 min., 5 min.) ALERT VOLUME

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

\*\*For more information see page 12, under "Display".

Enter setup mode at any time by pressing the "\$" button to access the menu, then navigate to "Setup" and press and release the "\" button.

## **Placement for Maximum Accuracy**

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



## **Display Placement**

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

## **Important Placement Guidelines**

- To ensure accurate temperature measurement, place units out of direct sunlight and away from any heat sources or vents.
- Display and sensor(s) must be within 330 feet (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 units at least 3 feet (.9 m) away from electronic devices (TV, computer, microwave, radio, etc.).

## Using the Weather Station



Navigate to the main menu at any time by pressing the "" button. From the main menu, you can view records, set alarms, setup an additional sensor and more.

#### 1. Records

Access the "Records" sub-menu to view high and low values recorded for each location by date and view trends for the sensor's readings on a graphic chart.

#### 2. Alarms

Access the "Alarms" sub-menu to set and edit alarm values, including temperature, humidity, wind speed and rainfall. The display also includes an alarm clock feature (time alarm) and storm alarm (activated when barometric pressure drops).

#### 3. Setup

Access the "Setup" sub-menu to enter the initial setup process.

#### 4. Display

Access the "Display" sub-menu to adjust display settings (brightness, contrast, tint), display mode (screen cycle) and backlight (auto dim, sleep mode). When auto dim mode is activated in display setup, the backlight automatically dims the brightness based on the time of day. When "Sleep Mode" is activated, the display automatically dims during the timeframe you choose and shows only the most important readings for at-a-glance viewing. 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

#### 5. Sensor

Access the "Sensor" sub-menu to add, remove or view information about a sensor.

#### 6. Units

Access the "Units" sub-menu to change measurement units for barometric pressure, temperature, wind speed, rainfall and distance.

#### 7. Calibrate

Access the "Calibrate" sub-menu to adjust display or sensor data. First, select the display or sensor for which you wish to calibrate readinas. Second, select the reading you wish to calibrate. Lastly, follow the on-screen prompts to adjust the value.

#### 8. Factory Reset

Access the "Factory Reset" sub-menu to revert the display back to factory defaults. Follow the on-screen prompts to perform the reset.

## Weather Overview Dashboard

#### 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 a sensor in your backyard. It generates a forecast with pinpoint accuracy personalized for your exact location.

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 self-calibrated pressure is tuned in to your location and the unit is ready for superior weather prediction.

#### **Moon Phase**

The moon phase is displayed between 7:00 p.m. to 5:59 a.m. when conditions allow for moon visibility. The phases of the moon are conveyed through simple lunar phase icons:



NEW









3RD



WANING CRESCENT

WAXING CRESCENT

1ST QUARTER

FULL QUARTER

## **Expand the System**

This weather station measures temperature, humidity, wind speed, wind direction and rainfall. The weather station can be expanded to include lightning detection by connecting a compatible AcuRite Lightning Sensor (optional; sold separately).

## **Compatible Sensor**

Lightning Sensor Model 06045



Compatible Lightning Sensor available at: www.AcuRite.com

**NOTE:** Access the "Sensor" sub-menu to add sensor(s) to the display if being connected after initial setup.

#### Messages

This display shows real-time weather information and alert messages on the Weather Dashboard. Manually cycle through all available messages by pressing and releasing the " $^{"}$ " or " $^{"}$ " buttons while viewing the Weather Overview dashboard.

Default messages are pre-loaded as follows:

HEAT INDEX - XX WIND CHILL - XX **DEW POINT - XX** IT FEELS LIKE XX OUTSIDE TODAY'S HIGH HUMIDITY . . . OUTDOOR XX / INDOOR XX TODAY'S LOW HUMIDITY ... OUTDOOR XX / INDOOR XX TODAY'S HIGH TEMP. . . OUTDOOR XXX / INDOOR XXX TODAY'S LOW TEMP. . . OUTDOOR XXX / INDOOR XXX 7 DAY HIGH TEMP. XX - MM/DD 7 DAY LOW TEMP. XX - MM/DD 30 DAY HIGH TEMP. XX - MM/DD 30 DAY LOW TEMP. XX - MM/DD ALL TIME HIGH TEMP. XXX ... RECORDED MM/DD/YY ALL TIME LOW TEMP. XXX... RECORDED MM/DD/YY 24 HOUR TEMP. CHANGE +XX ALL TIME HIGH WIND XX MPH ... RECORDED MM/DD/YY 7 DAY AVERAGE WIND XX MPH TODAY'S AVERAGE WIND XX MPH NEW LOW TEMP. RECORD XX NEW HIGH TEMP. RECORD XX NEW WIND RECORD TODAY XX **5-IN-1 SENSOR BATTERIES LOW** 5-IN-1 SENSOR SIGNAL LOST... CHECK BATTERIES AND PLACEMENT CAUTION - HEAT INDEX IS XXX CAUTION - WIND CHILL IS XXX WARMEST DAY THIS WEEK COLDEST DAY THIS WEEK TODAY'S RAINFALL - XX

## Troubleshooting

Problem	Possible Solution
<b>No reception</b> T	<ul> <li>Relocate the display and/or the 5-in-1 sensor. The units must be within 330 ft (100 m) of each other.</li> <li>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).</li> <li>Use standard alkaline batteries (or lithium batteries in sensor when temperature is below -20°C/-4°F). Do not use heavy duty or rechargeable batteries. <b>NOTE:</b> It may take a few minutes for display and sensor to synchronize after batteries are replaced.</li> <li>Synchronize the units:</li> <li>Bring both the sensor and display indoors and remove power adapter/batteries from each.</li> <li>Reinstall power adapter in display.</li> <li>Let the units sit within a couple feet of each other for a few minutes to gain a strong connection.</li> </ul>
Temperature is showing dashes	<ul> <li>When the outdoor temperature is showing dashes, it may be an indication of wireless interference between the sensor and display.</li> <li>Re-add sensor to display by accessing the "Sensors" sub-menu (see page 10).</li> </ul>
Inaccurate forecast	<ul> <li>Weather Forecast icon predicts conditions for the next 12 to 24 hours, not current conditions.</li> <li>Allow product to run continuously for 33 days. Powering down 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.</li> </ul>
Inaccurate wind readings	<ul> <li>What is wind reading being compared to? Proweather stations are typically mounted at 30 ft (9 m) high or more. Make sure to compare data using a sensor positioned at the same mounting height.</li> <li>Check location of the sensor. Ensure it's mounted a minimum of 5 ft (1.5 m) in the air with no obstructions around it (within several feet).</li> <li>Ensure wind cups are spinning freely. If they hesitate or stop try lubricating with graphite powder or spray lubricant.</li> </ul>

Problem	Possible Solution
Inaccurate temperature or humidity	<ul> <li>Make sure both the display and 5-in-1 sensor are placed away from any heat sources or vents (see page 8).</li> <li>Make sure both units are positioned away from moisture sources (see page 8).</li> <li>Make sure 5-in-1 sensor is mounted at least 1.5 m (5 ft) off of the ground.</li> <li>Calibrate indoor and outdoor temperature and humidity (see "Calibrate" on page 10).</li> </ul>
Display screen not working	<ul> <li>Check that the power adapter is plugged into the display and an electrical outlet.</li> </ul>

## 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.

## **Specifications**

DISPLAY'S BUILT-IN TEMPERATURE SENSOR RANGE	32°F to 122°F; 0°C to 50°C
DISPLAY'S BUILT-IN HUMIDITY SENSOR RANGE	1% to 99%
OPERATING FREQUENCY	433 MHz
POWER	5V power adapter
DATA REPORTING	Display: Indoor temperature & humidity: 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-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
- Instruction Manuals
- Replacement Parts
- Support User Forum
   Submit Feedback & Ideas
- **MPORTANT** 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 EXPRESSIY 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 our 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 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.

# 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 confidence™.

# 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.