



ACURITE Display for 3-in-1 Weather Sensor Instruction Manual

[Home](#) » [Acurite](#) » ACURITE Display for 3-in-1 Weather Sensor Instruction Manual 

ACURITE Display for 3-in-1 Weather Sensor Instruction Manual



Contents

1 Package Contents

1.1 Features & BenefitsDisplay

2 FRONT OF DISPLAY

2.1 ·Display Setup

2.2 Set the Time, Date & Units

2.3 Display Backlight Settings

2.4 Placement for Maximum Accuracy

3 OPERATION

3.1 Using The Weather Center Learning Mode

3.2 Multi-Variable History Chart

3.3 Wind Speed

3.4 Barometric Pressure

3.5 Weather Select

3.6 REPLAY Historical Data

3.7 REPLAY MODE OPTIONS:

4 Troubleshooting

5 Care & Maintenance

6 Documents / Resources

6.1 References

7 Related Posts

Package Contents

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

This product requires an AcuRite 3-in-1 Weather Sensor (sold separately) to be operational.

IMPORTANT

PRODUCT MUST BE REGISTERED TO RECEIVE WARRANTY SERVICE

PRODUCT REGISTRATION

Register online to receive 1 year warranty protection

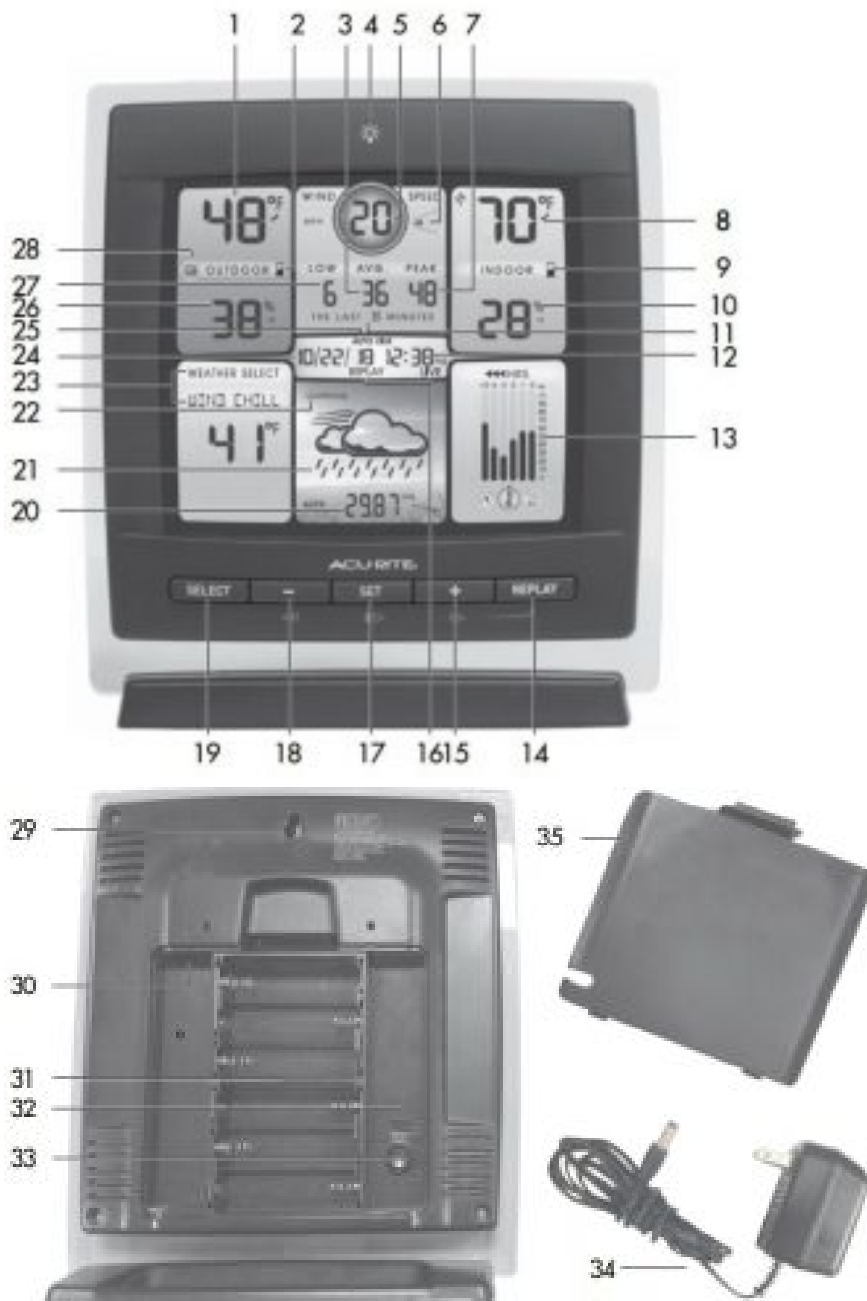
www.AcuRite.com

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

SAVE THIS MANUAL FOR FUTURE REFERENCE.

Features & Benefits

Display



FRONT OF DISPLAY

1. Current Outdoor Temperature Arrow icon indicates direction temperature is trending.
2. Sensor Low Battery Indicator
3. Average Wind Speed Average of all speeds over the time interval shown in #11.
4. "Q" Button
Indicates display is in auto-dimming brightness mode
5. Current Wind Speed
6. Wind Gust Indicator
7. Peak Wind Speed Highest speed from the time interval shown in #11.
8. Current Indoor Temperature Arrow icon indicates direction temperature is trending.
9. Display Low Battery Indicator
10. Current Indoor Humidity Arrow icon indicates direction humidity is trending.
11. Wind Reading Time Interval Displays the time interval that is used to calculate wind speed data. Default is 30

minutes

12. Clock
 13. Multi-Variable History Chart Displays the past 12 hours of data for pressure, temperature and humidity.
 14. REPLAY Button For displaying historical data.
 15. + Button For setup preferences.
 16. REPLAY and LIVE Icons REPLAY indicates historical data is being displayed. LIVE icon is shown while exiting REPLAY function.
 17. SET Button For setup preferences.
 18. Button For setup preferences.
 19. SELECT Button Press to change the Weather Select (#23) category being displayed.
 20. Barometric Pressure Arrow icon indicates direction pressure is trending.
 21. 12 to 24 Hour Weather Forecast Self-Calibrating Forecasting pulls data from the outdoor sensor to generate your personal forecast.
 22. Learning Mode Icon Disappears after weather forecast self-calibration is complete.
 23. Weather Select Displays heat index, dew point or wind chill, daily, monthly, and all-time high & low records for indoor/outdoor temperature, humidity and high wind speed.
 24. . Date
 25. AUTO DIM Indicator Indicates display is in auto-dimming brightness mode (page 5).
 26. Current Outdoor Humidity Arrow icon indicates direction humidity is trending.
 27. Low Wind Speed Lowest speed from the time interval shown in #11.
 28. Outdoor Sensor Signal Strength
- BACK OF DISPLAY
29. Integrated Hang Hole For easy wall mounting.
 30. Plug-in for Power Adapter
 31. Battery Compartment
 32. A-B-C Switch ID code that must match sensor's A-B-C switch to ensure units synchronize.
 33. CLEAR RECORD/RESET Button Press to clear record currently being viewed. Press and HOLD for full reset to factory defaults.
 34. Power Adapter
 35. Battery Compartment Cover



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.

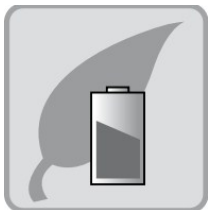
2. Install or Replace Backup Batteries (optional)

1. Remove the battery compartment cover.
2. Insert 6 x AA alkaline batteries into the battery compartment, as shown. Follow the polarity (+/-) diagram in the battery compartment.
3. Replace the battery cover.

3. Plug Power Adapter into Electric Outlet

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 that will not 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.

Set the Time, Date & Units

Press 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 “+” 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:


- CLOCK HOUR
- CLOCK MINUTE
- CALENDAR MONTH
- CALENDAR DATE
- CALENDAR YEAR
- TEMPERATURE UNITS (°F or °C)
- PRESSURE UNITS (inHg or hPa)
- WIND UNITS (MPH or KPH)

You will automatically exit SET MODE if no buttons are pressed for 10 seconds. Enter setup 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 (30%) brightness. Using battery power alone, the backlight is available momentarily for

10 seconds by pressing the “” button.

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 30%, press a 3rd time to enter “AUTO DIM” mode. AUTO DIM appears below time.

AUTO DIM MODE: Automatically adjusts display brightness based on time of day & year	
MARCH 11- NOVEMBER 4	6:00 a.m. – 9:00 p.m. = 100% brightness
	9:01 p.m. – 5:59 a.m.= 30% brightness
NOVEMBER 5 – MARCH 10	7:30 a.m. – 7:00 p.m.= 100% brightness
	7:01 p.m. – 7:29 a.m. = 30% brightness

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 product.

Display Placement



Place the display in a dry area free of dirt and dust. To ensure accurate temperature measurement, place out of direct sunlight and away from heat sources or vents. Display stands upright for tabletop use or is wall-mountable.

Important Placement Guidelines

Display and sensor must be within 330 feet (100 m) of each other.

MAXIMIZE WIRELESS RANGE

Place units away from large metallic items, thick walls, metal surfaces, or other objects that may limit wireless communication.

PREVENT WIRELESS INTERFERENCE

Place both units at least 3 feet (.9 m) away from electronic devices (TV, computer, microwave, radio, etc.).

OPERATION

Using The Weather Center Learning Mode

Self-Calibrating Forecasting use 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**



(flashing=stormy)

- **SNOW
LIKELY**



- **SNOW / RAIN
MIX LIKELY**



(flashing rain/snow)

- **RAIN**

LIKELY



- **MOSTLY**

CLOUDY



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

Multi-Variable History Chart

The multi-variable history chart lets you monitor the change in conditions over the past 12 hour time period (-12, -6, -3, -2, -1, 0). The chart automatically toggles between barometric pressure, outdoor temperature and outdoor humidity readings.

Wind Speed

The Wind Speed area of the display features the CURRENT speed, as well as the LOW, AVERAGE and PEAK wind speeds. PEAK, AVERAGE and LOW wind speeds are based on the past 30 minute time frame by default. The time frame can be adjusted during the calibration process

Barometric Pressure

Subtle variations in barometric pressure greatly impact the weather. This weather center displays the current pressure with an arrow icon to indicate the direction the pressure is trending (FALLING, STEADY, or RISING). The multi-variable history chart lets you monitor the change in pressure over time.

Weather Select

Weather Select displays data including wind chill, dew point, heat index, as well as 24 hour change, and high/low records for outdoor/indoor temperatures, humidity and wind speed. To change the “Weather Select” category shown, press the “SELECT” button on the front of the display. When outdoor/indoor temperature or humidity is chosen, the display cycles through the category’s records in this order:

24 Hour Change (amount the data has changed since 24 hours ago)

Today’s HIGH

Today’s LOW

Month’s HIGH

Month's LOW
All Time HIGH
All Time LOW

When Wind Speed is chosen, the display cycles through the following records:




Today's HIGH
Month's HIGH
All Time HIGH

To clear a record, view one of the values listed above and press the "CLEAR RECORD/RESET" button, located on the back of the unit in the battery compartment. Dashes display to confirm the record has been cleared.

REPLAY Historical Data


This weather station stores historical data that can be viewed in Replay Mode. Data is recorded for the past 48 hours in 30 minute intervals (on the hour and half hour). Historical data is shown with a time and date stamp. Press the "REPLAY" button to enter Replay Mode. The REPLAY icon and options will be shown on the display below the time.

REPLAY MODE OPTIONS:

- Press the "SET" () button to view 48-hour historical data. First, data is shown that was recorded 48 hours ago, and then the display cycles through the historical data in 30 minute intervals up to the current time. To exit Replay Mode and view live data, press the "REPLAY" button
- Press the "- " () button to view historical data in 30 minute intervals previous to the current "LIVE" data.
- While viewing historical data, press the "+" () button to advance the data shown by a 30 minute interval. You will automatically exit Replay Mode if no buttons are pressed for 10 seconds. To manually exit Replay Mode at any time, press the "REPLAY" button. The display may show or flash the "LIVE" icon to confirm you are exiting Replay Mode and returning to the current ("LIVE") data view.

Troubleshooting

Problem	Possible Solution
---------	-------------------

<p>No outdoor sensor reception</p> 	<p>Relocate the display and/or the 3-in-1 sensor. The units must be within 330 ft (100 m) of each other.</p> <ul style="list-style-type: none"> • 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 -20°C/-4°F). 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. • Synchronize the units: 1. Bring both the sensor and display indoors and remove power adapter/batteries from each. 2. Reinstall batteries in outdoor sensor. 3. Reinstall power adapter in display. 4. Let the units sit within a couple feet of each other for a few minutes to gain a strong connection.
<p>Outdoor temperature is flashing or showing dashes</p>	<p>Flashing of the outdoor temperature may be an indication of wireless interference:</p> <ul style="list-style-type: none"> • Make sure the A-B-C switch in the battery compartments of both the display unit and sensor are switched to the same letter. You may choose A, B or C; but both units must match to sync up. Sometimes changing to a different channel can help
<p>Inaccurate forecast</p>	<ul style="list-style-type: none"> • Weather Forecast icon predicts conditions for the next 12 to 24 hours, not current conditions. • Has Learning Mode icon disappeared from the display unit? 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 unit 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	<ul style="list-style-type: none"> • Make sure both the display unit and 3-in-1 sensor are placed away from any heat sources or vents (see page 6) • Make sure both units are positioned away from moisture sources (see page 6) • Make sure 3-in-1 sensor is mounted at least 5 ft off of the ground. • Calibrate indoor and outdoor temperature and humidity (see page 10).
Inaccurate wind readings	<ul style="list-style-type: none"> • Make sure both the display unit and 3-in-1 sensor are placed away from any heat sources or vents (see page 6) • Make sure both units are positioned away from moisture sources (see page 6) • Make sure 3-in-1 sensor is mounted at least 5 ft off of the ground. • Calibrate indoor and outdoor temperature and humidity (see page 10).
Inaccurate wind readings	<ul style="list-style-type: none"> • What is wind reading being compared to? Pro weather stations are typically mounted at 30 ft high or more. Make sure to compare data using a sensor positioned at the same mounting height. • Check location of the sensor. Ensure it's mounted a minimum of 5 ft in the air with no obstructions around it (within several feet). • Ensure wind cups are spinning freely. If they hesitate or stop try lubricating with graphite powder or spray lubricant.
Display screen not working	<ul style="list-style-type: none"> • Check that the power adapter is plugged into the display and an electrical outlet. • Check that the batteries are installed correctly. Batteries may need to be replaced. • Reset the display by pressing the CLEAR RECORD/ RESET button, located on the back of the display unit in the battery compartment. Date and time will need to be entered after a reset.

Inaccurate barometric pressure	It may take up to 14 days for the pressure to calibrate to your location
---------------------------------------	--

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.

Calibration

The indoor / outdoor temperature and humidity readings, wind speed interval, 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 from 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

WIND SPEED INTERVAL (30, 60, 90, 120, 150 or 180 minutes)

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 at least 10 seconds. The display indicates the current pressure mode selected, "AUTO" or "MANUAL". After 10 seconds of inactivity, the display will save the adjustments and exit calibration mode. Note: Calibration preferences will be erased if the display is reset or if batteries are removed and the power adapter is unplugged.

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
HUMIDITY RANGE	Outdoor: 1% to 99%
	Indoor: 1% to 99%
WIND SPEED	330 ft / 100 m depending on home construction materials
OPERATING FREQUENCY	Display: 5V, 100mA power adapter 6 x AA alkaline batteries (optional) Sensor: 4 x AA alkaline or lithium batteries
DATA REPORTING	Wind Speed: 18 second updates
	Outdoor temperature & humidity: 18 second updates
	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-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
- Replacement Parts
- Support User Forum
- Instruction Manuals
- Register your Product
- Submit Feedback & Ideas

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 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.

ACURITE®

- Weather Stations



- Temperature & Humidity



- Weather Alert Radio



- Kitchen Thermometers & Timers



- Clocks



It's More than Accurate, it's ACURITE.

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

Documents / Resources

	<p>ACURITE Display for 3-in-1 Weather Sensor [pdf] Instruction Manual Display for 3-in-1 Weather Sensor, 06018</p>
--	--

References

- [▶ AcuRite Weather Monitoring | #1 Weather Station Brand in North America](#)
- [▶ Icon Definitions and Terminology | AcuRite](#)
- [▶ Patented Technology | AcuRite](#)

