
Ambient Weather RC-8365 ClearView Radio Controlled Projection Clock with Indoor Temperature User Manual



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1. Introduction

Thank you for your purchase of the Ambient Weather RC-8365 ClearView Radio Controlled

Projection Clock with Indoor Temperature. The following user guide provides step by step instructions for installation, operation and troubleshooting. To download the latest full sized manual and additional troubleshooting tips, please visit:

<http://ambientweather.wikispaces.com/rc8600>

2. Warnings

- ⚠ **Warning.** Never look directly into the time and temperature projector. This can cause temporary blindness.
- ⚠ **Warning.** Only use approved AC adapter.

3. Getting Started

3.1 Product Features

3.1.1 Display Clock

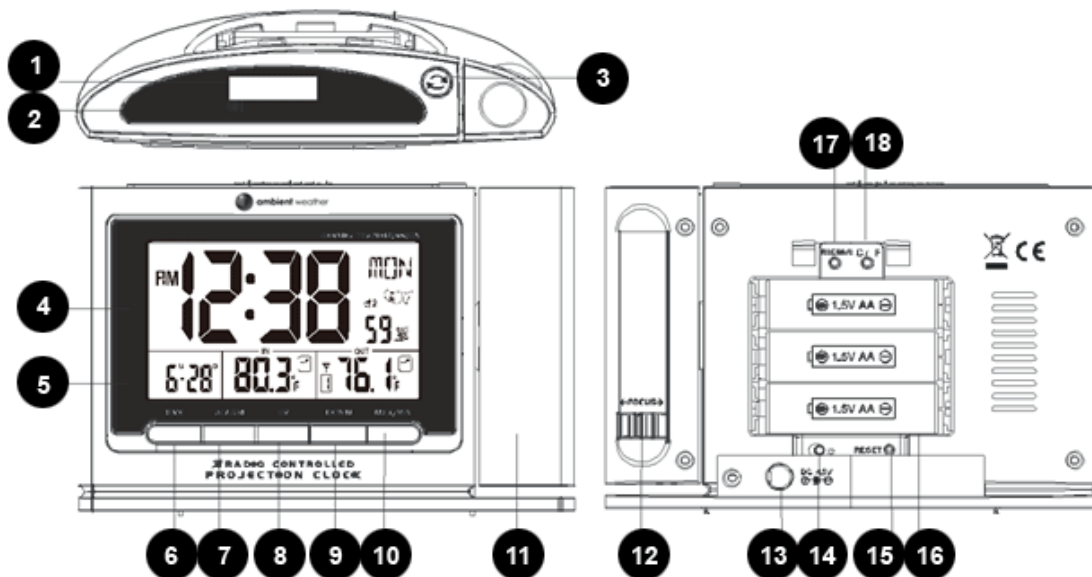


Figure 1

| No | Description | No | Description |
|----|--|----|--|
| 1 | SNOOZE/LIGHT Button - Turn on the projector and backlight for 5 seconds. - Stop the current alarm when sounding and enter into snooze mode. | 10 | MAX/MIN Button Press to display the min and max values since reset. |
| 2 | NIGHT LIGHT SENSOR - The night light will turn on automatically when dark and the feature is activated. | 11 | PROJECTOR - Projects the time and indoor/outdoor temperature (automatically scrolls between indoor and outdoor temperature every 5 seconds). |
| 3 | REVERSE Button | 12 | FOCUS Knob |

| No | Description | No | Description |
|----|--|----|---|
| | - Press to reverse the projected time and temperature. | | - Adjust the focus of the projected time and temperature. |
| 4 | TIME WINDOW - Displays time and day of the week. - Displays time zone | 13 | DC POWER JACK |
| 5 | DATE AND TEMPERATURE WINDOW - Displays indoor/outdoor temperature, alarm time and the date | 14 | NIGHT LIGHT FUNCTION ON/OFF Switch - Slide to turn on/off the night light function (remove battery door). |
| 6 | TIME Button - Press to switch between Month/Date and alarm time mode. - Press and hold for 2 seconds to enter time set mode. - In time set mode, press to step through the different time and date settings. | 15 | RESET Button - Press to reset all values to default values. - In case of malfunction, the unit can be reset. |
| 7 | ALARM button - In normal time display mode, press to turn on/off ALM1 & ALM2. - In ALM1 / ALM2 mode, press to turn on/off alarm and pre-alarm function. - Press to stop the current alarm when the alarm is ringing and turn off the alarm and snooze function. - In alarm time mode, press and hold for 2 seconds to enter alarm time setting mode. - In alarm time setting mode, press to step through the different time and date settings. | 16 | BATTERY COMPARTMENT - Accommodates 3 x AA batteries (alkaline recommended). |
| 8 | UP Button - In set mode, press to increase the values. - In normal time display mode, press to switch between Channels 1, 2 and 3. | 17 | RCC Resync Button - Press to resync to the radio controlled clock. |
| 9 | DOWN Button - In set mode, press to decrease the values. - In normal time mode, press to switch between 12/24 hour format. | 18 | °F/°C Button - Press to switch between °F and °C units of measure. |

3.1.2 Wireless Transmitter

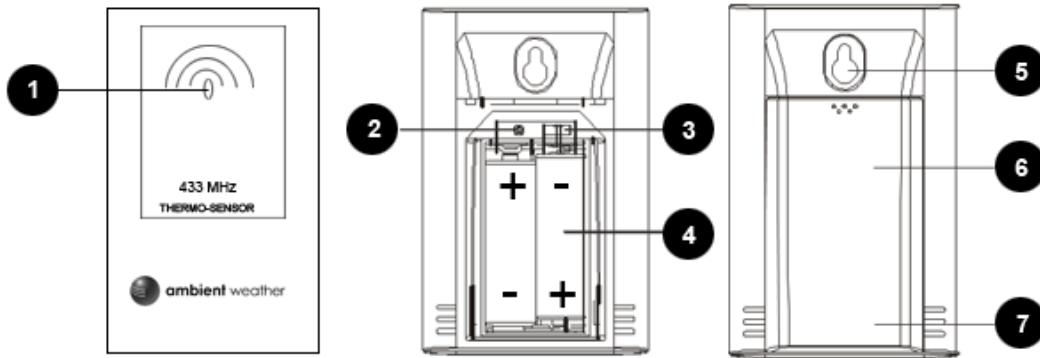


Figure 2


| No | Description | No | Description |
|----|---|----|---------------|
| 1 | Transmitter LED (flashes when the remote is transmitting) | 5 | Wall hanger |
| 2 | Reset button (press reset to restart the transmitter) | 6 | Battery cover |
| 3 | Transmitter channel (assign the transmitter to 1,2 or 3, default = 1) | 7 | Table stand |
| 4 | 2 x AA batteries | | |

Note: The RC-8365 supports three wireless channels. If you have one sensor, leave the transmitter channel at Channel 1. If you have more than one sensor, refer to Section 5.13.

3.2 Parts List

| QTY | Item |
|-----|--|
| 1 | Clock Frame Dimensions (LxWxH): 5.25" L x 1.5"D x 3.5"H |
| 1 | Wireless Transmitter (LxWxH): 4.0" L x 2.5" W x 1.5" D |
| 1 | UL Rated AC Adapter |
| 1 | User Manual |

3.3 Powering Up

 **Note:** The power up sequence must be performed in the order shown in this section (remote transmitter **FIRST**, Display Clock **SECOND**) to avoid the Clock synchronization time out.

The Transmitter:

1. Remove the battery door on the back of the transmitter and insert 2 new AA batteries, according to the polarity information marked on the battery compartment, and replace the battery door, as shown in Figure 2. Place the transmitter about 5 feet from the clock.


The Clock:

1. Plug the AC adaptor into the DC jack of the clock.
2. Remove the battery door on the bottom of the clock and insert 3 new AA batteries, according to the polarity information marked on the battery compartment, and replace the battery door.
3. Once the batteries are inserted, all of the LCD segments will light up briefly before entering the radio controlled clock (RCC) reception mode.


- The RCC clock will clock 2:00am and will attempt to synchronize with the RCC.

The clock will automatically search for the time signal at 2:00, 8:00, 14:00 (2pm) and 20:00 (8pm).

- Once the wireless transmitter has synced up to the radio, you can place the sensor outside.

 **Note:** If no display is present after powering up the clock, press the reset button on the back of the clock with an open ended paper clip or sharp tool.

3.3.1 Radio Controlled Clock (RCC)

Eight seconds after power up, the clock begin radio controlled clock (RCC) reception and the RCC search icon  will turn on. The RCC will continue to search for six minutes. It will try again every two hours.





| RCC Icon | Description | RCC Icon | Description |
|---|---|---|-------------------|
|  | No signal |  | Acceptable signal |
|  | Weak signal (flashes between two icons). Cannot be interpreted. |  | Excellent signal |

Figure 3

If the time is incorrect by increments of an hour, or does not change on your radio controlled clock (RCC):

- **Be patient. Wait at least one week before contacting Ambient Weather.** The RCC is a shortwave signal originating near Fort Collins, Colorado, and travels thousands of miles by bouncing off the ionosphere. The signal is better at night due to solar interference during the daytime. The farther you are from Colorado, the weaker the signal. Urban environments can also affect the signal strength.
- **Locate the Clock at night near a window or outer wall, and away from other radiating sources, like wireless routers or TVs.** This will insure the best reception possible.
- **If running on battery power only, test and replace the batteries in the clock if required.** Low batteries are often the cause for weak reception.
- **Check your Time Zone Setting.** Make sure your time zone is set properly in the clock settings.
- Avoid placing the clock on a solid metal plate.
- **Avoid closed in areas.** Closed in areas such as airports, basements, or industrial buildings are not recommended.

3.4 Siting the Wireless Transmitter Outside

It is recommended you place the remote sensor in a shaded area.

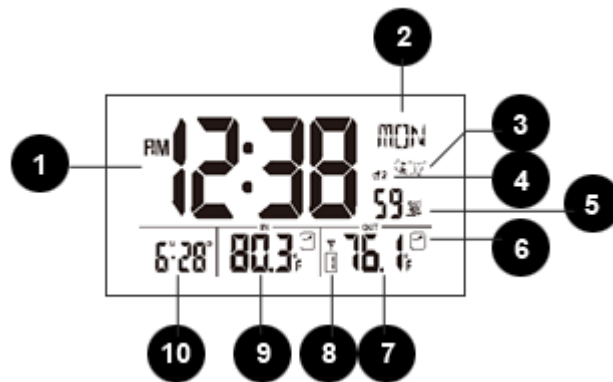
Direct sunlight and radiant heat sources will result in inaccurate temperature readings. Although the sensor is weatherproof, it is best to mount in a well-protected area, such as an eave. Do not place in standing water or snow.

Wireless signals are impacted by distance, interference (other wireless devices, wireless phones, wireless routers, TVs and computer monitors), and transmission barriers, such as walls. In general, wireless signals will not penetrate solid metal and earth (down a hill, for example).

The following is a table of reception loss vs. the transmission medium. Each “wall” or obstruction decreases the transmission range by the factor shown below.

| Medium | RF Signal Strength Reduction |
|-------------------|------------------------------|
| Glass (untreated) | 5-15% |
| Plastics | 10-15% |
| Wood | 10-40% |
| Brick | 10-40% |
| Concrete | 40-80% |
| Metal | 90-100% |

4. Clock Display



| No | Description | No | Description |
|----|--|----|---|
| 1 | Time | 6 | Temperature Rate of Change (increasing, decreasing or steady) |
| 2 | Day of Week | 7 | Outdoor Temperature |
| 3 | Time Zone | 8 | Channel Number (default = 1) and Reception Icon (on when searching, flashes when updates) |
| 4 | Alarm 1, Alarm 2 On Icons | 9 | Indoor Temperature |
| 5 | Radio Controlled Clock signal strength indicator | 10 | Date, Alarm 1 or Alarm 2 |

Figure 4

5. Settings


5.1 Daylight Time Zone Settings

The clock has been programmed to automatically switch when daylight saving time is in effect. Your clock will display “DST”. If you live outside of Arizona, leave DST ON all of the time.

Arizona does not observe daylight savings time. If you live in Arizona, set DST to OFF.

5.2 Time, Date, Time Zone and Language Settings

While in normal time mode, perform the following operations to set date, time and language:

| Command | Mode | Settings |
|--------------------|---|--|
| [TIME] + 2 seconds | Enter Time and Date Settings Time Zone | Press [UP] to change the time zone between P=Pacific, M=Mountain, C=Central, E=Eastern  . |
| [TIME] | Year | Press [UP] to increase, [DOWN] to decrease. |
| [TIME] | Month | Press [UP] to increase, [DOWN] to decrease. |
| [TIME] | Day | Press [UP] to increase, [DOWN] to decrease. |
| [TIME] | DST | Press [UP] to toggle between DST ON and OFF. |
| [TIME] | Hour | Press [UP] to increase, [DOWN] to decrease. |
| [TIME] | Minute | Press [UP] to increase, [DOWN] to decrease. |
| [TIME] | Second | Press [UP] to reset to 0. |
| [TIME] | Language | Press [UP] to change between GB (English), FR (French), DE (German), ES (Spanish) and IT (Italian). |
| [TIME] | Exit Time and Date Settings | |

[TIME] + 2 seconds means press and hold the TIME button for two seconds.

[TIME] means press but do not hold the TIME button.

Figure 5

5.3 Alarm Settings

While in normal time mode, press the **TIME** button once to set **ALARM1**. Press the **TIME** button again to set **ALARM2**. Once **ALARM1** or **ALARM2** are displayed in the date field (see Figure 4, No. 10), perform the following:







| Command | Mode | Settings |
|---------------------|------------------------------------|---|
| [ALARM] + 2 seconds | Enter Alarm Settings Alarm Hour | Press [UP] to increase, [DOWN] to decrease. |
| [ALARM] | Alarm Minute | Press [UP] to increase, [DOWN] to decrease. |
| [ALARM] | Exit Alarm Settings | |


[ALARM] + 2 seconds means press and hold the ALARM button for two seconds.

[ALARM] means press but do not hold the ALARM button.

Figure 6

5.4 Using the Alarm and Snooze Functions


1. Set the alarm time as described in Section 5.3.
2. Press the **ALARM** button once to turn on **ALARM1**  1.
3. Press the **ALARM** button again to turn on **ALARM2**  2.
4. Press the **ALARM** button again to turn on  1 and  2.
5. Press the **ALARM** button again to turn off  1 and  2.

 **Note:** Press the **ALARM** button to turn off the alarm. If no button is pressed during the alarm period, the alarm will turn off automatically in two minutes. To temporarily silence the alarm, press the **SNOOZE/LIGHT** button on the top of the radio. The alarm bell icon will keep flashing.

Once the snooze function is turned on, the 4-step crescendo alarm will sound every five minutes. Press the **ALARM** button to silence the alarm.

5.6 Projector and Backlight

5.6.1 Using the Projector and Backlight

 **Note:** The projector and backlight are temporary when operating on batteries only, to save battery life.

1. When the clock is powered by the battery. Press the **SNOOZE/LIGHT** button to turn on the projector and backlight for 5 seconds.
2. When the clock is powered by the AC adapter, the projector is always on.

5.6.2 Projector Backlight Rotation


1. Press **SNOOZE/LIGHT** button to turn on the projector and backlight if currently off.
2. Press the **REVERSE** button  to reverse the projected data 180 degrees.




Figure 7

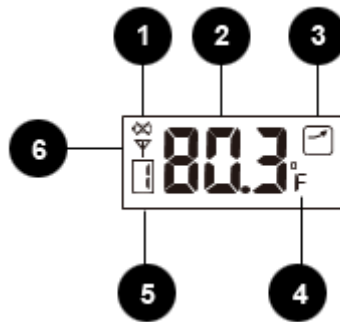
5.6.3 Adjusting Backlight Focus

Adjust the focus of the projected data by rotating the focus knob on the projector.

5.7 Console Low Battery Indicator

When the battery is full, no battery icon will be displayed. When the battery is low, the low battery indicator  will be displayed. Replace with 3 new AA size batteries. Pay attention to the polarity.


5.8 Wireless Sensor Display



| No | Description | No | Description |
|----|-----------------------|----|---|
| 1 | Low Battery Indicator | 4 | Temperature Units of Measure (°F or °C) |
| 2 | Temperature | 5 | Temperature Channel Number |
| 3 | Temperature Trend | 6 | Channel Number (default = 1) and Reception Icon (on when searching, flashes when updates) |

Figure 8

5.9 Wireless Sensor Low Battery Indicator

When the battery is full, no battery icon will be displayed. When the battery is low, the low battery indicator  will be displayed. Replace with 2 new AA size batteries. Pay attention to the polarity.

5.10 Temperature Rate of Change Indicators




| | | | |
|-------------------|---|---|---|
| Arrow Indicator |  |  |  |
| Temperature Trend | Rising | Steady | Falling |

Figure 9

5.11 Viewing the Wireless Sensor Channels

In normal time mode, press the **UP** button to view wireless channels 1, 2 and 3.

To automatically scroll through channels 1, 2 and 3, press and hold the **UP** button for 2 seconds (the beep will sound). The wireless channels will scroll on the screen every 5 seconds.

5.12 Resyncing the Wireless Sensor

If you lose synchronization from the remote wireless sensor for an extended period of time or you replace the batteries in the wireless sensor, you may need to reset the console. To reset the console, disconnect from AC power and remove the batteries for 10 seconds, then reinsert the batteries and reconnect AC power. Alternately, you can press the reset button on the back of the console.

5.13 Adding Multiple Wireless Sensors

If you introduce additional sensors into the system, you will need to reset the console.

1. Set the Channel number on the wireless sensor per Figure 2. Power down and up the sensor after you have changed the channel number for the change to take effect.

- Reset the console. To reset the console, disconnect from AC power and remove the batteries for 10 seconds, then reinsert the batteries and reconnect AC power. Alternately, you can press the reset button on the back of the console.

5.14 Min and Max Records

Select the appropriate channel to view the min and max records as outlined in 5.11.

- Press the MAX/MIN button once to view the maximum values:



- Press the MAX/MIN button again to view the minimum values:



- Press and hold the **MAX/MIN** button for three seconds (the console will beep) to clear the min and max values.

6. Specifications

6.1 Wireless Specifications

- Line of sight wireless transmission (in open air): 150 feet
- Frequency: 433 MHz
- Update Rate: 60 seconds

6.2 Measurement Specifications

The following table provides specifications for the measured parameters.

| Measurement | Range | Accuracy | Resolution |
|---------------------|---|----------|------------|
| Indoor Temperature | 32 to 140 °F | ± 2 °F | 0.1 °F |
| Outdoor Temperature | -4 to 140 °F alkaline batteries -40 to 140 °F LiIon e2 Energizer batteries | ± 2 °F | 0.1 °F |

6.2 Power Consumption

- Radio: 3 x AA Alkaline batteries recommended.
- Wireless Transmitter: 2 x AA Alkaline batteries recommended, LiIon e2 Energizer for cold weather.

7. Troubleshooting Guide

If your question is not answered here, you can contact us as follows:

- Email Support: support@ambientweather.com
- Live Chat Support: www.ambientweather.com/chat.html (M-F 8am to 4pm Arizona Time)
- Technical Support: 480-346-3380 (M-F 8am to 4pm Arizona Time)

| Problem | Solution |
|---------|----------|
|---------|----------|

| Problem | Solution |
|---|--|
| Radio controlled clock does not update. | <ul style="list-style-type: none"> • Be patient. Wait at least one week before contacting Ambient Weather. The RCC is a shortwave signal originating near Fort Collins, Colorado, and travels thousands of miles by bouncing off the ionosphere. The signal is better at night due to solar interference during the daytime. The farther you are from Colorado, the weaker the signal. Urban environments can also affect the signal strength. • Locate the Clock at night near a window or outer wall, and away from other radiating sources, like wireless routers or TVs. This will insure the best reception possible. • If running on battery power only, test and replace the batteries in the clock if required. Low batteries are often the cause for weak reception. • Avoid placing the clock on a solid metal plate. • Avoid closed in areas. Closed in areas such as airports, basements, or industrial buildings are not recommended. |
| The wireless sensor communication has been lost or is intermittent or will not sync up. | <ul style="list-style-type: none"> • Make sure the transmitter is powered up and the LED is flashing about once per minute. For cold weather environments, install lithium batteries. If the transmitter is not flashing, replace the batteries. • Reset the console by disconnecting from AC power, removing one battery from the radio, wait 10 seconds, and reinsert the battery. • The maximum line of sight communication range is 150'. Move the sensor closer to the radio. • If the sensor assembly is too close (less than 5-10'), move the sensor away from the radio. • Make sure the remote sensors are not transmitting through solid metal (acts as an RF shield), or earth barrier (down a hill). • Move the radio away from electrical noise generating devices, such as computers, TVs and other wireless transmitters or receivers. • Move the remote sensor to a higher location. Move the remote sensor to a closer location. • Radio Frequency (RF) Sensors cannot transmit through metal barriers (example, aluminum siding) or multiple, thick walls. |
| The clock is off by increments of an hour. | <ul style="list-style-type: none"> • Check your Time Zone Setting. Make sure your time zone is set properly in the clock settings. |

| Problem | Solution |
|---|--|
| The clock does not respond to commands. | <ul style="list-style-type: none"> • Press the reset button on the back of the clock with an open ended paper clip or sharp tool. |
| The projection is fuzzy | <ul style="list-style-type: none"> • Adjust the focus setting. |

8. Accessories

| Accessory | Description |
|------------------|-----------------------------|
| TX-8300 | Additional wireless sensor. |

9. Liability Disclaimer

Please help in the preservation of the environment and return used batteries to an authorized depot. The electrical and electronic wastes contain hazardous substances. Disposal of electronic waste in wild country and/or in unauthorized grounds strongly damages the environment.

Reading the “User manual” is highly recommended. The manufacturer and supplier cannot accept any responsibility for any incorrect readings and any consequences that occur should an inaccurate reading take place.

This product is designed for use in the home only as indication of weather conditions. This product is not to be used for medical purposes or for public information.

The specifications of this product may change without prior notice.

This product is not a toy. Keep out of the reach of children.

No part of this manual may be reproduced without written authorization of the manufacturer.

Ambient, LLC WILL NOT ASSUME LIABILITY FOR INCIDENTAL, CONSEQUENTIAL, PUNITIVE, OR OTHER SIMILAR DAMAGES ASSOCIATED WITH THE OPERATION OR MALFUNCTION OF THIS PRODUCT.

10. FCC Statement

Statement according to FCC part 15.19:

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

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

Statement according to FCC part 15.21:

Modifications not expressly approved by this company could void the user's authority to operate the equipment.

Statement according to FCC part 15.105:

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 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.

11. Warranty Information

Ambient, LLC provides a 1-year limited warranty on this product against manufacturing defects in materials and workmanship.

This limited warranty begins on the original date of purchase, is valid only on products purchased and only to the original purchaser of this product. To receive warranty service, the purchaser must contact Ambient, LLC for problem determination and service procedures.

Warranty service can only be performed by a Ambient, LLC. The original dated bill of sale must be presented upon request as proof of purchase to Ambient, LLC.

Your Ambient, LLC warranty covers all defects in material and workmanship with the following specified exceptions: (1) damage caused by accident, unreasonable use or neglect (lack of reasonable and necessary maintenance); (2) damage resulting from failure to follow instructions contained in your owner's manual; (3) damage resulting from the performance of repairs or alterations by someone other than an authorized Ambient, LLC authorized service center; (4) units used for other than home use (5) applications and uses that this product was not intended (6) the products inability to receive a signal due to any source of interference or metal obstructions and (7) extreme acts of nature, such as lightning strikes or floods.

This warranty covers only actual defects within the product itself, and does not cover the cost of installation or removal from a fixed installation, normal set-up or adjustments, claims based on misrepresentation by the seller or performance variations resulting from installation-related circumstances.

