

## WT-3131A Radio-controlled Analog Clock With Weather Forecast

## **Instruction Manual**

## **TABLE OF CONTENTS**

Торіс	Page	
Inventory of Contents/Additional Equipment	2	
About WWVB	2	
Detailed Set-Up Guide		
Battery Installation	2	
Function Keys	3	
Time Zone Setting	3	
Daylight Saving Time Setting	3	
Features		
Weather Forecast Icons	4	
Indoor Temperature and Humidity	5	
Mounting	5	
Troubleshooting	5	
Maintenance & Care	5	
Specifications	6	
Warranty Information	7	

#### **INVENTORY OF CONTENTS**

- 1. Radio-controlled analog clock with weather forecast
- 2. Instruction manual and warranty card

#### ADDITIONAL EQUIPMENT (not included)

- 1. One AA alkaline battery
- 2. Two AAA alkaline batteries
- 3. One screw for wall mounting clock

#### ABOUT WWVB (Radio Controlled Time)

The NIST (National Institute of Standards and Technology—Time and Frequency Division) WWVB radio station is located in Ft. Collins, Colorado, and transmits the exact time signal continuously throughout the United States at 60 kHz. The signal can be received up to 2, 000 miles away through the internal antenna in the clock. However, due to the nature of the Earth's Ionosphere, reception is very limited during daylight hours. The clock will search for a signal every night when reception is best. The WWVB radio station derives its signal from the NIST Atomic clock in Boulder, Colorado. A team of atomic physicists is continually measuring every second, of every day, to an accuracy of ten billionths of a second per day. These physicists have created an international standard, measuring a second as 9,192,631,770 vibrations of a Cesium-133 atom in a vacuum. For more information about WWVB please see the NIST website at http://www.boulder.nist.gov/timefreq/stations/wwvb.htm

#### **DETAILED SET UP GUIDE**

1. Battery Installation

There are two locations for batteries on the clock

- a. The analog clock requires one AA battery for operation
- b. The battery is inserted on the back of the clock above the four time zone buttons.
- c. After the battery is inserted press the desired time zone button.
- d. The weather LCD requires two AAA batteries for operation.
- e. The battery compartment is located directly above the "SET  $^{\circ}C/^{\circ}F$ " button on the back of the clock.

**Note:** Ensure that the correct polarity is followed when inserting the batteries into each location.

#### 2. Function Keys

There are six buttons on the back of the clock.

- a. The time zone buttons are labeled "*PT*", "*MT*", "*CT*" and "*ET*". These buttons are directly above the AA battery slot for the clock.
- b. In between the "*CT*" and "*ET*" buttons is the DST (Daylight Saving Time) over ride button. Pressing this button will disable/enable the DST recognition of the clock
- c. There is a black manual time set button located directly above the AA battery slot for the clock. By holding this button down you are able to manually set the time on your clock.
- d. The last button is the "SET  $^{\circ}C/^{\circ}F$ " button, which is located below the AAA battery compartment. Press and release this button to switch between  $^{\circ}C$  and  $^{\circ}F$ .
- 3. Time Zone Setting

Press and release one of the four time zone buttons on the back of the clock to select your desired time zone. The clock will automatically adjust to the correct time for that zone.

4. Daylight Saving Time (DST) Setting

Press and release the daylight saving time button to deactivate or reactivate the daylight saving time recognition feature of the clock.

*Note:* Some locations (Arizona and parts of Indiana) do not follow Daylight Saving Time.

There is no indication of the mode the daylight saving time feature is in the factory setting is ON.

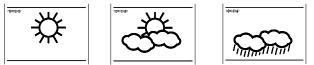
#### **FEATURES**

1. Weather Forecast

The weather forecasting feature is estimated to be 75% accurate. The weather forecast is based solely upon the change of air pressure over time. The WT-3131A averages past air-pressure readings to provide an accurate forecast, creating a necessity to disregard all weather forecasting for 12-24 hours after the unit has been set-up, reset, or moved from one altitude to another (i.e. from one floor of a building to another floor). In areas where the weather is not affected by the change of air pressure, this feature will be less accurate.

a. Weather Icons

There are 3 possible weather icons that will be displayed in the FORECAST LCD:



*Sunny*—indicates that the weather is expected to improve (not that the weather will be sunny).

*Sun with Clouds*—indicates that the weather is expected to be fair (not that the weather will be sunny with clouds).

*Clouds with Rain*—indicates that the weather is expected to get worse (not that the weather will be rainy).

The weather icons change when the unit detects a change in air pressure. The icons change in order, from "sunny" to "partly sunny" to "cloudy" or the reverse. It will not change from "sunny" directly to "rainy", although it is possible for the change to occur quickly. If the symbols do not change then the weather has not changed, or the change has been slow and gradual.

- a. Weather Tendency Arrows
  - 1. Other possible displays in the FORECAST LCD are 2 weather tendency arrows, one that points up (on the left side of the LCD) and one that points down (on the right side of the LCD). These arrows reflect current changes in the air pressure.
  - 2. An arrow pointing up indicates that the air pressure is increasing and the weather is expected to improve or remain good.
  - 3. An arrow pointing down indicates that the air pressure is decreasing and the weather is expected to become worse or remain poor.
  - 4. No arrow means the pressure is stable.

2. Indoor Temperature and Humidity

The current indoor temperature (viewed on the left) and relative humidity (viewed on the right) are displayed in the INDOOR LCD. These measurements are taken within the clock.

#### MOUNTING

- 1. Fix a screw (not included) into the desired wall, leaving approximately 3/16 of an inch (5mm) extended from the wall.
- 2. Place the indoor weather station onto the screw using the hanging hole on the backside.
- 3. Gently pull the indoor weather station down to lock the screw into place.

### TROUBLESHOOTING

If your clock does not receive a signal please check the following:

Battery - The clock must have a fresh battery to receive and process the time signal.

When the battery drops below 1.25 volts the clock indicates that it is time to change the battery by advancing the second hand in two-second steps. The operating voltage range is 1.25 to 1.75 volts.

**Location** - Try a different location, ideally near a window. It should be at least six feet from computers, TVs, air conditioners, other radio-controlled clocks and other electrical appliances that cause interference.

**Weather -** Electrical storms between you and Colorado during the night will interfere with the WWVB signal.

#### MAINTENANCE AND CARE INSTRUCTIONS

- Extreme temperatures, vibration, and shock should be avoided to prevent damage to the units.
- Clean displays and units with a soft, damp cloth. Do not use solvents or scouring agents; they may mark the displays and casings.
- Do not submerge the clock in water.
- Immediately remove all low powered batteries to avoid leakage and damage.
- Opening the casing invalidates the warranty. Do not try to repair the unit. Contact La Crosse Technology for repairs.

# **SPECIFICATIONS**

Temperature measuring range:		
Indoor	32°F to 122°F with 0.2°F	
	resolution (0°C to 50°C	
	with 0.1°C resolution)	
	"OFL" displayed if	
	outside this range	
Relative humidity	19% to 95% with 1%	
measuring range	resolution. (""	
	displayed if outside this	
	range	
Indoor temperature	Every 10 seconds	
checking interval		
Indoor humidity checking	Every 1 minute	
interval		
Power Supply:		
Analog clock	2 x AA, 1.5V	
Weather LCD	2 x AAA, 1.5V	
Battery life cycle	Approximately 12 months	
Recommended battery	Alkaline	
type		
Dimensions		
Analog clock	13 inch diameter	
	(330 mm)	
	1.75 inch depth	
	(44 mm)	

#### WARRANTY INFORMATION

La Crosse Technology provides a 1-year warranty on this product. Contact La Crosse Technology immediately upon discovery of any defects covered by this warranty.

Before sending the unit in for repairs, contact La Crosse Technology. The unit will be repaired or replaced with the same or similar model.

This warranty does not cover any defects resulting from improper use, unauthorized repairs, faulty batteries, or the units' inability to receive a signal due to any source of interference.

LA CROSSE TECHNOLOGY WILL NOT ASSUME LIABILITY FOR INCIDENTAL, CONSEQUENTIAL, PUNITIVE, OR OTHER SIMILAR DAMAGES ASSOCIATED WITH THE OPERATION OR MALFUNCTION OF THIS UNIT. THIS PRODUCT IS NOT TO BE USED FOR MEDICAL PURPOSES OR FOR PUBLIC INFORMATION. THIS PRODUCT IS NOT A TOY. KEEP OUT OF CHILDRENS' REACH.

This warranty gives you specific legal rights. You may also have other rights specific to your State. Some States do not allow the exclusion of consequential or incidental damages; therefore the above exclusion of limitation may not apply to you.

For warranty work, technical support, or information contact

La Crosse Technology 1116 South Oak Street La Crescent, MN 55947 Phone: 507.895.7095 Fax: 507.895.8000

e-mail <u>support@lacrossetechnology.com</u> (warranty work) <u>sales@lacrossetechnology.com</u> (information on other products)

Website www.lacrossetechnology.com

# 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, AND 2. THIS DEVICE MUST ACCEPT INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.

All rights reserved. This handbook must not be reproduced in any form, even in excerpts, or duplicated or processed using electronic, mechanical or chemical procedures without written permission of the publisher.

This handbook may contain mistakes and printing errors. The information in this handbook is regularly checked and corrections made in the next issue. We accept no liability for technical mistakes or printing errors, or their consequences.

All trademarks and patents are acknowledged.