

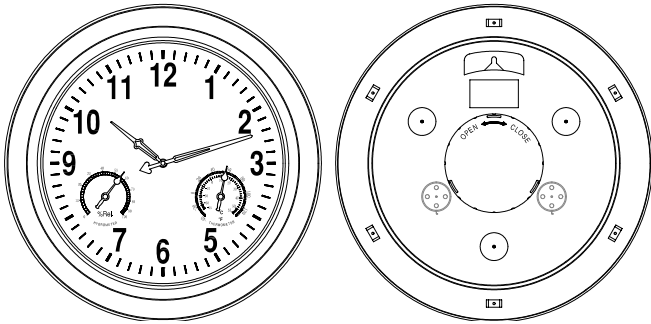
WT-3181 Instruction manual



LA CROSSE[®]
TECHNOLOGY
technology tools for home & office

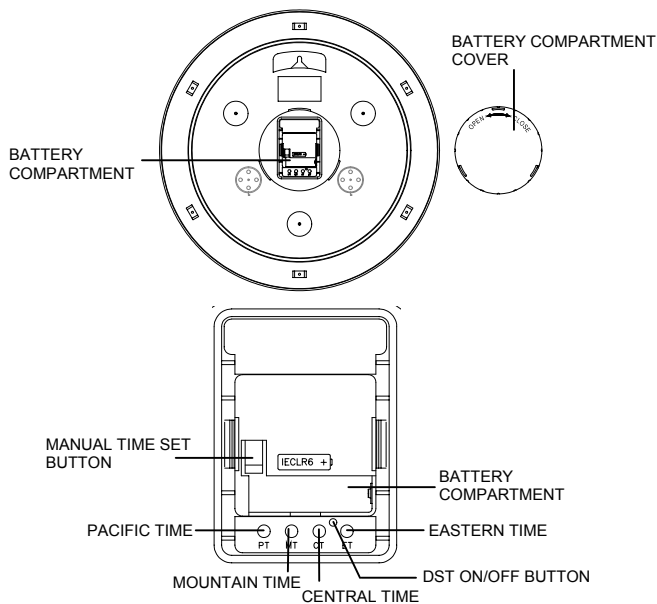
Quick set up instructions

Welcome to the world of radio controlled timekeeping technology. We hope you will enjoy the convenience of never having to set your clock again and the confidence of knowing exactly what time it is.



- Twist and lift open the battery compartment cover at the back of the clock and insert 1 fresh AA, LR6 1.5 volt ALKALINE battery according to the polarity marked on the case.
- Press time zone button to select a time zone.
- Replace the battery compartment cover.

THAT'S IT! During the night your clock will automatically set itself.



For a better understanding of how and why your clock works please continue reading.

NOTHING IS MORE PRECISELY MEASURED THAN TIME!

And nothing keeps track of time more precisely and trouble free than La Crosse Technology radio controlled clocks.

Since the beginning of time, man has been fascinated with the measurement of time and has devised more accurate machines to trap and measure time. Today, time is precisely measured in the United States by the most accurate clock in North America, the Atomic Clock of the US National Institute of Standards and Technology, Time and Frequency Division in Boulder, Colorado. A team of atomic physicists continually measures 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. This atomic clock regulates the WWVB radio transmitter located in Fort Collins, Colorado, where the exact time signal is continuously broadcast throughout the United States at 60 kHz to take advantage of stable long wave radio paths found in that frequency range. Radio waves at these low frequencies use the earth and the ionosphere as a wave-guide and follow the curvature of the earth for long distances.

The built in antenna system will receive the WWVB signal anywhere in North America within 2000 miles of Fort Collins where long-wave radio reception is undisturbed. A microprocessor activates the receiver and processes the time signal from Fort Collins overnight.

Through the radio signals, La Crosse Technology radio controlled clocks always keep precise time. The changeover from standard time to daylight saving time, and vice versa, takes place automatically with the same precision.

ADDITIONAL DETAILS

To set up your clock simply install one fresh AA, LR6 ALKALINE battery. Due to the nature of long wave radio signals it is normally not possible to receive a signal during the day so it is best to install the battery late in the evening. Select your time zone by pressing one of the four time zone buttons PT-Pacific Time, MT-Mountain Time, CT-Central Time, ET-Eastern Time. The time zone buttons may be pressed any time after installing the batteries. If multiple buttons are pressed the clock will set to the time zone selected last. If no time zone is selected the clock will default to Pacific Time. Another time zone can be selected during or after the clock has set itself. Your clock can only set itself to one of the four time zones stated above. For time zones outside of PT, MT, CT or ET you must manually set the time using the Manual Time set button on the back of the movement.

Once the battery is installed the clock will begin searching for a signal. For the initial setting it is recommended to stand the clock in an upright position near a window. Within five minutes the clock will either receive the WWVB signal and set itself to the exact time, or it will determine that the signal is not receivable at its current location and time of day. If a signal is not receivable it will fast-forward the hands to the 4, 8, or 12 o'clock position and search for WWVB each hour until a signal is received. If the time is manually set the clock will continue to periodically search for a signal and automatically reset the hands when the signal is received.

The La Crosse Technology clock is designed for indoor or outdoor use. For indoor locations, select a location to place your radio controlled clock where it will be at least six feet away from a TV, computer, air conditioner or other household electrical appliances. The optimal location is near a window. Windows facing Colorado provide the best signal. For outdoor locations, select a location sheltered from direct sunlight, preferably under a roof or porch area, and facing Colorado for better reception of the WWVB signal. Although the clock's case is weather resistant, it is not waterproof. Avoid exposing the clock directly to sunlight, rain, snow or extreme weather conditions as it may cause damage and the clock will malfunction. High humidity combined with a hot sunny day and a cool night may also cause water to condense on the surface of the lens. The lens will clear up as soon as the weather is stabilized. This water condensation effect does not interfere with the function of the clock.

The WWVB time signal will easily penetrate masonry and wood framed buildings. WWVB will penetrate almost every residential building and most steel buildings if they have adequate windows. It is not possible, however, for WWVB to penetrate most indoor shopping malls and rooms in the center of large office buildings that do not have windows. In buildings that WWVB cannot penetrate you may set the time using the manual time set button. When the clock receives the WWVB signal it will automatically set the hands to the exact time.

La Crosse Technology clocks do not receive or process radio controlled time signals from Germany's DCF 77, Japan's J Ga AS, or England's MSFs atomically regulated transmitters. La Crosse Technology clocks can be manually set and used anywhere.

For more information on the NIST and radio controlled time, see www.boulder.nist.gov/timefreq/

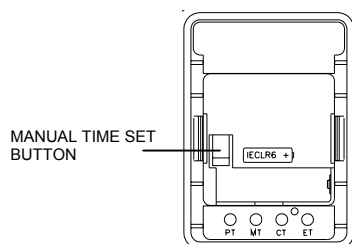
SET THE TIME USING THE MANUAL TIME SET BUTTON

In some cases, the La Crosse Technology clock may not receive the WWVB signal due to atmospheric disturbances or hard to reach locations such as inside malls. In this case, please use the Manual Time Set button, located at the back of the clock to manually set the time. To do this:

1. Press and hold the Manual Set button.
2. The minutes and hours hands will fast-forward while the button is held.
3. Keep holding the Manual Set button until the time is set as required.
4. Release the button.

Note:

The clock will continuously search for WWVB at 1:00 am, 3:00 am, 4:00 am, 6:00 am, 12:00 pm, 6:00 pm and 11:00 pm until a signal is received. Once the WWVB time signal is received, the WWVB time will override the manual set time.

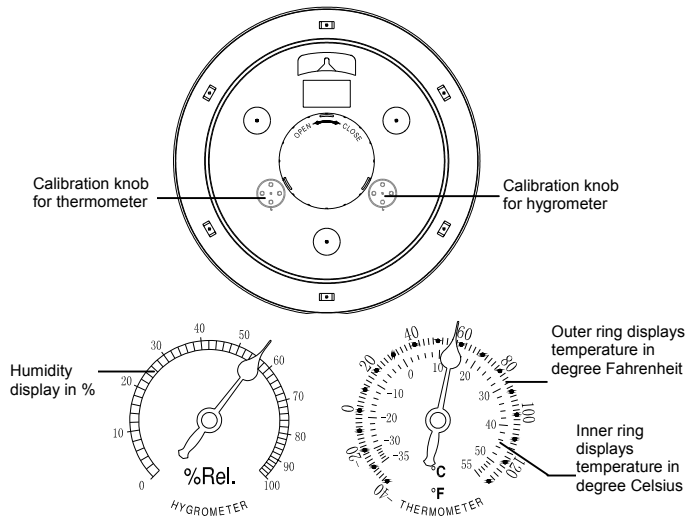


TEMPERATURE AND HUMIDITY

The La Crosse Technology clock has two analog sensors that measure surrounding temperature and humidity. The temperature information is displayed in degrees Fahrenheit and Celsius, and humidity data is displayed in percentage.

The thermometer and hygrometer have been calibrated in factory. To check the sensors accuracy, tune to your local weather forecast information broadcast for the latest weather information. It may be necessary to adjust the sensors.

To manually adjust the sensors, gently turn the corresponding knobs located at the back of the clock until required data has been reached.



TROUBLESHOOTING

The wonderful advantage of owning a La Crosse Technology radio controlled clock is that it is virtually trouble free. If the clock receives a clear signal it will set itself perfectly. If it does not receive a signal consider the following:

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

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.

DAYLIGHT SAVING TIME

The National Institute of Standards and Technology and WWVB encode a special DST "bit" in the WWVB transmission for DST. Your La Crosse Technology clock will read this information and automatically advance the hands one hour in the spring and eleven hours in the fall.

ARIZONA AND INDIANA

If you live in an area that does not recognize DST you must

press the (unmarked) DST button for one second to deactivate your clock's DST program. To reactivate the DST program simply press the DST button again for one second.

Frequently Asked Questions

Q. How long will the battery last?

A. A good AA alkaline battery will last over one year. If your clock is located in an area with little interference where it can quickly receive a signal the battery can last much longer than one year.

Q. Can a La Crosse Technology clock be used outdoors?

A. Yes, but only in a dry environment and in a temperature range between 41 F and 131 F. The clock is NOT water-resistant.

Q. Can the La Crosse Technology clock be wired to control timing circuits?

A. No.

BATTERIES CHANGE:

For best performance, batteries should be replaced at least once a year to maintain the best running accuracy. Ensure that the batteries used are new and the correct size.



Please help in the preservation of the environment and return used batteries to an authorized depot.

Warranty

La Crosse Technology warrants this clock to be free of any defect in workmanship or materials for a period of one year after the date of purchase. You should notify La Crosse Technology promptly in writing or by e-mail in the event of any defect covered by this warranty. When requesting warranty service you must provide evidence of the date of purchase.

This warranty does not cover the clock's inability to receive a signal due to interference, whatever may be the source of that interference. In addition, this warranty does not cover any defects resulting from improper use, unauthorized repairs, or faulty batteries.

In the event of a warranted problem please return the clock postage prepaid to the address below. La Crosse Technology will repair or replace your clock with the same or similar model free of charge.

LA CROSSE TECHNOLOGY WILL NOT ASSUME LIABILITY FOR INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR OTHER SIMILAR DAMAGES ASSOCIATED WITH THE OPERATION OR MALFUNCTION OF THIS CLOCK.

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 so the above exclusion of limitation may not apply to you.

For warranty work, technical support, or information contact

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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 UNDESIRE OPERATION.**