



B O S T O N

The Nation's Timekeeper Since 1842

## Analog Watch Instruction Manual

Welcome to the world of radio-controlled timekeeping technology. We hope you will enjoy the convenience of never having to set your watch again and the confidence of knowing exactly what time it is. Your new radio-controlled watch is a special edition produced by La Crosse Technology specifically for E. Howard. It will provide you with years of trouble free, easy operation and the most accurate time in the world.

### 1. Description of WWVB

The most accurate clock in the United States is the atomic cesium clock located at:

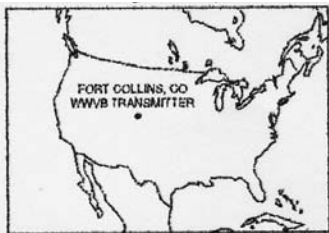
U.S. Department of Commerce  
National Institute of Standards and Technology  
(NIST)  
Boulder, Colorado

Your atomic watch receives time signals on long wave radio (60 kHz) from the NIST operated WWVB time signal transmitter located in Fort Collins, CO and coupled with the atomic cesium clock in Boulder. Until recently, the transmitter was used predominantly by telephone companies, radio and television stations, navigations of planes and ships and for scientific purposes in laboratories. Now this precise signal can be received by the atomic watch technology.

Your atomic watch receives the WWVB time signal via its built-in antenna system. The proper function of the receiver contained in this product has been tested as a prototype with regard to its sensitivity and range of reception in different places throughout the United States.

Any claim for warranty – express or implied – due to the watch's failure to properly receive the radio signal due to interference, whatever may be the source of this interference, are hereby expressly excluded in all respects. For more information about the WWVB-Radio signal please visit the NIST website at: [www.boulder.nist.gov](http://www.boulder.nist.gov).

For actual signal coverage in North America please visit: [www.boulder.nist.gov/timefreq/stations/wwvbcoverage.htm](http://www.boulder.nist.gov/timefreq/stations/wwvbcoverage.htm).



The atomic watch's internal computer processes the received time signals and automatically synchronizes the hands, date and the change over between daylight saving time and standard time as well as the leap year accordingly. The signal reception and synchronization occur automatically every night and manually upon demand.

Even outside of the reception range your atomic watch will continue to keep excellent time. The highly accurate 32 kHz quartz movement will ensure precise time keeping.

### 2. Functional Description

#### T1 Button (mode):

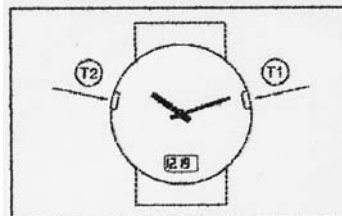
The T1 button has two functions:

1. Switches the digital display between date (for example 12.19) and seconds (for example 32).
2. Receives the WWVB time signal and synchronizes the time automatically if you press it for longer than 3 seconds.

#### T2 button (adjust):

Depending on the mode the T2 button either:

1. Indication of adjusted time zone (T2 < 3 sec).
2. Advances the time zone in 1-hour increments when setting the time zones.
3. Advances the hands when manually synchronizing the watch.



### 3. Synchronizing the Time (signal reception)

The signal reception and synchronization occurs automatically every night. At any desired time you can perform a "manual" reception by pressing the T1 button for at least 3 seconds. The hands will set to the 12 o'clock position (if the hands set to a time other than exactly 12 o'clock they must be repositioned. See under **5. Replacing the battery**) during reception and will reset themselves thereafter. Note that your atomic watch will not receive the WWVB time signal if set to a time zone other than Pacific, Mountain, Central or Eastern standard time.

### 4. Setting the Time Zone

The time preset by the factory might not be the correct time for the time zone you are in. To set the correct time zone please follow the instructions listed below:

1. Press the T2 button. The digital display will change from displaying the date (for example, 12.19) to displaying the current hour (for example P02 PM). The letter P, M, C or E in front of the digitally displayed hour stands for Pacific, Mountain, Central or Eastern standard time zone respectively. If no letter is displayed in front of the hour a different time zone has been selected.

- Press (either short for incremental advance or long for rapid advance) the T2 button to set the desired hour for your time zone. Please take note of the AM/PM symbols in the digital display. The proper date will be calculated by the internal microprocessor and at the end of the adjustment the display returns to the default mode showing the date.

#### 5. Replacing the Battery

A low battery is signaled by a blinking "LO" in the digital display. The battery should be replaced by trained personnel to avoid damage and to maintain the water resistance according to factory specifications.

After battery replacement the hands of your atomic watch must be repositioned to 12 o'clock. The hands can be advanced either incrementally by repeatedly pressing the T2 button or rapidly by holding the T2 button. Pressing the T2 button briefly advances the minutes, holding the button down lets the minute hand move continuously until the T2 button is released. (The minute is also shown in the LCD helping you to set the correct time.) Your watch now uses its integrated quartz movement. Please note in this mode your watch cannot display the date. The time you have set is retained until your watch is able to receive the signal from the WWVB transmitter again. The date will then also be set and displayed in the LCD again.






After your atomic watch automatically receives the WWVB signal the watch will be set to Pacific standard time. You must then either press the T1 button to confirm the time or set the desired time zone as described in 4. **Setting the Time Zone.**

#### 6. Technical Data

Reception Frequency	60 kHz
Quartz Time Base	32 kHz
Battery Type	CR 1620
Operating range voltage	2.4V to 3.4V
Battery Life	approx. 2 years
Operating Temperature	32 °F to 122 °F (0 °C to 50 °C)

#### 7. Water Resistance

- The "water-resistant" state only applies in new condition.
- External influences may affect water resistance.
- Please have your watch checked regularly.

Designation		Instruction for use				
Case back	Dial					
*	*	no	no	no	no	no
waterresistant to 3 bar	*	yes	no	no	no	no
waterresistant to 5 bar	*	yes	no	yes	no	no

\* no designation

#### 8. Trouble Shooting

Symptom	Problem	Solution
1) The letters "LO" blink in the digital display.	The battery is running low.	The battery must be replaced as soon as possible (see 5. Replacing the Battery.)
2) Your watch does not automatically change between daylight saving time and standard time.	The watch has not received the WWVB time signal.	Depress the T1 button and place your watch in a *free field position for at least 10 minutes, preferably at night when reception is best.
	You may be out of reception range.	Press the T1 button for at least 3 seconds after re-entering the reception range.
	You may be in or near a disturbance field such as a metal structure, appliances or particularly climactic conditions.	Depress the T1 button and place your watch in a *free field position for at least 10 minutes, preferably at night when reception is best.
3) The hands do not move and the digital display is blank.	The battery may be empty.	The battery must be replaced (see 5. Replacing the battery).
4) The watch hands do not advance exactly to 12 o'clock during manual time signal reception.	The watch hands are not properly positioned.	Press T1 and T2 together for more than 3 seconds then reposition the hands as described under 5. Replacing the battery.

\*Free field position means a place free of radio disturbances such as electrical appliances, metal structures and particular climactic conditions.

## WARRANTY INFORMATION

La Crosse Technology, Ltd provides a 10-year limited warranty on the movement of this product against manufacturing defects in materials and workmanship. All other components of the watch including the lens and strap are warranted for 1-year against manufacturing defects in materials and workmanship.

This limited warranty begins on the original date of purchase, is valid only on products purchased and used in North America and only to the original purchaser of this product. To receive warranty service, the purchaser must contact La Crosse Technology, Ltd for problem determination and service procedures. Warranty service can only be performed by a La Crosse Technology, Ltd authorized service center. The original dated bill of sale must be presented upon request as proof of purchase to La Crosse Technology, Ltd or La Crosse Technology, Ltd's authorized service center.

La Crosse Technology, Ltd will repair or replace this product, at our option and at no charge as stipulated herein, with new or reconditioned parts or products if found to be defective during the limited warranty period specified above. All replaced parts and products become the property of La Crosse Technology, Ltd and must be returned to La Crosse Technology, Ltd. Replacement parts and products assume the remaining original warranty, or ninety (90) days, whichever is longer. La Crosse Technology, Ltd will pay all expenses for labor and materials for all repairs covered by this warranty. If necessary repairs are not covered by this warranty, or if a product is examined which is not in need or repair, you will be charged for the repairs or examination. The owner must pay any shipping charges incurred in getting your La Crosse Technology, Ltd product to a La Crosse Technology, Ltd authorized service center. La Crosse Technology, Ltd will pay reasonable return shipping charges to the owner of the product.

Your La Crosse Technology, Ltd warranty covers all defects in material and workmanship with the following specified exceptions: (1) damage caused by accident, unreasonable use or neglect (including the lack of reasonable and necessary maintenance); (2) damage occurring during shipment (claims must be presented to the carrier); (3) damage to, or deterioration of, any accessory or decorative surface; (4) damage resulting from failure to follow instructions contained in your owner's manual; (5) damage resulting from the performance of repairs or alterations by someone other than an authorized La Crosse Technology, Ltd authorized service center; (6) units used for other than home use (7) applications and uses that this product was not intended or (8) the products inability to receive a signal due to any source of interference.. 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.

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

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2809 Losey Blvd S.  
La Crosse, WI 54601  
Phone: 608.782.1610  
Fax: 608.796.1020

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