

E. Howard & Co.
Since 1842

WWVB-RADIO CONTROLLED WATCH

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 at 60 kHz. The signal can be received up to 2,000 miles away through the internal antenna in the E Howard & Co. watch. However, due to the

nature of the Earth's Ionosphere, reception is very limited during daylight hours.

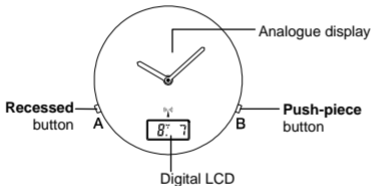
The Watch will search for a signal every night when reception is best. The WWVB radio station derives its signal from the NIST Atomic clock in Ft. Collins, Colorado. A team of atomic physicists is continually measuring every second, of every day, to an accuracy of ten billionths of a second per day. These physicists have created an international standard, measuring a second as 9,192,631,770 vibrations of a Cesium-133 atom in a vacuum. This watch is regulated by the WWVB transmitter.

For more information on WWVB and the NIST Atomic clock please visit their website at

<http://www.boulder.nist.gov/timefreq/stations/wwvb.htm>

SET-UP GUIDE, FEATURES AND OPERATION

DISPLAY OF HOURS/MINUTES



Normally upon purchase, the watch will already display the correct time and date, and it will not be necessary to use the manual settings.

- **Hours** and **Minutes** are shown using the analog display.
- **Date** and **Seconds** are shown in the digital LCD.

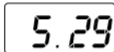
DIGITAL DISPLAY OF DATE, SECONDS, AND WWVB RECEPTION CONTROL



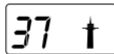
Press and release the **PUSH-PIECE** to toggle between the displays:

- **Month and Day**

The Date appears as Month and day (ex: 12.30)



- Or **Seconds and WWVB Signal Reception Icon**



Manual Setting

TIME & DATE

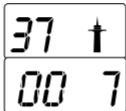
If the wristwatch is not able to receive the WWVB signal, you may set the time manually.

IMPORTANT:

If the WWVB signal is received correctly, the symbol (tower) is shown, and setting the time and date manually is not possible.

1. To change the setting mode for time and date, press the **PUSH-PIECE** and the **RECESSED BUTTON** simultaneously for about 4 seconds. The seconds will flash in the LCD display.

2. Press and release the **PUSH-PIECE**. The seconds will be set to zero (00).



3. Press and release the **PUSH-PIECE** to set the minutes. Hold the **PUSH-PIECE** continuously to fast forward the minutes.
4. By pressing and releasing the **RECESSED BUTTON** you can change the setting menu in the following order:
 - a. Seconds
 - b. Minutes
 - c. Hours

- d. Year
 - e. Month
 - f. Day
 - g. The display of the date without the possibility to adjust it
5. As soon as the WWVB signal can be received again, the watch will automatically adjust to the correct time.

BEGIN WWVB SIGNAL SEARCH MANUALLY

*If the WWVB reception is disturbed, you can start the WWVB signal search manually.

1. Press and hold the **PUSH-PIECE** for about 4 seconds. The hands will advance to the 12:00 position. **"SET"** and **"12"** will then flash alternately in the LCD. If the hands do not move exactly to the 12:00 position, you will have to manually adjust the hands. (See **"Adjusting the Hands"**)

2. Place the watch on a steady surface for better reception. Prior to WWVB reception (and 15 seconds after holding the **PUSH-PIECE**) the hands will automatically return to the manually set time. The watch is now set to the WWVB signal reception mode. If the reception is disturbed (ex: close proximity to metallic objects or electric appliances), the watch will automatically try several times to receive the WWVB signal.

ADJUSTING THE HANDS

If the time is displayed incorrectly despite successful WWVB signal reception, the hands may have been moved by mechanical influences and will need to be adjusted manually.

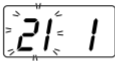
1. Press and hold the **PUSH-PIECE** for about 4 seconds. The hands will move towards the 12:00 position.

- a. If the hands do not stop at the 12:00 position, press and release the **RECESSED BUTTON** one time. Press and release the **RECESSED BUTTON** several times to advance the big hand in small steps until the hands are set exactly to the 12:00 position.
 - b. To exit this setting, press and release the **PUSH-PIECE**.
2. Press and release the **PUSH-PIECE**. The watch automatically adjusts to the manually set time and attempts to receive the WWVB signal. After successful WWVB signal reception, the time will be set automatically.

SETTING TIME ZONE

You may select your time zone manually.

1. Press and hold the **RECESSED BUTTON** for about 4 seconds. The current hour is shown at the left of the display. The right side displays the current time zone selection.



2. Press and release the **PUSH-PIECE** until you see your desired time zone.

Time Difference	City
HA	Honolulu
P	Los Angeles

M	Denver
C	Chicago, Mexico City
E	New York, Toronto
-3	Rio de Janeiro, Buenos Aires
0	London
+1	Paris, Rome, Berlin, Hamburg
+2	Cairo, Helsinki, Johannesburg
+3	Moscow
+4	Dubai
+5	Karachi
+7	Bangkok
+8	Hong Kong
+9	Tokyo
+10	Sydney

3. Once you have selected your correct time zone, to exit this setting press and release the **RECESSED BUTTON** or wait about 15 seconds without pressing any buttons and the watch will automatically return to its normal display setting.

Warranty

La Crosse Technology, Ltd 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 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 of 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 ground return shipping charges to the owner of the product to a USA address only.

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:

La Crosse Technology, Ltd
2809 Losey Blvd. S.
La Crosse, WI 54601

Phone: 608.782.1982

Fax: 608.796.1020

e-mail: support@lacrossetechnology.com
(warranty work)

sales@lacrossetechnology.com
(information on other products)

web: www.lacrossetechnology.com

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