### WT-961A WWVB-RADIO CONTROLLED WATCH

## 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 at 60 kHz. The signal can be received up to 2,000 miles away through the internal antenna in the La Crosse Technology 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



Your new radio-controlled watch may arrive to you already set. The default (factory) setting is Eastern Time zone, Daylight Saving Time On and 12-hour time format. You can tell if your watch has received the WWVB signal by looking for a tower icon in the upper right corner of the LCD display. If the tower icon is solid your watch has received the signal and set the time and date. If you need to set your watch to any other setting than the default or need to manually activate the WWVB search (only do so if there is no tower icon in the upper right of the LCD) please follow the directions that follow.

# NOTES:

- Do not press the *TIME ZONE* button while the watch is searching for the WWVB signal, which normally takes 6-10 minutes.
- If you are unable to receive the WWVB signal during the daytime please manually activate the WWVB search (see section II).
- The optimal time for WWVB reception is between midnight and 6:00 a.m., reception may not occur until this time period.
- When the WWVB search is complete the time and date will automatically be displayed in the LCD.
- If the watch is not within range of WWVB signals for an extended period of time it will still continue to operate as a accurate quartz controlled watch.

# I. TIME ZONE SELECTION

The default time zone is Eastern Time (EST, also GMT-5). There are 25 Time Zones to choose from. The selection will cycle from GMT-5 (EST) to GMT-12, then GMT+12 to GMT +1, then GMT, then GMT-1 to GMT -5 (EST).

- 1. Hold down the *TIME ZONE* button for 2 seconds or until a time zone abbreviation and "ZONE" flash in the LCD.
- Repeatedly press and release the *TIME ZONE* button until the appropriate Time Zone is displayed.
- 3. Wait 8 seconds for the automatic time-out to exit the time zone selection mode.



"Hawaii Time displayed (GMT-10)

Atlantic Time (ATL):	GMT-4	Alaska Time (ALA): GMT-9
Eastern Time (EST):	GMT-5	Hawaii Time (HAW): GMT-10
Central Time (CST):	GMT-6	
Mountain Time (MST):	GMT-7	
Pacific Time (PST):	GMT-8	Greenwich Mean Time (GMT): GMT

# II. DAYLIGHT SAVING TIME (DST) AND 12- 24-HOUR TIME MODE

Through the WWVB signals, the watch automatically adjusts for Daylight Saving Time. The default (factory) setting is Daylight Saving Time On and 12-hour Time mode. To change this mode:

- 1. Press and hold the TIME ZONE button for 4 seconds
- 2. "DST ON" and "12h" will be displayed in the time LCD.
- 3. Press and release the TIME ZONE button to select the desired mode.
- 4. The four selections are:

DST On, 12-h
DST Off, 12-h
DST On, 24-h
DST Off, 24-h

5. Wait 8 seconds for the automatic time-out to exit the DST On/Off, 12/24-hour time selection mode.

NOTE: At this point your watch will begin searching for the WWVB signal. This will always occur after entering the DST On/Off, 12/24 time mode setting.

#### III. MANUALLY ACTIVATING THE WWVB SEARCH

You can manually enter the WWVB signal search mode by pressing and holding the *TIME ZONE* button for 4 seconds. This will bring up the DST On/Off, 12/24-hour time mode selection. You now can either select the DST On/Off, 12/24-hour time mode you wish to be in, or wait 8 seconds for the automatic time-out to return to the time display and begin searching for the signal.

# IV. LOW BATTERY INDICATOR

The watch is supplied with, and powered by a high quality 3V lithium battery with a life expectancy of over 2 years. There is a low-battery indicator that appears between the minutes and the date when the battery is low. The battery should be replaced within 2 months of the appearance of the low-battery indicator.

#### V. MAINTENANCE AND CARE

Under normal conditions, the watch is shock resistant, however avoid excessive "rough" treatment of the watch as this may cause serious damage. Clean the watch with a soft dry cloth, or with one moistened with a mild soap solution. Do not use any chemical cleaning solutions, these may cause permanent damage to the watch's surface. While the watch is water resistant to 100 feet, do not submerge in water for extended periods of time.

# VI. ADJUSTING THE STRAP

The metal/plastic strap is adjustable to fit most all wrist sizes. You may either take it to a local jeweler for adjustment, or perform the following steps. The strap is adjusted by removing/adding equal number of links on either side of the butterfly strap (or either side). The links are held in place by a small pin.

- 1. Use a small tool (a paperclip also works) to press out the pin(s) in the direction of the arrow on the link.
- 2. Remove the pin on the other side of the link to remove the link.
- 3. Press the pin back in place in the direction of the arrow.
- 4. Repeat as necessary.

#### VII. **REPLACING THE BATTERY**

The battery can either be replaced by a qualified jeweler or watch repair shop, or by the user.

Any damage resulting from this procedure is not covered under warranty.

- 1. Remove the four screws located on the back and remove the cover. Be sure the watch movement and gasket do not come out of the case.
- 2 Remove the old battery by gently prying up the battery clip.



- Please dispose of the old 4. battery properly.



TROUBLESHOOTING

Problem:	No WWVB signal (indicated by the absence of the WWVB tower icon).
Solution:	<ol> <li>Check the selected Time Zone. If it is set between GMT+1 and GMT +12. The WWVB signal will not be received because the watch is programmed not to search when outside of the range of the WWVB signal. Change the Time Zone to one of the time zone of the U.S and the watch will again search for the WWVB signal overnight.</li> <li>Move watch 10 feet (3 meters) away from any interfering sources, i.e.</li> </ol>
	<ul> <li>electrical appliances (refrigerators, TV's, computers), metal surfaces or objects.</li> <li>3) To help with overnight reception, place watch in a window with the band inline with the general direction of Ft. Collins, Colorado.</li> <li>4) There are a few places the signal is very weak (Los Angeles area, Some parts of Florida and New York City). Since the watch has a much smaller receiver than our other clocks, it is possible no reception can be made. Please inform La Crosse Technology in this case.</li> </ul>
Problem:	The hour or minute is incorrect, even though the tower icon is on (indicating a successful reception of the WWVB time signal the previous night) and it is set to the proper time zone.
Solution:	<ol> <li>Electrical interference caused the time signal to be improperly received. Be sure the watch is at least ten feet from any source of electrical activity (television, computer). Overnight it should correct itself.</li> <li>You may need to perform a manual WWVB search. Please follow the directions outlined in section III.</li> </ol>

Note: For all questions not answered please contact La Crosse Technology (contact information is below).

#### WARRANTY INFORMATION

La Crosse Technology provides a 1-year warranty on this watch. Contact La Crosse Technology immediately upon discovery of any defects covered by this warranty. Before sending the watch in for repairs, contact La Crosse Technology. The watch 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 watch's 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 WATCH. 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 no 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 2809 Losey Blvd. S. La Crosse, WI 54601 Phone: 608.782.1610 Fax: 608.796.1020

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

sales@lacrossetechnology.com (information on other products) web: www.lacrossetechnology.com

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND THIS DEVICE MUST ACCEPT INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.