

# LIFESOURCE™ XC 100 XC 200 HEART RATE MONITORS

**LifeSource™**  
*Your source for a lifetime of health*






## Trilingual Instruction Guide

ENGLISH / FRANÇAIS / ESPAÑOL

Congratulations on your purchase of a new LifeSource Heart Rate Monitor. The LifeSource Heart Rate Monitor is a high-technology wireless device designed to instantaneously monitor your heart rate with 99% accuracy. From beginning athletes to Olympic athletes, for heart related patients, or anyone who wants to lose weight, the heart rate monitor is an effective way to monitor and improve your workout intensity and quality. If your heart rate is too high, it means you are overloading your heart. If your heart rate is too low, then you are not getting the full benefits of your exercise. Therefore, it is important that you keep your heart rate within your ideal zone. With the LifeSource Heart Rate Monitor, you will improve your performance by exercising smarter rather than longer or harder. For heart related patients, you can exercise within the limits set by your doctor, and feel more secure.

LifeSource has been manufacturing quality healthcare products for over 20 years. We are committed to providing you and your family with monitoring devices that provide the utmost in accuracy and convenience. LifeSource – your source for a lifetime of health.

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## COMPONENTS

**YOUR LIFESOURCE HEART RATE MONITOR COMES WITH THE FOLLOWING COMPONENTS:**



- Heart rate wrist watch receiver



- Transmitter



- Adjustable chest strap

**The following documents:**

- User Manual and Quick Start Card
- Workout Guide with Training Diary

## HOW A HEART RATE MONITOR WORKS

Your new LifeSource XC Heart Rate Monitor is a sophisticated athletic training tool that is capable of measuring your heart rate with 99% accuracy. Top quality heart rate monitors use a chest strap to pick up the electrical signal caused by the contractions of the heart and transmit the information to the watch.

Every time the heart contracts, a short radio signal is sent from the chest transmitter to the watch. The watch measures the time between the incoming signals, filters and averages them and displays a heart rate number on the screen. The heart rate display on the screen is updated every few seconds to assure you of an accurate measurement.

## OPERATING TIPS

To achieve the most accurate heart rate reading possible, it is important to be aware of circumstances that can cause false signals to enter the system and make your heart rate measurement incorrect.

- 1. Your chest strap should be worn as tightly as possible without being uncomfortable. If the chest strap is not tight enough, movement between it and your body can cause false signals to be generated that may be seen as heart beats by the watch. This is especially true during high impact activities such as running.*
- 2. Environmental factors such as high-tension power lines, home security systems and radio towers may interfere with the ability of the watch to receive a signal from the transmitter. A loss of the heart rate signal and the heart rate display showing zero will usually indicate this. This problem is transient in nature and will stop once you have passed out of the area of interference.*

- 3. Occasionally, if you are using your heart rate monitor in close proximity to other heart rate monitors, it is possible for your watch unit to pick up the signal from the other transmitters as well as yours. This is called cross-talk. When you are experiencing cross-talk, you will see a very high heart rate or a heart rate of zero, if the combination of heart rates is greater than 240 beats per minute. If this happens, simply allow a bit more space between you and the other users.*
- 4. Some clothing fabrics, especially in dry climates, are capable of generating a great deal of static electricity. This static electricity is capable of significantly interfering with the signal from the transmitter. This shows up as erratic readings on the display. Over time you should be able to tell what clothing, if any, you own which cause this problem. Sometimes spraying the clothing before you workout with a commercially available anti-static product will help reduce the problem.*
- 5. If you are using your heart rate monitor indoors on an electrically powered piece of exercise equipment it is possible that the power sources found in the equipment may interfere with the heart rate signal in much the same way as in point 2. If you find that your monitor is not working, try moving it to your other arm, or to another location on the piece of equipment itself until you find an area where there is no interference.*
- 6. Heart surgery or coronary events may cause changes to the function of the heart that will make it difficult or impossible for your heart rate monitor to get a proper reading. Contact your physician to determine whether you have a condition related to the above.*

Being aware of these circumstances and knowing how to avoid them will significantly increase your enjoyment of your new LifeSource Heart Rate Monitor.

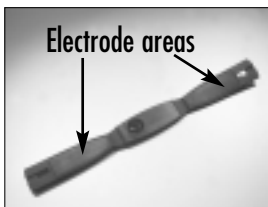
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## WEARING THE TRANSMITTER BELT

To ensure a proper heart rate detection, the chest transmitter must be moistened and properly adjusted.



1. Snap the plastic tabs at the end of the adjustable strap into the holes at the end of the transmitter.



2. Moisten the electrode areas —located to the right and left on the back side of the transmitter —with saliva or conductive gel.



3. Adjust the strap so the transmitter fits tightly below the pectoral muscles with the LifeSource logo centered on the sternum as shown in the picture.



4. Wear the wrist receiver as you would any wrist watch. Keep the wrist receiver and the transmitter within 3 feet/1 meter of each other.

1. In dry and cold climates it may take a few minutes of use for the electrodes to soften and a layer of perspiration to form between the contact and the skin for good performance. Moistening the electrodes with saliva or conductive gel can speed up this process.
2. To ensure the most accurate operation we recommend wearing the chest transmitter against your bare skin. Users with a lot of chest hair may have a problem getting contact between the transmitter electrode areas and their skin, resulting in poor performance. Because of this it may be necessary for these individuals to shave the area of their chest beneath the transmitter.
3. Do not use water, moisturizing creams or suntan oil, as these are insulators and will interfere with the heart rate signal.

## LIFESOURCE XC100 &amp; XC200 FEATURES AT A GLANCE

## FUNCTIONS (XC100 &amp; XC200)

## Time of Day

Displayed in either a 12 or 24-hour format

## Heart Rate

Your heart rate is instantaneously displayed from 20 to 240 beats per minute. When your watch is receiving a pulse from the chest strap, the small heart icon on the right of the screen will flash with every incoming beat.

## One touch programming

The XC100 and XC200's one-button design makes programming the unit simple and easy.

## FUNCTIONS (XC200 only)

## Health Zone automatic programming

Using your age and sex, the XC200 automatically calculates your Health (fat burning) Zone (50-70% of your Maximum Heart Rate). See Workout Guide for details.

## Time in Health Zone

When you are "in the Health Zone," the monitor automatically tracks the amount of time that you spend there during exercise.

## Out of Health Zone Audible Alarm

An audible beeper alarm lets you know when you are out of your Health (fat burning) Zone. This alarm is automatic, and cannot be turned off.

## Health Zone indicator

The small oval icons in the Time in Health Zone screen tell where you are in your Health Zone during exercise.

## Absolute Heart Rate (Cardiac Threshold)

If you are in a cardiac rehabilitation program following a heart attack or other coronary event, the XC200 will allow your cardiologist or therapist to program an ABSOLUTE HEART RATE (AHR), the single heart rate number that is not to be exceeded during exercise.

## MAIN SCREENS

## MAIN SCREENS XC100

The XC100 has two main screens. Change from screen to screen by pressing and releasing the button.



Time of Day



Heart Rate

## MAIN SCREENS XC200

The XC200 has three main screens. Change from screen to screen by pressing and releasing the button.



Time of Day



Heart Rate



Time in Health Zone

**PROGRAMMING THE XC100 & XC200**

*The programming of all functions of the XC100 and XC200 are accomplished in the same way. The unit's simple, one-button design makes programming easy with these three simple steps:*

- STEP 1:** Enter a programming sequence by pressing and holding the key for 2 seconds. Once the screen changes and you enter a sequence, release the key.
- STEP 2:** Adjust the display on the screen by pressing and releasing the key. The segment of the display being adjusted will flash.
- STEP 3:** Once you have adjusted the display on the screen, set your choice by again pressing and holding the key for 2-seconds. The screen will then advance to the next programming variable, or exit the programming sequence.

**SETTING THE CLOCK**

1. From the Time of Day screen, enter the programming sequence by pressing and holding the key for 2 seconds.
2. Choose 12 or 24-hour format by pressing and releasing the key. Set and advance the display by pressing and holding the key for 2 seconds.
3. Set hours, minutes (10's) and minutes (1's), and exit the clock programming sequence in the same manner.

**SETTING THE HEALTH ZONE (XC200 ONLY)**

The HEALTH ZONE functions are set from the Heart Rate screen. Your HEALTH ZONE is calculated using your Maximum Heart Rate (MHR). The XC200 will estimate your MHR using your age and gender, or you can set an actual MHR if you know it. Enter the HEALTH ZONE programming sequence by pressing and holding the key for 2 seconds.

- A. Following the directions for programming listed on page 10, begin by programming your age into the unit. The unit will display "AGE" on the screen for a few seconds, and then advance to the number 10 with the first (10's) digit flashing. First program the 10's digits of your age, followed by the 1's.
- B. Next choose either Male "M" or Female "F" and enter your choice.
- C. The next screen will show your Maximum Heart Rate "MHR" for a few seconds, followed by the number that the XC200 has estimated for your MHR.
- D. If you wish to accept your estimated MHR, press and hold the key for 2 seconds.
- E. If you know your actual MHR (from a stress test or other means), you can adjust the MHR setting to the number that you desire, by 5's. The XC200 will allow you to choose an actual MHR by cycling through a range of  $\pm 30$  beats of your estimated MHR.

**SETTING ABSOLUTE HEART RATE (AHR)**

- F. The last heart rate programming screen is Absolute Heart Rate (AHR). This number will usually be used if you are under the care of a physician for cardiac rehabilitation. The first programming screen for AHR shows three dashes " - - - " indicating that the AHR function is inactive. To skip the AHR programming sequence, simply press and hold the key for 2 seconds.
- G. If you wish to program the AHR function, simply press the key until the number you want appears on the screen, then set the number. Programming the AHR function will disable the Health Zone functions of the XC200.

The Absolute Heart Rate Feature is designed for persons under the care of a cardiologist or in cardiac rehabilitation therapy. It allows you to set a single heart rate number that is not to be exceeded during exercise. Once you have programmed an Absolute Heart Rate number into the unit, exceeding that number will cause the display to flash and the audible beeper tone to sound until you have reduced your heart rate.

## OUT OF HEALTH ZONE AUDIBLE ALARM

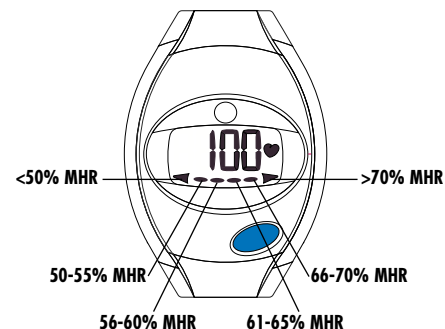
The XC200 is equipped with an audible beeper alarm that lets you know when you are in your Health (fat burning) Zone. This alarm is automatic, and cannot be turned off. If you are below your Health (fat burning) Zone, the alarm will sound with a single beep. If you are above your Health (fat burning) Zone, the alarm will sound a double beep. The alarm will sound approximately every 6 seconds.

## CLEARING THE TIME IN HEALTH ZONE SCREEN

To clear the Time in Health Zone Screen, simply press and hold the key for 2 seconds when the watch is in the Time in Health Zone Screen. Because the XC200's Time In Health Zone screen will keep track of up to 9 hours and 59 minutes of time, you can easily track the time that you spend in your Health Zone for up to a week or more, if you wish.

## HEALTH ZONE INDICATOR (XC200 ONLY)

At the bottom of the Heart Rate and Time in Health Zone screens is the Health Zone Indicator. The Health Zone Indicator consists of a left and right arrow, and 4 small oval icons. Once you have programmed the XC200, the Health Zone Indicator will light up as soon as the watch begins receiving a pulse. If you are below 50% of your Maximum Heart Rate (MHR), the left arrow will light up, telling you that you need to increase the intensity of your exercise. Once you are above 50% of your MHR and in your Health Zone, the left arrow will go out and the first oval will light up. The 4 ovals represent 50-55%, 56-60%, 61-65% and 66-70% of your MHR respectively, and light up sequentially as you increase the intensity of your effort. This makes it easy to tell where you are in your Health (fat burning) Zone. If you exceed 70% of your MHR, the four ovals and the right arrow will light up, telling you that you need to reduce your exercise intensity to return to the Health (fat burning) Zone.



## REPLACING THE TRANSMITTER BATTERY

### BATTERY SIZE

CR2032 3-volt Lithium cell.

The battery in your LifeSource transmitter is user replaceable.



### TO REPLACE THE BATTERY IN YOUR TRANSMITTER BELT

1. Use a coin to remove the battery cap on the back of the transmitter by turning it  $\frac{1}{4}$  turn counter-clockwise.
2. Remove the old battery. Put a new battery in the transmitter positive (+) side up.
3. Replace the battery cap and tighten by turning  $\frac{1}{4}$  turn clockwise.

**NOTE** Make sure that the small rubber O-ring is in place in the transmitter to assure that the unit remains water proof.

## CARE AND MAINTENANCE

Your XC heart rate watch unit is a highly sophisticated electronic instrument. Do not attempt to perform service on the watch unit yourself. LifeSource recommends that a jeweler, watchmaker or other qualified technician perform battery replacement on the watch unit. Improper repair work may void the warranty.

**ALWAYS** Rinse your XC transmitter off in warm water after every use.

**NEVER** Lay your XC transmitter on metal surfaces as this can shorten the battery life.

**NEVER** Store your XC transmitter or watch in a plastic or other non-breathable container.

**NEVER** Press the keys of the watch unit if it is wet or under water. Both the watch and transmitter are water resistant, but they are **NOT** water proof.

## FREQUENTLY ASKED QUESTIONS

### Q. I can't get a heart rate reading, what's wrong?

- a. Check the battery in the transmitter. The battery should last approximately 700 hours or one year during regular use.
- b. Make sure that the transmitter is being worn properly and that the electrodes are properly moistened with saliva or conductive gel.
- c. Have you had a cardiac event that has altered your pulse waveform? This may cause the unit to not be able to identify a heart rate signal—CONSULT YOUR CARDIOLOGIST.
- d. Make sure that you are clear of any sources of electromagnetic inference (i.e. TV sets, home security systems, exercise equipment, etc.)

### Q. The display on the watch unit is blank

- a. Usually this means that the watch battery is dead and needs to be replaced. Have this service done by a qualified watch technician.



**TRANSMITTER****Communication Frequency**

5.3 kHz Transmission System

**Battery Type**

CR2032 3v Lithium

**Battery Life**

700 hours

**Operating Temperature**

14 F to 122 F/-10 C to 50 C

**WATCH UNIT****Battery Type**

CR2025 3v Lithium

**Battery Life**

1 year

**Operating Temperature**

14 F to 122 F/-10 C to 50 C

**Water Resistance**

65ft/20m

**PERFORMANCE RANGES****Time of Day**

12 or 24-hour formats with one-minute resolution

**Heart Rate Display**

30-240 Beats per Minute (BPM)

**Age Display**

10-99 Years

**Absolute Heart Rate Ranges**

80-200 BPM

**Target Zone Range**

50-70% of Programmed Maximum Heart Rate

**Time in Target Heart Rate Zone**

9h 59m

**WARNING** The LifeSource XC Heart Rate Monitors are training and fitness tools. Before beginning any exercise program, consult your doctor for a complete physical and to discuss your exercise plans.

**CAUTION** LifeSource XC Heart Rate Monitors are highly accurate and sophisticated technical instruments. To ensure continued proper operation and to maintain a waterproof seal, LifeSource recommends that only a jeweler or a qualified LifeSource technician replace the battery in the watch unit. Improper replacement of the battery could damage the watch and may void the manufacturers warranty.

**CAUTION** LifeSource XC Heart Rate Monitors are designed to be water resistant to 65 feet (20m). This means that you should be able to shower and swim without water entering the unit. However, to maintain water resistance you should be careful not to press any of the buttons of the unit while it is wet or under water as this may allow water to enter the unit.

**NOTICE TO ALL USERS** High tension power lines, home security systems, automobiles, televisions, microwave ovens, exercise equipment and other product cause various types of interference that may temporarily affect the transmission of heart rate information from the chest strap to the watch unit. These interferences are usually temporary and can generally be eliminated by moving to an area away from the source of the interference.

**NOTICE TO SWIMMERS** Operating heart rate monitors while in the water may cause problems for a variety of reasons. First the chemicals in pools or the salinity of ocean water may cause the chest strap to short circuit and be unable to detect a heartbeat. Second, water resistance encountered while swimming will often cause the chest strap to move or pull away from the skin making it difficult for the unit to detect a heart rate.

**NOTICE TO PEOPLE WEARING PACEMAKERS** While your heart rate monitor should have no direct effect on your pacemaker, we strongly recommend you consult your physician or cardiologist before using this product or embarking on an exercise program.

**LIFESOURCE HEART RATE MONITOR LIMITED WARRANTY**

LifeSource warrants to the purchaser ("Customer") that this heart rate monitor (the "Product") will be free from defects in material and workmanship, under normal use, for one year from the date of purchase. This warranty is valid only in the country where this Product was purchased. To obtain warranty service, return the Product, freight prepaid and packaged appropriately for safe shipment (insurance recommended), together with proof of date and country of purchase (such as copy of sales Receipt) to:

**LifeSource**  
**A division of A&D Engineering, Inc.**  
 1555 McCandless Drive  
 Milpitas, CA 95035  
 U.S.A.

**For Canadian residents:**  
**Auto Control Medical**  
 206A boul. Brunswick  
 Pointe-Claire, Quebec  
 H9R 5P9 Canada

Except where prohibited by local law (e.g. California), Customer must include a check for \$6.50 to cover return shipping and handling. Customer in Canada is asked to call Auto Control Medical toll free at 800-463-5414 for appropriate shipping costs. LifeSource's sole obligation under this express warranty shall be, at LifeSource's option, to repair or replace any Product found to be defective during the warranty period and return it to you. If neither repair nor replacement is reasonably available, LifeSource may, in its sole discretion, refund to Customer the purchase price paid for the Product. Replacement products of parts may be new or refurbished. LifeSource warrants any replaced or repaired product or part for sixty (60) days from shipment, or the remainder of the initial warranty period, whichever is longer. All Products or parts that are replaced become the property of LifeSource. This warranty will not apply if the defect or malfunction results from: subjecting the Product to any but the specified voltage; modification, alteration or repairs of the Product by persons not authorized by LifeSource; misuse, abuse, damage during transit or lack of reasonable care with respect to the Product; or failure to follow the written instructions enclosed with the Product. Responsibility for loss or damage does not transfer to LifeSource until the returned item is received by LifeSource. Repaired

or replacement products will be shipped to Customer not later than 30 days after LifeSource receives the defective Product.

**EXCLUSIVE WARRANTY:** TO THE FULL EXTENT ALLOWED BY LAW, THE WARRANTY AND REMEDY PROVIDED ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, TERMS, OR CONDITIONS, EXPRESS OR IMPLIED, EITHER IN FACT OF BY OPERATION OF LAW, STATUTORY OR OTHERWISE, INCLUDING WARRANTIES, TERMS OR CONDITIONS OR MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, SATISFACTORY QUALITY, CORRESPONDENCE WITH DESCRIPTION, AND NON-INFRINGEMENT, ALL OF WHICH ARE EXPRESSLY DISCLAIMED.

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**GOVERNING LAW:** This Limited Warranty shall be governed by the laws of the State of California, U.S.A., and by the laws of the United States, excluding their conflicts of laws principles. The United Nations Convention on Contracts for the International Sale of Goods is hereby excluded in its entirety from application to this Limited Warranty.



**For more information regarding usage, care or service of your heart rate monitor, please contact:**

## **LifeSource**

**A division of A&D Engineering, Inc.**

1555 McCandless Drive

Milpitas, CA 95035

LifeSource Health Line (Toll-Free): 1-888-726-9966

[www.LifeSourceOnline.com](http://www.LifeSourceOnline.com)

For Canada Residents, please contact:

## **Auto Control Medical**

206A boul. Brunswick

Pointe-Claire, Quebec

H9R 5P9 Canada

Auto Control (Toll-Free): 1-800-463-5414

**Visit our website at [www.LifeSourceOnline.com](http://www.LifeSourceOnline.com) for warranty registration.**

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