POLAR PROTRAINER NV™ HRM

USER'S MANUAL

POLAR
PROTRAINER NV

SET/START/STOP

24:35
43:37
♥ 157

MEASURE

STORE/LAP

CONTENTS

POLAR
PROTRAINER NV™ HRM

You have purchased an essential piece of equipment for scientific training based on today's most advanced athletic concepts - the Polar Protrainer NV Heart Rate Monitor (HRM). Now, with a sophisticated and most accurate performance monitor available, you are ready to gauge your training to reach your full potential, no matter what your sport is.

Everyone cannot become a champion, but everyone can train like one! Polar Protrainer NV HRM is an essential tool in helping you reach your athletic ambitions. To optimise the time you invest into your training and to eliminate hit-or-miss activity, modern athletic training requires precise measurements. The Polar Protrainer NV HRM lets you take advantage of the same measuring technology used by winning World-Class Olympic Teams and World Champions in a variety of sports ranging from track and field, cross country skiing, cycling, running, triathlon, swimming and aerobics into different racket sports, ice hockey and football.

For today's competitive athlete a carefully planned personal training program includes measuring time intervals, intermediate and lap times etc. For full benefit one should add testing of baseline physiological functions, such as:
• Heart Rate (Beats Per Minute)
• Efficiency in oxygen use
  (maximal aerobic capacity - VO $_{2max}$)
• Accumulation of lactic acid
  (anaerobic threshold - AT).

When these internal functions are accurately measured, areas for improvement can be identified. A planned training program can be implemented, focusing on improving weaknesses through controlled use of exercise intensity, duration and frequency. Stress (intensity) and recovery levels can be predetermined allowing you to reach your peak condition in time for competition and/or avoid injury through over-training.

Your Polar Protrainer NV Heart Rate Monitor provides an accurate and reliable method for controlling your exercise intensity while precisely tracking your progress through your training program.

The Polar Protrainer NV HRM provides you with:
• A watch with an alarm and a calendar
• A wireless heart rate monitor with ECG

accurate continuous measurement including the following functions

- Programmable target heart rate zone in one beat per minute increments,
- Two programmable timers to track workout intervals,
- Record performance information, split/lap times and corresponding heart rates, into 44 memory banks for later analysis,
- Average heart rate of the total exercise period,
- Stopwatch with split/lap time counter,
- Record your recovery heart rate,
- Time spent above, within and below the target heart rate zone,
- Electroluminescent back light,
- Target zone limit alarm (sound) together with visual alarm (blinking display),
- Wireless button to toggle the time of day/split time in the measurement mode,
- Wireless button to activate the HR measurement.

For a coach or trainer, the use of the Polar Protrainer NV HRM gives a lot of qualitative information over the athlete's progress.

This owner's manual is designed to show precisely what the Polar Protrainer NV HRM can do and how you can use each feature to best accomplish personal fitness and performance goals.

Before starting any exercise program, always consult your physician. If you have a pace-

maker, consult your physician and/or the manufacturer of the pacemaker prior to using the Polar Protrainer NV HRM.

POLAR PROTRAINER NV HRM COMPONENTS

There are three parts to your Polar Protrainer NV HRM:
1. The Wrist Receiver
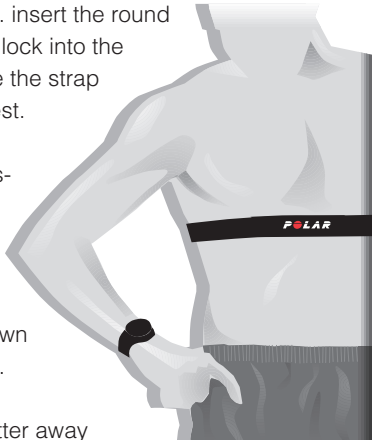2. The Polar Transmitter
3. The Elastic Strap

Take a moment to familiarise yourself with each of these components carefully, noting the features highlighted in the diagrams below:

• The Polar Transmitter

Lock system for adjusting the length

• The Elastic Strap

• The Wrist Receiver

Three line display
a. Lap time
b. Total elapsed time or time of day
c. Heart rate

HOW TO WEAR YOUR POLAR TRANSMITTER

1. Attach the Polar Transmitter to the elastic strap.

2. Adjust the strap length to fit snugly, but not too tight.

3. With the Polar Transmitter facing outward, and the Polar logo in the right position, as shown in the illustration. insert the round end of the strap lock into the buckle to secure the strap around your chest.

4. Center the Transmitter on your chest below the pectoral muscles (breasts) as shown in the illustration.

5. Pull the Transmitter away from chest stretching the belt and moisten the conductive electrode strips. **Wearing the Polar Transmitter against your bare skin ensures a flawless operation of the Transmitter.** If you wish to wear the Transmitter over a shirt, moisten the shirt well under the Transmitter.

6. Put on the Polar Protrainer NV Wrist Receiver as you would put on an ordinary watch.

*Note: The Transmitter will switch on automatically when you're wearing it. It will also turn itself off when it's not connected to your body. However, moisture can activate the Transmitter and reduce battery life, so remember to **dry it thoroughly** after the exercise.*
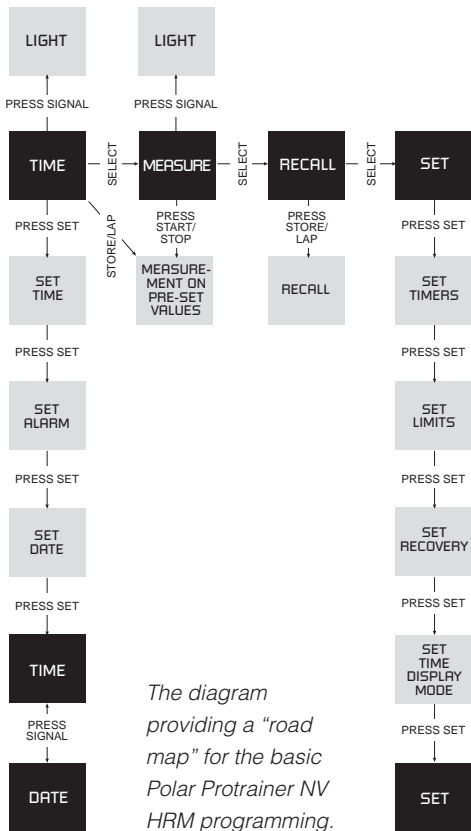
THE BASICS

Your Polar Protrainer NV Heart Rate Monitor is a highly sophisticated computer that allows you to get the most from exercising by monitoring your workouts accurately and in great detail. While the Polar Protrainer NV HRM is a state-of-the-art instrument, it's not complicated to use, if you keep the following basic principles in mind:

Principle I. Two levels of operations are available when you program your Polar Protrainer NV HRM for workouts:

1. There are four basic selections, and
2. There are various functions under each selection.

The diagram on next page provides a "road map" for the basic Polar Protrainer NV HRM programming.

The diagram providing a "road map" for the basic Polar Protrainer NV HRM programming.

Principle II. The four basic selections you can access with your Polar Protrainer NV HRM are:

TIME/DATE - This selection lets you view and/or set the correct time of day, the date and an alarm. **Press SIGNAL/LIGHT button** shortly to light the background light. **Press SIGNAL/ LIGHT button** a little while longer to cycle between time and date displays.

MEASURE - This selection allows you to activate the heart rate measurement, recording and stopwatch functions. (No programming can be done within this selection).

RECALL - Use this selection to review the data recorded during your workouts i.e. your target heart rate zone performance feedback, the average heart rate of the total exercise period, the time spent below, within and above your target heart rate zone, the recorded split/lap times together with the corresponding heart rates and the recovery heart rate. (No programming can be done within this selection).

SET - You can use this selection to set your personal target heart rate zone, the interval timers and the recovery heart rate calculation period. From the sport watch functions you can choose simultaneously on display either the time of day and the lap times OR the cumulative time of the exercise and the lap times.

Principle III. To access the basic selection you want, cycle through the four available selections by **pressing the SELECT button**.

Principle IV. To use the various functions of a basic selection, **press the SET/START/ STOP button** to move from function to function within each of the four selections.

Principle V. Once you have entered the SET selection, using **the SET/START/STOP button** (one digit flashing on display), the SELECT button assumes a different role. Now **the SELECT button** enables you to program single digits within a function, while **the SET/ START/STOP button** cycles you between the functions under SET selection. Having cycled through the functions, using **the SET/ START/STOP button**, the flashing of one single digit stops and **the SELECT button** assumes it's original role enabling you to return to the selection cycle.

PROGRAMMING YOUR POLAR PROTRAINER NV HRM

• TIME •

What does this selection do ?

In the basic mode it shows you the time of day and the date. It also allows you to set the correct time, the date and an alarm. You can light up the display in the dark by pressing the **SIGNAL/LIGHT** button.

Why might you use this selection ?

To set the correct time or date when you take the Wrist Receiver into use for the first time, or to change the time if you travel to other time zones. You may use the alarm function to wake you up, or as a reminder.

STEP-BY-STEP INSTRUCTIONS FOR SETTING THE TIME

1. Time of day being displayed on the face of the Wrist Receiver, **press the SET /START/STOP button.** The word TIME appears at the top of the display, and the AM or PM indicator is flashing.

▌ *Note: At any point you can*
▌ *press SET/START/STOP*
▌ *button once more to go to the*
▌ *alarm setting.*

2. Press **the SELECT button** to select AM or PM.

3. When the correct choice appears on the display, **press the STORE/LAP button** to lock in your selection.

4. At this point, the first two digits (representing the hours) are flashing.

5. Set the correct hour by moving **up with the SELECT button** or **down with the SIGNAL button.**

6. When the correct hour is displayed, **press the STORE/LAP button** to lock in your selection.

7. The full ten minutes digit flashes now. Again, use **the SELECT button** to move up, or **the SIGNAL/LIGHT button** to move down.

8. When the correct number is displayed, **press the STORE/LAP button** to lock in your selection.

9. The one minutes digit is flashing now. Again, use **the SELECT button to move up**, or **the SIGNAL/LIGHT button** to move down.

10. When the number you want is displayed, **press the STORE/LAP button** to lock in your selection. The two digits representing seconds are zeroes.

11. At this point the AM/PM indicator will start flashing again, and the seconds start running from double zero. You can start over at step 2 to repeat the time setting procedure or move to setting the alarm by pressing **the SET/ START/STOP button**.

STEP-BY-STEP INSTRUCTIONS FOR SETTING THE ALARM

1. In the time of day display, press **the SET button twice.** The letters ALM and the alarm time, 10:00, will appear on the display, as shown (or any other previously set alarm time).

2. The AM or PM indicator is flashing now.

3. At this point, select AM or PM as you did above, by pressing **the SELECT button**.

4. **Press STORE/LAP** to lock in your choice.

5. At this point, the first two digits, representing the hours, are flashing.

6. Set the correct hour by moving up with **the SELECT button** or down with **the SIGNAL/ LIGHT button**.

7. When the correct hour is displayed, **press the STORE/LAP button** to lock in your selection.

8. The full ten minutes digit is flashing now. Again, use **the SELECT button** to move up, or **the SIGNAL/LIGHT button** to move down.

9. When the correct number is displayed, **press the STORE/LAP button** to lock in your selection.

10. The one minutes digit is flashing now. Again, use **the SELECT button** to move up, or **the SIGNAL/LIGHT button** to move down.

11. When the correct number is displayed, **press the STORE/LAP button** to lock in your choice.

12. The alarm symbol ⌇ is flashing now. To activate the alarm, **press the STORE/LAP button** and the alarm symbol stops flashing. (To turn the alarm off later on, enter the alarm setting mode as you did before and **press the SIGNAL/LIGHT button** and the alarm symbol disappears).

13. At this point, or at any point during setting the alarm, you can **press SET** to enter the date setting mode (continue at step two of the next section). By pressing **the SET button twice** you can return to the time display.

❚ *Note: The alarm will sound for one minute, but* ❚ *you can turn it off by* ***pressing the*** ❚ ***STORE/LAP button****.*

STEP-BY-STEP INSTRUCTIONS FOR SETTING THE DATE

1. In the time display mode **press the SET button** three times. The date will appear as shown.

2. The full ten years digit is flashing now.

3. At this point, set the correct digit by using **the SELECT** and/or **the SIGNAL/ LIGHT button**.

4. Store the correct number by **pressing the STORE/LAP button**.

5. The one year digit is flashing now.

6. Set the correct digit by using **the SELECT** and/or **the SIGNAL/LIGHT button**.

7. Store the correct number by **pressing the STORE/LAP button**.

8. The month indicator is flashing now. Use **the SELECT** and/or **the SIGNAL/LIGHT button** to select the correct month. Lock in the selection by **pressing the STORE/LAP button**.

9. The full ten day digit is flashing now. Set the correct digit by using **the SELECT** and/or **the SIGNAL/LIGHT button**. Lock in the selection by pressing **the STORE/LAP button**.

10. The single one day digit is flashing now. Set the correct digit by using **the SELECT** and/or **the SIGNAL/LIGHT button**. Lock in the selection by pressing **the STORE/LAP button**.

11. As soon as the correct date is set, press **the SET/START/STOP button** to enter the time of day display.

• S E T •

What does this selection do ?

You can set two different timers to better control your workouts. You can also program your personal target heart rate zone in one beat per minute increments and set the recovery timer. Further, you can choose on display simultaneously either the time of day and the lap times OR the cumulative time of the exercise and the lap times.

Why would you use this selection ?

The two timers allow you to segment your exercise periods according to your particular needs.

Example 1. Warm up and cool down: You could set Timer 1 to sound at 10 minutes for your warm up period. Timer 2 at 20 minutes for full strength exercise, and then use the 10 minute timer again for your cool down period.

Example 2. Interval Training: You could set Timer 1 to sound at 1 minute intervals for all-out running and Timer 2 to sound at 2 minute intervals for rest periods between the intervals. The Timer 1 would tell you when to go again after the recovery period.

The flexible programmability of the target heart rate zone in one beat per minute accuracy allows you to monitor your workouts to great detail securing the correct exercise intensity for you (audio and/or visual alarm).

The recovery heart rate calculation allows you to follow very concretely your way to improved performance. As your training program takes effect, you will start seeing a distinct improvement in your recovery rate after an exercise routine. This means that you will reach a lower heart rate level faster once you stop exercising.

Choosing between the time of day and cumulative time of the total exercise, in addition to the lap times, gives you the option to program on display the sport watch functions according to your own preferences.

STEP-BY-STEP INSTRUCTIONS FOR SETTING THE TIMERS

1. In the time mode **press the SELECT button** three times. SET appears on the program status line (bottom of the display), and the display cycles through TIME 1, LIM, Recovery and SPLI or TIME.

OR

❙ *Note: In case you do not wish to program the*
❙ *Timers at all and wish to proceed directly to*
❙ *programming your personal target heart rate*
❙ *zone, please,* ***press SET/START/STOP***
❙ ***button*** *twice.*

❙ *Note: Timer 2 may also be displayed at this*
❙ *point, if Timer 1 has already been set. However,*

❙ *If you do not program Timer 1, you will not be*
❙ *able to program Timer 2 either.*

2. At any point, you can **press SET/START/ STOP button** and the word TIME 1 will lock on display.

3. The tens of the minutes will now be flashing. As in the TIME selection, use **the SELECT button to move up**, or **the SIGNAL/LIGHT button to move down**.

4. When the number you want is displayed, **press the STORE/LAP button** to lock in your selection.

5. The single minute's digit flashes now. Again, use **the SELECT button to move up**, or **the SIGNAL/LIGHT button to move down**.

6. When the correct digit is displayed, **press STORE/LAP button** to lock in your selection.

7. The first digit representing tens of seconds flashes now. Again, use **the SELECT button to move up**, or **the SIGNAL/LIGHT button to move down**.

8. When the correct digit is displayed, **press the STORE/LAP button** to lock in your selection.

9. The last digit representing single seconds flashes now. Again, use **the SELECT button to move up,** or **the SIGNAL/LIGHT button to move down**.

10. When the correct digit is displayed, **press the STORE/LAP button** to lock in your selection.

11. You have now set the Timer 1, and the first digit flashes again. At this point, you can access Timer 2 by pressing **the SET/START/ STOP button**. The phrase TIME 2 will appear on the display. If you wish to program the Timer 2, repeat steps 3. through 10.

12. In case you do not wish to program Timer 2, simply press **the SET/START/STOP button** to exit this function. The LIM function starts flashing. Proceed to step 3 on the next page to set your personal target heart rate zone.

▌ *Note: As you have set Timer 1 and Timer 2*
▌ *according to instructions, Timer 1 will start at the*
▌ *same time you start the stopwatch. You will hear*
▌ *one beep when the time of Timer 1 is up. Timer*
▌ *2 will start automatically after the beep. You will*
▌ *hear two beeps when the time of Timer 2 is up.*
▌ *The timers alternate until you stop the stop-*
▌ *watch.*

STEP-BY-STEP INSTRUCTIONS FOR SETTING TARGET HEART RATE ZONE LIMITS

1. In the time of day mode, **press SELECT button** three times. SET will appear on the program status line (bottom of the display), and the display will cycle through automatically TIME1, LIM (limits), Recovery and Time Display Mode, the latter indicated either by text SPLI (splits) or TIME (time of day).

OR

2. At any point, you can press **the SET/ START/STOP button**, and the option LIM will lock on the display, while the first digit of the upper heart rate target zone limit starts flashing.

3. Set your desired upper limit for your target zone, digit by digit, by using **the SELECT and/ or SIGNAL/LIGHT button** to move up or down. Lock your selection by **pressing the STORE/LAP button**. The next digit starts flashing automatically. Once the upper limit has been set, the first digit of the lower limit starts flashing.

▌ *Note: If you are trying to enter by mistake a*
▌ *lower upper limit than the lower limit is, the*
▌ *upper limit value increases automatically to the*
▌ *lower limit value. Repeat the same routine for*
▌ *the lower limit.*

▌ *Note: When setting the lower limit the first*
▌ *digit's value 0 is replaced by 21 at first. Once*
▌ *you move onto programming the second digit*
▌ *21 disappears from the display. Once the lower*
▌ *limit has also been set, and the first digit of the*
▌ *upper limit starts flashing again, exit this*
▌ *function by **pressing the SET/START/**
▌ ***STOP button.** The first one of the three*
▌ *recovery timer digits flashes now.*

STEP-BY-STEP INSTRUCTIONS FOR SETTING THE RECOVERY TIMER

1. Use **the SELECT** or **the SIGNAL/LIGHT button** to move up or to move down in increments of one second.

▌ *Note: Recovery time is in seconds, for example*
▌ *2 min = 120 s.*

2. Lock in your selection by **pressing STORE/LAP button**. The digit representing tens of seconds starts flashing.

3. Repeat steps 1. and 2. again. Finally the digit representing single seconds starts flashing.

4. Repeat once more the steps 1. and 2.

5. Exit this function by **pressing the SET/START/STOP button**. The SPLI or the TIME function starts flashing.

STEP-BY-STEP INSTRUCTIONS FOR SETTING THE TIME DISPLAY MODE

1. Either one of the following displays is flashing now, depending on your earlier selection.

If the SPLIT was activated, the top line in the MEASURE mode shows the lap split times and the mid line shows the total time of the exercise period time. If the TIME was activated, the mid line shows the time of day. The selection can be swapped by **pressing the SELECT** or **SIGNAL/LIGHT button**. Lock in your selection by **pressing the SET/START/STOP button**. Return to time of day mode by **pressing SELECT button** once. If you want to proceed into measurement mode, **press SELECT button** twice.

• MEASURE •

What does this selection do ?

This selection allows you to measure your heart rate continuously as well as mark split/lap times. In addition, in this mode you will be able to follow concretely whether you are exercising in, above or below your pre-programmed target heart rate zone. Also, as we learned before, you can choose between cumulative time of exercise and time of day functions on display in this mode. No programming can be done in this selection, but you can, however, start and stop the sport watch and the recording as many times as you want during the exercise (stopping in traffic lights etc.).

EXERCISING WITH THE POLAR PROTRAINER NV HRM

After you have programmed in your heart rate limits, you are ready to use your Polar Protrainer NV HRM.

Step-by-step instructions

1. Put on the Polar Wrist Receiver and the Polar Transmitter as described earlier.

2. If you just finished using the SET selection, **press the SELECT button twice** and the word MEASURE appears on the selection status line. In the basic time of day mode, **press the SELECT button** once.

3. Your heart rate will be shown on the bottom line of the triple line display after six seconds. To start the stopwatch functions, **press the SET/ START/STOP button**. The lap timer on the top and the stopwatch on the middle line of digits will be counting (Alternatively the middle line may show the time of day).

4. If you hear a beeping sound, you are exercising above or below your target heart rate zone. The heart rate display shows a flashing

heart symbol as well as your actual heart rate flashing on the display along with an arrow pointing up or down, to indicate that you are above or below your target heart rate zone. You can turn the TZ alarm off/on by **pressing the SIGNAL/LIGHT button**.

▌ Note: For a quick start, to activate the heart rate
▌ measurement, the stopwatch and the target
*▌ zone calculation, **press the STORE/LAP***
*▌ **button** or bring the wrist receiver close to the*
▌ transmitter for a "magic start".

5. You can stop and start the stopwatch by **pressing SET/START/STOP button**.

During recording if you want to:

1. Check the lap and split time while exercising.
• **Press the STORE/LAP button**. The current split/lap time is shown for 3 seconds. The sequence number of the next lap will be

displayed after 3 seconds. You can take and record up to 44 split/lap times per workout.

2. Temporarily stop the recording operation and the stopwatch.
• **Press SET/START/STOP button**.
• To continue, **press SET/START/STOP button** again.

▌ Note: The average heart rate is calculated only
▌ from the time the stopwatch is running.

3. Turn the sound signal off or on. **Press and hold the SIGNAL/LIGHT button for 1 second**.

4. Activate the backlight for three seconds, **press the SIGNAL/LIGHT button briefly (0,5 seconds).**

5. Toggle the cumulative time of exercise display and the time of day display on the middle row of digits, bring the receiver watch close to the Transmitter for a few seconds. The alternative display will be on for 5 seconds.

6. Stop recording operations completely and start recovery calculation:
• **Press the SELECT button**. The stopwatch stops and RECOVERY text appears in the display. Wait now until you hear two long beeps informing you that the recovery calculation time is up. To review the recorded information, including the results of the recovery heart rate calculation, continue to RECALL mode by **pressing SELECT button** once.

• RECALL •

What does this selection do ?

This selection allows you to view

- Time spent below, in and above your target heart rate zone,
- Average heart rate of the exercise period,
- Up to 44 split/lap times with corresponding heart rates together with the finishing time.
- Recovery heart rate

Why might you use this selection ?

To analyse your workout intensity and duration, collect data on changes in your average heart rates and/or exercise time for the same type of exercises. To collect data on changes in recovery heart rates over time or recall split/lap times and related heart rates per workout.

STEP-BY-STEP INSTRUCTIONS TO ANALYSE YOUR WORKOUT

1. Cycle through the selections using **the SELECT button**, until the word RECALL appears on the program status line. You can now view the time spent above the target heart rate zone on the top line, as indicated by the upwards arrow symbol and the letters TZ on the display. The bottom line indicates the average heart rate of the exercise period.

2. When you **press the STORE/ LAP button**, the top line will display the time spent in the target heart rate zone. The bottom line remains unchanged.

3. In order to view the time spent below the target heart rate zone, **press STORE/LAP button** again. Here again the bottom line remains unchanged.

4. In order to view the recovery heart rate recording, **press STORE/LAP button** once again. On display you will have now the predetermined recovery period in seconds in mid line as well as the decrease in heart rate during that period in the bottom line.

5. To view the split/lap times together with the corresponding heart rates, **press SET/ START/STOP button**. The top line will show split/lap time, the mid line will show cumulative time, and the bottom line will show the corresponding heart rate. The lap number will be displayed in the lower right hand corner.

6. **Press the STORE/LAP button** repeatedly to cycle through all the recorded split/lap times and heart rates.

7. Once the first lap/split time appears on display again, **press SET/START/STOP button** to return to step 1 on this list.

8. To leave the selection, **press the SELECT button** (twice to go to TIME mode).

CARE AND MAINTENANCE

WRIST RECEIVER

The rubber gasket seals that ensure water resistance on the Wrist Receiver will deteriorate over time. It is recommended that these seals are replaced after two years of use. This is particularly important if you are using your Polar Protrainer NV HRM for swimming.

POLAR TRANSMITTER AND THE ELASTIC STRAP

The Polar Transmitter is in an active mode only when it is attached to the chest for measurement. It should not be activated when it is not worn. However, sweat and other moisture on the Transmitter can keep it running after it is removed from the body. Therefore, to avoid wasting battery energy, you should **wipe dry and clean the Transmitter when needed**. The Transmitter and the elastic strap can be washed with a mild soap and water solution. However, never use alcohol or any abrasives such as steel wool or cleaning chemicals. They will cause permanent damage to the electrodes.

Note: Do not stretch or bend the electrode strips of the Polar Transmitter, especially when storing it (more than is needed to store it in the original container), because this could damage their conductivity.

BATTERIES

In order to ensure the water resistance of the HRM, the **batteries** of the Wrist Receiver **should only be replaced by a person authorised by Polar Electro Oy**. For details, contact your dealer or distributor.

To conserve battery life, the Wrist Receiver is programmed to automatically return to the TIME selection after ten minutes, when no buttons have been pushed and no heart rate has been received from the Transmitter. In MEASURE mode, the receiver circuitry voltage is cut off within 10 minutes, if no heart rate has been received. As an indication of this the lowest line of digits will show --, but the stopwatch keeps on going to facilitate time measurement without heart rate information.

PRECAUTIONS

Polar Protrainer NV HRM is water resistant. You can wear it for swimming, go off a diving board with it on, wear it in a rainstorm, or perspire heavily while exercising without damaging it. You should not, however, wear it underwater at any great depth. If you go deep sea diving, leave your Polar Protrainer NV HRM behind.

Further, do not operate the buttons of the Wrist Receiver underwater as the pressure may cause the Receiver to leak. Buttons should only be pressed when the Receiver is out of water.

If your Polar Protrainer NV HRM does get wet, it is important to dry it thoroughly before storing it (Never put a wet Polar Protrainer NV HRM into an athletic bag or a locker).

The Polar Protrainer NV HRM needs to "breathe". Never store it in any kind of "non breathing" material, such as a plastic bag, where moisture from humid air might become trapped. Store it in a dry place.

The Polar Protrainer NV HRM Wrist Receiver picks up transmitter signals within 3 feet/1 meter. Therefore, when you are using your Wrist Receiver, make sure no other Transmitter is within that range. Signals from more than one Transmitter picked up simultaneously can cause an incorrect readout. When your Polar Transmitter and Wrist Receiver are in use, strong electromagnetic sources such as television sets, electric motors, vehicles, radio and TV masts and high voltage power lines can cause erratic heart rate reception.

This can also happen if you attempt to use the heart rate monitor in an aircraft.

Avoid exposing your Polar Protrainer NV HRM to extremes of hot and cold, and keep it out of direct sunlight.

Don't pull clothing on or off over your Polar Protrainer NV HRM Wrist Receiver repeatedly, as this may cause static electricity, which can interfere with its performance, especially if very low air humidity prevails.

TROUBLESHOOTING

What if there is some irregularity in the operation of your Polar Protrainer NV HRM ?

Start with pressing all the four Receiver buttons simultaneously to reset it. Thereafter start programming the Wrist Receiver from scratch.

This is called **Global Clear**. When a three line display appears, **press STORE/LAP button**, and a time display of 10 o'clock will appear. Start the programming cycle here with the TIME setting.

▪ *Note: Global Clear clears the memory totally.*

The Global Clear setting is also very useful, if for any reason, you want to start from scratch to enter information into the Wrist Receiver's memory.

What if there is no heart rate reading?

Check to see that the elastic strap is tight enough. The strap should be adjusted with the electrodes flat against your skin. You may have to move the Polar Transmitter leftward to find the best position. Make sure that the position of the Polar logo is correct.

Check to make sure that the electrode strips are thoroughly moistened. The Transmitter will not function properly without moisture to make good electrical contact.

Accumulated sweat and dirt may interfere with clear reception of the signal from the skin to the Transmitter. Check to see if your Transmitter needs cleaning.

What if the heart symbol flashes irregularly?

Check to see if your Wrist Receiver is outside the 3 ft/1 meter range of heart rate transmission from the Transmitter.

Make sure the elastic strap has not loosened during exercise.

If you are wearing the Polar Transmitter over a shirt, make sure there is moisture to make the needed contact with the electrodes.

Check your surroundings. If you are in an electromagnetic field created by other equipment (such as a monitor or television set), move away. If you are near another athlete using a heart rate monitor, move away.

What do I do if the Monitor goes blank?

Have the batteries checked by authorised Polar service personnel. Contact your distributor/dealer for details.

SERVICE

Should your Polar Protrainer NV HRM need servicing, please, follow the instructions below:

• Carefully pack the Polar Protrainer NV HRM Wrist Receiver and the Transmitter in a shipping carton so it will not be damaged (original package will suit this purpose well).

- Enclose proof of purchase (or a photocopy) and your daytime telephone number.
- Include a statement explaining why the unit is being returned for repair.
- Mail postage prepaid to your dealer or distributor. Any service procedures requiring opening of the Wrist Receiver is strongly recommended to be done by the distributor's service department. Warranty does not cover damage or consequential damage caused by service not authorised by Polar Electro Oy.

POLAR BOOKS AND ACCESSORIES

POLAR BOOKS AND BOOKLETS

- Roy Benson, MPE: Precision Running
- Dr. Matthew Brick: Precision Multi-Sport
- Edmund R. Burke, Ph.D.: Precision Cycling
- Neil Craig: Scientific Heart Rate Training
- Sally Edwards: The Heart Rate Monitor Book
- Mark Fenton and Dave McGovern: Precision Walking
- Ute Haas, M.Sc., Tarja Suomi, M.Sc. and Dr. Raija Laukkanen, Ph.D:. Precision Aerobics
- Dr. Peter J.G.M. Janssen: Training, Lactate, Pulse Rate
- Dr. Katriina Kukkonen-Harjula, MD and Dr. Raija Laukkanen, Ph.D.: Precision Weight Management
- Dr. Raija Laukkanen, Ph.D.: Research Index

- Yvonne Lin: Precision Sports Aerobics
- Dr. James M. Rippe: Target Your Fitness and Weight Management Goals
- Dr. James M. Rippe: The Polar Fat Free and Fit Forever Program

POLAR ACCESSORIES

- Polar Bike Mount for all bikes and   Polar Heart Rate Monitors
- Extra Transmitter for other family members
- Polar Heart Bra for women
- Test handle for groups and trainers

Contact your local dealer or distributor for more details.

TECHNICAL SPECIFICATIONS

Polar Heart Rate Monitor is designed to indicate the level of physiological strain and intensity in sports and exercise. No other use is intended or implied. Heart rate is displayed as number of heart beats per minute (bpm).

POLAR TRANSMITTER

Battery:....................Built-in Lithium Cell
　　　　　　　　　　Average battery life is 2500 hours of use
Operating
temperature:............-10 to +50 °C (14 to 122 °F)

WRIST RECEIVER

Display: ....16 digits + 20 symbols
Case: ....44 x 46 x 10 mm
Operating
temperature:............-10 to +50 °C (14 to 122 °F)
Battery:....................CR 2025, Average battery life a minimum of 1,5 years (2 h/day, 7 days/week)
Memory: ....Time spent below, in and above TZ. Average heart rate of the total exercise. Recovery heart rate. 44 Split/lap times with corresponding heart rates.
Accuracy of heart
rate measurement: ..±1% or ±1 beats per minute, whichever larger, definition applies to steady state conditions

LIMITED ONE YEAR WARRANTY

Polar Electro Oy warrants to the original consumer/purchaser of this heart rate monitor that the product will be free from defects in material or workmanship for one year from the date of purchase. Please, save the receipt!

• Warranty does not cover receiver battery, damages due to misuse, abuse, accidents or negligence of the precautions; improper maintenance, commercial use, cracked or broken cases.

• Warranty does not cover damage or consequential damage caused by service not authorised by Polar Electro Oy.

• During this warranty period (one year) the product will be either repaired or replaced (at your distributor's option) without a charge.

DISCLAIMER

The material in this manual is for informational purposes only. The products it describes are subject to change without prior notice due to manufacturer's continuous development programs.

Polar Electro Oy makes no representations or warranties with respect to this manual or with respect to the products described herein. Polar Electro Oy shall not be liable for any damages, direct or incidental, consequential or special, arising out of or related to the use of this manual or the products described herein.