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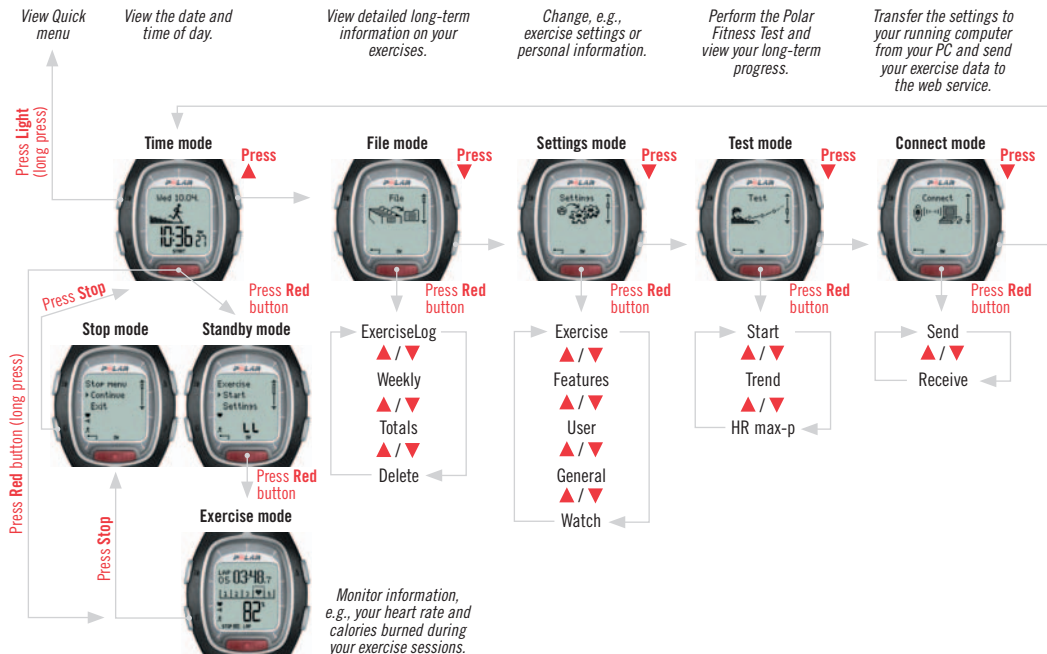
RUNNING

User Manual
Polar RS200™
Polar RS200sd™

17928534.01 ENG/FRA B

POLAR®
LISTEN TO YOUR BODY

RS200 / RS200sd QUICK GUIDE



WRIST UNIT BUTTONS

Note: Pressing a button briefly has a different effect than pressing and holding the button for a longer period of time:

- **Normal press:** press and release the button.
- **Long press:** press and hold the button (for at least one second).

Light

- Turn the backlight on.
- View Quick menu (long press).
- Unlock the buttons (long press).

Stop

- Stop, pause or cancel the function.
- Exit the menu and return to the previous level of the menu.
- Return to the Time mode (long press) in all modes except in the Exercise mode.



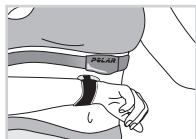
- Move to the previous mode or menu level.
- Increase the selected value.



- Move to the next mode or menu level.
- Decrease the selected value.

Red button

- Start, enter or accept the function.
- Enter the displayed mode or menu and move to a lower menu level.
- Enter the Standby mode.
- Enter the Exercise mode (long press).
- Record lap times in Exercise mode.



♥-Touch (hands free button)

To view information during exercise without pressing buttons, bring the wrist unit near the Polar logo on the transmitter.

For RS200sd users: The information relevant to using the product with Polar S1™ Foot Pod is in blue text.

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1. INTRODUCTION TO THE POLAR RS200 / RS200sd RUNNING COMPUTER

1.1 PRODUCT ELEMENTS

The Polar RS200 Running Computer package consists of the following parts:



Wrist Unit

The wrist unit displays and records your heart rate and exercise data during exercise. Enter your personal settings into the wrist unit and analyze the exercise information after your workouts.



Polar WearLink™ Coded Transmitter

The **connector** transmits your heart rate signal to the wrist unit. The electrode areas of the **strap** detect your heart rate.



Polar S1™ Foot Pod

The footpod transmits the running speed and distance measurements to your wrist unit.

Polar Web Services

www.PolarRunningCoach.com is a complete web service tailored to support your exercise goals. Free registration gives you access to the personalized training program, training diary, useful articles, and much more. In addition, you can get the latest product tips and support online at **www.polar.fi**.

Customer Service and International Guarantee Information

If your running computer needs repair, send it with the Return Card for service to your Polar Service Center. The Polar two-year guarantee is issued to the original customer / purchaser of the product. Keep the stamped Polar Customer Service Card as your proof of purchase.

1.2 USING YOUR RUNNING COMPUTER FOR THE FIRST TIME

Enter your personal data in the **Basic Settings** mode (time, date, units, and personal settings). Entering accurate personal information ensures that you receive correct feedback based on your performance.

Activate the blank wrist unit by pressing any button.

The display fills with numbers and letters.

1. Press the **Red** button. **Welcome to Polar Running World!** is displayed.
2. Press the **Red** button and choose the language you wish to use with the ▲ / ▼ buttons (choose **English, Deutsch, Español** or **Français**).
3. Press the **Red** button. **Start with basic settings** is displayed.
4. Continue by pressing the **Red** button and follow the steps below:

***Note:** The numbers scroll faster if you press and hold the ▲ / ▼ button as you adjust the value.*

5. **Time:** Press ▲ / ▼ to set the flashing value and then the **Red** button to accept:

- 24h / 12h: select 12h or 24h format
- AM / PM (for 12h format): select AM or PM
- Hours: adjust the hours
- Minutes: adjust the minutes

Date: Press ▲ / ▼ to set the flashing value and then the **Red** button to accept:

***Note:** The date will be displayed according to the time format selected (24h: day - month - year / 12h: month - day - year).*

- Day / Month: adjust the day (in 24h format) or the month (in 12h format)
- Month / Day: adjust the month (in 24h format) or the day (in 12h format)
- Year: adjust the year

Units: Press ▲ / ▼ to set the flashing value and then the **Red** button to accept:

- kg/cm/km or lb/ft/mi: select the units

Weight: Press ▲ / ▼ to set the flashing value and then the **Red** button to accept:

- kg / lb: adjust your weight

Note: Press **Light** (long press) to change the units.

Height: Press ▲ / ▼ to set the flashing value and then the **Red** button to accept:

- cm / ft, in: adjust your height

Note: Press **Light** (long press) to change the units.

Birthday: Press ▲ / ▼ to set the flashing value and then the **Red** button to accept:

- Day / Month: adjust the day (in 24h format) or the month (in 12h format)
- Month / Day: adjust the month (in 24h format) or the day (in 12h format)
- Year: adjust the year

Sex: Press ▲ / ▼ to set the flashing value and then the **Red** button to accept:

- Male / Female: select gender

6. **Settings OK? No / Yes** is displayed. To change your settings, select **No**. Press the **Stop** button until you return to the desired setting. To accept settings, choose **Yes** with the **Red** button. The display automatically goes to the Time mode.

Quick menu:



When you press and hold the **Light** button in the Time mode, you can view the **Quick menu**. The menu includes the following functions:

Keylock: You can lock the buttons. Keylock prevents accidental button presses. See page 20 for more information.

Alarm: You can turn the alarm on or off. See Watch settings on page 53 for instructions.

Time Zone: For changing time zones, see Watch settings on page 53 for more instructions.

Sleep: For activating the sleep function, see General Settings on page 51 for instructions.

Tip: You can personalize the display of your running computer by downloading logos. For more information, see Connect - Data Communication on page 70.

2. EXERCISING

2.1 MEASURING YOUR HEART RATE

To measure your heart rate, you need to wear the transmitter.



1. Moisten the electrode areas of the strap under running water and make sure that they are well moistened.
2. Attach the connector to the strap. Position the letter **L** on the connector next to the word **LEFT** on the strap and snap the fastener. Adjust the strap length to fit snugly and comfortably. Secure the strap around your chest, just below your chest muscles, and snap the second fastener.
3. Check that the wet electrode areas are firmly against your skin and that the Polar logo of the connector is in a central, upright position.
4. Wear your running computer like you would wear a watch. In the Time mode, press the **Red** button. The running computer will automatically start searching for your heart rate. The heart rate and the framed heart symbol appear in a maximum of 15 seconds. If you have set the Help function on, the message **HeartRate signal found** is displayed. Your heart rate is measured but not recorded until you have started the exercise. To record your heart rate and other exercise data, see the chapter Exercise Recording on page 13.



Coded Heart Rate Transmission

Coded heart rate transmission reduces interference from other heart rate monitors that are close by. To make sure that the code search is successful and to ensure trouble-free heart rate monitoring, keep the wrist unit within 1 meter/3 feet of your transmitter. Check that you are not near other people with heart rate monitors or any source of electromagnetic disturbance (for further information on interference, see Precautions on page 75).

♥ A frame around the heart rate symbol indicates a coded heart rate transmission.

♥ A heart rate symbol without a frame indicates a non-coded heart rate transmission.

The heart rate measurement functions also in non-coded mode, especially if there aren't any sources of interference nearby.



To detach the connector from the strap, apply pressure with your thumb and forefinger and turn your hand as indicated in the picture.

Note: If the wrist unit does not display your heart rate, or it displays **Check WearLink!**, make sure that the transmitter electrodes are moist and that the strap is snug enough. Bring the wrist unit near the Polar logo on the transmitter to restart heart rate detection.

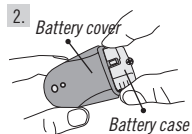
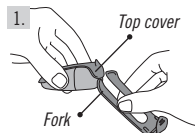
2.2 POSITIONING THE POLAR S1 FOOT POD

When using the footpod for the first time, you have to insert the battery into the footpod. The battery comes with the product set. In this case start from the chapter Assembling the S1 Foot Pod Battery on this page.

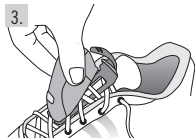
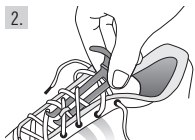
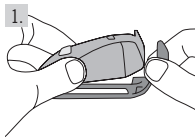
When changing the battery, check that there is sufficient power in the footpod battery. You can check this by pressing and holding the red button on the footpod. If a green light starts to flash, you can start attaching the footpod onto your shoe. If there is no light, the battery needs to be replaced.

Assembling the S1 Foot Pod Battery

The estimated average battery life span of the footpod is 20 hours of use. You can replace the battery yourself. If you do so, follow the instructions below carefully. If you prefer Polar to replace the battery, you can send or take the sensor to a Polar Service Center. There the sensor is tested after the battery is replaced.




1. Detach the footpod from the fork by unfastening the flap and lifting the foot pod from the fork.
2. Remove the black top cover from the footpod by lifting it from the battery cover. You can use the front edge of the fork to remove the cover (see picture 1).
3. Open the battery cover carefully. Pull out the battery case (see picture 2). Replace the old battery (AAA) with a new one.
4. Insert the battery case back inside the footpod. Make sure that the battery case slides into the grooves of the sensor. **Be careful not to touch the switch on the foot pod while sliding the battery case in or out.**
5. Check that the sealing ring is in the groove to secure water resistance. Close the battery cover and place the black top cover on top of the footpod. Make sure that it is secured.
6. Test the footpod by checking that the green light starts to flash after you press and hold the red button on the footpod. Press and hold the red button again to turn the footpod off.
7. Battery should be disposed of properly according to local regulations.



Attaching the S1 Foot Pod on Your Shoe

1. Detach the fork from the footpod by unfastening the flap and lifting the footpod from the fork.
2. Loosen your shoelaces and place the fork under the laces, above the tongue of the shoe. Tighten the laces.
3. Attach the footpod to the fork by fitting the front part (closer to the red button) of the footpod to the fork and pressing from the rear. Fasten the flap. Make sure that the footpod does not move and that it is aligned with your foot.
4. Turn the footpod on after your heart rate is displayed on your running computer. Press and hold the red button on the footpod until the green light starts to flash. After exercising, turn the footpod off by pressing and holding the red button until the green light fades.

Note:

- If you have turned on the Help function on your running computer, **Footpod signal found** and a symbol  are displayed when turning the footpod on.
- If the message **Check Footpod!** is displayed, the running computer cannot receive any information from the footpod. See chapter Frequently Asked Questions on page 77 for further instructions.
- When the green light on the footpod turns red, you need to replace the battery before your next run.

Tip: The more secure the footpod, the more accurate the speed and distance functions. Ensure the maximum number of laces are holding the fork in place.

Calibrating the Polar S1 Foot Pod

Calibrating the footpod improves the accuracy of speed / pace and distance measurements. It is recommended that you calibrate the footpod when you use it for the first time, if there are significant changes in your running style or if the position of the footpod on the shoe is dramatically changed (e.g., if you have changed your running shoes).

You can calibrate the S1 Foot Pod by running a preset distance at a steady pace. If you already know the calibration factor, you can set the factor manually.

For more information on how to calibrate the footpod, see page 43.

2.3 EXERCISE RECORDING

By pressing Start in the Time mode, you can start your exercise.



1. Wear the transmitter as described in the chapter Measuring Your Heart Rate on page 9.
2. Start from the Time mode. Press the **Red** button.
3. The running computer is in the Standby mode. **Start** and **Settings** are displayed. The default exercise type flashes on the upper row. The wrist unit automatically starts searching for your heart rate but your exercise is **not recorded**.
4. Select **Start** with the **▲** / **▼** buttons. Confirm your selection by pressing the **Red** button. The stopwatch starts running and the exercise recording symbol **REC** is displayed. The stopwatch and calculations are activated and recording of the exercise starts.

Tip: Alternatively, you can quickstart exercise recording in Time mode by pressing and holding the **Red** button.

Note:

- Before starting the exercise recording you can change the default exercise to another in the **Settings** mode. In the **Settings** mode select **Exercise** with the **Red** button and choose the desired exercise with the ▲ / ▼ buttons. Confirm with the **Red** button. Choose **Select** with the **Red** button. The running computer returns automatically to the Standby mode.
- If you are starting an exercise that requires the footpod but you have not switched the footpod on, **(Exercise name) requires Footpod** is displayed when starting the exercise. Switch on the footpod and activate the footpod setting on your running computer to continue the exercise. For further information, see *Feature Settings* on page 43. If you do not change the footpod settings and press the **Red** button on your running computer again, **Exercise changed** is displayed and the exercise will be automatically changed to Free exercise, which does not require the footpod.
- If **OwnZone** is selected, the OwnZone determination procedure begins. For further information, see *Determining Your OwnZone Heart Rate Limits* on page 59.
- The **Battery Low** message appears in the exercise mode when the battery of the running computer needs to be replaced. In that case, see instructions in the chapter *Care and Maintenance* on page 72.

Tip: Use the Standby mode when you want to measure your heart rate but do not want to record it, e.g., when waiting for an event or a competition to start.

- To return to the Time mode, press the **Stop** button twice.

2.4 FUNCTIONS DURING EXERCISE

During your workout you can:



Store laps and view lap times.



View your current heart rate (in beats per minute or as a percentage of your maximum heart rate).



View the total duration of the exercise so far.



View how many calories you have burned during the exercise.



Check your speed / pace.



Check the distance you have run so far.



View the time of day.



Check with the timer or the distance alarm how much time is left of a particular phase before the phase ends, and change to another phase.



Check your target heart rate zone and check whether you are within your target limits.



View your speed / pace limits.



View your heart rate intensity and lock the heart rate to a specific sport zone with ZoneLock. For more information on Polar sport zones, see page 61.

Note:

- Your exercise information is saved only if the stopwatch has been on for more than one minute or if at least one lap has been stored.
- What you can view on the display during your workout depends on the display settings. See the next page for more information.

Default views on the display:

Your running computer offers you a simultaneous view of three different lines of run information. During your exercise you can view the following 5 default views of the display when using the footpod (only 3 display views when you do not use the footpod). You can easily switch the display with the ▲ / ▼ buttons during your workout. The chance to view different displays will help you view the desired information during your training.

Heart Rate view

- Calories
- Stopwatch
- Heart rate

Stopwatch view

- Time of day
- Heart rate
- Stopwatch

Lap time view

- Sport zones/
Target heart rate zone/
Target speed/ pace zone
- Heart rate
- Lap time

Speed / pace view

(will not be displayed, if footpod is off)

- Distance
- Heart rate
- Speed/ pace (depending on the selected speed view)

Distance view

(will not be displayed, if footpod is off)

- Sport zones/ Target heart rate zone/
Target speed or pace zone
- Zone number and countdown timer or distance/ Lap time
(Lap time will be displayed if you have not set any timers
or distances to guide you to change the zone)
- Distance

Note: The display variations depend on your settings. See next page for instructions on how to change the displays.

Changing the information shown on the display during your exercise:

You can personalize the displays with the display settings. It is up to you to decide which display combination you want to view.

1. Press **Stop** to go to the **Stop menu**. During the time you adjust the display, your exercise recording is paused.
2. Choose **Settings** with the **▲ / ▼** buttons. Confirm with the **Red** button.
3. From the Settings menu select **Display**. You can always change the displays **Heart Rate**, **Stopwatch** and **Lap time**.
When the footpod setting is on you can also change the **Speed / Pace** and **Distance** views. Select the view to be altered with the **▲ / ▼** buttons.
4. When the **Red** button is pressed, the top row starts blinking. Browse the display information options with the **▲ / ▼** buttons and confirm your selection with the **Red** button:

 Stopwatch

 Calories

 Speed / Pace

 Lap time

 Heart rate

 Distance

 Time of day

 Countdown timer / distance

 93 112 Target zone limits

5. Secondly the middle row starts blinking. Repeat the same procedure as above.
6. Press **Stop** twice to return to the **Stop menu** and continue your workout by selecting **Continue**.

Note:

- To return the default display view, press and hold the **Light** button when the upper or middle row is blinking. **Return Defaults? No / Yes** is displayed. Select **Yes** with the **▲ / ▼** buttons and confirm with the **Red** button.
- In the Exercise mode you can select the display that you have most recently changed by pressing and holding the **▲** button.
- Displays can be changed also before the exercise in **Standby** mode. Select **Settings** in **Standby** mode and choose **Display** from the menu. Proceed as specified above.

Tip:

- Choose a display which corresponds to the feedback you require. For example, when training requires a set pace use a display with speed.
- Choose a display with Polar sport zones for an interval set. For a long run with a set distance, using a display with distance can be helpful.



You can ZOOM in the features on the display to bring out information:

In exercise mode press the ▼ button (long press). You can see the middle row information zoomed in, and a definition of the feature is displayed on the upper row. If you press the ▼ button (long press) again, the display with three rows returns.

Note: You cannot zoom the target zone graphs.



Tip: During a road race or a running event, for example, it is useful to monitor your heart rate as a percentage of your maximum heart rate as well as time (lap time on the top row and split time on the lowest row). This will help you to stay in the correct heart rate zone and make it to the finishing line.

Storing lap and split time:

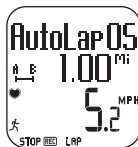
Press the **Red** button to store lap time. →



Lap number, average heart rate for the lap, and lap time are displayed.



After a few seconds the average speed / pace and distance for the lap are displayed if the footpod function is on.



If you have switched on the AutoLap function, your running computer will record laps automatically.

The **lap time** indicates the elapsed time for one lap. The **split time** is the elapsed time from the beginning of the exercise until storing a lap time (for example from the beginning of the exercise until the 4th lap was stored).

Note:

- When the running computer is able to store less than 42 laps, the running computer beeps and **Memory Low** appears on the display.
- If the memory of your running computer is full, the running computer beeps and **Memory full** is displayed. The exercise is recorded and lap times are shown but not accumulated and saved to the File.
- When the maximum exercise time is reached, the running computer beeps and **Maximum exercise time** is displayed for 10 seconds. The exercise timers are stopped and the exercise is not recorded anymore.



Locking the heart rate zone on a specific sport zone (ZoneLock): When exercising without preset target zones you can lock your heart rate on a specific sport zone. If for example you are running with a heart rate of 130 bpm which is 75% of your maximum heart rate and match to the sport zone 3, you can press and hold the **Red** button to lock your heart rate to this zone. **SportZone 3 Locked 70%-79%** is displayed and the graph will be displayed on the Lap Time view (if you have not changed the displays before). When you continue with your exercise and

happen to fall below or go beyond the sport zone, the running computer will alert you by beeping (if the **TZ Alarm** function is on). If your heart rate is lower than 50% or higher than 100% of your maximum heart rate, you cannot see the heart symbol on the chart.

You can unlock the sport zone by pressing and holding the **Red** button. **SportZone 3 Unlocked** appears on the display. For more information on how to apply Polar sport zones in your training, see page 61.

Tip: Locking your heart rate to a specific sport zone can be particularly helpful when on a recovery run. This will ensure full recovery before your next hard training session.

Pausing exercise: Press the **Stop** button. Exercise recording, stopwatch, and other functions are paused. To continue, select **Continue** from the menu and press the **Red** button.

Tip: When you need to stop for a drink or you are at a set of traffic lights, you can pause the exercise recording.

Exercising in the dark (Night mode): If you activate the backlight by pressing the **Light** button during an exercise recording, the backlight will reactivate automatically during the same exercise every time you press any button or use the **♥-Touch** function. The backlight activates also when **AutoLap** is saved.

Viewing the Settings menu: Press and hold the **Light** button. In the **Settings menu** you can change the following features of your running computer:

- Keylock
- TZ Alarm*
- Change zone**
- HR view
- ♥-Touch
- Speed view
- AutoLap

Note: For more information on the features, see the chapter *Feature Settings* on page 43.

*For more information on TZ Alarm, see the chapter *Target Zone Limits* on page 58.

**Displayed only when exercising in a mode with preset target limits. You can change the zone manually to another by selecting this.

Tip: When you are in an environment where you do not want to bother other people with beeping sounds, turn off the target zone alarm.

☐ Keylock: You can lock or unlock all buttons except the **Light** button during exercise. Keylock is useful when engaging in sports where you might accidentally press buttons. **To lock the buttons**, press and hold the **Light** button to go to the Quick menu. Select the **Keylock** from the menu with the **▲ / ▼** buttons and press the **Red** button to confirm. The **☐** symbol is displayed. **To unlock the buttons** press and hold the **Light** button. **Hold to unlock buttons** is displayed. Press and hold the **Light** button until the **☐** symbol disappears. **Buttons unlocked** is displayed.

Changing settings during exercise:

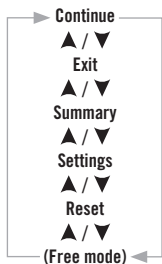
In the exercise recording mode press the **Stop** button. Select **Settings** with the ▲ / ▼ buttons and confirm with the **Red** button. During the time you adjust the settings your exercise recording is paused. The **Settings** menu includes the following:

- **TZ Alarm:** Switch the Target Zone Alarm sound on / off. TZ Alarm is for alarming when you do not stay within the preset target zone limits, i.e., when your heart rate, **speed or pace** is below the lower limit or above the higher limit.
- **Change zone:** When exercising with more than one target zone, you can change from one zone to another. This is not displayed when exercising without target zone limits.
- **HR view:** Choose whether you wish to see the heart rate in beats per minute (HR) or percentage of the maximum heart rate (HR%).
- **♥ -Touch:** View information during your exercise recording without pressing any buttons. Just bring the wrist unit near the Polar logo on the transmitter, and the selected information shows on the display. You can choose the **♥ -Touch** function between:
 - **Show limits** (View preset heart rate limits.)
 - **Take lap** (Record lap times.)
 - **Change view** (Change the display view to another.)
 - **Light** (Illuminate the display.)
 - **Off** (Set the **♥ -Touch** function off.)
- **Speed view:** Select the way the speed is displayed. Your options depend on your unit selection:
 - **km/h or mph** (speed)
 - **min/km or min/mi** (pace)
- **AutoLap:** Choose the automatic lap function on / off. If you choose it to be on, your running computer records laps automatically after the selected distance. **To use the AutoLap function, make sure that the footpod is switched on and the footpod function is on in your running computer.**
- **Display:** Choose from different ways to display information during exercise. You can select the desired information for the upper row and the middle row. For instructions see page 17.

***Note:** If you have set timers **or distances** to inform you to get to another target zone, you will hear a timer / **distance** beep when you need to change the zone. If you have turned the sound off, you will see **Timer (timer number)** **or Distance (distance number)** on the display. For more information on how to use timers **or distances** to guide your training, see Exercise Settings on page 35.*



STOP MENU:



2.5 STOPPING THE EXERCISE

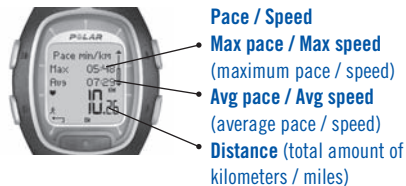
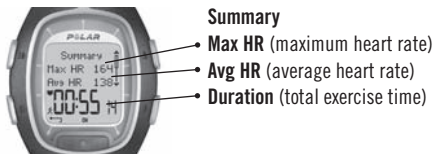
Press the **Stop** button to pause the workout recording. The **Stop menu** is displayed. The recording of your exercise is paused.

The **Stop menu** includes the following submenus. You can move in the menu by pressing ▲ / ▼. Confirm with the **Red** button.

- **Continue:** Continue your workout.
- **Exit:** Stop your workout recording.
- **Summary:** You can check summary information during the exercise and continue your workout after that. See the next page for more information.
- **Settings:** Change the settings. See more on page 21.
- **Reset:** Reset your current exercise information and start your exercise from the beginning. The exercise information you just reset will not be recorded in the File. **Reset Exercise? No / Yes** is displayed. Confirm your selection with the **Red** button.
- **Free mode:** You can move on to the Free mode when exercising in another exercise mode than the Free mode. For more information on different preset exercises on your running computer, see page 35.
(Note: When exercising in the Free mode, you cannot see this option in the Stop menu.)

To stop the recording press the **Stop** button again. Alternatively, you can choose **Exit** from the menu with the ▲ / ▼ buttons.

Summary: The following information is displayed when you select **Summary**. Scroll the information with the ▲ / ▼ buttons or stop the review by pressing the **Stop** button. Detailed exercise information is placed in the File after the exercise, see the next chapter for more information.



3. FILE - VIEWING RECORDED INFORMATION



FILE:



After training, it is good to review the details of your workout. Your exercise information is saved in File. Note that the information is saved only if the stopwatch has been on for more than one minute or if at least one lap has been stored.

Tip: You can transfer your exercises from your running computer to the www.PolarRunningCoach.com web service for further analysis. For more information, see page 70.

1. In the Time mode, press **▲**. **File** is displayed.
2. Press the **Red** button. The submenu includes the following:
 - **ExerciseLog**
 - **Weekly**
 - **Totals**
 - **Delete**
3. Select the desired option with the **▲ / ▼** buttons and enter with the **Red** button. Browse through the recorded information.
4. To stop viewing information, press the **Stop** button.
 - To return to the Time mode, press and hold the **Stop** button.

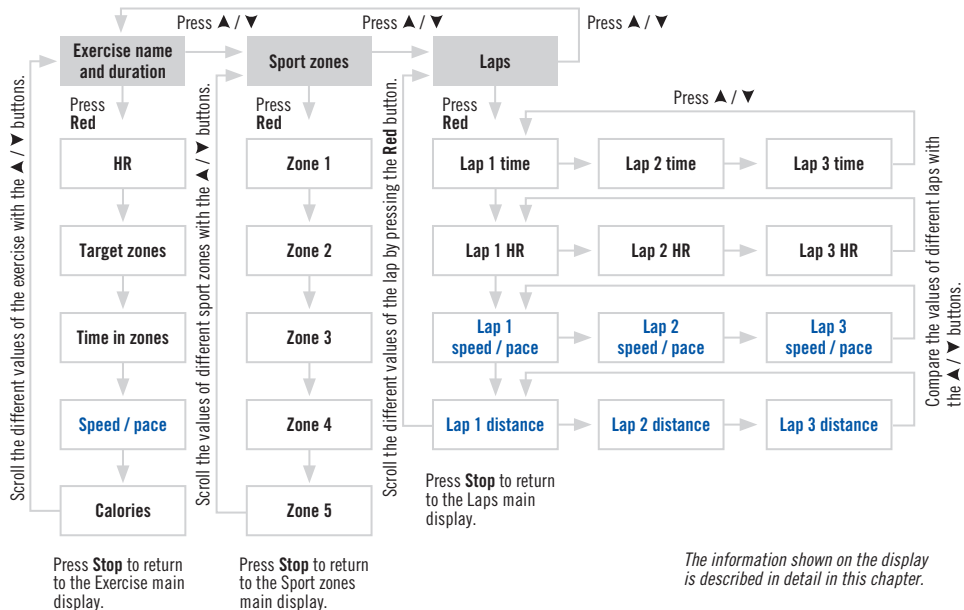
ExerciseLog



From **ExerciseLog** you can compare the relative duration of your exercises and recognize patterns and overall trends.


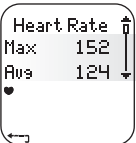

The summary file includes max 16 of your latest exercises displayed as bars. The height of the bar indicates the duration of the exercise. You can browse through them with the **▲ / ▼** buttons. Select one of the exercises with the **Red** button.

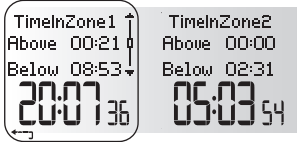


The process of viewing the recorded information for an exercise follows the pattern shown in the picture:






The recorded information shown on the display is described here in detail.


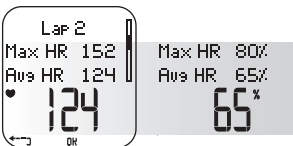

Press the **Red** button to enter the Exercise menu. View the recorded information with the **▲** / **▼** buttons. After reviewing the information press **Stop** to return to the Exercise menu.


Recorded exercise file information	Display reads:
	<ul style="list-style-type: none"> • Name of the exercise • Date • Starting time of the exercise • The total duration of the exercise
	<ul style="list-style-type: none"> • Average and maximum heart rate <p>Alternation between:</p> <ul style="list-style-type: none"> - values in beats per minute - percentage of maximum heart rate <p>Note: The alternating information switches automatically on the display.</p>
	<ul style="list-style-type: none"> • Heart rate / pace / speed zones: High and low values* <p>Alternation between:</p> <ul style="list-style-type: none"> - different zones and values <p><i>*Not displayed when the target zones are off.</i></p>

Recorded exercise file information	Display reads:
	<ul style="list-style-type: none"> • Time above, in, and below target zone* <p>Alternation between:</p> <ul style="list-style-type: none"> - different zones and values <p>Note: The alternating information switches automatically on the display.</p> <p><i>*Not displayed when the target zones are off.</i></p>
	<ul style="list-style-type: none"> • Maximum and average speed or maximum and average pace, total distance <p>Press the Light button (long press) to alternate the speed and pace values.</p>
	<ul style="list-style-type: none"> • Burned calories

In the Exercise menu press the ▲ / ▼ buttons to enter the SportZones menu. Then press the **Red** button to enter the SportZones submenu. View the recorded information with the ▲ / ▼ buttons. After reviewing the information press **Stop** to return to the SportZones menu.

Recorded exercise file information	Display reads:
 <p>The display shows a bar chart titled "SportZones" with five bars of varying heights. A vertical double-headed arrow is on the right side of the bars. At the bottom left is a left arrow and "OK" at the bottom right.</p>	<ul style="list-style-type: none"> • Sport zones <p>On the display you can see the distribution of time between the five Polar sport zones. The bar height indicates the total time spent on the different sport zones. For more information on Polar sport zones, see page 61.</p>
 <p>The display shows a bar chart titled "SportZone 2" with five bars. Below the bars is a digital time display showing "36:45.2". A vertical double-headed arrow is on the right side of the bars. At the bottom left is a left arrow.</p>	<ul style="list-style-type: none"> • The total time spent on each of the five sport zones
<p>Press the Red button to enter the Laps submenu. View the recorded information of one lap with the Red button. After reviewing the information press Stop to return to the Laps menu.</p>	
 <p>The display shows "12 Laps" and "Avg 00:10:32". Below that, "Best 10" is highlighted with a grey background, followed by "00:08:14.0". A vertical double-headed arrow is on the right side. At the bottom left is a left arrow and "OK" at the bottom right.</p>	<ul style="list-style-type: none"> • Number of laps • Average lap time <p>Alternation between:</p> <ul style="list-style-type: none"> - number of the best (shortest) lap - lap time

Recorded exercise file information	Display reads:
Compare the information between different laps with the ▲ / ▼ buttons.	
 <p>Lap 2 Time 00:23:15.0 02:10.15</p>	<ul style="list-style-type: none"> Lap number Split time for the lap Lap time
 <p>Lap 2 Max HR 152 Avg HR 124 124 Max HR 80% Avg HR 65% 65%</p>	<ul style="list-style-type: none"> Lap number The average and maximum heart rate for the lap <p>Alternation between:</p> <ul style="list-style-type: none"> values in beats per minute percentage of maximum heart rate <ul style="list-style-type: none"> The end heart rate of the lap
 <p>Lap 2 Pace min/km Avg 10:48 10:46</p>	<ul style="list-style-type: none"> Lap number The average speed / pace of the lap The end speed / pace of the lap <p>Press the Light button (long press) to alternate the speed and pace values.</p>

Recorded exercise file information	Display reads:
	<ul style="list-style-type: none"> • Lap number • Distance from the beginning of the exercise to the end of the lap • Lap distance

Note:

- The last lap will not be automatically selected as the best lap. If you wish to store the last lap before ending the exercise, use the **Red** button to store the lap instead of the **Stop** button (e.g., at the finishing line in a competition).
 - The lap information is displayed, when you have made at least one lap during your exercise. If you have made only one lap, there will be two laps saved in the memory, because the last lap is saved automatically when finishing the exercise with the **Stop** button.
- To return to Time mode, press and hold **Stop**.

Weekly



In **Weekly** summary you can view accumulated data of your exercises for previous weeks. Use this file as a weekly counter of your training results. Scroll the displayed weeks with the ▲ / ▼ buttons and view the total duration for the exercises on the lower row. To choose the week, press the **Red** button.

The first bar named **This week** displays the exercise summary for the current week. The previous bars (named after the Sunday of the week in question) display the summary for the past 15 weeks. Press the **Red** button and scroll with the ▲ / ▼ buttons to view the information.

Weekly exercise information



- Burned calories
- Kilometers or miles you have run altogether
- Duration



Press the **Red** button to enter:

- Total duration for each of the five sport zones (scroll with the ▲ / ▼ buttons)



- Weekly exercise time divided into Polar sport zones






Totals

The total values include cumulative values of information recorded during your training sessions. Use the Total values file as a seasonal (or monthly) counter of your training values. The values are updated automatically when exercise recording is stopped. This function keeps track of your cumulative values starting from the last reset. For further information on how to reset the values, see page 33.

Viewing Total Values

1. In the **File** menu, select **Totals** with the ▲ / ▼ buttons.
2. Press the **Red** button.

3. Use the ▲ / ▼ buttons to scroll through the following information:

Total exercise information			
	Total Duration <ul style="list-style-type: none">• Total recorded exercise duration• The date cumulation started		Total Distance <ul style="list-style-type: none">• Total distance• The date cumulation started
	Total Calories <ul style="list-style-type: none">• Total amount of calories burned• The date cumulation started		Reset Totals <ul style="list-style-type: none">• Reset the total values
	Total Exe.Count <ul style="list-style-type: none">• Total count of exercises• The date cumulation started		

Note: If there are no Total values accumulated yet, **Empty** is displayed.

Resetting total values

1. In the **File** menu, select **Totals** with the ▲ / ▼ buttons. Press the **Red** button.
2. Select **Reset Totals** with the ▲ / ▼ buttons and press the **Red** button.
3. Choose the value you wish to reset from the menu and confirm with the **Red** button.
 - **All**
 - **Duration**
 - **Calories**
 - **Exe.Count**
 - **Distance**
4. **Reset ... ? No / Yes** is displayed. To reset the value, select **Yes** with the **Red** button. **The deleted information cannot be retrieved.**
5. Alternatively you can reset all values by selecting **All** from the menu. **Reset Totals?** is displayed. By selecting **Yes** all the total values will be reset. By selecting **No** you will go back to the **Reset** menu.

Note: When the Total values memory becomes full, the accumulation starts from 0 again. See the maximum values for Totals on page 80.

Delete

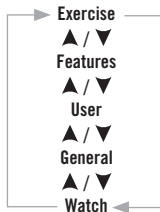
In **Delete** you can delete your previous exercises one by one, all exercises at the same time or just total values.

1. In the **File** menu, select **Delete** with the ▲ / ▼ buttons. Press the **Red** button to confirm.
2. Scroll through the following information with the ▲ / ▼ buttons:
 - **Exercise:** Select a single exercise you wish to delete.
 - **All Exes:** Delete all exercises from the memory with one button press.
 - **Totals:** Delete the total values one by one or all totals at the same time.
3. **Delete Exercise / Reset...? No / Yes** is displayed. Select **Yes** and confirm with the **Red** button.
 - To return to the Time mode, press and hold the **Stop** button.

4. SETTINGS



SETTINGS:



You can view or change the settings of your running computer in the **Settings** menu. Settings can also be configured and transferred to your running computer by using PC. For further information, see page 70.

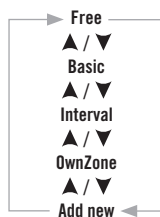
To set values:

- Select or adjust using the ▲ / ▼ buttons.
- The numbers scroll faster if you press and hold the ▲ / ▼ buttons while adjusting values.
- Accept your selection and go deeper into the menu with the **Red** button.
- Cancel your selection or return to the previous mode or menu by pressing the **Stop** button.

Tip: Learn how your training can benefit from your running computer's features by consulting the running and training tips at www.PolarRunningCoach.com.



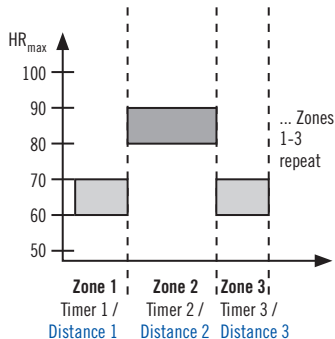
EXERCISE:



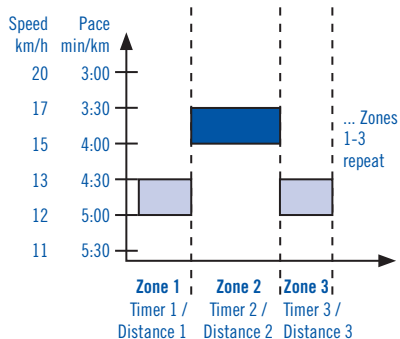
4.1 EXERCISE SETTINGS

Exercising with target zones produces different health benefits. Zoned exercise means that an exercise has been divided into 1-3 zones according to your heart rate, **speed or pace**. The end of a zone is marked with a timer. **Alternatively, the end of a zone can be marked with a distance.**

An example of a heart rate-based zoned exercise:



An example of speed / pace-based zoned exercise:



Your running computer offers you three kinds of preset zoned exercises:

Basic Zone 1 Heart rate on sport zone 3 No Timer / [Distance](#)

Basic training with moderate intensity. Suggested duration, for example, 45 min.

Interval Zone 1 Heart rate on sport zone 2 Timer: 5 min
 Zone 2 Heart rate on sport zone 4 Timer: 3 min

Basic interval training. Good for users who are not used to doing interval training. Exercise starts with a 5-minute warm up followed by a 3-minute hard interval and a 5-minute light recovery period to be repeated, for example, 4 times. The exercise is finished with a 5-minute cool down.

OwnZone OwnZone 65-85% of maximum heart rate No Timer / [Distance](#)

Basic OwnZone-based (daily fitness) training with moderate intensity. Suggested duration, for example, 45 minutes. For more information on OwnZone, see page 59.

When you begin your workout, you can easily select a preset exercise from your running computer settings. For example, if you run the same track every Tuesday, just select the exercise every time you go running.

1. In **Settings** press the **Red** button and select **Exercise** from the menu. Confirm with the **Red** button.
2. Select the desired exercise with the ▲ / ▼ buttons. Press the **Red** button.
 - **Free** (No preset settings for the exercise. You can do any exercise you choose.)
 - **Basic**
 - **Interval**
 - **OwnZone**
 - **Add new** (You can add your own exercise.)
3. Once you have selected the desired exercise mode, you will have the following options for operating the exercise:
 - **Select**
 - **View**
 - **Edit**
 - **Rename**
 - **Default**

Select an Exercise

By choosing **Select** you can set the exercise as a default when starting a new exercise.

1. In the **Exercises** menu select the exercise with the ▲ / ▼ buttons. Press the **Red** button to confirm.
2. Choose **Select** from the menu with the ▲ / ▼ buttons and confirm with the **Red** button.
3. **Selected as default exercise** is displayed. Press the **Red** button to confirm. When starting a new exercise this exercise will act as a default.



View an Exercise

By choosing **View** you can check the preset exercise settings.

1. In the **Exercises** menu select the exercise with the ▲ / ▼ buttons. Press the **Red** button to confirm.
2. Choose **View** from the menu with the ▲ / ▼ buttons and confirm with the **Red** button.
3. Scroll through the values with the ▲ / ▼ buttons:
 - name for the exercise
 - target heart rate / **speed** / **pace** limits for each zone
 - timers
 - time / **distance** for the zone

Note: The values differ according to the exercise you have chosen and its settings.

Edit an exercise

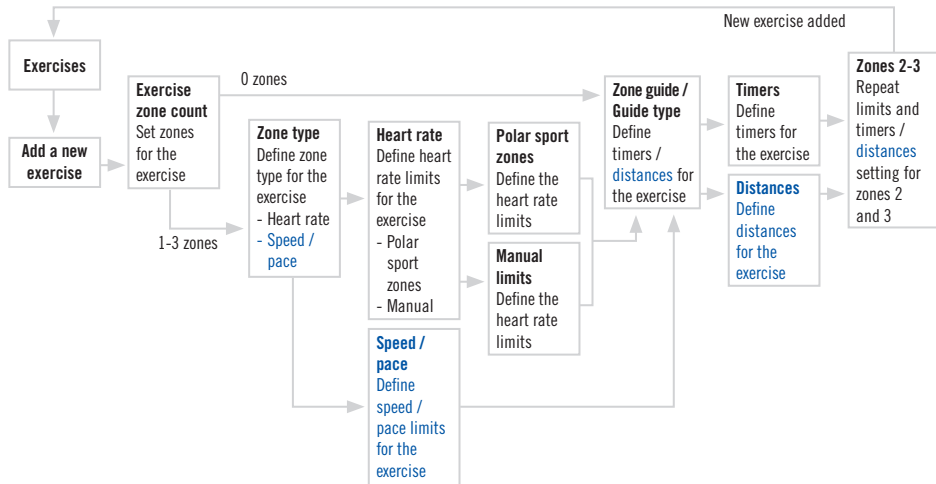
If you wish to modify a preset exercise (**Basic** or **Interval**) to fit your needs, refer to the exercise adding process.

1. In the **Exercises** menu select the exercise with the ▲ / ▼ buttons. You cannot edit the **Free** exercise. Press the **Red** button to confirm.
2. Choose **Edit** from the menu with the ▲ / ▼ buttons and confirm with the **Red** button.
3. Refer to the exercise adding process below.

Add a new exercise

You can also add your own exercise to your running computer settings. Firstly, you can set 0-3 zones for each exercise and define the heart rate limits **or speed** / **pace limits** for each zone. Secondly, you can set timers **or distance values** to guide you during the exercise.

See the diagram below to view the whole adding process:



To add a new exercise with 1-3 zones:

1. In the **Exercises** menu choose **Add new** with the ▲ / ▼ buttons and confirm with the **Red** button.
2. Define how many *zones* the exercise will include.

Exercise Zone Count

- 0-3 (If you choose 0 zones, see further information on the next page.*)
3. Define the *zone type* for the exercise (heart rate-based exercise [or speed/pace-based exercise](#)).

Zone Type

- **Heart Rate**

- If you choose **Heart Rate** as the zone type, define whether you wish to use Polar sport zones or manual limits to guide your heart rate.

- **SportZones**

- Define Polar sport zones as heart rate zones for the exercise.
- **HR Zone 1:** Choose the sport zone (e.g. Z1: 50-59% etc.) and confirm with the **Red** button.
→ Continue from step 4.

- **Manual**

- Define the heart rate zone for the exercise manually.
- **HR Zone 1:** Set the high limit and low limit for the zone and confirm with the **Red** button.
→ Continue from step 4.

- **Speed / Pace** (the option depends on the speed view selection)

- If you choose [speed or pace](#) for the zone type, the zones will be defined as [speed or pace](#) values.
- **SpeedZone 1 or Pace Zone 1:** Set the high and low limits for the zone and confirm with the **Red** button.
→ Continue from step 4.

4. Define whether you wish to hear a *timer* when you need to change from one zone to another [or if you wish to change zone after a specified distance](#).

Zone Guide

- **Timers**

- **Zone 1 timer:** Set the timer for the zone (minutes and seconds).

- **Distances**

- **Zone 1 distance:** Set the distance for the zone (kilometers or miles, depending on your unit selection).

- **Off**

- Switch the timers **and distances** off. This means that you will not have guidance on when to change from one zone to another during your workout.

5. When you have defined the first zone, **Zone 1 OK!** is displayed. If you have defined more than 1 zone for the exercise, repeat steps 3 and 4 until all zones have been defined.
6. When the exercise is ready, **New exercise added** is displayed. The running computer will return automatically to the Exercises menu.

The new exercise will be added to the Exercises menu where you can select it for your workout.

***To add a new exercise without zones:**

You can also add an exercise without zones. This means that you will not have guidance on when to change from one zone to another during your workout. In this case you can change the zone during the exercise with **ZoneLock**. For more information on ZoneLock, see page 19. You can still use timers **or distances** to guide your training.

1. In the **Exercises** menu choose **Add new** with the ▲ / ▼ buttons and confirm with the **Red** button.
2. **Exercise Zone Count**
 - Set the number of zones to 0.

3. Define whether you wish to hear a *timer* during the workout (e.g. as a reminder to drink) or set a *distance* (e.g. for following lap times without recording them).

Guide type

- **Timers**

- Define how many timers you wish to have for the exercise.
- **Exercise Timer Count:** 1-3
 - **Timer 1:** Define minutes and seconds for the timer.

- **Distances**

- Define how many distances you wish to have for the exercise.
- **Exercise Distance Count:** 1-3
 - **Distance 1:** Define the distance (kilometers or miles, depending on your unit selection).

4. Repeat step 3 until you have defined timers or distances for the exercise.

When the exercise is ready, **New exercise added** is displayed and your running computer will return automatically to the Exercises menu.

Note:

- **Timer** means that your running computer will alert you after a specified time period.
- **Distance** means that your running computer will alert you after a specified distance.

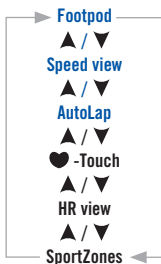
Tip:

- For more information on target zones and how to apply them in your workout, see Target Zone Limits on page 58.
- For training programs based on your heart rate, check www.PolarRunningCoach.com for more information.

- To return to the Time mode, press and hold the **Stop** button.



FEATURES:



4.2 FEATURE SETTINGS

In **Features** you can set different functions on your running computer. The functions help you get the most out of your exercise.

You can modify the following features:

- **Footpod** Select the footpod on or off and calibrate the footpod.
- **Speed view** Select whether you want to view speed or pace values.
- **AutoLap** Select if you wish your running computer to record laps automatically.
- **♥ -Touch** Modify the ♥ -Touch function.
- **HR view** Select how your heart rate is displayed.
- **SportZones** Select the lowest value for each of the five sport zones.

1. In the Time mode scroll with the ▲ / ▼ buttons until you reach **Settings**. Press the **Red** button.
2. Select **Features** with the ▲ / ▼ buttons and confirm with the **Red** button.
3. Select the desired feature, press the **Red** button and follow the steps below:

The display reads:	Press ▲ or ▼ to set and the Red button to accept
Footpod <ul style="list-style-type: none"> • On / Off • Calibrate 	▲ / ▼ • select the function

If you choose **Calibrate**:

Calibration <ul style="list-style-type: none"> • Run • Manual 	▲ / ▼ • select how to calibrate the footpod
--	--

Calibration by running:

1. The display reads **Calibration Distance 1.0 km**. Adjust the distance how far you wish to run to calibrate the footpod and press the **Red** button to confirm. To measure the running distance accurately you can, for example, run a 400 m track on a sports field nearby you. It is important that you calibrate the footpod so that it matches the kind of terrain that you normally run on. This ensures the accuracy of the calibration. The longer the distance you run the more accurate the calibration result is.
2. **Press Start And Run ...km** is displayed. Turn the speed sensor on by pressing and holding the red button on the footpod until the blinking green light activates.
3. Press the **Red** button and start the run by making the first step with the sensor foot onto the starting line and run the preset distance at a steady pace.
4. The display reads **Press OK After ...km**. Stop exactly on the stop line of the preset distance. Press the **Red** button.
5. **Stand Still! Receiving Data.** is displayed. Stand still with your arms down and wait until your running computer has received the data.
6. When the calibration succeeds, **Footpod Calibration Complete! Factor** and a calibration value are displayed. The new calibration factor is used.
7. If the calibration fails, **Footpod Calibration Failed!** is displayed. If you cancel the calibration by pressing the **Stop** button, **Footpod Calibration cancelled** is displayed. When the calibration fails or you cancel the calibration the previous calibration factor is used.

Manual calibration:

When you know the calibration factor (i.e. you have calibrated the footpod previously) you can set the factor manually. The calibration factor is calculated as a ratio of the actual distance to the uncalibrated distance. For example, if you run 1200 meters and the wrist unit shows a distance of 1180 meters, the calibration factor should be adjusted to $1200/1180 = 1.017$.

1. The display reads **Calibration Factor 1.000** and the number is flashing. Adjust the value and confirm with the **Red** button.
2. **Calibration Complete! Factor** and the preset value is displayed. Press the **Red** button to get to the previous display.

Note:

- If your running computer has problems in finding the footpod signal, **Footpod not detected!** is displayed. Check that the footpod is on and working and start the calibration process from the beginning. If further problems arise, see the chapter *Frequently Asked Questions* on page 77.
- The calibration is done in metric units. This is because the most universal calibration location is a 400 m track, even in countries using the imperial units.

Continue with the other settings:

The display reads:	Press ▲ or ▼ to set and the Red button to accept
Speed view <ul style="list-style-type: none">• km/h or mph• min/km or min/mi	▲ / ▼ <ul style="list-style-type: none">• select the speed or pace view (depending on your unit selection)
AutoLap <ul style="list-style-type: none">• On• Off	▲ / ▼ <ul style="list-style-type: none">• select the distance after which your running computer records a lap automatically (0.4-10.0 km / 0.2-6.2 mi)

The display reads:	Press ▲ or ▼ to set and the Red button to accept
♥ -Touch <ul style="list-style-type: none"> Show limits Take Lap Change view Light Off 	▲ / ▼ <ul style="list-style-type: none"> select the function → (Feature) selected is displayed.
HR view <ul style="list-style-type: none"> HR HR% 	▲ / ▼ <ul style="list-style-type: none"> select the value
SportZones <ul style="list-style-type: none"> Zone low limits 	▲ / ▼ <ul style="list-style-type: none"> select the lowest value for each of the five sport zones → SportZones OK is displayed.

Tip: Set AutoLap when running a race. A 1 km autolap is very helpful when running any events from 5 to 42 km because it will enhance and speed up your event review.

- To return to the Time mode, press and hold the **Stop** button.



USER:



4.3 USER SETTINGS

Entering correct personal information ensures that the functions in your running computer operate with the highest possible degree of accuracy. It is important that you give as realistic values as possible.

1. In the Time mode, press the ▲ / ▼ buttons until **Settings** is displayed. Select with the **Red** button.
2. Scroll with the ▲ / ▼ buttons until **User** is displayed and confirm with the **Red** button.
3. Follow the steps below:

Note: The weight and height units depend on your unit selection. You can change the units in general settings. To reach the general settings press **Stop** and select **General > Units**.

The display reads:	Press ▲ or ▼ to set and the Red button to accept
4. Weight • kg • lb	▲ / ▼ • adjust your weight
5. Height • cm • ft / in	▲ / ▼ • adjust your height

The display reads:	Press ▲ or ▼ to set and the Red button to accept
<p>6. Birthday</p> <ul style="list-style-type: none"> • Day / Month • Month / Day • Year 	<p>▲ / ▼</p> <ul style="list-style-type: none"> • adjust the day (in 24h format) or the month (in 12h format) <p>▲ / ▼</p> <ul style="list-style-type: none"> • adjust the month (in 24h format) or the day (in 12h format) <p>▲ / ▼</p> <ul style="list-style-type: none"> • adjust the year
<p>7. Sex</p> <ul style="list-style-type: none"> • Male / Female 	<p>▲ / ▼</p> <ul style="list-style-type: none"> • select gender
<p>8. Activity</p> <ul style="list-style-type: none"> • Top • High • Moderate • Low 	<p>▲ / ▼</p> <ul style="list-style-type: none"> • select activity level <p>Note: Check your activity level on page 50.</p>
<p>9. Heart Rate</p> <ul style="list-style-type: none"> • HR_{max} • HR_{sit} 	<p>▲ / ▼</p> <ul style="list-style-type: none"> • adjust the HR_{max} value, if you know your laboratory measured current maximum heart rate value. Your age-predicted maximum heart rate value (220-age) is displayed as a default setting when you set this value for the first time. • adjust your heart rate value in a sitting position. <p>Note: For more information on HR_{max} and HR_{sit}, see the next page.</p>

The display reads:	Press ▲ or ▼ to set and the Red button to accept
10. VO₂ max	▲ / ▼ • adjust this, if you know your laboratory measured current VO_{2max} value . Your predicted value or your last value is shown on the display as a default setting. <i>Note: For more information on VO_{2max} see the next page.</i>

- To return to the Time mode, press and hold the **Stop** button.

Maximum heart rate value (HR_{max})

HR_{max} is used to estimate energy expenditure. HR_{max} is the highest number of heartbeats per minute during maximum physical exertion. HR_{max} is also useful when determining exercise intensity. The most accurate method for determining your individual HR_{max} is to perform a maximal exercise stress test in a laboratory.

Heart rate value in a sitting position (HR_{sit})

HR_{sit} is used to estimate energy expenditure. To determine your HR_{sit} easily, wear your transmitter, sit down, and do not engage in any physical activity. After two or three minutes, press the **Red** button in the Time mode to view your heart rate. This is your HR_{sit}. To calculate your HR_{sit} more precisely, repeat the procedure several times and calculate your average.

Maximal Oxygen Uptake Value (VO_{2max})

VO_{2max} is used in the estimation of energy expenditure. VO_{2max} is the maximum capacity for oxygen consumption by your body during maximum exertion. It is also known as maximum aerobic power or maximal oxygen intake. VO_{2max} is a commonly used determinant of aerobic (cardiovascular) fitness. Aerobic fitness relates to how well your cardiovascular system works to transport and utilize oxygen in your body. The most accurate way of determining your individual VO_{2max} is to perform a maximal exercise stress test in a laboratory. If you know your exact clinically tested current maximal oxygen uptake value, set the value by scrolling up or down. If you do not know this value, you can determine a comparable value, your OwnIndex, by taking the Fitness Test. For further instructions, see page 65.

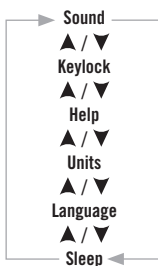
Activity level

The activity level is an assessment of your level of physical activity. Select the alternative that best describes the overall amount and intensity of your physical activity in the past three months.

- **Top** You participate regularly in heavy physical exercise at least 5 times a week. E.g., you exercise to improve performance for competitive purposes.
- **High** You participate regularly, at least 3 times a week, in heavy physical exercise. E.g., you run 10-20 km / 6-12 miles per week or spend 2-3 hours per week in comparable physical activity.
- **Moderate** You participate regularly in recreational sports. E.g., you run 5-10 km / 3-6 miles per week or spend 1/2-2 hours per week in comparable physical activity or your work requires modest physical activity.
- **Low** You do not participate regularly in programmed recreational sport or heavy physical activity. E.g., you walk only for pleasure or occasionally exercise sufficiently to cause heavy breathing or perspiration.



GENERAL:



4.4 GENERAL SETTINGS

You can view and change the general settings of your running computer in the General Settings mode. The functions help you handle the information on your running computer.

1. In the Time mode, press the ▲ / ▼ buttons until **Settings** is displayed. Press the **Red** button.
2. Select **General** from the menu and confirm with the **Red** button.
3. Follow the steps below:

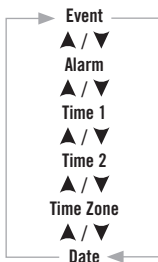
The display reads:	Press ▲ or ▼ to set and the Red button to accept
4. Sound <ul style="list-style-type: none"> • Volume Vol 2 / Vol 1 / Off • TZ Alarm On / Off 	▲ / ▼ <ul style="list-style-type: none"> • select the volume level (concerning button, activity and timer / distance sounds) • select the target zone alarm on / off
<p><i>Note: If you select TZ Alarm, your running computer's alarm sounds with every heartbeat when your heart rate is below or above your target heart rate zone. Even if you select volume off the TZ alarm and watch alarm will work.</i></p>	
5. Keylock <ul style="list-style-type: none"> • Manual / Automatic 	▲ / ▼ <ul style="list-style-type: none"> • select the value
<p><i>Note: When choosing automatic keylock, the keylock activates when you have not pressed the buttons for 1 minute.</i></p>	

The display reads:	Press ▲ or ▼ to set and the Red button to accept
6. Help <ul style="list-style-type: none"> On / Off 	▲ / ▼ <ul style="list-style-type: none"> select the value
<p><i>Note: When the Help function is on you will get help notes to guide you through the functions. For example, you will be notified that the sensor signals have been found. Help notes will assist you with the use of your running computer.</i></p>	
7. Units <ul style="list-style-type: none"> kg/cm/km lb/ft/mi 	▲ / ▼ <ul style="list-style-type: none"> select the units
8. Language <ul style="list-style-type: none"> English Deutsch Español Français 	▲ / ▼ <ul style="list-style-type: none"> select the language
9. Sleep <ul style="list-style-type: none"> Activate sleep mode? No / Yes 	▲ / ▼ <ul style="list-style-type: none"> select the value
<p>Note:</p> <ul style="list-style-type: none"> You can activate the sleep mode in your running computer when not using the computer for a while. The sleep mode saves the battery life. You can activate the running computer again by pressing any button. Turn Display on? No / Yes is displayed. When choosing Yes with the Red button, the computer is activated and functions normally. To activate the sleep mode again, choose No with the Red button or press the Stop button. The watch alarm is working also in the sleep mode. 	

- To return to the Time mode, press and hold the **Stop** button.



WATCH:



4.5 WATCH SETTINGS

When you are not exercising you can wear your running computer as a watch. To change the watch settings, follow the steps in this chapter.

4.5.1 EVENT

One key to keeping training motivation high is to have an event objective in mind. You can set an event to the memory of your running computer. With the event countdown you can track the exact number of days until your next event. You can set it on the display of your running computer by pressing and holding the **▲** button in the Time mode.



1. In the Time mode, press the **▲** / **▼** buttons until **Settings** is displayed. Press the **Red** button.
2. Select **Watch** with the **▲** / **▼** buttons and confirm with the **Red** button.
3. Choose **Event** with the **▲** / **▼** buttons and confirm with the **Red** button.

4. To view and change the event settings, follow the steps below:

The display reads:	Press ▲ or ▼ to set and the Red button to accept
5. Event • View	▲ / ▼ • view the event

The display reads:	Press ▲ or ▼ to set and the Red button to accept
<ul style="list-style-type: none"> • Date <ul style="list-style-type: none"> - Day / Month or - Month / Day 	▲ / ▼ <ul style="list-style-type: none"> • adjust the date of the event (the order depends on your unit settings)
<ul style="list-style-type: none"> • Rename 	▲ / ▼ <ul style="list-style-type: none"> • rename the event by selecting letters with the ▲ / ▼ buttons and confirming with the Red button
<ul style="list-style-type: none"> • Delete 	▲ / ▼ <ul style="list-style-type: none"> • delete the event


- To return to the Time mode, press and hold the **Stop** button.

4.5.2 ALARM

You can set an alarm to sound at a particular time:

1. In the Time mode, press the ▲ / ▼ buttons until **Settings** is displayed. Press the **Red** button.
2. Select **Watch** with the ▲ / ▼ buttons and confirm with the **Red** button.
3. Select **Alarm** and confirm with the **Red** button.


4. To change the alarm settings, follow the steps below:

The display reads:	Press ▲ or ▼ to set and the Red button to accept
5. Alarm  <ul style="list-style-type: none">• Off• Once• Mon-Fri• Daily	▲ / ▼ <ul style="list-style-type: none">• select alarm mode
6. AM / PM (for 12h format)	▲ / ▼ <ul style="list-style-type: none">• select AM or PM
7. Hours	▲ / ▼ <ul style="list-style-type: none">• adjust the hours
8. Minutes	▲ / ▼ <ul style="list-style-type: none">• adjust the minutes

The Alarm functions in all modes except in the Exercise mode. When the alarm sounds, **Alarm! Snooze?** with a flashing backlight is displayed. The alarm will sound for a minute unless you press **Stop** and cancel the alarm. To delay the alarm an extra 10 minutes, press the ▲ / ▼ buttons or the **Red** button: **Snooze** is displayed and the snooze time starts counting. The alarm will sound again after 10 minutes. To cancel the snooze and Alarm, press **Stop** in the Snooze mode.

Alternatively, you can quick access Alarm settings in the Quick menu by pressing and holding the **Light** button in the Time mode.

Note:

- If the battery low symbol  appears in the display, the alarm cannot be activated.
 - The alarm will still sound even if you have turned the sound off in the general settings.
- To return to the Time mode, press and hold the **Stop** button.

4.5.3 TIME ZONES

To help you follow the different time zones you can set two time zones to your running computer.

1. In the Time mode, press the ▲ / ▼ buttons until **Settings** is displayed. Press the **Red** button.
2. Select **Watch** with the ▲ / ▼ buttons and confirm with the **Red** button.
3. Select **Time 1** and confirm with the **Red** button.
4. To change the settings, follow the steps below:

The display reads:	Press ▲ or ▼ to set and the Red button to accept
5. Time 1 • 24 h / 12 h	▲ / ▼ • select how the time is displayed.
6. Hours	▲ / ▼ • adjust the hours
7. Minutes	▲ / ▼ • adjust the minutes

When you have set **Time 1** continue to **Time 2**:

Time 2	▲ / ▼ • adjust the hours (how many hours behind or ahead you wish the Time 2 to be in comparison to Time 1)
---------------	---

You can select the time zone in the watch settings.

1. In the Time mode, press the ▲ / ▼ buttons until **Settings** is displayed. Press the **Red** button.
2. Select **Watch** with the ▲ / ▼ buttons and confirm with the **Red** button.
3. Select **Time Zone** from the menu with the ▲ / ▼ buttons and choose **Time 1** or **Time 2**. **Time 1 in use** or **Time 2 in use** is displayed.

In the Time mode you can change the time zone by pressing and holding the ▼ button. The number 2 besides the time indicates that the Time 2 is in use.

- To return to the Time mode, press and hold the **Stop** button.

4.5.4 DATE

To set the date:

1. In the Time mode, press the ▲ / ▼ buttons until **Settings** is displayed. Press the **Red** button.
2. Select **Watch** from the menu with the ▲ / ▼ buttons and confirm with the **Red** button.
3. Select **Date** from the Watch menu and confirm with the **Red** button.
4. To change the settings, follow the steps below:

The display reads:	Press ▲ or ▼ to set and the Red button to accept
Date <ul style="list-style-type: none">• Month / Day• Day / Month• Year	▲ / ▼ <ul style="list-style-type: none">• adjust the day, month, and year (the order depends on the unit settings)

- To return to the Time mode, press and hold the **Stop** button.

5. TARGET ZONE LIMITS

In exercise, different heart rate zones produce different fitness and health benefits. The heart rate zones that suit you depend on your goal and your basic physical condition. Your running computer offers you three ways to use the target heart rate zones: OwnZone, Polar sport zones, and manual limits. [Alternatively you can choose limits based on your speed or pace \(footpod required\).](#)


For further information on target zones and for a personalized training program, see www.PolarRunningCoach.com.

To set the heart rate limits for your exercise, follow the steps below:

1. In the Time mode, press the ▲ / ▼ buttons until **Settings** is displayed. Press the **Red** button.
2. Select **Exercise** and confirm with the **Red** button.
3. Select the exercise you wish to modify and press the **Red** button. You cannot modify Free and OwnZone exercises.
4. Press the ▲ / ▼ buttons until **Edit** is displayed. Confirm with the **Red** button.
5. Continue with editing the exercise. For further instructions see the chapter Exercise Settings on page 35.

•||| **Target Zone Alarm:** With the target zone alarm you can make sure that you exercise at the correct intensity. When the target zone alarm is activated, the symbol •||| is displayed in the **Exercise** mode. The running computer sounds an alarm when you are above or below your limits. When you have selected heart rate based target zone limits and you are out of your target zone, the heart rate value starts flashing and the wrist unit alarms with each heart beat. [When you have selected the speed or pace based target zone limits and you do not stay within the limits, your running computer starts beeping.](#) You can activate and deactivate the alarm in the **Settings > General > Sound > TZ Alarm** menu or during the exercise by pressing and holding the **Light** button and choosing **TZ Alarm** with the ▲ / ▼ buttons. **TargetZone Alarm On** or **TargetZone Alarm Off** is displayed (if the Help function is on).

Note:

- *When target zone limits are not activated, no target zone alarm in the exercise recording mode will sound, nor will target zone information be placed in the File.*
 - *The wrist unit sounds and backlight are turned off when the low battery symbol  is displayed. However, the alarm will work once if it is set before the symbol appears.*
- To return to the Time mode, press and hold the **Stop** button.

5.1 OWNZONE LIMITS

Your running computer is able to determine your individual aerobic (cardiovascular) heart rate zone automatically. This is called OwnZone (OZ). OwnZone ensures that you exercise within safe limits.

The OwnZone feature determines your *personal training zone* primarily based on your heart rate variability. For most adults, OwnZone corresponds to 65-85% of maximum heart rate. The OwnZone varies daily, depending on your physical condition and mental state (for example, if you are not recovered from the previous training or feel stressed). OwnZone limits can be determined in 1-5 minutes during a warm-up period by walking, jogging, or doing some other sport. The main idea is that you start exercising slowly at a light intensity and then gradually increase the intensity by raising your heart rate.

OwnZone has been developed for healthy people. Some health conditions may cause heart rate variability based OwnZone determination to fail, for example high blood pressure, certain cardiac arrhythmias, and certain medications.

Determining Your OwnZone Heart Rate Limits

Before you start to determine your OwnZone, make sure that:

- You entered your user settings correctly.
- You select the **OwnZone** exercise. Every time you start the OwnZone exercise, the running computer will automatically determine your OwnZone.

You should redefine your OwnZone:

- When changing your exercise environment or the exercise mode.
- If you are returning to exercise after more than one week off.
- If you feel unusual about the physical state of your body when starting to exercise. For example you are stressed, not recovered from the previous training or not feeling well.
- After changing your settings.

1. Start your exercise as described in the chapter Exercising on page 9.
2. When you have pressed the **Red** button and your exercise starts, **Finding OwnZone** is displayed and the OwnZone determination **OZ ▶ ____** begins. The OwnZone symbol appears in the display.

Alternatively, to skip OwnZone determination and use the previously determined OwnZone, press the **Red** button.

Determination of your OwnZone happens in five stages.

OZ ▶ _____ Walk at a slow pace for 1 min. Keep your heart rate below 100 bpm / 50% HR_{max} during this first stage. After each stage you will hear a beep (if the sound settings are on) and the display automatically illuminates (if you have switched the backlight on once before), indicating the end of the stage.

OZ ▶▶ _____ Walk at a normal pace for 1 min. Slowly increase your heart rate by 10-20 bpm / 5% HR_{max} .

OZ ▶▶▶ _____ Walk at a brisk pace for 1 min. Slowly increase your heart rate by 10-20 bpm / 5% HR_{max} .

OZ ▶▶▶▶ _____ Jog at a slow pace for 1 min. Slowly increase your heart rate by 10-20 bpm / 5% HR_{max} .

OZ ▶▶▶▶▶ Jog at a brisk pace or run for 1 min.



limits are displayed. The limits are displayed as beats

3. At some point during the five stages, you will hear two beeps. Your OwnZone has now been determined. If the determination was successful, **OwnZone Updated** and the

per minute (bpm) or as a percentage of your maximum heart rate HR%, depending on your settings.



4. If you cancel the OwnZone determination by pressing the **Red** button, or if the determination was not successful, your previously determined OwnZone limits will be used. **OwnZone Limits** appears with the limits on the display. If you are determining your OwnZone for the first time and cancel the process, the limits based on your age will be used.

You can now continue with your exercise. Try to stay inside the given heart rate zone to maximize exercise benefits.

***Note:** The elapsed time used for OwnZone determination is included in your exercise, so your exercise is recorded from when you first start it.*

For further information on OwnZone, see www.polar.fi and www.polarownzone.com.

5.2 POLAR SPORT ZONES

You can also choose Polar sport zones to guide your workout. Polar sport zones mean a new level of effectiveness in heart rate based training. The training is divided into five sport zones based on percentages of your maximum heart rate. Sport zones provide an easy way to select and monitor the intensity of your training and follow Polar's sport zones based training programs.

Target Zone	Intensity % of HR _{max}	Example Durations	Physiological Benefit / Training Effect
5 MAXIMUM	90-100%	0-2 minutes	> Tones the neuromuscular system > Increases maximum sprint race speed
4 HARD	80-90%	2-10 minutes	> Increases anaerobic tolerance > Improves high speed endurance
3 MODERATE	70-80%	10-40 minutes	> Enhances aerobic power > Improves blood circulation
2 LIGHT	60-70%	40-80 minutes	> Increases fat metabolism > Increases aerobic endurance > Strengthens body to tolerate higher intensity training
1 VERY LIGHT	50-60%	20-40 minutes	> Helps and speeds up recovery after heavier exercises

Running in sport zone 1 is done at a very low intensity. The main training principle is that your performance level improves through recovery after training, not through the training itself. Sometimes the training may have been so strenuous that you have not yet recovered even the next day! In that case, you can accelerate your recovery process with very light intensity training.

Endurance training is done in sport zone 2. Running in this zone features an easy aerobic run. Endurance training is an essential part of every runner's training program. In fact, endurance training is the basis of any training plan. Long-duration training in this light zone is effective for energy expenditure. Progress in endurance training requires persistence.

Aerobic power is enhanced in sport zone 3. The training intensity is higher than in sport zones 1 and 2 but still mainly aerobic. Training in sport zone 3 can consist of intervals followed by recovery, for example. Running in this zone is especially effective for improving the efficiency of blood circulation in the heart and skeletal muscles.

If your goal is to compete at your top potential, you will have to go to sport zones 4 and 5. In these zones you run anaerobically, in intervals of up to 10 minutes. The shorter the interval, the higher the intensity. Sufficient recovery between intervals is very important. The training pattern in zones 4 and 5 is designed to bring the runner to peak performance.

The Polar sport zones can be personalized by using the measured HR_{max} . When running in a certain sport zone, the aim is to use the whole zone. The mid-zone is a good target, but it is not necessary to keep your heart rate at that exact level all the time.

The heart rate gradually adjusts to the training intensity. For instance, when moving from sport zone 1 to 3, the adjustment time of the circulatory system and heart rate can be 3-5 minutes.

The response of the heart rate to an exercise of a certain intensity varies according to training, recovery, environmental, and other factors. This is why it is important to pay attention to your own feelings of exhaustion and adjust the training program accordingly.

Your Running Computer Guides Your Training with Polar sport zones

Your running computer offers you an option to take advantage of the sport zones in a very easy way. You can choose sport zones as target heart rate zones. You can set timers or distances to remind you when to change the zone to another one during an exercise or you can change the zone manually. For more instructions, see the chapter Exercise Settings on page 35.

Polar sport zones work best when you know your maximum heart rate and your aerobic and anaerobic thresholds. For determining your maximum heart rate you can use the age formula (as a default in your running computer), Predicted Maximum Heart Rate (HR_{max-p}), or have the value measured in a laboratory. Use sport zones when you have a sport performance goal (e.g., you train for a specific running event) or you want to target specific benefits in each of your workouts.

You can download personalized training programs for running based on Polar sport zones at www.PolarRunningCoach.com web service.

5.3 MANUAL LIMITS

Instead of determining your target heart rate zone by using OwnZone or Polar sport zones, you can define your target heart rate limits manually.

Your target heart rate zone is a range between the lower and upper heart rate limits expressed as percentages of your maximum heart rate (HR_{max}) or as beats per minute (bpm). HR_{max} is the highest number of heartbeats per minute during maximum physical exertion. As a default, the wrist unit calculates your HR_{max} using your age (Maximum heart rate = $220 - \text{age}$). A more accurate HR_{max} value can be obtained from the Predicted Maximum Heart Rate (HR_{max-p}) test (for more information, see the next page). For the most accurate measurement of your HR_{max} , visit your doctor or exercise physiologist for an exercise stress test.

The table below contains target heart rate zones in beats per minute (bpm) estimated by age in 5-year intervals. Write down your own HR_{max} and target heart rate zones and select the ones suitable for your training.

Age	HR_{max}	50-60% of HR_{max}	60-70% of HR_{max}	70-80% of HR_{max}	80-90% of HR_{max}	90-100% of HR_{max}
20	200	100-120	120-140	140-160	160-180	180-200
25	195	98-117	117-137	137-156	156-176	176-195
30	190	95-114	114-133	133-152	152-171	171-190
35	185	93-111	111-130	130-148	148-167	167-185
40	180	90-108	108-126	126-144	144-162	162-180
45	175	88-105	105-123	123-140	140-158	158-175
50	170	85-102	102-119	119-136	136-153	153-170
55	165	83-99	99-116	116-132	132-149	149-165
60	160	80-96	96-112	112-128	128-144	144-160
65	155	78-93	93-109	109-124	124-140	140-155

6. TEST - POLAR FITNESS TEST

The Polar Fitness Test is an easy, safe, and quick way to estimate individual maximal aerobic power and to obtain the predicted maximum heart rate value. The Polar Fitness Test is targeted to healthy adults.

OwnIndex

OwnIndex is a value comparable to maximal oxygen uptake (VO_{2max}), a commonly used descriptor of aerobic (cardiovascular) fitness. Aerobic fitness relates to how well your aerobic system works to transport and utilize oxygen in your body. The stronger and more efficient your heart, the better your aerobic fitness. VO_{2max} is a good indicator of performance in endurance sports.

If you want to improve your aerobic fitness, it takes a minimum of 6 weeks on average to see a noticeable change in OwnIndex. Less fit individuals see progress even more rapidly, while for fitter individuals more time is needed. The better the aerobic fitness of an individual, the smaller the improvements in OwnIndex. Aerobic fitness is best improved by exercise types that employ large muscle groups. Such activities include running, cycling, swimming, rowing, skating, cross-country skiing, and walking. To monitor your fitness progress start by measuring your OwnIndex a couple of times during the first two weeks in order to get a baseline value. Thereafter, repeat the test approximately once a month. OwnIndex is based on the resting heart rate, heart rate variability at rest, age, gender, height, body weight, and self-assessed physical activity.

Predicted Maximum Heart Rate (HR_{max-p})

The HR_{max-p} definition is carried out simultaneously with the Polar Fitness Test. The HR_{max-p} score predicts your individual maximum heart rate value more accurately than the age-based formula ($220 - \text{age}$). The age-based method provides a rough estimation and may not be very accurate, especially for people who have been fit for many years or for older people. The most accurate way of determining your individual maximum heart rate is to have it measured in a laboratory (in maximal treadmill or bicycle stress test) by a doctor or an exercise physiologist.

Your maximum heart rate changes to some extent in relation to your fitness. Regular endurance exercise tends to decrease the HR_{max} . There may also be some variation according to the sport you participate in. For example, running $HR_{max} >$ cycling $HR_{max} >$ swimming HR_{max} . HR_{max-p} gives the possibility of following maximum heart rate changes due to training, without an exhaustive maximal stress test. HR_{max-p} is based on resting heart rate, heart rate variability at rest, age, gender, height, body weight, and maximal oxygen uptake, and VO_{2max} (measured or predicted). The most accurate HR_{max} is obtained by entering your clinically measured VO_{2max} into your running computer.

Fitness Test Settings

To be able to carry out the Polar Fitness Test you need to make the following settings in your running computer:

- Set your personal user information and long-term physical activity level in the user settings. See more information on page 47.
- Set the HR_{max-p} on if you want to get a prediction of your maximum heart rate.
 1. In the Time mode, press the \blacktriangle / \blacktriangledown buttons until **Test** is displayed. Press the **Red** button.
 2. Scroll with the \blacktriangle / \blacktriangledown buttons until **HR max-p** is displayed. Press the **Red** button.
 3. Select **On** with the \blacktriangle / \blacktriangledown buttons and confirm with the **Red** button.

Carrying Out the Test

To get reliable test results, the following basic requirements apply:

- The test can take place anywhere - at home, at the office, at a health club - as long as the testing environment is peaceful. There should be no disturbing noises (e.g., television, radio, or telephone) and no other people talking to you.
- Keep the testing place, time of day, and environment the same every time the test is repeated.
- Avoid eating a heavy meal or smoking 2-3 hours prior to testing.
- Avoid heavy physical effort, alcoholic beverages, or pharmacological stimulants on the test day and the previous day.
- You should be relaxed and calm. **Lie down and relax** for 1-3 minutes before starting the test.



Start the Test

It takes 3-5 minutes to carry out the test.

1. In the Time mode select **Test** with the ▲ / ▼ buttons. Press the **Red** button.
2. Lie down and relax yourself for 1-3 minutes before the test.
3. Press **Start** with the **Red** button. Your running computer starts searching for your heart rate. **Fitness test starts in 5 sec** and your heart rate are displayed. The test begins. **Fitness Test Lay Down** is displayed.
4. Lie relaxed. Keep your hands alongside your body and avoid body movements. Don't communicate with other people.
5. When the test is ready you will hear two beeps. **Fitness test OwnIndex** and the result are displayed. The value is saved to **Trend** menu. For more information, see the section Fitness Classes on page 69.
6. Press the ▼ button to see the HR_{max-p} result (if HR_{max-p} is on). The text **Predicted maximum Heart Rate** and the value are displayed. Press the **Red** button to confirm.
7. **Update to VO2 max? No / Yes** is displayed. By selecting **Yes** the OwnIndex value is saved to user settings.
8. **Update to HR max? No / Yes** is displayed. By selecting **Yes** the HR_{max-p} value is saved to user settings.

Note:

- After saving the OwnIndex and HR_{max-p} values in user settings they will be used as a basis for calculating calorie consumption.
- If you have not set your long-term physical activity level in User Settings, **Set your personal activity level**. is displayed. Press the ▲ / ▼ buttons to select **Top**, **High**, **Moderate**, or **Low**. For further information on activity levels, see page 50.
- If your running computer does not receive your heart rate at the beginning or during the test, the test fails. **Fitness Test failed. Check sensor**. is displayed. Check that the transmitter electrodes are wet and that the textile strap is snug enough.

Interrupt the Test

- You can stop the determination any time during the test by pressing the **Stop** button. **Fitness test cancelled** is displayed for a few seconds. The latest OwnIndex and HR_{max-p} are not replaced.



In the **Trend** menu you can see how your OwnIndex value has been developing. Trend menu includes 16 of your latest OwnIndex values.



In the **HR max-p** menu you can set the function on or off.

Deleting values in the Trend view

Select the value you wish to delete and press and hold the **Light** button. **Delete value? No / Yes** is displayed. Confirm your selection with the **Red** button.

Fitness classes

The Polar Fitness Test result, your OwnIndex, is the most meaningful when comparing your individual values and changes in them. OwnIndex can also be interpreted according to your gender and age. Locate your OwnIndex on the table to find out your current aerobic fitness classification, compared with those who are of the same age and gender.

	Age YEARS	1 VERY LOW	2 LOW	3 FAIR	4 MODERATE	5 GOOD	6 VERY GOOD	7 ELITE
MEN	20-24	< 32	32-37	38-43	44-50	51-56	57-62	>62
	25-29	< 31	31-35	36-42	43-48	49-53	54-59	>59
	30-34	< 29	29-34	35-40	41-45	46-51	52-56	>56
	35-39	< 28	28-32	33-38	39-43	44-48	49-54	>54
	40-44	< 26	26-31	32-35	36-41	42-46	47-51	>51
	45-49	< 25	25-29	30-34	35-39	40-43	44-48	>48
	50-54	< 24	24-27	28-32	33-36	37-41	42-46	>46
	55-59	< 22	22-26	27-30	31-34	35-39	40-43	>43
	60-65	< 21	21-24	25-28	29-32	33-36	37-40	>40
WOMEN	20-24	< 27	27-31	32-36	37-41	42-46	47-51	>51
	25-29	< 26	26-30	31-35	36-40	41-44	45-49	>49
	30-34	< 25	25-29	30-33	34-37	38-42	43-46	>46
	35-39	< 24	24-27	28-31	32-35	36-40	41-44	>44
	40-44	< 22	22-25	26-29	30-33	34-37	38-41	>41
	45-49	< 21	21-23	24-27	28-31	32-35	36-38	>38
	50-54	< 19	19-22	23-25	26-29	30-32	33-36	>36
	55-59	< 18	18-20	21-23	24-27	28-30	31-33	>33
	60-65	< 16	16-18	19-21	22-24	25-27	28-30	>30

The classification is based on literature review of 62 studies where VO_{2max} was measured directly in healthy adult subjects in the USA, Canada and 7 European countries. Reference: Shvartz E, Reibold RC: Aerobic fitness norms for males and females aged 6 to 75 years: a review. *Aviat Space Environ Med*; 61:3-11, 1990.

Top athletes typically score OwnIndex values above 70 (men) and 60 (women). Values as high as 95 can be reached by Olympic level endurance athletes. OwnIndex is the highest in sports that involve large muscle groups such as cross-country skiing and cycling.

7. CONNECT - DATA COMMUNICATION

7.1 EDIT SETTINGS WITH A COMPUTER

Your running computer offers you the option of editing the settings of your wrist unit with a computer. You can also personalize the display of your running computer by downloading logos. For this you need the Polar UpLink Tool™. You can download the Polar UpLink Tool from www.polar.fi or from www.PolarRunningCoach.com. In order to be able to use the Polar UpLink Tool, you need a computer with a sound card and dynamic loudspeakers or headphones. See www.polar.fi or www.PolarRunningCoach.com for further instructions.

To transfer settings from your PC to your running computer:

1. In the Time mode press the ▲ / ▼ buttons until **Connect** is displayed. Press the **Red** button.
2. Hold your running computer within less than 10 cm / 4" from the loudspeakers or headphones. Select **Receive** from the menu and confirm with the **Red** button.
3. Start the data transfer from your PC.
4. If the data transfer succeeded, **UpLink Receive OK!** is displayed. If the transfer fails, **UpLink Receive Failed!** is displayed.

7.2 TRANSFER YOUR TRAINING DATA TO THE TRAINING DIARY ON THE WEB

The Polar Running Coach is a complete web service tailored to support your training goals. Free registration gives you access to a personalized training program, diary, tests and calculators, useful articles, and much more. You can gain access and start the registration process for the web service at www.PolarRunningCoach.com.

Your running computer with the SonicLink™ data communication feature offers you the option of transferring exercise files to your personal training diary on the Polar Running Coach web service. For this you need the Polar WebLink™ software. You can download the Polar WebLink to your PC at www.PolarRunningCoach.com.

In order to be able to transfer the recorded training information with Polar WebLink, you need a personal computer with a sound card and microphone.

To transfer files from your running computer to the web service:

1. In the Time mode press the ▲ / ▼ buttons until **Connect** is displayed. Press the **Red** button.
2. Hold your running computer within 0-5 cm / 0-2" of the microphone. Select **Send** and confirm with the **Red** button. You can send separate exercises by selecting **Exercise** and choosing the exercise you wish to send. You can also send **Follow-up** information.
3. If the data transfer succeeded, **SonicLink Send OK!** is displayed. If the transfer fails **SonicLink Send Failed!** is displayed.

See the help pages of the Polar WebLink software or www.PolarRunningCoach.com for further instructions.

8. CARE AND MAINTENANCE

Like any electronic device, your running computer should be treated with care. The suggestions below will help you fulfill the guarantee obligations and enjoy this product for many years to come.


Taking Care of Your Running Computer

- Store your wrist unit and transmitter in a cool and dry place. Do not store them in a damp environment, in non-breathable material (such as a plastic bag or a sports bag), or with conductive material such as a wet towel. Sweat and moisture can keep the transmitter electrodes wet and the transmitter activated, shortening battery life.
- Keep your unit clean. Clean it with a mild soap and water solution. Dry it carefully with a soft towel. Never use alcohol or any abrasive material such as steel wool or cleaning chemicals.
- The operating temperatures are -10 °C to +50 °C / +14 °F to +122 °F.
- Do not expose the running computer to direct sunlight for extended periods, such as by leaving it in a car.





Service

During the two-year guarantee / warranty period we recommend that you service the product at an authorized Polar Service Center only. The warranty does not cover damage or consequential damage caused by service not authorized by Polar Electro.

Wrist Unit Battery

The estimated average battery life of the wrist unit is two years in normal use (1h/day, 7 days/week). Excessive use of the backlight drains the wrist unit's battery more rapidly. The low battery indicator  is displayed when 10-15% of the wrist unit battery capacity is left and the battery should be replaced. Do not open the wrist unit yourself. To ensure water resistance properties and the use of qualified components, the wrist unit battery should be replaced by an authorized Polar Service Center only. At the same time, a full periodic check of the running computer will be done.

Note:

- The backlight and wrist unit sounds are automatically deactivated when  is displayed. However, the alarm sound works once, if you have activated the Alarm before the  symbol appears. The alarm symbol  will also disappear from the display.
- In cold conditions the low battery indicator  may appear, but the indicator disappears when you return to a normal temperature.
- Water resistance cannot be guaranteed after unauthorized service.
- After a battery change, re-enter the time and date settings in Basic Settings. For further information, see page 7.

Taking Care of Your Footpod

- Wipe dry the Polar S1 Foot Pod.
- Avoid hard hits to the S1 Foot Pod as these may cause damage.

S1 Foot Pod Battery

The battery of the footpod needs to be replaced if the green light on the footpod turns red or there is no light at all when you press and hold the red button on the footpod. Check the chapter Assembling the S1 Foot Pod Battery on page 11 for replacing the battery.

Taking Care of Your WearLink Transmitter

Detach the connector from the strap when not in use. If you use insect repellent on your skin, you must ensure that it does not come into contact with the transmitter.

WearLink Connector

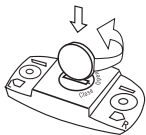
- Clean the connector regularly after use with a mild soap and water solution.
- Never use alcohol or any abrasive material such as steel wool or cleaning chemicals on any part of the transmitter.
- Do not dry the connector in any other way than with a towel. Mishandling may damage it.
- Never put the connector in a washing machine or a drier!

WearLink Strap

- The strap can be washed in a washing machine at 40 °C / 104 °F. We recommend that you use a washing pouch.
- We recommend that you wash the strap after each use in pool water with a high chlorine content.
- Do not spin-dry the strap or put the strap in a drier!
- Do not iron the strap!

WearLink Transmitter Battery

The estimated average battery lifespan of the transmitter is 2 years (usage: 1h/day, 7 days/week). If your transmitter stops working, it might be due to the battery running out. To change the battery, you need a coin, sealing ring, and battery (CR 2025).



1. Open the battery cover of the connector by turning it counter-clockwise with a coin from the CLOSE position to the OPEN position.
2. Remove the battery cover, lift the battery and replace it with a new battery.
3. Remove the sealing ring of the battery cover and replace it with a new ring.
4. Place the negative (-) side of the battery against the bottom and the positive (+) side against the cover.
5. Put the cover on so that the arrow points to the OPEN position. Make sure that the cover's sealing ring is placed correctly in its groove.
6. Gently press the cover deep enough so that its exterior surface is on the same level as the connector's surface.

7. Turn the cover with the coin clockwise so that the arrow on the cover turns from OPEN to CLOSE. Make sure that the cover is closed properly!

Note:

- In order to ensure the maximum life span of the connector's battery cover, open it only when you need to change the battery. We recommend that you change the sealing ring of the battery cover every time you change the battery. You can get the sealing ring / battery kits from well-equipped Polar retailers and authorized Polar Services. In the USA and Canada: Additional sealing rings are available from an authorized Polar Service Center only.
- Keep the batteries away from children. If swallowed, contact a doctor immediately.
- Batteries should be disposed of properly according to local regulations.

9. PRECAUTIONS

Interference During Exercise

Electromagnetic Interference

Disturbances may occur near high voltage power lines, traffic lights, overhead lines of electric railways, electric bus lines or trams, televisions, car motors, bike computers, some motor driven exercise equipment, cellular phones, or when you walk through electric security gates.

Exercise Equipment

Several pieces of exercise equipment with electronic or electrical components such as LED displays, motors, and electrical brakes may cause interfering stray signals. To tackle these problems, try the following:

1. Remove the transmitter from your chest and use the exercise equipment as you would normally.
2. Move the wrist unit around until you find an area in which it displays no stray reading or does not flash the heart symbol. Interference is often worst right in front of the display panel of the equipment, while the left or right side of the display is relatively free of disturbance.
3. Put the transmitter back on your chest and keep the wrist unit in this interference-free area as much as possible.
4. If the running computer still does not work with the exercise equipment, this piece of equipment may be electrically too noisy for wireless heart rate measurement.

Crosstalk

When in the non-coded mode the wrist unit picks up transmitter signals within 1 m / 3 ft. Simultaneous non-coded signals from more than one transmitter can cause an incorrect readout.

Using Your Polar Running Computer in a Water Environment

Your running computer can be worn when swimming. The running computer is not, however, a diving instrument. To maintain water resistance, do not press the buttons of the wrist unit under water. When measuring the heart rate in water you may experience interference for the following reasons:

- Pool water with a high chlorine content and seawater are very conductive. The electrodes of a transmitter may short-circuit, preventing ECG signals from being detected by the transmitter.
- Jumping into water or a strenuous muscle movement during competitive swimming may cause water resistance that shifts the transmitter to a location on the body where ECG signals cannot be picked up.
- The ECG signal strength depends on the individual and varies depending on the individual's tissue composition. The occurrence of problems when measuring the heart rate is considerably higher in water.

- The S1 Foot Pod can be used in any wet running environment, including rain, but it is not intended for underwater use.

Minimizing Possible Risks When Exercising

Exercise may include some risk. Before beginning a regular exercise program, it is recommended that you answer the following questions concerning your health status. If you answer yes to any of these questions, we recommend that you consult a doctor before starting any training program.

- Have you been physically inactive for the past 5 years?
- Do you have high blood pressure or high blood cholesterol?
- Do you have symptoms of any disease?
- Are you taking any blood pressure or heart medication?
- Do you have a history of breathing problems?
- Are you recovering from a serious illness or medical treatment?
- Do you use a pacemaker or another implanted electronic device?
- Do you smoke?
- Are you pregnant?

Note that in addition to exercise intensity, medications for heart, blood pressure, psychological conditions, asthma, breathing etc. as well as some energy drinks, alcohol, and nicotine may affect your heart rate.

It is important to be sensitive to your body's responses during exercise. If you feel unexpected pain or excessive fatigue when exercising, it is recommended that you stop the exercise or continue at a lighter intensity.

Notice to individuals with pacemakers, defibrillators, or other implanted electronic devices. Individuals who have a pacemaker use the running computer at their own risk. Before starting use, we always recommend a maximal exercise stress test under a doctor's supervision. The test is to ensure the safety and reliability of the simultaneous use of the pacemaker and the Polar Running Computer.

If you are allergic to any substance that comes into contact with your skin, or if you suspect an allergic reaction due to using the product, check the listed materials on page 80. To avoid any skin reaction to the transmitter, wear it over a shirt. However, moisten the shirt well under the electrodes to ensure flawless operation.

Your safety is important to us. The shape of the footpod is designed to minimize the possibility of it getting caught in something. In any case, be careful when running with the footpod in brushwood, for example.

10. FREQUENTLY ASKED QUESTIONS

What should I do if...

...I do not know where I am in the menu?

Press and hold the **Stop** button until the time of day is displayed.

...there are no reactions to any buttons?

Reset the wrist unit by pressing the four side buttons simultaneously for 2 seconds. Set the time and date in the Basic Setting after the reset. Other settings are saved. You can skip the rest of the settings by pressing and holding the **Stop** button.

...the heart rate reading becomes erratic or extremely high?

Strong electromagnetic signals can cause erratic readings. So move away from possible sources of disturbance such as high-voltage power lines, traffic lights, overhead lines of electric railways or trams, car motors, bike computers, some motor-driven exercise equipment (like fitness testers), or cellular phones.

If moving away does not help and the heart rate reading remains erratic, slow down your speed and check your pulse manually. If you feel it corresponds to the high reading on the display, you may be experiencing cardiac arrhythmia. Most cases of arrhythmia are not serious, but consult your doctor nevertheless.

...the heart symbol flashes irregularly?

- Check that your wrist unit is not further than 1 m / 3 ft from the transmitter.
- Check that the transmitter has not become loose during exercise.
- Make sure that the electrodes of the transmitter are moistened.
- Make sure that there is no other heart rate transmitter within 1 m / 3 ft.

- Cardiac arrhythmia may cause irregular readings. In this case, consult your physician.

...there is no heart rate reading (- -)?

- Check that the electrodes of the transmitter are moistened and that you are wearing it as instructed.
- Make sure the transmitter is clean.
- Check that you are not near high voltage power lines, televisions, cellular phones or other sources of electromagnetic interference. Also make sure that you are not near (1 m / 3 ft) other heart rate monitor users, when starting you exercise recording.
- Cardiac arrhythmia may cause irregular readings or a cardiac event may have altered your ECG waveform. In these cases, consult your physician.

...another person with a running computer or a heart rate monitor is causing interference?

Move away from that person and continue your exercise normally.

Alternatively,

1. Take the transmitter off your chest for 30 seconds. Stay away from the person with the other device.
2. Put the transmitter back on and bring the wrist unit up to your chest near the transmitter's Polar logo. The wrist unit will start looking for a heart rate signal again. Continue your exercise normally.

...the low battery symbol appears?

Usually the first sign of an expired battery is the low battery indicator on the display. For further information, see page 72.

Note: In cold conditions the low battery indicator may appear, but the indicator disappears when you return to a normal temperature.

...the display is blank?

The running computer is in the battery saving mode when it is dispatched from the factory. To activate it, press any button. The Basic Settings starts. For further information, see page 7. Alternatively the battery may be dead (see the next question for further instructions).

...the battery of the wrist unit must be replaced?

We recommend having all service done by an authorized Polar Service Center. This is especially necessary to ensure that the guarantee remains valid and is not affected by incorrect repair procedures performed by an unauthorized agent. The Polar Service Center will test your wrist unit for water resistance after battery replacement and make a full periodic check of the complete Running Computer Set.

...Check Footpod! message appears on the display?

- Check that you have turned on the footpod function from the wrist unit.
- Make sure that the footpod is turned on.
- If there is no light on the footpod the battery needs to be replaced. For instructions on changing the battery, see the chapter Assembling the S1 Foot Pod Battery on page 11.
- If you keep the wrist unit in front of you for longer than 15 seconds the speed and distance measurements stop. You need to reactivate the measurements by moving your hand.
- If you are running on a treadmill and have attached the wrist unit to a crossbar in front of you, try moving the wrist unit sideways.

...I have replaced the battery of the footpod, but the sensor still does not work?

Please contact your local Polar distributor. Check www.polar.fi for the contact information of the local Polar distributors.

...there are no or irregular running speed readings on the display?

- Keep at a distance from other runners with footpods.
- If you keep the wrist unit in front of you for longer than 15 seconds the speed and distance measurements stop. You need to reactivate the measurements by moving your hand.

11. TECHNICAL SPECIFICATIONS

The Polar running computer displays your performance indicators and helps you achieve your personal training goals. It indicates the level of physiological strain and intensity during your exercise. No other use is intended or implied.

The water resistance of Polar products is tested according to International Standard ISO 2281. Products are divided into three different categories according to their water resistance. Check the back of your Polar product for the water resistance category and compare it to the chart below. Please note that these definitions do not necessarily apply to products of other manufacturers.

Marking on the case back	Wash splashes, sweat, raindrops etc.	Bathing and swimming	Skin diving with snorkel (no air tanks)	SCUBA diving (with air tanks)	Water resistant characteristics
Water resistant	X				Splashes, raindrops etc.
Water resistant 50m	X	X			Minimum for bathing and swimming*
Water resistant 100m	X	X	X		For frequent use in water but no SCUBA diving

*) These characteristics also apply to Polar WearLink Transmitter having Water resistant 30m marking on them.

WRIST UNIT

Battery life:	Average 2 years normal use (1h/day, 7 days/week)
Battery type:	CR 2032
Operating temperature:	-10 °C to +50 °C / +14 °F to +122 °F
Wrist strap material:	Polyurethane
Back cover and wrist strap buckle material:	Stainless steel complying with the EU Directive 94/27/EU and its amendment 1999/C 205/05 on the release of nickel from products intended to come into direct and prolonged contact with the skin.

Watch

Accuracy:	better than \pm 0.5 seconds/day at 25 °C / 77 °F temperature.
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Heart Rate Monitor

Accuracy:	\pm 1% or 1 bpm, whichever larger, definition applies to steady-state conditions.
Heart rate measuring range:	15-240

Totals

Maximum time stored to Total Duration:	9999 h
Maximum amount of calories stored to Total Calories:	999999 kcal
Maximum number of exercises stored to Total Exe.Count:	9999
Maximum number of km / mi stored to Total Distance:	999999 km / 621370 mi
Maximum number of laps stored:	99
Maximum exercise time:	100 h

TRANSMITTER

Battery type:	CR 2025
Battery sealing ring:	O-ring 20.0 x 1.0 Material FPM
Battery life:	Average 2 years (1 h/day, 7 days/week)
Operating temperature:	-10 °C to +50 °C / 14 °F to 122 °F
Connector material:	Polyamide
Strap material:	Polyurethane, polyamide, nylon, polyester and elasthane

S1 FOOT POD

Operating temperature:	-10 °C to +50 °C / 14 °F to 122 °F
Battery:	one AAA sized battery
Battery life:	average 20 hours of use
Weight:	62 g / 2,2 oz (without a battery)
Accuracy:	\pm 3% or better once calibrated, definition applies to steady-state conditions.

SYSTEM REQUIREMENTS

Polar WebLink using SonicLink™ data communication

- PC
- Windows® 98/98SE/ME/ 2000/XP
- Sound card
- Microphone


Polar UpLink Tool

- PC
- Windows® 98/98SE/ME/2000/XP
- Sound card
- Dynamic loudspeakers or headphones

12. LIMITED POLAR INTERNATIONAL GUARANTEE

- This limited Polar international guarantee is issued by Polar Electro Inc. for the consumers who have purchased this product in the USA or Canada. This limited Polar international guarantee is issued by Polar Electro Oy for the consumers who have purchased this product in other countries.
- Polar Electro Oy / Polar Electro Inc. guarantees to the original consumer / purchaser of this device that the product will be free from defects in material or workmanship for two years from the date of purchase.
- **Please keep the receipt or stamped Polar Customer Service Card. This is your proof of purchase!**
- The guarantee does not cover the battery, damage due to misuse, abuse, accidents or non-compliance with the precautions; improper maintenance, commercial use, cracked or broken cases and elastic strap.
- Guarantee does not cover any damage/s, losses, costs or expenses, direct, indirect or incidental, consequential or special, arising out of, or related to the product. During the guarantee period the product will be either repaired or replaced at an authorized Service Center free of charge.
- This guarantee does not affect the consumer's statutory rights under applicable national or state laws in force, or the consumer's rights against the dealer arising from their sales / purchase contract.

CE 0537 This CE marking shows compliance of this product with Directive 93/42/EEC.

 This crossed out wheeled bin marking shows that Polar products are electronic devices and are in the scope of Directive 2002/96/EC of the European Parliament and of the Council on waste electrical and electronic equipment (WEEE). These products should thus be disposed of separately in EU countries. Polar encourages you to minimize possible effects of waste on the environment and human health also outside the European Union by following local waste disposal regulations and, where possible, utilize separate collection of electronic devices.

Polar Electro Oy is a ISO 9001:2000 certified company.

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13. POLAR DISCLAIMER

- The material in this manual is for informational purposes only. The products it describes are subject to change without prior notice, due to the manufacturer's continuous development program.
- Polar Electro Inc. / Polar Electro Oy makes no representations or warranties with respect to this manual or with respect to the products described herein.
- Polar Electro Inc. / Polar Electro Oy shall not be liable for any damages, losses, costs or expenses, direct, indirect or incidental, consequential or special, arising out of, or related to the use of this material of the products described herein.

This product is protected by one or several of the following patents:

WO96/20640, US6104947, US6277080, WO97/33512, GB2326240, HK1016857, US 6361502, US 6418394, US 6537227, US 5719825, US 5848027, EP 1055158, US6714812, FI88972, FR92.09150, GB2258587, HK306/1996, SG9592117-7, US5486818, FI96380, US5611346, EP665947, DE69414362, FI 110915. Other patents pending.

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