POLAR

LISTEN TO YOUR BODY

Polar RCX3
User manual

POLAR®

LISTEN TO YOUR BODY

CONTENTS

1. INTRODUCTION

Congratulations on the purchase of your Polar RCX3™ training computer! The RCX3 training computer offers you a complete system to guide you in your training.

POLARPERSONALTRAINER.COM
WEB SERVICE

WEBSYNC SOFTWARE

DATALINK DATA TRANSFER UNIT

WEARLINK®+
TRANSMITTER W.I.N.D.

G3 GPS SENSOR W.I.N.D. /
G5 GPS SENSOR

S3+ STRIDE SENSOR

CS SPEED SENSOR W.I.N.D AND
CS CADENCE SENSOR W.I.N.D

This user manual includes complete instructions, helping you to get the most out of your training computer.

The latest version of this user manual can be downloaded at www.polar.fi/support. For video tutorials, go to http://www.polar.fi/en/polar_community/videos.

Key Features and Benefits

The **Sport Profile feature** helps you start your training session with ease. The RCX3 provides four sport profiles; one for running, two for cycling and one for other sports.

The **Polar Sport Zones feature** helps your to train at the right intesity. You can lock your target sport zone for a training session. When your heart rate goes below or above the target sport zone, the RCX3 gives a visual and audible alarm.

By using the **ZoneOptimizer feature** at the beginning of every training session you can make sure you train at the right intensity. The ZoneOptimizer adjusts the Sport Zones depending on your physiological state at that exact moment.

The **Training Benefit feature** helps you better understand the benefits of your training by giving textual feedback of your performance.

The **Training load feature** in polarpersonaltrainer.com tells you conveniently at a glance on the calendar view how hard the training session was and when you will have recovered enough for the next session. Continuous monitoring of training load and recovery will help you recognize your personal limits, avoid over or under training, and adapt your training program according to daily and weekly targets.

2. THE COMPLETE TRAINING SYSTEM

Training Computer Parts

Polar RCX3 training computer provides you with data you need to enhance your training performance, and also saves the data for later analysis.
Register your Polar product at http://register.polar.fi/ to ensure we can keep improving our products and services to better meet your needs.

Comfortable heart rate sensor **Polar WearLink® transmitter W.I.N.D.** detects your heart rate accurately from the heart's electrical signals and sends the data to the training computer in real time.
The heart rate sensor consists of a connector and a strap.

Transfer data between the training computer and the polarpersonaltrainer.com web service with **Polar DataLink** data transfer unit and WebSync software. DataLink plugs into a USB port on your computer, and it detects your training computer with wireless W.I.N.D. technology.
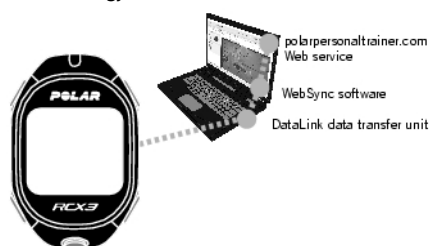
Training Software

With **Polar WebSync software*** you can

- synchronize and transfer data between your training computer and polarpersonaltrainer.com,
- fine-tune your training computer settings and set the Power Save mode on/off, and
- customize your RCX3 training computer display for example with your own logo
- export data to other softwares.

The WebSync software can be downloaded at www.polarpersonaltrainer.com.
*The optional DataLink data transfer unit can be purchased as an accessory.

With the **polarpersonaltrainer.com web service** you can

- share your training information in social media,
- get more detailed information on your training feedback
- store your training files manually or by using the DataLink, and follow up your progress
- see your training route (optional Polar G5 or Polar G3 GPS sensor W.I.N.D. needed)
- analyze training intensity and needed recovery time using the Training Load feature, and
- challenge your friends to virtual sports competitions.

(i) *The username for your Polar Account is always your email address. The same username and password are valid for Polar product registration, polarpersonaltrainer.com, Polar discussion forum and Newsletter registration.*

Available Accessories

With the help of Polar accessories, you can enhance your training experience and achieve a more complete understanding of your performance.

Optional **Polar s3+ stride sensor** wirelessly measures speed/pace, distance, running cadence and stride length.

Optional **Polar G5 GPS sensor / Polar G3 GPS sensor W.I.N.D.** transmits speed/pace, distance and location data, as well as track information to RCX3, which records and displays the data for later analysis.

Optional **Polar CS cadence sensor W.I.N.D.** wirelessly measures cycling cadence, i.e. your real-time and average pedaling rate as revolutions per minute.

Optional **Polar CS speed sensor W.I.N.D.** wirelessly measures cycling distance and your real-time, average and maximum speeds.

Data from all compatible sensors is sent wirelessly to the training computer over the 2.4 GHz W.I.N.D. technology, proprietary to Polar. This eliminates interference during training.

3. GETTING STARTED

Basic Settings

Before using your training computer for the first time, customize the basic settings. Enter as accurate data as possible to ensure correct feedback based on your performance.

Activate your training computer, by pressing OK. **Select language** is displayed. You can select from

Dansk, **Deutsch**, **English**, **Español**, **Français**, **Italiano**, **Nederlands**, **Norsk**, **Português**, **Suomi** or **Svenska** and accept with OK. **Please enter basic settings** is displayed. Press OK and adjust the following data:

1. **Time**: Select **12h** or **24h**. With **12h**, select **AM** or **PM**. Enter the local time.
2. **Date**: Enter current date.
3. **Units**: Select metric **(kg/cm)** or imperial **(lb/ft)** units.
4. **Weight**: Enter your weight.
5. **Height**: Enter your height. In LB/FT format, first enter feet then inches.
6. **Date of birth**: Enter your date of birth.
7. **Sex**: Select **Male** or **Female**.
8. **Settings OK?** is displayed. To change your settings, press BACK until you return to the desired setting. To accept the settings, press OK and the training computer goes to the time mode.

(i) *It is important that you are precise with the Basic Settings, especially when setting your weight, height, date of birth and sex, as they have an impact on the accuracy of the measuring values, such as the heart rate limits and calorie expenditure.*

Button Functions and Menu Structure

Button Functions

The training computer has five buttons that have different functionalities depending on the situation of use.

LIGHT	BACK	OK	UP	DOWN

• Illuminate the display • Press and hold to unlock buttons, if the buttons are locked. • In time mode, press and hold to enter **QUICK MENU** • In pre-training mode, press and hold to enter **QUICK MENU** • In training mode, press and hold to enter **QUICK MENU** For more information on quick menu, see Quick menu (page ?).	• Exit the menu • Return to previous level • Leave settings unchanged • Cancel selections • **Press and hold** to return time mode from any other mode.	• Confirm selections • Start training session • Take a lap • **Press and hold** to set zone lock on/off in training mode.	• Move through selection lists • Adjust a selected value • In time mode, press and hold to change the watch face.	• Move through selection lists • Adjust a selected value • In time mode, press and hold to switch between Time 1/ Time 2.

Menu Structure

Data

Follow up on your training data. For more information, see After Training (page 20).

Settings

Personalize your training computer and select the necessary features for each of the sport profiles to suit your training. For more information, see Settings (page 27).

Fitness Test

To train right and to monitor your progress, it is important to know your current fitness level. The Polar Fitness Test is an easy and quick way to measure your cardiovascular fitness and aerobic capacity. The test is performed at rest. The test result is a value called OwnIndex. OwnIndex is comparable to maximal

oxygen uptake (VO$_{2max}$), which is a commonly used aerobic capacity measure. For more information, see Polar Fitness Test (page 32).

Connect

For long-term follow-up, store all your training files in the polarpersonaltrainer.com web service. There you can view information of your training data and get a better understanding of your training. Polar DataLink data transfer unit and WebSync software make it easy to transfer training files to the web service. For more information, see Data Transfer (page 26)

4. PREPARE FOR TRAINING

Sport Profiles

The Polar RCX3 training computer provides four sport profiles; one for running, two for cycling and one for other sports.

Adjust the settings for the sport profiles to suit your training needs in **MENU** > **Settings** > **Sport profiles**. You can, for example, activate the sensors you want to use in the sport. Then when you start a training session using the sport profile, the training computer detects the needed sensors automatically

When you activate an optional sensor (s3+ stride sensor, G5/G3 GPS sensor, CS speed sensor W.I.N.D. or CS cadence sensor W.I.N.D.) for the first time, it needs to be paired with the training computer. For more information on the sport profile settings and pairing a sensor with the training computer, see Sport Profile Settings (page 27) and Using a New Accessory (page 36).

Calibrate the Polar s3+ Stride Sensor

Polar s3+ stride sensor can be set on only for the **Running** sport profile.

Calibration of the stride sensor improves the accuracy of speed/pace and distance measurements. It is recommended that you calibrate the stride sensor before using it for the first time, if there are significant changes in your running style, or if the position of the stride sensor on the shoe is dramatically changed (e.g. if you have new shoes or if you switch the sensor from your right shoe to your left one). You can calibrate the stride sensor by running a known accurate distance, or by setting the calibration factor manually. The calibration should be done at the speed you normally run. If you run at different speeds, the calibration should be done at your average speed.

Calibration by Running Wizard

ⓘ *Before calibration the stride sensor needs to be paired with the training computer. For more information on pairing the stride sensor and training computer, see Using a New Accessory (page 36).*

Make sure the stride sensor function in the training computer is on. Press UP to enter **MENU** and select **Settings** > **Sport profiles** > **Running**> **Stride sensor** > **On**.

To calibrate a certain distance with a step-by-step guidance, select

1. **MENU** > **Settings** > **Sport profiles** > **Running** > **Stride sensor calibration** > **By running**. **Set distance** is displayed.
2. Adjust the distance, how far you wish to run, to calibrate the stride sensor (minimum calibration distance is 400 meters / 0.3 miles). Press OK. **Stand still until stride sensor is found** is displayed.
3. **Press OK and run xx.x km/mi** is displayed. On the starting line, press OK and start your run by taking the first step with your sensor foot and run the preset distance at a steady pace.
4. **Press OK after xx.x km/mi** is displayed. Stop exactly on the finish line of the preset distance and press OK.
5. When the calibration succeeds, **Calibrated to x.xxx** is displayed. The new calibration factor is used. **Continue recording?** is displayed. If you wish to continue the training session recording, select **Yes**. Otherwise, select **No**.
6. To cancel the calibration press BACK, **Calibration canceled** is displayed.
   If the calibration fails **Calibration failed** is displayed and if you cancel the calibration by pressing BACK, **Calibration canceled** will be displayed. If calibration fails, try again.

Set Calibration Factor Manually
The calibration factor is calculated as a ratio of the actual distance to the uncalibrated distance. Example: you run 1200m, and the training computer shows a distance of 1180m, the calibration factor is 1.000. Calculate the new calibration factor as follows: 1.000*1200/1180 = 1.017. The measuring range for the factor is 0.500-1.500.

To calibrate the stride sensor manually before training, select

1. **Settings** > **Sport profiles** > **Running**> **Stride sensor** > **Set factor**.
2. Adjust the factor. **Calibareted to x.xx** is displayed.

The calibration factor can also be set during training, when the stride sensor is in use. Press and hold LIGHT to enter the **Quick menu** and then select **Calibrate stride sensor** > **Set factor**. **Calibareted to x.xx** is displayed and you can continue running.

Calibrate Sensor by Running a Known Distance (on-the-fly calibration)

ⓘ *Before calibration the stride sensor needs to be paired with the training computer. For more information on pairing the stride sensor and training computer, see Using a New Accessory (page 36).*

Set correct lap distance

You can calibrate the sensor at any phase of your training with lap distance correction, provided you are not training with distance-based targets. Just run a known distance, preferably more than 1000 meters / 0,62 miles.

Make sure the stride sensor function in the training computer is on. In time mode press UP to enter **MENU** and select **Settings** > **Sport profiles** > **Running**> **Stride sensor** > **On**.

1. In time mode press OK and select **Running** as your sport profile. Press OK again and start running.
2. At the starting point of a known lap distance, press OK. When you have run the whole lap distance, press OK.
3. Then calibrate the sensor: Press and hold LIGHT to go enter **Quick menu**. Select **Calibrate stride sensor**.
4. Select **Set correct lap distance**. Fix the displayed lap distance with the distance you just ran, and press OK. **Calibrated to x.xxx** is displayed. The sensor is now calibrated and ready for action.

Set correct distance

Alternatively, you can calibrate the stride sensor by fixing the whole distance gathered.

1. In time mode press OK and select **Running** as your sport profile. Press OK again and start running.
2. Press and hold LIGHT to enter the **Quick menu**. Select **Calibrate stride sensor**.
3. Select **Set correct distance**. Fix the displayed distance with the distance you just ran, and press OK. **Calibrated to x.xxx** is displayed. The sensor is now calibrated and ready for action.

During training, there is also the possibility to set the calibration factor manually. Press and hold LIGHT to enter **Quick menu**. Select **Calibrate stride sensor** > **Set factor**.

5. TRAINING

Wear the Heart Rate Sensor

Wear the heart rate sensor to measure heart rate.

1. Wet the electrode areas of the strap under running water.

2. Attach the connector to the strap. Adjust the strap length to fit tightly but comfortably.

3. Tie the strap around your chest, just below the chest muscles, and attach the hook to the other end of the strap.

4. Check that the wet electrode areas are firmly against your skin and that the Polar logo of the connector is in a central and upright position.
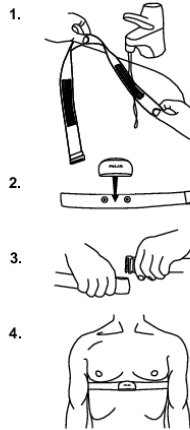
(i) *Detach the connector from the strap after every use, to maximize the battery lifetime. Sweat and moisture may keep the electrodes wet and the heart rate sensor activated. This will reduce the battery life. For more detailed washing instructions, see Important Information (page ?).*

See detailed washing instructions in Important Information.

For video tutorials, go to http://www.polar.fi/en/polar_community/videos.

Start Training

Wear the heart rate sensor and make sure you have set up an optional sensor* as instructed in the sensor's user manual. If you are using a speed, cadence, GPS or stride sensor for the first time, see Using a New Accessory (page 36). For sport profile settings see Sport Profile Settings (page 27). To use Polar ZoneOptimizer feature for your training session, see Train with Polar ZoneOptimizer (page 13).

1. Start your training session by pressing OK. The training computer goes into pre-training mode.
The sport profile shown first on the list is the sport previously used in a training session.
To change the sport profile for the training session, browse with UP/DOWN.

2. To change the sport profile settings or heart rate settings before the training recording is started (in pre-training mode), press and hold LIGHT to enter QUICK MENU. For more information, see Quick menu (page 31). To return to pretraining mode, press BACK.

3. If you have activated an optional sensor for the sport profile, the training computer will automatically search for the signal.

4. The check mark indicates that the signal is found. If the training computer does not find the signal, the display shows a triangle with an exclamation mark.

   (i) *Do not use the backlight during sensor search. The sensor search does not operate when the backlight is on.*

5. Once the training computer has found all the signals, press OK. **Recording started** is displayed and you can start training. During training recording you can change the training view by browsing with UP/DOWN. To change settings without stopping the training recording, press and hold LIGHT to enter QUICK MENU. For more information, see Quick menu (page 31).

*Optional sensors include Polar s3+ stride sensor, Polar G5 GPS sensor / Polar G3 GPS sensor W.I.N.D., Polar CS speed sensor W.I.N.D. or Polar CS cadence sensor W.I.N.D.

Train with Polar ZoneOptimizer

Polar ZoneOptimizer is a smart training feature that provides personal, optimized sport zones for your every aerobic training session. It reads your heart rate variability at the start of each training session to determine how much your body is ready to train. It then adjusts heart rate limits accordingly so that you get the maximum benefit from your training, whatever the day.

(i) *ZoneOptimizer function is developed for the use of healthy people. Some health conditions may cause ZoneOptimizer to give lower intensity targets, or revert to default heart rate zones. These conditions include high blood pressure, and cardiac arrhythmia. Certain medications may also influence the determination.*

How does Polar ZoneOptimizer work?

You know how sometimes you can train hard and you feel you can keep on at it for a long time. Then there are days when the same intensity absolutely exhausts you. This is because your body's physiological state can vary from day to day. When your body is not recovered, you cannot train as intensively as on another day when your body is more rested.

Your body's physiological state is reflected in your heart rate variability. And since ZoneOptimizer is based on heart rate variability, it can tell what your body is ready for just by listening to your heart. At the start of an exercise, once the ZoneOptimizer determination is done, you get a recommendation of heart rate limits for each sport zone. For more information on sport zones, see Polar Sport Zones (page 38).

ZoneOptimizer adjusts the limits for your heart rate zones to reflect your body's state. When your heart rate variation is high it means your body's physiological state is good and you can work at higher intensity. ZoneOptimizer knows this and suggests that you exercise with higher heart rate limits. When your body is not recovered, your heart rate variation is low and the heart rate zone limits are lowered. So, one day ZoneOptimizer would say that light training for you is done between 114-133 beats per minute (bpm). On another day, when you are not that recovered, light training limits might be lowered to 111-129bpm. ZoneOptimer helps you to always train at the appropriate intensity for the maximal benefit.

ZoneOptimizer also gives you feedback on your daily physiological status (good/normal/low). It knows it by comparing the amount of heart rate variability you have now with earlier measurements. Without

ZoneOptimizer you can estimate your daily physiological status by paying attention to how fast and how easily you can do training at the recommended heart rates.

Start Training Session with Polar ZoneOptimizer

To use the ZoneOptimizer function in your training, set in on by selecting **MENU** > **Settings** > **Heart rate settings** > **ZoneOptimizer** > **On** .

Before ZoneOptimizer determination, make sure that you have the Polar default Sport Zone limits in use i.e. you have not modified the Sport Zone limits manually. If you want to modify the Sport Zone manually, set the ZoneOptimizer function off.

To start the training session with ZoneOptimizer press OK.
When you see the ECG-curve on the top right hand corner on the display, you will know that the heart rate measurement and ZoneOptimizer are on.
Select the sport profile you want to use for your training session with UP/DOWN and press OK to start training.

Phase 1. Preparing for training session: Lots of heart rate variability.

1. The ZoneOptimizer determination starts. **Start increasing your heart rate slowly to 100 bpm. Spend at least 2 minutes above 70 bpm but below 100 bpm.**
   This can be achieved by standing or with very light training intensity, for example, walking slowly.
   Because at this stage there is still a lot of heart rate variability, it's easy to detect daily changes. The alarm will sound, when the first part of the determination is finished.

Phase 2. Warming up: heart rate rises slowly and heart rate variability decreases.

2. **Continue training at light intensity. Increase heart rate gradually, and keep it between 100 – 130 bpm for two minutes.**
   This can be achieved, for example, by walking briskly, or by cycling/jogging at low intensity during warm up.

During this phase heart rate variability starts decreasing, and the body prepares for higher intensities. The alarm will sound when the second part of the ZoneOptimizer determination is finished.

(i) *The ZoneOptimizer determination may already finish here, if the heart rate variation limit is reached .*

Phase 3. Heart rate variability levels off.

3. **Gradually increase your heart rate above 130 bpm (or 75% of your HRmax) and keep it there.**
   This is the training phase where heart rate variability starts being at a very low level, or it can almost disappear. All heart rate zone limits are adjusted when your heart rate variation disappears. The duration of the last phase is 6 minutes at maximum and you need to be above 130 bpm minimum of 30 seconds, or until your heart rate variation can no longer be detected.
   The alarm will sound, when the third and final part of the determination is finished.

4. **After the determination is finished, the training computer displays one of the following:**

- **Default sport zones (heart rate zones) in use.** The determination was not successful. The Polar sport zone (heart rate) limits will be used.
- **Sport zones optimized. Heart rate zones on higher level.** The limits have been raised compared to your average ZoneOptimizer limits. You may consider having a high intensity training session today.
- **Sport zones optimized. Heart rate zones on normal level.** The limits have been raised or lowered only slightly compared to your average ZoneOptimizer limits. You can train as normal.
- **Sport zones optimized. Heart rate zones on lower level.** The limits have been lowered compared to your average ZoneOptimizer limits.

5. **After you have received and read the feedback, press any button, except LIGHT, to exit the message display and continue your training session.**

ⓘ *Remember that you need to spend at least 2 minutes doing both phase 1 and phase 2. The duration of the last phase is 6 minutes at maximum, and you need to be above 130 bpm for a minimum of 30 seconds, or until your heart rate variation can no longer be detected.*

ⓘ *If you use ZoneOptimizer within an hour since your last use, please note that the recommended sport zones can be slightly off. This is because your body is likely to still be recovering from previous training, and heart rate variability, which ZoneOptimizer uses, returns to normal state slower than heart rate.*

Training Views

You can view different training views by pressing UP or DOWN. The number of the training view appears for a few seconds.

The information displayed varies depending on the sensors you have installed, which features are set on and what kind of sport you are performing.

The below tables present available training views for some different sensor combinations. In these examples, the training information is shown on three rows. You can set the training information to be shown on two or three rows in MENU > Settings > Sport profiles > Sport > Training view.

Heart rate sensor		Heart rate sensor s3+ stride sensor		Heart rate sensor G5/G3 GPS sensor	
	HEART RATE Heart rate Lap time Duration		**HEART RATE** Heart rate Pace/Speed Distance		**HEART RATE** Heart rate Pace/Speed Distance
	ZONEPOINTER ZonePointer Time at Zone Duration		**PACE/SPEED** Pace/Speed Distance Duration		**PACE/SPEED** Pace/Speed Distance Duration

Display	Description	Display	Description	Display	Description
CALORIES 32 KCAL ⊗11:20₅₀ ⊗04:10.₂	**CALORIES** Calories Time of day Duration	ZONEPOINTER 1,2,♥,4,5 ⊿00:08₄₅ ⊗08:45.₇	**ZONEPOINTER** ZonePointer Time at Zone Duration	ZONEPOINTER 1,2,♥,4,5 ⊿00:08₄₅ ⊗08:45.₇	**ZONEPOINTER** ZonePointer Time at Zone Duration
SPORT ZONES 5 00:00₀₀ 4 00:10₁₂ 3 00:26₄₅ 2 00:12₀₁ 1 00:03₀₂	**SPORT ZONES** Time on each zone	LAP 01 TIME 08:55.₅ ♥ 137 ⊿2.07 KM	**LAP 01 TIME** Lap time Heart rate Lap distance	LAP 01 TIME 08:55.₅ ♥ 137 ⊿2.07 KM	**LAP 01 TIME** Lap time Heart rate Lap distance
		AVERAGE PACE 4:19 MIN/KM 95 KCAL ⊗10:45₅₀	**AVERAGE PACE/SPEED** Average pace/speed Calories Time of day	AVERAGE PACE 4:19 MIN/KM 95 KCAL ⊗10:45₅₀	**AVERAGE PACE/SPEED** Average pace/speed Calories Time of day
		SPORT ZONES 5 00:00₀₀ 4 00:10₁₂ 3 00:26₄₅ 2 00:12₀₁ 1 00:03₀₂	**SPORT ZONES** Time on each zone	SPORT ZONES 5 00:00₀₀ 4 00:10₁₂ 3 00:26₄₅ 2 00:12₀₁ 1 00:03₀₂	**SPORT ZONES** Time on each zone

Heart rate sensor **CS speed sensor W.I.N.D.**		Heart rate sensor **CS cadence sensor W.I.N.D.**		Heart rate sensor **CS cadence sensor W.I.N.D.** **CS speed sensor W.I.N.D. OR G5/G3 GPS sensor**	
HEART RATE 128 🚴10.2 KM/H ⊿0.24 KM	**HEART RATE** Heart rate Speed/Pace Distance	HEART RATE 137 ↻ 60 ⊗01.14.₆	**HEART RATE** Heart rate Cadence Duration	HEART RATE 128 🚴10.2 KM/H ⊿0.24 KM	**HEART RATE** Heart rate Speed/Pace Distance
SPEED 10.2 KM/H ⊿0.07 KM ⊗00:27.₉	**SPEED/PACE** Speed/Pace Distance Duration	CADENCE 60 LAP 05.00.₅	**CADENCE** Cadence Lap time Duration	SPEED 10.2 KM/H ⊿0.07 KM ⊗00:27.₉	**SPEED/PACE** Speed/Pace Distance Duration
ZONEPOINTER 1,2,♥,4,5 ⊿00:08₄₅ ⊗08:45.₇	**ZONEPOINTER** ZonePointer Time at Zone Duration	ZONEPOINTER 1,2,♥,4,5 ↻ 60 ⊗05:19.₁	**ZONEPOINTER** ZonePointer Cadence Duration	ZONEPOINTER 1,2,♥,4,5 ⊿00:08₄₅ ⊗08:45.₇	**ZONEPOINTER** ZonePointer Time at Zone Duration

LAP 01 TIME 08:55.5 ♥ 137 A B LAP 2.07 KM	**LAP 01 TIME** Lap time Heart rate Lap distance	CADENCE 60 ⊙ 11:05 05 50 KCAL	**CADENCE** Cadence Time of day Calories	LAP 01 TIME 08:55.5 ♥ 137 A B LAP 2.07 KM	**LAP 01 TIME** Lap time Heart rate Lap distance
AVERAGE SPEED 10.2 KM/H 13 KCAL ⊙ 10:12 чл	**AVERAGE SPEED/PACE** Average speed/pace Calories Time of day	SPORT ZONES 5 00:00 00 4 00:10 12 3 00:26 45 ♥ 00:12 01 1 00:03 02	**SPORT ZONES** Time on each zone	AVERAGE SPEED 10.2 KM/H 13 KCAL ⊙ 10:12 чл	**AVERAGE SPEED/PACE** Average speed/pace Calories Time of day
SPORT ZONES 5 00:00 00 4 00:10 12 3 00:26 45 ♥ 00:12 01 1 00:03 02	**SPORT ZONES** Time on each zone			CADENCE 60 ☉ 10.2 KM/H ♥ 128	**CADENCE** Cadence Speed/Pace Heart rate
				SPORT ZONES 5 00:00 00 4 00:10 12 3 00:26 45 ♥ 00:12 01 1 00:03 02	**SPORT ZONES** Time on each zone

Symbols on the display	Explanation
CAD ↻	**Cadence** Speed at which you turn the cranks of your bicycle
↩	**Calories** The expended calories so far. The cumulation of calories starts when your heart rate is displayed.
A B ⊢⊣	**Distance** Cumulative distance
⏱	**Duration** Total duration of the training session so far
♥	**Heart rate** Your current heart rate
A B LAP	

Lap distance

Manual lap distance

LAP
23

Lap time

Manual lap number and lap
time

Pace

Current pace (min/km or
min/mi)

Speed

Current speed (km/h or mph)

You can select the speed view
in sport profile settings. See
Sport Profile Settings (page 27)
for instructions.

ZonePointer

Target zone indicator with a
heart symbol that moves left or
right on the sport zone scale
according to your heart rate.

Time at Zone

Time spent in the target zone

Time of day

Button Functions During Training

Record a Lap

Press OK to record a lap. The display will show:
Lap number
Average heart rate of the lap
Lap time

If a speed sensor is activated, the following will also appear:
Lap number
Average speed/pace of the lap
Lap distance

Lock a Sport Zone

You can lock/unlock your heart rate to the current sport zone.

To lock/unlock the sport zone, press and hold OK.

Sport zone 3 locked	If, for example, you are running with a heart rate of 130 bpm which is 75% of your maximum heart rate, and matches sport zone 3, you can press and hold OK to lock your heart rate into this zone. **Sport zone3 Locked** is displayed.
ZONEPOINTER 132 150 ♥ 00:01 45 14:13.9	An alarm sounds if you are below or above the sport zone. Unlock the sport zone by pressing and holding OK again: **Sport zone3 Unlocked** is displayed.

Night Mode

There is a night mode function in the RCX3 training computer. Press the LIGHT button once during pre-training mode, training recording mode or pause mode. The backlight will be activated every time you press any of the buttons.

The display will also light up if a message, for example, **Check heart rate sensor**, is displayed.

Night mode will be switched off when you finish the training recording.

View Quick Menu

Press and hold LIGHT. **QUICK MENU** is displayed. You can change certain settings without pausing the training recording. For further information, see Quick menu (page 31).

Pause / Stop Training Recording

1. To pause training recording, press BACK once. To continue training recording press OK.
2. To stop recording completely, press BACK twice. The following summary of your training information is displayed
   - Textual feedback, for example **Steady state training+**, is displayed if you trained at least a total of 10 minutes in the sport zones. See the feedback in more detail in **Training Files**. For more information, see After Training (page 20)
   - **Duration** and **Calories**
   - **Average heart rate** and **Maximum heart rate**
   - **Sport zones** (Time in each zone)
   - **Average pace** and **Maximum pace** or **Average speed** and **Maximum speed** (G5/G3 GPS sensor or s3+ stride sensor or CS speed sensor required)
   - **Distance** (G5/G3 GPS sensor or s3+ stride sensor or CS speed sensor required) and **Running Index** (s3+ stride sensor or G5/G3 GPS sensor required)

ⓘ *Care for your heart rate sensor after training. Detach the connector from the strap and rinse the strap under running water after every use.Wash the strap regularly in a washing machine at 40ºC/104ºF at least after every fifth use. For complete care and maintenance instructions, see Caring for Your Product (page 45).*

6. AFTER TRAINING

Analyze Training Results
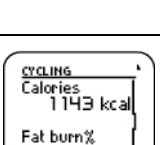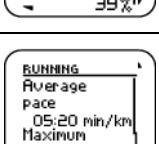
The RCX3 records your training data in **Training files** when the training session has lasted at least one minute.
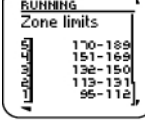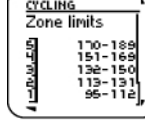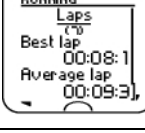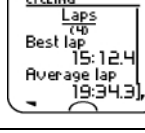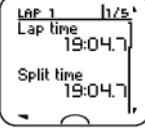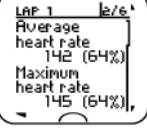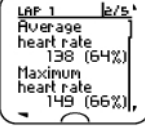
To view basic data on your performance, see **MENU** > **Data** > **Training files**.
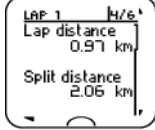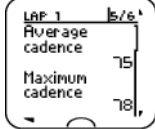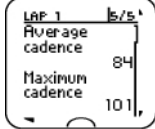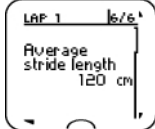
For deeper analysis, transfer the data to polarpersonaltrainer.com with the DataLink data transfer unit and WebSync software. The web service offers various options to analyze the data with.

In **Training files**, browse with UP / DOWN buttons to select the file you want to review and press OK.

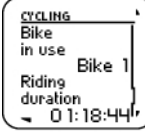The information stored in a training file depends on the sport profile and the sensors in use. The below table presents examples of training file views for running and cycling sports.

TRAINING FILE VIEWS		INFORMATION DISPLAYED
RUNNING Steady state training+ (More details)	CYCLING Steady state training+ (More details)	Textual feedback on your performance, for example **Steady state training+**, is displayed if you trained at least a total of 10 minutes in the sport zones. To view the Training Benefit, select **More details** by pressing OK.
RUNNING Start time 10:20 Duration 01:04:42 Distance 12.24 km	CYCLING Start time 10:20 Duration 01:18.44 Distance 34.2 km	**Start time** **Duration** **Distance** (visible if s3+ stride sensor or G5/G3 GPS sensor or CS speed sensor in use)
RUNNING Avg heart rate 142 (60%) Max heart rate 160 (60%) Min heart rate 122 (60%)	CYCLING Avg heart rate 141 (60%) Max heart rate 160 (60%) Min heart rate 122 (60%)	**Avg heart rate** **Max heart rate** **Min heart rate** (visible if heart rate sensor in use)
RUNNING Calories 843 kcal Fat burn% of calories 39%	CYCLING Calories 1143 kcal Fat burn% of calories 28%	**Calories** **Fat burn% of calories** (visible if heart rate sensor in use)
RUNNING Average pace 05:20 min/km Maximum pace 03:45 min/km	CYCLING Average speed 29.2 km/h Maximum speed 53.2 km/h	**Average pace / Average speed** **Maximum pace / Maximum speed** (visible if s3+ stride sensor or G5/G3 GPS sensor or CS speed sensor in use)
RUNNING Average cadence 78 Maximum cadence 90	CYCLING Average cadence 86 Maximum cadence 108	**Average cadence** **Maximum cadence** (visible s3+ stride sensor or bike cadence sensor in use)
RUNNING Running Index 64		**Running index** (visible if G5/G3 GPS sensor in use)

RUNNING / Average stride length 115 cm / Running Index 64		**Average stride length** / **Running index** / (visible if s3+ stride sensor in use)
CYCLING / Bike in use Bike 1 / Riding duration 01:18:44		**Bike in use** / **Riding duration** / (visible if training file is cycling sport)
RUNNING / Sport zones / 5 00:00:16 / 4 00:15:20 / 3 00:33:43 / 2 00:13:57 / 1 00:01:26	CYCLING / Sport zones / 5 00:02:18 / 4 00:17:22 / 3 00:40:41 / 2 00:16:59 / 1 00:01:24	**Sport zones** / Time on each zone / (visible if heart rate sensor in use)
RUNNING / Zone limits / 5 170-189 / 4 151-169 / 3 132-150 / 2 113-131 / 1 95-112	CYCLING / Zone limits / 5 170-189 / 4 151-169 / 3 132-150 / 2 113-131 / 1 95-112	**Zone limits** / (visible if ZoneOptimizer used and heart rate sensor in use)
RUNNING / Laps (6) / Best lap 00:08:1 / Average lap 00:09:3	CYCLING / Laps (4) / Best lap 15:12.4 / Average lap 19:34.3	**Laps/Automatic laps** (number of the laps) / **Best lap** / **Average lap**

	To view detailed lap information, select **More details** by pressing OK.	
	LAP 1 1/6 / Lap time 05:20.5 / Split time 05:20.5	LAP 1 1/5 / Lap time 19:04.7 / Split time 19:04.7
		The following information on **LAP 1**/ **A. LAP 1** is displayed: / **Lap time** / **Split time**
	You can browse the laps with UP or DOWN. / To browse the following information on a certain lap, press OK.	
	LAP 1 2/6 / Average heart rate 142 (64%) / Maximum heart rate 145 (64%)	LAP 1 2/5 / Average heart rate 138 (64%) / Maximum heart rate 149 (66%)
		Average heart rate / **Maximum heart rate**
	LAP 1 3/6 / Average pace 05:35 min/km / Maximum pace 05:07 min/km	LAP 1 3/5 / Average speed 31.6 km/h / Maximum speed 41.2 km/h
		Average pace / Average speed / **Maximum pace / Maximum speed** / (visible if s3+ stride sensor or G5/G3 GPS sensor or CS speed sensor in use)

	LAP 1　　H/6 Lap distance 　　0.97 km Split distance 　　2.06 km	LAP 1　　H/5 Lap distance 　　9.78 km Split distance 　　9.78 km	**Lap distance** **Split distance** (visible if s3+ stride sensor or G5/G3 GPS sensor or CS speed sensor in use)
	LAP 1　　5/6 Average cadence 　　　75 Maximum cadence 　　　78	LAP 1　　5/5 Average cadence 　　　84 Maximum cadence 　　　101	**Average cadence** **Maximum cadence** (visible if s3+ stride sensor or CS cadence sensor in use)
	LAP 1　　6/6 Average stride length 　　120 cm		**Average stride length** (visible if s3+ stride sensor in use)

Training Benefit

The **Training Benefit** feature helps you better understand the effectiveness of your training. After each training session you get textual feedback on your performance providing that you have trained at least a total of 10 minutes in the sport zones. The feedback is based on training time distribution on sport zones, calorie expenditure and duration. In **Training Files** you get the feedback in more detail. The descriptions of different training benefit options are listed in the table below.

(i) *Transfer your training data to the www.polarpersonaltrainer.com web service to see the benefits of the training with more physiological approach.*
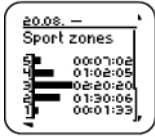
Feedback	Training benefit
Maximum training+	That was a hard session! You improved your sprint speed and the nervous system of your muscles, which make you more efficient. This session also increased your resistance to fatigue.
Maximum training	That was a hard session! You improved your sprint speed and the nervous system of your muscles, which make you more efficient.
Maximum & Tempo training	What a session! You improved your speed and efficiency. This session also significantly developed your aerobic fitness and your ability to sustain high intensity effort for longer.
Tempo & Maximum training	What a session! You significantly improved your aerobic fitness and your ability to sustain high intensity effort for longer. This session also developed your speed and efficiency.
Tempo training+	Great pace in a long session! You improved your aerobic fitness, speed, and ability to sustain high intensity effort for longer. This session also increased your resistance to fatigue.
Tempo training	Great pace! You improved your aerobic fitness, speed, and ability to sustain high intensity effort for longer.

Feedback	Training benefit
Tempo & Steady state training	Good pace! You improved your ability to sustain high intensity effort for longer. This session also developed your aerobic fitness and the endurance of your muscles.
Steady state & Tempo training	Good pace! You improved your aerobic fitness and the endurance of your muscles. This session also developed your ability to sustain high intensity effort for longer.
Steady state training+	Excellent! This long session improved the endurance of your muscles and your aerobic fitness. It also increased your resistance to fatigue.
Steady state training	Excellent! You improved the endurance of your muscles and your aerobic fitness.
Steady state & Basic training, long	Excellent! This long session improved the endurance of your muscles and your aerobic fitness. It also developed your basic endurance and your body's ability to burn fat during exercise.
Steady state & Basic training	Excellent! You improved the endurance of your muscles and your aerobic fitness. This session also developed your basic endurance and your body's ability to burn fat during exercise.
Basic & Steady state training, long	Great! This long session improved your basic endurance and your body's ability to burn fat during exercise. It also developed the endurance of your muscles and your aerobic fitness.
Basic & Steady state training	Great! You improved your basic endurance and your body's ability to burn fat during exercise. This session also developed the endurance of your muscles and your aerobic fitness.
Basic training, long	Great! This long, low intensity session improved your basic endurance and your body's ability to burn fat during exercise.
Basic training	Well done! This low intensity session improved your basic endurance and your body's ability to burn fat during exercise.
Recovery training	Very nice session for your recovery. Light exercise like this allows your body to adapt to your training.

Week Summaries

To view week summaries of the training files go to **MENU** > **Data** > **Week summaries** > **Summary** and press OK.

	SUMMARY This week The dates on which the data was collected Duration
	Duration Distance

	Calories Number of sessions
	Sport zones 1, 2, 3, 4 and 5 Time per zone

Totals Since xx.xx.xxxx

To view totals of the training files go to **MENU** > **Data** > **Totals since** and press OK.

	Duration Distance
	Calories Number of sessions
	Sport zones 1, 2, 3, 4 and 5 Time per zone

Delete Files

The training file memory becomes full once either the maximum recording time or the maximum number of files is reached. For more information on the limit values, see Technical Specifications (page 48).

When the training file memory becomes full, the oldest training file is overwritten by the most recent one. To save the training file for a longer period of time, transfer it to the Polar web service at www.polarpersonaltrainer.com. For more information, see Data Transfer (page 26).

To delete a training file:

1. Select **MENU** > **DATA** > **Delete files** > **Training file** and press OK. Browse the files with the UP/DOWN buttons and select the file you want to delete. Press OK **Delete file? YES/NO** is displayed.
   Alternatively, you can delete a file in **MENU** > **Data** > **Training files**. Browse with UP/DOWN to the file you want to delete, then press and hold LIGHT. **Delete file? YES/NO** is displayed

2. Select **YES**, **File deleted** is displayed. After that **Remove file from totals?** is displayed. If you select **YES**, **File deleted from totals** is displayed. If you select **NO**, the training computer returns to the training file menu. Note! Deleting a file from totals does not delete data from **Week summaries**. **Week summaries** can be only reset

To delete all files:

1. Select **MENU** > **DATA** > **Delete files** > **All files** and press OK. **Delete all files? YES/NO** is displayed.

2. Select **YES** and **All files deleted** is displayed. If you select **NO** the training computer returns to the training all files menu.

Reset Week Summaries

To reset weeks summaries select **MENU** > **DATA** > **Reset week summaries?**. Select **Yes** and **Week summaries**

reset is displayed or **No** and the training computer returns to Data menu.

Reset Totals

To reset totals select **MENU** > **DATA** > **Reset totals?** Select **Yes** and **Totals reset** is displayed or **No** and the training computer returns to Data menu.

7. DATA TRANSFER

Transfer Data

For long-term follow-up, store all your training files in the polarpersonaltrainer.com web service. There you can view detailed information of your training data and get a better understanding of your training. With the Polar DataLink data transfer unit and WebSync software it is easy to transfer training files to the polarpersonaltrainer.com web service.

How to set up your computer for data transmission

1. Register at polarpersonaltrainer.com
2. Download and install Polar WebSync software on your computer at polarpersonaltrainer.com.
3. Double-click the WebSync icon on your task bar/menu bar to start the software. The welcome window opens. Select **Synchronize**, if you want to transfer training data. Select **Training Computer** , if you want to connect to your training computer and modify settings and transfer the settings to your training computer.
4. Plug your DataLink data transfer unit into the USB port of the computer. The DataLink flashes in red when it is properly connected. The maximum distance between the DataLink and the training computer is 3m / 9.84 ft.

   (i) *Remove the heart rate sensor strap from your chest before data transfer.*

How to connect your training computer

5. Select **MENU** > **Connect** > **Start synchronizing** > OK. If you chose **Synchronize** in WebSync, the training data will be synchronized with the polarpersonaltrainer.com web service via WebSync. If you chose **Training Computer** in WebSync, you can connect to WebSync, modify settings and transfer the settings to your training computer.
   Follow the data transfer process and the instructions for downloading the data from the WebSync Software on your computer screen.

Connection settings in your training computer

1. **Remove pairings?**: Your training computer and WebSync are paired in the first synchronization, which means that your training computer identifier is stored in the WebSync memory. Select **YES** or **NO**. If you select **YES** the pairing of the training computer and computer will be removed.
2. **AutoSync**: Select **AutoSync** > **Set AutoSync** (automatic synchronization) > **On** or **Off**. If you select **On** the synchronization will start automatically when you come close to your computer.

   (i) *The AutoSync function is set Off as default.*

For more information on transfering data and modifying training computer settings, see WebSync Help [https://www.polarpersonaltrainer.com/help/websync2/en/Polar_WebSync_2.x_Help_EN.htm].

8. SETTINGS

Sport Profile Settings

There are four different sport profiles set on as default in the Polar RCX3 training computer.

To modify sport profile settings select **MENU** > **Settings** > **Sport profiles**.

Running Settings

To view or modify sport profile settings for running select **MENU** > **Settings** > **Sport profiles** > **Running**

- **Training sounds**: Select **Off**, **Soft**, **Loud** or **Very loud**.
- **Heart rate sensor**: Select **On**, **Off** or **Search new**.
- **GPS sensor**: Select **On**, **Off** or **Search new**.
- **Stride sensor**: Select **On**, **Off** or **Search new**.
- **Stride sensor calibration**: Select **Calibrate** > **By running** or **Set factor**. For more information on calibration, see Calibrate the Polar s3+ Stride Sensor (page 10).

  (i) *Stride sensor calibration is visible only if the stride sensor has been set On previously.*

- **Speed View**: Select **Kilometers per hour** or **Minutes per kilometer** or if you have chosen imperial units select **Miles per hour** or **Minutes per mile**.
- **Automatic lap**: Select **On** or **Off**. If you set the automatic lap **On**, **Set automatic lap distance** is displayed. Set the distance in kilometers or miles.
- **Show in pre-training mode?** Select **YES**, **Sport shown in pre-training mode** is displayed. The sport will be visible in the list of sports in pre-training mode, when you press OK in Time mode. Select **No**, **Sport not shown in pre-training mode** is displayed.
- **Training view numbering**: Select **On** or **Off**. If you set the **Training view numbering On**, the number of the training view appears for a few seconds when you browse the training views with UP/DOWN.
- **Training view**: Select **3 rows** or **2 rows**. The training information will be displayed on three or two rows according to your selection.

  (i) *All the new sensors must be paired with the training computer before they can be activated.*

For more information on pairing a new sensor with the training computer see Using a New Accessory (page 36).

Cycling Settings

To view or modify sport profile settings for cycling select **MENU** > **Settings** > **Sport profiles** > **Cycling (Bike1)/Cycling2 (Bike 2)**

- **Training sounds**: Select **Off**, **Soft**, **Loud** or **Very loud**.
- **Heart rate sensor**: Select **On**, **Off** or **Search new**.
- **GPS sensor**: Select **On**, **Off** or **Search new**.
- **Bike 1 settings** For more information, see Bike Settings.
- **Speed View**: Select **Kilometers per hour** or **Minutes per kilometer**. If you have chosen imperial units select **Miles per hour** or **Minutes per mile**.
- **Automatic lap** is set off as default. Press OK, **Set distance** is displayed. Set the distance in kilometers or in miles and confirm with OK. **Automatic lap set to x.x km** is displayed. After this you can select to have the Automatic lap **Off** or **On**.
- **Show in pre-training mode?** Select **YES**, **Sport shown in pre-training mode** is displayed. The sport will be visible in the list of sports in pre-training mode, when you press OK in Time mode. Select **No**, **Sport not shown in pre-training mode** is displayed.

- **Training view numbering**: Select **On** or **Off**. If you set the **Training view numbering On**, the number of the training view appears for a few seconds when you browse the training views with UP/DOWN.
- **Training view**: Select **3 rows** or **2 rows**. The training information will be displayed on three or two rows according to your selection.

Bike Settings

To view or modify bike settings select **MENU** > **Settings** > **Sport profiles** > **Cycling (Bike1)/Cycling2 (Bike 2)** > **Bike 1 settings/Bike 2 settings**

- **Speed sensor**: Select **Off**, **On** or **Search new**.
- **Wheel size**: Set the wheel size to xxxx mm. For more information, on measuring the wheel size, see Measuring Wheel Size.
- **Cadence sensor**: Select **Off**, **On** or **Search new**.
- **Autostart**: Set **Off** or **On**. If you select **On**, **Speed sensor for bike required**, **Activate speed sensor YES/NO** is displayed. Select **YES** and **Autostart on** is displayed. If you select **NO**, **Activation canceled** is displayed.

(i) *All the new sensors must be paired with the training computer before they can be activated.*

For more information on pairing a new sensor to the training computer see Using a New Accessory (page ?).

Measuring Wheel Size

Select **MENU** > **Settings** > **Sport profiles** > **Cycling (Bike 1)/Cycling 2 (Bike 2)** > **Bike 1 settings** > **Wheel size** > **Set wheel size**

Wheel size settings are a prerequisite for correct cycling information. There are two ways of determining the wheel size of your bike:

Method 1

Look for the diameter in inches or in ETRTO printed on the wheel. Match it to the wheel size in millimeters in the right column of the chart.

ETRTO	Wheel size diameter (inches)	Wheel size setting (mm)
25-559	26 x 1.0	1884
23-571	650 x 23C	1909
35-559	26 x 1.50	1947
37-622	700 x 35C	1958
47-559	26 x 1.95	2022
20-622	700 x 20C	2051
52-559	26 x 2.0	2054
23-622	700 x 23C	2070
25-622	700 x 25C	2080
28-622	700 x 28	2101
32-622	700 x 32C	2126
42-622	700 x 40C	2189
47-622	700 x 47C	2220

> ⓘ *Wheel sizes on the chart are advisory as wheel size depends on the wheel type and air pressure.*

Method 2

Measure the wheel manually for the most accurate result.

Use the valve to mark the point where the wheel touches the ground. Draw a line on the ground to mark that point. Move your bike forward on a flat surface for one complete rotation. The tire should be perpendicular to the ground. Draw another line on the ground at the valve to mark a full rotation. Measure the distance between the two lines.

Subtract 4 mm to account for your weight on the bike to get your wheel circumference. Enter this value in the training computer.

Other Sport Settings

To view or modify sport profile settings for other sport select **MENU** > **Settings** > **Sport profiles** > **Other sport**

- **Training sounds**: Select **Off**, **Soft**, **Loud** or **Very loud**.
- **Heart rate sensor**: Select **On**, **Off** or **Search new**.
- **GPS sensor**: Select **On**, **Off** or **Search new**.
- **Speed View**: Select **Kilometers per hour** or **Minutes per kilometer** or if you have chosen imperial units select **Miles per hour** or **Minutes per mile**
- **Automatic lap**: Set **On** or **Off**. If you set the automatic lap **On**, **Set automatic lap distance** is displayed. Set the distance in kilometers or miles.
- **Show in pre-training mode?**: Select **YES**, **Sport shown in pre-training mode** is displayed. The sport will be visible in the list of sports in pre-training mode, when you press OK in Time mode. Select **No**, **Sport not shown in pre-training mode** is displayed.
- **Training view numbering**: Select **On** or **Off**. If you set the **Training view numbering On**, the number of the training view appears for a few seconds when you browse the training views with UP/DOWN.
- **Training view**: Select **3 rows** or **2 rows**. The training information will be displayed on three or two rows according to your selection.

> ⓘ *All the new sensors must be paired with the training computer before they can be activated.*

For more information on pairing a new sensor with the training computer see Using a New Accessory (page 36).

Heart Rate Settings

To view and change heart rate settings, select **MENU** > **SETTINGS** > **Heart rate settings** > **HR SETTINGS**.

- **ZoneOptimizer**: Set **On** or **Off**.
- **Heart rate view**: Select **Beats per minute** (BPM) or **Percent of maximum** (% of maximum).
- **Heart rate zone lock**: Select **Heart rate zone lock OFF**, or lock one of the zones by selecting **Zone 1**, **Zone 2**, **Zone 3**, **Zone 4** or **Zone 5**. **Zone X locked** is displayed.
- **Sport zones**: Set zone 1, 2, 3, 4 and 5 heart rate limits. For more information on sport zones, see Polar Sport Zones (page 38).
  Before modifying the zone limits you need to set the ZoneOptimizer off. **To modify zones, first set ZoneOptimizer off** is displayed. **Set ZoneOptimizer off? YES/NO?** Select **YES**, **ZoneOptimizer off** is displayed. You can start modifying the zone limits.

User Information Settings

Enter accurate user information in the training computer to receive the correct feedback on your performance.

To view and modify user information settings, select **MENU** > **Settings** > **User information** > **USER INFORMAT.**. Browse the selection with UP/DOWN and accept the value with OK.

- **Weight**: Set your weight in kilograms (kg) or pounds (lbs).
- **Height**: Set your height in centimeters (cm) or in feet and inches (if you chose imperial units)
- **Date of Birth**: Set your birthday. The order in which you set date settings depends on which time mode you have chosen (24h: day - month - year / 12h: month - day - year).
- **Sex**: Select **Male** or **Female**.
- **Activity level**: Select **Low (0-1 h/wk)**, **Moderate (1-3 h/wk)**, **High (3-5 h/wk)** or **Top (5+ h/wk)**
  Activity level is an assessment of your level of long-term physical activity. Select the alternative that best describes the overall amount and intensity of your physical activity during the past three months.
  - **Top (5+ h/wk)**: You participate in heavy physical exercise at least 5 times a week, or you exercise to improve performance for competitive purposes.
  - **High (3-5 h/wk)**: You participate at least 3 times a week in heavy physical exercise, e.g. you run 20-50 km/12-31 miles per week or spend 3-5 hours per week in comparable physical activity.
  - **Moderate (1-3 h/wk)**: You participate regularly in recreational sports, e.g. you run 5-10 km or 3-6 miles per week or spend 1-3 hours per week in comparable physical activity, or your work requires modest physical activity.
  - **Low (0-1 h/wk)**: You do not participate regularly in programmed recreational sport or heavy physical activity, e.g. you walk only for pleasure or exercise hard enough to cause heavy breathing or perspiration only occasionally. In the training computer, these values are used to calculate your energy expenditure.
- **Maximum heart rate**: Set your maximum heart rate, 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. For more information, see Maximum Heart Rate (HR_{max}).
- **OwnIndex**(VO_{2max}): Set your OwnIndex (VO_{2max} value). For more information, see OwnIndex.

Maximum Heart Rate (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 training intensity. The most accurate method for determining your individual HR_{max} is to perform a maximal exercise stress test in a laboratory.

OwnIndex®

Polar OwnIndex, the result of Polar Fitness Test (page 32), predicts your maximal oxygen uptake (VO_{2max}). OwnIndex usually ranges from 20 to 95 and is comparable to VO_{2max}, commonly used to evaluate aerobic fitness. Your long-term level of physical activity, heart rate, heart rate variability at rest, gender, age, height, and body weight all influence OwnIndex. The higher the OwnIndex value is, the better your aerobic fitness is.

General Settings

To view and change your general settings select **MENU** > **Settings** > **General settings**.

- **Sounds**: Select **On** or **Off**
- **Button lock**: Select either **Manual lock** or **Automatic lock**
- **Units**: Select **Metric units (kg, m)** or **Imperial units (lbs, ft)**
- **Language**: Select **Dansk**, **Deutsch**, **English**, **Español**, **Français**, **Italiano**, **Nederlands**, **Norsk**, **Português**, **Suomi** or **Svenska** and accept with OK.

Watch Settings

To view and change your **Watch settings** select **Settings** > **Watch settings**

- **Alarm**: Set alarm repetition **Off**, **Once**, **Monday to Friday** or **Every day**

- **Time**: Select **Time 1**, **Time 2** or **Time in use**
- **Date**: **Set date**, **Date format** and **Date separator**
- **Week' starting day**: Select **Monday**, **Saturday** or **Sunday**
- **Watch face**: Select **Time only**, **Time and logo Time and event** (visible if you have set an event in the www.polarpersonaltrainer.com web service and transfered the data to your training computer with the DataLink data transfer unit and WebSync software).

Quick menu

Some settings can be modified with a shortcut button. You can enter **Quick menu** by pressing and holding LIGHT from Time mode, Pre-training mode or Training mode. Depending on which mode you enter the Quick menu from, you will find different functions to modify.

Time Mode
In time mode press and hold LIGHT to enter **Quick menu** .

- Select **Lock buttons** and press **OK**. To unlock buttons press and hold **LIGHT** again.
- Select alarm repetition **Alarm** > **Off**, **Once**, **Monday to Friday** or **Every day**.
- Select **Time in use** > **Time 1** or **Time 2**.

Pre-training mode
Press OK in time mode to enter pre-training mode. In pre-training mode press and hold LIGHT to enter **Quick menu** .

- Edit current sport profile settings. For more information, see Sport Profile Settings (page 27).
- Edit heart rate settings. For more information, see Heart Rate Settings (page 29).

Training Mode
In training mode press and hold LIGHT to enter **Quick menu** .

- Select **Lock buttons** and press **OK**. To unlock buttons press and hold **LIGHT** again. **Buttons unlocked** is displayed.
- Select **Search sensor** and the training computer starts searching for the missing sensor.

  (i) *This selection is only available if connection to any of the sensors has been lost.*

- Select **Calibrate stride sensor** to calibrate s3+ stride sensor.

  (i) *The option is only available when s3+ stride sensor is in use.*

- Select **Training sounds** and set training sounds **Off**, **Soft**, **Loud** or **Very loud**
- Select **Set automatic lap off** or **On**.

  (i) *This selection is only available if speed information is available i.e. optional CS speed sensor, s3+ stride sensor or G5/G3 GPS sensor has been set on for the sport profile.*

- Select **GPS info** to view your location coordinates and number of satellites visible. The optional GPS sensor required.
- Select **Show zone limits** if you want to see the sport zone heart rate limits.

  (i) *This selection is only available if heart rate sensor is set on.*

9. POLAR FITNESS TEST

The Polar Fitness Test is an easy, safe, and quick way to measure your aerobic (cardiovascular) fitness at rest. The result, Polar OwnIndex, is comparable to maximal oxygen uptake (VO_{2max}), which is commonly used to evaluate aerobic fitness. Your long-term level of physical activity, heart rate, heart rate variability at rest, gender, age, height, and body weight all influence OwnIndex. The Polar Fitness Test is developed for use by healthy adults.

Aerobic fitness relates to how well your cardiovascular system works to transport oxygen to your body. The better your aerobic fitness, the stronger and more efficient your heart is. Good aerobic fitness has many health benefits. For example, it helps in decreasing high blood pressure and your risk of cardiovascular diseases and stroke. If you want to improve your aerobic fitness it takes, on average, six weeks of regular training to see a noticeable change in your OwnIndex. Less fit individuals see progress even more rapidly. The better your aerobic fitness, the smaller the improvements in your OwnIndex.

Aerobic fitness is best improved by training types that use large muscle groups. Such activities include running, cycling, walking, rowing, swimming, skating, and cross-country skiing.

To monitor your progress, start by measuring your OwnIndex a couple of times during the first two weeks in order to get a baseline value, and then repeat the test approximately once a month.

To make sure the test results are reliable, the following basic requirements apply:

- You can perform the test anywhere - at home, at the office, at a health club - provided the testing environment is peaceful. There should be no disturbing noises (e.g. television, radio, or telephone) and no other people talking to you.
- Always take the test in the same environment and at the same hour.
- Avoid eating a heavy meal or smoking 2-3 hours prior to testing.
- Avoid heavy physical exertion, alcohol, and 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.

Before the Test
Wear the heart rate sensor

For further information, see Wear the Heart Rate Sensor (page 12)

Enter User Information

Select **MENU** > **Settings** > **User information**

To carry out the Polar Fitness Test, enter your personal user information and long-term physical activity level in User settings.

Performing the Test
Select **MENU** > **Fitness test** > **Start test**

The progress bar indicates that the test is ongoing. Stay relaxed and limit body movements and communication with other people.

If you have not set your long-term physical activity level in User information settings, **Set activity level of past 3 months** is displayed. Select **Top**, **High**, **Moderate**, or **Low**. For further information on activity levels, see User Information Settings (page 29).

If your training computer does not receive your heart rate at the beginning or during the test, the test fails and **Test failed**, **Check heart rate sensor** is displayed. Check that the heart rate sensor electrodes are wet and that the strap is snug enough, and start the test again.

When the test is over, you will hear two beeps. OwnIndex is displayed with a numerical value and level

evaluation. For further information on evaluations, see Fitness Level Classes.

Update to VO$_{2max}$?

- Select **Yes** to save the OwnIndex value to your user settings and **OwnIndex results** menu.
- Select **No** only if you know your laboratory-measured VO$_{2max}$ value, and if it differs more than one fitness level class from the OwnIndex result. Your OwnIndex value is saved only to the **OwnIndex results** menu. For further information on fitness trend see OwnIndex results.

You can stop the test at any time by pressing **BACK**. **Test canceled** is displayed for a few seconds.

(i) *After saving the OwnIndex value, it will be used for calculating calorie consumption.*

After the Test
Fitness Level Classes

Men

Age / Years	Very low	Low	Fair	Moderate	Good	Very good	Elite
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

Age / Years	Very low	Low	Fair	Moderate	Good	Very good	Elite
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 a 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.

Ownindex results

Select **MENU** > **Fitness test** > **OwnIndex results**

In the **OwnIndex results** menu you can see how your OwnIndex value has been developing. Up to 60 latest OwnIndex values and respective dates are included in the display. When the latest results file becomes full, the oldest result is automatically deleted.

Delete OwnIndex Value

Select **MENU** > **Fitness test** > **OwnIndex results**

Select the value you wish to delete and press and hold LIGHT > **Delete OwnIndex (xx) value? No/Yes** is displayed. Confirm with OK.

Analyzing OwnIndex Results with Software

Downloading test results to polarpersonaltrainer.com offers you the possibility of analyzing results in various ways, as well as accessing more detailed information about your progress.

10. USING A NEW HEART RATE SENSOR

Using a New Heart Rate Sensor

If you purchase a WearLink+ Hybrid transmitter as an accessory, it has to be introduced to the training computer. This is called pairing and only takes a few seconds. Pairing ensures that your training computer receives signals from your heart rate sensor only, and enables disturbance-free training in a group.

There can be only one heart rate sensor paired to your training computer. If you pair another heart rate sensor to the training computer, the previous heart rate sensor is removed from memory.

(i) *Before entering an event or race, make sure that you do the pairing at home. This is to prevent interference due to the long-range data transmission.*

Pairing a New Heart Rate Sensor with the Training Computer

Wear the heart rate sensor and make sure that you are not near (40 m/131 ft) other heart rate sensors.

1. Go to **Menu** > **Settings** > **Sport profiles** > **Sport** > **Heart rate sensor** > **Search new** and press OK.
2. The training computer starts searching for the sensor signal, **Searching for new heart rate sensor** is displayed.
3. Once the new sensor is identified, **Heart rate sensor found** is displayed. Pairing is complete.
4. If the search is not successful, **Heart rate sensor not found** or **Other heart rate sensors interfering. Move further.**, **Try again? YES / NO** is displayed.
5. Select **YES** to start the search again.
6. Select **NO** to cancel the searching.
7. To return to time mode, press and hold the BACK button.

(i) *If you have not paired your training computer with a heart rate sensor before, pairing is performed automatically when you start a training session. Wearing the training computer and the heart rate sensor, start by pressing OK.* **Searching for new heart rate sensor** *is displayed. The training computer searches for a heart rate sensor signal.* **Heart rate sensor found** *is displayed, once the training computer finds the signal.*

11. USING A NEW ACCESSORY

Before taking a new accessory into use, it has to be introduced to the training computer. This is called pairing and only takes a few seconds. Pairing ensures that your training computer receives signals from your accessory only, and enables disturbance-free training in a group.

Before entering an event or race, make sure that you do the pairing at home. This is to prevent interference due to the long-range data transmission. When pairing new sensor make sure you are not near (40 m/131 ft) other similar sensors.

Pairing a New Speed Sensor with the Training Computer

Make sure the speed sensor has been correctly installed. For more information on installing the speed sensor refer to the user manual of the speed sensor or for video tutorial at http://www.polar.fi/en/polar_community/videos.

You can have two bikes on the training computer. Each bike has to have the sensors separately taught. You can only teach one speed sensor to one bike. If you have two bikes, both of them can use the same speed sensor. Or, they can have their own set of sensors. When you pair a new sensor to a bike that already has a previously taught sensor in the memory, the new sensor replaces the previous one.

1. Go to **MENU** > **Settings** > **Sport profiles** > **Cycling (Bike 1)** > **Bike 1 settings** > **Speed sensor** > **Search new** and press OK.
2. **Press OK to start test drive** is displayed.
3. Press OK and **Searching for new speed sensor** is displayed. The training computer starts searching for the speed sensor signal. Rotate the wheel a few times to activate the sensor. The flashing red light on the sensor indicates that the sensor is activated.
4. Once the new speed sensor is identified, **Speed sensor found** is displayed. Pairing is complete.
5. If the search is not successful, **Speed sensor not found** or **Other speed sensors interfering. Move further.**, **Try again? YES / NO** is displayed.
6. Select **YES** to start the search again.
7. Select **NO** to cancel the searching.
8. To return to time mode, press and hold the BACK button.

Pairing a New Cadence Sensor with the Training Computer

Make sure the cadence sensor has been correctly installed. For more information on installing the cadence sensor refer to the user manual of the cadence sensor or to the video tutorial at http://www.polar.fi/en/polar_community/videos.

You can have two bikes on the training computer. Each bike has to have the sensors separately taught. You can only teach one cadence sensor to one bike. If you have two bikes, both of them can use the same cadence sensor. Or, they can have their own set of sensors. When you pair a new sensor to a bike that already has a previously taught sensor in the memory, the new sensor replaces the previous one.

1. Go to **MENU** > **Settings** > **Sport profiles** > **Cycling Bike 1** > **Bike 1 settings** > **Cadence sensor** > **Search new** and press OK.
2. **Press OK to start test drive** is displayed.
3. Press OK and **Searching new cadence sensor** is displayed. The training computer starts searching for the cadence sensor signal. Rotate the wheel a few times to activate the sensor. The flashing red light on the sensor indicates that the sensor is activated.
4. Once the new cadence sensor is identified, **Cadence sensor found** is displayed. Pairing is complete.
5. If the search is not successful, **Cadence sensor not found** or **Other cadence sensors interfering. Move further.**, **Try again? YES / NO** is displayed.
6. Select **YES** to start the search again.
7. Select **NO** to cancel the searching.
8. To return to time mode, press and hold the BACK button.

Pairing a New GPS Sensor with the Training Computer

Make sure the GPS sensor has been correctly attached in an upright position and that your are wearing the GPS sensor on the same arm as you are wearing your training computer. Also make sure you have turned the GPS sensor on. For more information on how to set up the GPS sensor refer to the user manual of the GPS sensor. The user manual can be downloaded at www.polar.fi/support.

1. Go to **MENU** > **Settings** > **Sport profiles** > **Running** > **GPS sensor** > **Search new** and press OK.
2. **Searching for new GPS sensor** is displayed. The training computer starts searching for the GPS sensor signal.
3. Once the new GPS sensor is identified, **GPS sensor found** is displayed. Pairing is complete.
4. If the search is not successful, **GPS sensor not found** or **Other GPS sensors interfering. Move further.** , **Try again? YES / NO** is displayed.
5. Select **YES** to start the search again.
6. Select **NO** to cancel the searching.
7. To return to time mode, press and hold the BACK button.

Pairing a New Stride Sensor with the Training Computer

Make sure the stride sensor has been correctly attached to your shoe. For more information on setting up the stride sensor refer to the user manual of the stride sensor or to the video tutorial at http://www.polar.fi/en/polar_community/videos.

You can only pair one stride sensor to the training computer at a time. If you pair a new sensor, the new sensor always replaces the previous one you had paired. The stride sensor can only be paired to the Running sport profile.

1. Go to **MENU** > **Settings** > **Sport profiles** > **Running** > **Stride sensor** > **Search new** and press OK.
2. **Searching for new stride sensor** is displayed. The training computer starts searching for the stride sensor signal.
3. Once the new stride sensor is identified, **Stride sensor found** is displayed. Pairing is complete.
4. If the search is not successful, **Stride sensor not found** or **Other stride sensors interfering. Move further.**, **Try again? YES / NO** is displayed.
5. Select **YES** to start the search again.
6. Select **NO** to cancel the searching.
7. To return to time mode, press and hold the BACK button.

12. BACKGROUND INFORMATION

Polar Sport Zones

Polar sport zones introduce a new level of effectiveness in heart rate-based training. Training is divided into five sport zones based on percentages of maximum heart rate. With sport zones, you can easily select and monitor training intensities.

Target zone	Intensity % of HR_{max}, bpm	Example durations	Training benefit
MAXIMUM	90–100% 171–190 bpm	less than 5 minutes	Benefits: Maximal or near maximal effort for breathing and muscles. Feels like: Very exhausting for breathing and muscles. Recommended for: Very experienced and fit athletes. Short intervals only, usually in final preparation for short events.
HARD	80–90% 152–172 bpm	2–10 minutes	Benefits: Increased ability to sustain high speed endurance. Feels like: Causes muscular fatigue and heavy breathing. Recommended for: Experienced athletes for year-round training, and for various durations. Becomes more important during pre competition season.
MODERATE	70–80% 133–152 bpm	10–40 minutes	Benefits: Enhances general training pace, makes Moderate intensity efforts easier and improves efficiency. Feels like: Steady, controlled, fast breathing. Recommended for: Athletes training for events, or looking for performance gains.
LIGHT	60–70% 114-133 bpm	40–80 minutes	Benefits: Improves general base fitness, improves recovery and boosts metabolism. Feels like: Comfortable and easy, low muscle and cardiovascular load. Recommended for: Everybody for long training sessions during base training periods and for recovery training sessions during competition season.
VERY LIGHT	50–60% 104–114 bpm	20–40 minutes	Benefits: Helps to warm up and cool down and assists recovery. Feels like: Very easy, little strain. Recommended for: For recovery and cool-down, throughout training season.

HR_{max} = Maximum heart rate (220-age). Example: 30 years old, 220–30=190 bpm.

Training in **heart rate zone 1** is done at a very low intensity. The main training principle is that performance improves when recovering after, and not only during training. Accelerate the recovery process with very light intensity training.

Training in **heart rate zone 2** is for endurance training, an essential part of any training program. Training sessions in this zone are easy and aerobic. Long-duration training in this light zone results in effective energy expenditure. Progress will require persistence.

Aerobic power is enhanced in **heart rate zone 3**. The training intensity is higher than in sport zones 1 and 2, but still mainly aerobic. Training in sport zone 3 may, for example, consist of intervals followed by recovery. Training 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 top potential, you will have to train in **heart rate zones 4** and **5**. In these zones, you exercise 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 produce peak performance.

The Polar target heart rate zones can be personalized by using a laboratory measured HR_{max} value, or by taking a field test to measure the value yourself. When training in a target heart rate zone, try to make use of the entire zone. The mid-zone is a good target, but keeping your heart rate at that exact level all the time is not necessary. Heart rate gradually adjusts to training intensity. For instance, when crossing from heart rate target zone 1 to 3, the circulatory system and heart rate will adjust in 3-5 minutes.

Heart rate responds to training intensity depending on factors such as fitness and recovery levels, as well as environmental factors. It is important to look out for subjective feelings of fatigue, and to adjust your training program accordingly.

Heart Rate Variability

Heart rate varies with every heartbeat. Heart rate variability (HRV) is the variation of beat to beat intervals, also known as R-R intervals.
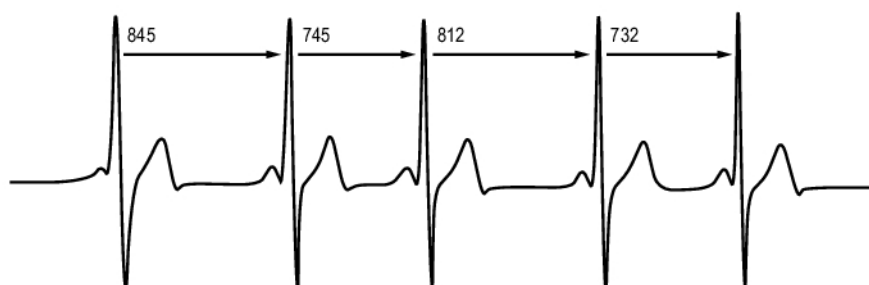
HRV indicates the fluctuations of heart rate around an average heart rate. An average heart rate of 60 beats per minute (bpm) does not mean that the interval between successive heartbeats would be exactly 1.0 sec, instead they may fluctuate/vary from 0.5 sec up to 2.0 sec.

HRV is affected by aerobic fitness. HRV of a well-conditioned heart is generally large at rest. Other factors that affect HRV are age, genetics, body position, time of day, and health status. During exercise, HRV decreases as heart rate and exercise intensity increase. HRV also decreases during periods of mental stress.

HRV is regulated by the autonomic nervous system. Parasympathetic activity decreases heart rate and increases HRV, whereas sympathetic activity increases heart rate and decreases HRV.

HRV is used in the OwnIndex and ZoneOptimizer features.

Polar ZoneOptimizer

Polar ZoneOptimizer feature adopts this principle as it recommends lower intensity training when little heart rate variability is detected and higher intensity training, when plenty of heart rate variability is detected. It also gives you feedback on daily physiological status (good/normal/low) in respect to the

amount of heart rate variability measured when compared to earlier measurements.

Benefits of the ZoneOptimizer feature

Each Sport Zone has a different physiological response which is described briefly in the Polar Sport Zones (page 38). The measurement takes your current physiological state into account and changes Sport Zones values so that it is more certain for you to get the same physiological response when training in specific Sport Zones on different days. This means that when training in optimized Sport Zones the training intensity is adjusted to match the daily physiological status of your body.

ZoneOptimizer measurement

Polar ZoneOptimizer recommends lower intensity training when little heart rate variability is detected and higher intensity training, when plenty of heart rate variability is detected at a given heart rate. It also gives you feedback if your current limits are higher, normal or lower than your normal level, when compared to your earlier measurements. You may get feedback on your daily physiological status by paying attention to how fast and how easily you can do training at the recommended heart rates.

Polar ZoneOptimizer determination is done in three phases and will be completed when 10 minutes of determination at maximum is reached.

Action	Heart rate in beats per minute	Duration	How to achieve
Keep your heart rate between 70 and 100 beats per minute.	70 - 100 bpm	Minimum of 2 minutes	Standing or training with very light training intensity, for example, walking slowly.
Increase heart rate gradually from 100 to 130 beats per minute within two minutes.	100 - 130 bpm	Minimum of 2 minutes	Walking briskly or cycling/ jogging at low intensity during warm up.
Gradually increase your heart rate above 130 beats per minute.	130 bpm <	Minimum of 30 seconds, 6 minutes at maximum	Gradually increasing heart rate and continuing as planned.

Measurement phases

1. **Preparing for training session: Lots of heart rate variability.** Because at this stage there is still a lot of heart rate variability, it's easy to detect daily changes. In absolute figures this means heart rates from 70 to 100 beats per minute.
2. **Warming up: heart rate rises slowly and heart rate variability decreases.** During this phase heart rate variability starts decreasing, and the body prepares for higher intensities. In absolute figures this means heart rates from 100 to 130 beats per minute.
3. **Heart rate variability levels off.** This is the training phase where heart rate variability starts being at a very low level, or it can almost disappear. All heart rate zone limits are adjusted when your heart rate variation disappears. Heart rate variation usually disappears at around 130 beats per minute or higher.

ZoneOptimizer guidance normally uses absolute figures (70-100-130 beats per minute), but the two uppermost figures change if personal HR_{max} is very low. The second phase upper limit, which is normally 130 beats per minute, is limited not to exceed 75% of HR_{max}. This is done automatically without actions from you.

ZoneOptimizer allows different durations of Phase1 (preparing for training session, heart rate in between 70-100 beats per minute) and Phase2 (warming up, heart rate in between 100-130 beats per minute). The recommended minimum durations to get the limits successfully determined are 2 minutes at Phase1, 2 minutes at Phase2 and half a minute or six minutes at maximum in Phase3.

(i) *ZoneOptimizer function is developed for the use of healthy people. Some health conditions may cause heart rate variability-based ZoneOptimizer determination to fail or give lower intensity targets. These conditions include high blood pressure, cardiac arrhythmia, and certain medications.*

Maximum Heart Rate

Maximum heart rate (HR_{max}) is the highest number of heartbeats per minute (bpm) during maximum physical exertion. It is individual and depends on age, hereditary factors, and fitness level. It may also vary according to the type of sport performed. HR_{max} is used to express training intensity.

Determining Maximum Heart Rate

Your HR_{max} can be determined in several ways.
- The most accurate way is to have your HR_{max} clinically measured, usually on a maximal treadmill or by taking a bicycle stress test supervised by a cardiologist or an exercise physiologist.
- You can also determine your HR_{max} by taking a field test together with a training partner.
- HR_{max} can also be estimated by using the commonly used formula: 220 - age, although research shows that this method is not very accurate, especially for older persons or those who have been fit for many years.

If you have done some hard training in recent weeks and know that you can safely reach maximum heart rate, you can safely take a test to determine your HR_{max} yourself. Having a training buddy with you during the test is recommended. If you are uncertain, consult your physician before undertaking the test.

Here is an example of a simple test.

Step 1: Warm up for 15 minutes on a flat surface, building up to your usual training pace.

Step 2: Choose a hill or stairwell that will take more than 2 minutes to climb. Run up the hill/steps once, building to as hard a pace as you can hold for 20 minutes. Return to the base of the hill/steps.

Step 3: Run up the hill/steps again, building towards a pace you could just about hold for 3 kilometers. Note your highest heart rate. Your maximum is approximately 10 beats higher than the noted value.

Step 4: Run back down the hill, allowing your heart rate to drop 30-40 beats per minute.

Step 5: Run up the hill/steps once again at a pace that you can only hold for 1 minute. Try to run halfway up the hills/steps. Note your highest heart rate. This brings you close to your maximum heart rate. Use this value as your maximum heart rate to set training zones.

Step 6: Make sure you get a good cool-down, a minimum of 10 minutes.

Running Cadence and Stride Length

Cadence* is the number of times the foot with the stride sensor* hits the ground per minute.

Stride length* is the average length of one step. That is the distance between your right and left foot contacting the ground.

Running speed = 2 * stride length * cadence

There are two ways to run faster: moving your legs at a higher cadence or taking longer steps.

Elite long distance runners typically run with a high cadence of 85-95. On uphills, typical cadence values are lower. On downhills they are higher. Runners adjust stride length to gather speed: stride length increases as speed increases.

Yet one of the most common mistakes novice runners make is over-striding. The most efficient stride length is the natural one – the one that feels most comfortable. You will run faster in races by strengthening your leg muscles so they take you forward with a longer stride.

You should also work on maximizing cadence efficiency. Cadence does not progress easily, but if properly trained, you will be able to sustain it throughout your runs and maximize your performance. To develop cadence, the nerve-muscle connection needs to be trained - and reasonably frequently. A session of cadence training a week is a good start. Incorporate some cadence work into the rest of your week. During long easy runs, you could include some faster cadence every now and then.

A good way of improving stride length is to undertake specific strength work, like running hills, running in soft sand, or running up steps. A six-week training period including strength work should result in noticeable improvements in stride length, and if combined with some faster leg speed work (such as short strides at best 5km pace), noticeable improvements should be seen in overall speed, as well.

*Optional s3+ stride sensor required.

Polar Running Index

Running Index offers an easy way to monitor performance changes. Performance (how fast/easily you run at a given pace) is directly influenced by aerobic fitness (VO_{2max}) and training economy (how efficient your body is at running), and Running Index is a measurement of this influence. By recording your Running Index over time, you can monitor progress. Improvement means that running at a given pace requires less of an effort, or that your pace is faster at a given level of exertion. The Running Index feature calculates such improvements. Running Index also gives you daily information on your running performance level which may vary from day to day.

Benefits of Running Index:
- emphasizes the positive effects of good training sessions and resting days.
- monitors fitness and performance development at different heart rate levels - not only during maximal performance.
- you can determine your optimal running speed by comparing running indexes from different kinds of training sessions.
- stresses progress through better running technique and fitness level.

Running Index is calculated during every training session when heart rate and the s3+ stride sensor or G3/G5 GPS sensor* signal is recorded, and when the following requirements apply:
- speed should be 6 km/h / 3,75 mi/h or faster and duration 12 minutes minimum.
- heart rate should be at least 40% of your HRR (heart rate reserve). Heart rate reserve is the difference between maximum heart rate (HR_{max}), and resting heart rate (HR_{rest})

Example:
A person with HR_{max}190 bpm and HR_{rest} 60 bpm
40% (190-60) + 60 = 112 bpm (heart rate should be at least 112 bpm)

(i) *For a precise exercise heart rate, you need your exact HR_{max} and HR_{rest}. When using estimated HRmax, exercise heart rate values are always estimates.*

Make sure that the stride sensor is calibrated. Calculation begins when you start recording the session. During the session, you may stop once at traffic lights, for example, without interrupting the calculation.

In the end, your training computer displays a Running Index value and stores the result in the Training files section. Compare your result to the table below. Using the software, you can monitor and analyze your progress in Running Index values against time and different running speeds. Or compare values from different training sessions and analyze them in short and long term.

Short-term analysis

Running Index	Performance Level
< 30 - 30	Very poor
31-37	Poor
38-44	Fair
45-51	Average
52-58	Good

Running Index	Performance Level
59-65	Very good
> 65	Excellent

There may be some daily variation in the Running Indexes due to running circumstance changes, for example different surface, hills, wind or temperature.

Long-term analysis

The single Running Index values form a trend that predicts your success in running certain distances.

The following chart estimates the duration that a runner can achieve in certain distances when performing maximally. Use your long-term Running Index average in the interpretation of the chart. **The prediction is best for those Running Index values that have been received at speed and running circumstances similar to the target performance.**

Running Index	Cooper test (m)	5 km (h:mm:ss)	10 km (h:mm:ss)	21.098 km (h:mm:ss)	42.195 km (h:mm:ss)
36	1900	0:37:30	1:16:00	2:45:00	5:45:00
38	2000	0:35:00	1:11:30	2:34:00	5:20:00
40	2100	0:32:30	1:06:30	2:24:00	5:00:00
42	2200	0:30:45	1:03:00	2:16:00	4:45:00
44	2300	0:29:00	0:59:30	2:09:00	4:30:00
46	2400	0:28:00	0:57:30	2:04:00	4:20:00
48	2500	0:26:45	0:55:00	1:59:00	4:10:00
50	2600	0:25:30	0:52:30	1:54:00	4:00:00
52	2700	0:24:15	0:50:00	1:49:00	3:50:00
54	2850	0:23:15	0:48:00	1:44:00	3:40:00
56	2950	0:22:15	0:46:00	1:40:00	3:32:00
58	3100	0:21:15	0:44:00	1:36:00	3:25:00
60	3200	0:20:30	0:42:30	1:33:00	3:18:00
62	3300	0:19:30	0:40:30	1:29:00	3:10:00
64	3400	0:19:00	0:39:30	1:26:00	3:05:00
66	3500	0:18:30	0:38:30	1:24:00	3:00:00
68	3650	0:17:45	0:37:00	1:21:00	2:55:00
70	3750	0:17:15	0:36:00	1:19:00	2:50:00
72	3900	0:16:30	0:34:30	1:16:00	2:45:00
74	4000	0:16:00	0:33:30	1:14:00	2:40:00
76	4100	0:15:30	0:32:30	1:12:00	2:35:00
78	4200	0:15:15	0:32:00	1:10:00	2:30:00

*Optional s3+ stride sensor or G3/G5 GPS sensor required.

Polar Training Load Feature

The training load feature in the calendar view in polarpersonaltrainer.com will conveniently tell you how hard your training session was, and how much time is needed for complete recovery.This feature tells you if you have recovered enough for your next session, helping you find the balance between rest and training. In polarpersonaltrainer.com you can control your total workload, optimize your training, and monitor your performance development.

Training load takes into consideration different factors which affect your training load and recovery time, such as heart rate during training, duration of training, and your individual factors, e.g. sex, age, height, and weight. Continuous monitoring of training load and recovery will help you recognize personal limits, avoid over or under training, and adjust training intensity and duration according to your daily and weekly targets.

Training Load feature helps you to control total workload, optimize your training, and monitor your performance development. The feature makes different kinds of training sessions comparable with each other, and helps you to find the perfect balance between rest and training.

For more information on Training load, see polarpersonaltrainer.com Help.

13. IMPORTANT INFORMATION

Caring for Your Product

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

Connector: Detach the connector from the strap after every use. Rinse the strap under running water. Dry the connector with a soft towel. Never use alcohol or any abrasive material (steel wool or cleaning chemicals).

Strap: Wash the strap regularly in a washing machine at 40ºC/104ºF or at least after every fifth use. This ensures reliable measurement and maximizes the life span of the heart rate sensor. Use a washing pouch. Do not soak, spin-dry, iron, dry clean or bleach the strap. Do not use detergent with bleach or fabric softener. Never put the connector in the washing machine or dryer!

Dry and store the strap and connector separately to maximize the heart rate sensor battery lifetime. Wash the strap in a washing machine before long-term storage and always after use in pool water with high chlorine content.

Keep your training computer and sensors in a cool and dry place. Do not keep them in a damp environment, in non-breathable material (a plastic bag or a sports bag) nor with conductive material (a wet towel). The training computer and heart rate sensor are water resistant, and can be used in water activities. Other compatible sensors are water resistant, and can be used in rainy weather. Do not expose the training computer to direct sunlight for extended periods, such as by leaving it in a car or mounted on the bike mount.

Keep your training computer and sensors clean. To maintain the water resistance, do not wash the training computer or the sensors with a pressure washer. Clean them with a mild soap and water solution and rinse them with clean water. Do not immerse them in water. Dry them carefully with a soft towel. Never use alcohol or any abrasive material such as steel wool or cleaning chemicals.

Avoid hard hits to the training computer and the sensors, as these may damage the sensor units.

Operating temperatures are -10 °C to +50 °C / +14 °F to +122 °F.

Service

During the two-year guarantee/warranty period we recommend that you have service, other than battery replacement, done by an authorized Polar Service Center only. The warranty does not cover damage or consequential damage caused by service not authorized by Polar Electro. For further information, see Limited International Polar Guarantee (page 51).

For contact information and all Polar Service Center addresses, visit www.polar.fi/support and country-specific websites.

Register your Polar product at http://register.polar.fi/ to ensure we can keep improving our products and services to better meet your needs.

(i) *The username for your Polar Account is always your email address. The same username and password are valid for Polar product registration, polarpersonaltrainer.com, Polar discussion forum and newsletter registration.*

Changing Batteries

The RCX3 training computer and the WearLink® transmitter W.I.N.D. both have a user changeable battery. To change the battery yourself, please follow the instructions carefully as instructed in chapter Change Batteries Yourself.

The batteries for the speed and cadence sensors cannot be replaced. Polar has designed speed and cadence sensors to be sealed in order to maximise mechanical longevity and reliability. The sensors have long-life batteries inside. To purchase a new sensor contact your authorized Polar Service Center or

retailer.

For battery information of the Polar s3+ stride sensor, Polar G5 GPS sensor or Polar G3 GPS sensor W.I.N.D., consult the user manual for the product in question.

Prior to changing the battery, please note the following:

- The low battery indicator is displayed when 10-15% of the battery capacity is left.
- Before battery change, transfer all data from your RCX3 to polarpersonaltrainer.com to avoid data loss. For more information, see Data Transfer (page 26).
- Excessive use of the backlight drains the battery more rapidly.
- In cold conditions, the low battery indicator may appear, but will disappear when the temperature rises.
- The backlight and sound are automatically turned off when the low battery indicator is displayed. Any alarms set prior to the appearance of the low battery indicator will remain active.

(i) *Keep the batteries away from children. If swallowed, contact a doctor immediately. Batteries should be disposed of properly according to local regulations.*

Change Batteries Yourself

To change the batteries of the training computer and heart rate sensor yourself, carefully follow the instructions below:

When changing the battery, make sure the sealing ring is not damaged, in which case you should replace it with a new one. You can purchase the sealing ring/battery kits at well-equipped Polar retailers and authorized Polar Services. In the USA and Canada, the additional sealing rings are available at authorized Polar Service Centers. In the USA the sealing ring/battery kits are also available at www.shoppolar.com.

When handling a new, fully charged battery, avoid clasp-like contact, i.e. simultaneously from both sides, with metal or electrically conducting tools, like tweezers. This may short circuit the battery, causing it to discharge more rapidly. Typically, short circuiting does not damage the battery, but it may decrease the capacity and the lifetime of the battery.

Changing Training Computer Battery

1. Use the battery cap tool to open the battery cover. Position the tool so that it fits in correctly on the top of the back cover and turn it from CLOSE to OPEN. Remove the battery cover.
2. Lift the battery out carefully. Be careful not to damage the metal sound element or the grooves. Insert a new battery with the positive (+) side outwards.
3. Close the cover with the battery cap tool and re-enter the basic settings.
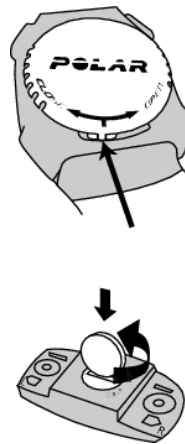
Changing Heart Rate Sensor Battery

1. Using a coin, open the battery cover by turning it counterclockwise to OPEN.
2. Insert the battery inside the cover with the negative (-) side outwards. Make sure the sealing ring is in the groove to ensure water resistance.
3. Press the cover back into the connector.
4. Use the coin to turn the cover clockwise to CLOSE.

⚠

Danger of explosion if the battery is replaced with wrong type.

Power Save Mode

The power save mode is enabled by default.

During the night, in between the hours 24:00 - 06:00 / 12:00am - 06:00am, the training computer display will be switched off automatically. During this time the AutoSync function is not enabled. To exit the power save mode, press any button. After five minutes, the display returns to power save mode.

The power save mode will not be enabled during training session recording.

The time period during which the power save mode is enabled, can be modified in the WebSync software, to better suit your training schedule. For more information, see WebSync Help.

Battery Lifetime in RCX3

The battery lifetime for the RCX3 training computer is on average 7-8 months and depends on which features and sensors you use. The suggestions below will help you to lengthen the battery lifetime.

To get the 8 months lifetime for the battery, take the following settings into use in your training computer:

- Set the AutoSync off in **MENU** > **Connect** > **AutoSync** > **Off**.
- Set the GPS sensor off in **MENU** > **Settings** > **Sport profiles**, when you do not need speed, distance or location data.

Precautions

The Polar training computer shows your performance indicators. It indicates the level of physiological strain and intensity during your exercise. It measures heart rate, speed and distance when cycling with a Polar CS speed sensor W.I.N.D. It also measures speed and distance when running with a Polar s3+ stride sensor or with a Polar G5 GPS sensor / Polar G3 GPS sensor W.I.N.D.. The Polar CS cadence sensor W.I.N.D. is designed to measure cadence when cycling. No other use is intended or implied.

The Polar training computer should not be used for obtaining environmental measurements that require professional or industrial precision.

Interference During Training
Electromagnetic Interference and Training Equipment

Disturbance may occur near electrical devices. Also WLAN base stations may cause interference when training with the training computer. To avoid erratic reading or misbehavior, move away from possible sources of disturbance.

Training equipment with electronic or electrical components such as LED displays, motors and electrical brakes may cause interfering stray signals. To solve these problems, try the following:

1. Remove the heart rate sensor strap from your chest and use the training equipment as you would normally.
2. Move the training computer around until you find an area in which it displays no stray reading or does not flash the heart symbol. Interference is often worst directly 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 heart rate sensor strap back on your chest and keep the training computer in this interference-free area as much as possible.

If the training computer still does not work with the training equipment, it may be electrically too noisy for wireless heart rate measurement.

For further information, see www.polar.fi/support.

Minimizing Risks When Training
Training may include some risk. Before beginning a regular training 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?
- Are you taking any blood pressure or heart medication?
- Do you have a history of breathing problems?
- Do you have symptoms of any disease?
- Are you recovering from a serious illness or medical treatment?
- Do you use a pacemaker or other implanted electronic device?
- Do you smoke?
- Are you pregnant?

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

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

Note! If you are using a pacemaker, you can use Polar training computers. In theory interference to pacemaker caused by Polar products should not be possible. In practice no reports exist to suggest anyone ever having experienced interference. We cannot however issue an official guarantee on our products' suitability with all pacemakers or other implanted devices due to the variety of devices available. If you have any doubts, or if you experience any unusual sensations while using Polar products, please consult your physician or contact the implanted electronic device manufacturer to determine safety in your case.

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 in Technical Specifications (page 48). To avoid any skin reaction to the heart rate sensor, wear it over a shirt, but moisten the shirt well under the electrodes to ensure flawless operation.

Your safety is important to us. The shape of the s3+ stride sensor* is designed to minimize the possibility of it getting caught in something. In any case, be careful when running with the stride sensor in brushwood, for example.

(i) *The combined impact of moisture and intense abrasion may cause a black color to come off the heart rate sensor's surface, possibly staining light-colored clothes. If you use perfume or insect repellent on your skin, you must ensure that it does not come into contact with the training computer or the heart rate sensor.*

Using RCX3 Training Computer in water: The training computer is water resistant. However, heart rate measurement does not work in water. You can use the training computer under water as a watch but it is not a diving instrument. To maintain water resistance, do not press the buttons of the training computer under water. Using the training computer in excessive rainfall may also cause interference.

Technical Specifications

Training computer

Battery life:	Average 8 months if you only use the heart rate sensor, and train an average of 1h/day 7 days/week.
	Average 7,5 months if you use the heart rate sensor and one other sensor, and train an average of 1h/day 7 days/week.
	Average 7 months if you use the heart rate sensor and two other sensors, and train an average of 1h/day 7 days/week.
	Battery life has been calculated with the presumption that the power save mode is on.
Battery type:	CR 2025

Battery sealing ring: Silicone
Operating temperature: -10 °C to +50 °C / 14 °F to 122 °F
Training computer materials: PMMA lens with hard coating in top surface, training computer body
                                               ABS+GF metal parts stainless steel
Wrist strap and buckle materials: Polyurethane (TPU)/Silicone, stainless steel
Watch accuracy: Better than ± 0.5 seconds / day at 25 °C / 77 °F temperature.
Accuracy of heart rate monitor: ± 1% or 1 bpm, whichever larger. Definition applies to stable conditions.
Heart rate measuring range: 15-240
Current speed display range: 0-127 km/h or 0-75 mph (when measuring speed with s3+ stride sensor
                                               or CS speed sensor)
                                               0-400 km/h or 0-248.5 mph (when measuring speed with G5/G3 GPS
                                               sensor)
Water resistance: 30 m (Suitable for bathing and swimming)

Training computer limit values

Maximum number of files: 99
Maximum time recorded to file: 99 h 59 min 59 s
Maximum time recorded to file with different sensor combinations:

Heart rate	99
Heart rate + stride sensor	26
Heart rate + GPS sensor	15
Heart rate + CS speed sensor	32
Heart rate + CS cadence sensor	61
Heart rate + stride sensor + GPS sensor	14
Heart rate + GPS sensor + CS speed sensor	15
Heart rate + GPS sensor + CS cadence sensor	14
Heart rate + CS speed sensor + CS cadence sensor	26
Heart rate + GPS sensor + CS speed sensor + CS cadence sensor	14
Stride sensor	32
Stride sensor + GPS sensor	15
GPS sensor	17
GPS sensor + CS speed sensor	17
GPS sensor + CS cadence sensor	15
GPS sensor + CS speed sensor + CS cadence sensor	15
CS speed sensor	40
CS cadence sensor	99
CS speed sensor + CS cadence sensor	32

The training computer stores the data in five second intervals.

Maximum number of laps recorded in one training session: 99
Maximum number of automatic laps recorded in one training session: 99
Total distance: 99999.99 km / 99999.99 mi
Total duration: 9999 h 59 min 59 s
Total calories: 999 999 kcal
Total training files count: 65535

Heart rate sensor

Battery life of WearLink® transmitter W.I.N.D.:   Average 2000 hours of use
Battery type: CR2025
Battery sealing ring: O-ring 20.0 x 1.0, material silicone
Operating temperature: -10 °C to +40 °C / 14 °F to 104 °F
Connector material: Polyamide
Strap material: Polyurethane/Polyamide/Polyester/Elastane/Nylon
Water resistance: 30 m (Suitable for bathing and swimming).
                                                  The WearLink W.I.N.D. transmitter does not measure heart rate in water.

The Polar RCX3 training computer applies the following patented technologies, among others:

- OwnIndex® technology for fitness test.
- OwnCal® personal calorie calculation.

Polar WebSync Software and Polar DataLink™

System Requirements:	Operating system: Microsoft Windows XP/Vista/7 or Mac OS X 10.5 (Intel) or newer
	Internet connection
	Free USB port for DataLink

Water resistance

Water resistance of Polar products is tested according to International IEC 60529 IPX7 (1m, 30min, 20ºC). Products are divided into four different categories according to 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 case back	Water resistant characteristics
Water resistant IPX7	Not suitable for bathing or swimming. Protected against wash splashes and raindrops. Do not wash with a pressure washer.
Water resistant	Not suitable for swimming. Protected against wash splashes, sweat, raindrops etc. Do not wash with a pressure washer.
Water resistant 30 m/50 m	Suitable for bathing and swimming
Water resistant 100 m	Suitable for swimming and snorkeling (without air tanks)

Frequently Asked Questions

What should I do if...

...the battery symbol and Low battery is displayed?

The low battery indicator is usually the first sign of an expired battery. However, in cold conditions the low battery indicator may appear. The indicator will disappear as soon as the temperature rises enough. When the symbol appears, the training computer sounds and backlight are automatically deactivated. For further information on changing the battery, see Important Information (page 45).

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

Press and hold BACK until the time of day is displayed.

...there are no reactions to any buttons?

Reset the training computer by pressing all the buttons simultaneously for two seconds until the display fills with digits. Press any button, select language and set the time and date in Basic Settings after the reset. All other settings are saved. Skip the rest of the settings by pressing and holding BACK.

...the heart rate reading becomes erratic, extremely high or shows nil (00)?

- Make sure the heart rate sensor strap has not loosened during exercise.
- Make sure the textile electrodes in the sports apparel fit snugly.
- Make sure the electrodes of the heart rate sensor strap are moistened.
- Make sure the heart rate sensor is clean. Strong electromagnetic signals can cause erratic readings. For further information, see Precautions (page 47).
- If the erratic heart rate reading continues despite moving away from the source of disturbance, 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.

- A cardiac event may have altered your ECG waveform. In this case, consult your physician.

...Check heart rate sensor! is displayed and your training computer cannot find your heart rate signal?

- Make sure the heart rate sensor strap has not loosened during exercise.
- Make sure the electrodes of the heart rate sensor are moistened.
- Make sure the electrodes of the heart rate sensor are clean and undamaged.

If you have done all of the above-mentioned actions, and the message still appears and heart rate measurement does not work, the battery of your heart rate sensor may be empty. For further information, see Important Information (page 45).

...Calibration failed is displayed?*

Calibration did not succeed and you need to re-calibrate. Calibration fails if you move during the process. Once you reach lap distance, stop running and stand still for calibration. The range of the calibration factor during manual calibration is 0.500-1.500. If you have defined the calibration factor below or above these values, calibration fails.

*Optional s3+ stride sensor required.

ZoneOptimizer determination fails?

- Make sure that the electrodes of the heart rate sensor are moistened.
- Make sure the heart rate sensor strap has not loosened during exercise.
- Make sure the heart rate sensor electrodes are clean and undamaged.
- Make sure you have followed the instructions carefully.

If you have done all of the above-mentioned actions, and the message still appears and heart rate measurement does not work, the battery of your heart rate sensor may be empty. For further information, see Important Information (page 45).

Limited International Polar Guarantee

- 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.
- This limited Polar international guarantee is issued by Polar Electro Inc. for consumers who have purchased this product in the USA or Canada. This limited Polar international guarantee is issued by Polar Electro Oy for consumers who have purchased this product in other countries.
- Polar Electro Oy/Polar Electro Inc. guarantees the original consumer/purchaser of this device that the product will be free from defects in material or workmanship for two (2) years from the date of purchase.
- **The receipt of the original purchase is your proof of purchase!**
- The guarantee does not cover the battery, normal wear and tear, damage due to misuse, abuse, accidents or non-compliance with the precautions; improper maintenance, commercial use, cracked, broken or scratched cases/displays, armband, elastic strap and Polar apparel.
- The 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.
- Items purchased second hand are not covered by the two (2) year warranty, unless otherwise stipulated by local law.
- During the guarantee period, the product will be either repaired or replaced at any of the authorized Polar Service Centers regardless of the country of purchase.

Guarantee with respect to any product will be limited to countries where the product has been initially marketed.

CE 0537

This product is compliant with Directive 93/42/EEC. The relevant Declaration of Conformity is available at www.polar.fi/support.

Regulatory information is available at www.polar.fi/support.

To see the RCX3-specific certification and compliance marking, select **MENU** > **Settings** > **General settings**, and press and hold LIGHT for two seconds.

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) and batteries and accumulators used in products are in the scope of Directive 2006/66/EC of the European Parliament and of the Council of 6 September 2006 on batteries and accumulators and waste batteries and accumulators. These products and batteries/accumulators inside Polar 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 for products, and battery and accumulator collection for batteries and accumulators.

This marking shows that the product is protected against electric shocks.

Polar Electro Oy is a ISO 9001:2008 certified company.

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 or the products described herein.

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