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Polar RS300X™

User Manual

POLAR®
LISTEN TO YOUR BODY

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1. GET STARTED

Get to Know Your Polar RS300X

The **Polar RS300X training computer** displays and records your heart rate and other data during training.

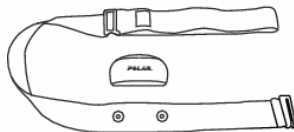
The **Polar WearLink®+ transmitter** transmits the heart rate signal to the training computer. The transmitter consists of a connector and strap.

Optional Accessories

The **Polar S1 foot pod™** transmits the running speed and distance data to your training computer.

The **Polar G1 GPS sensor** transmits the speed and distance data to your training computer. Can be used for various sports, in addition to running.

Register your Polar product at <http://register.polar.fi/> to help us improve our products and services, to better fulfill your needs.



Wrist Unit Buttons and Menu Structure

▲ UP: Enter the menu and move through selection lists, adjust values

▼ DOWN: Enter the menu and move through selection lists, adjust values

RED button: Confirm selections, access exercise menu, start training (with a long press)

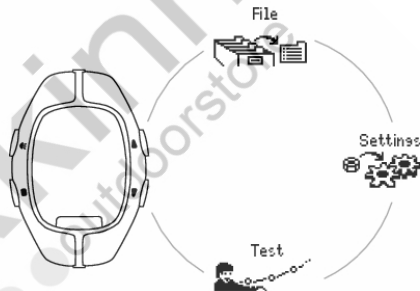
■ BACK:

- Return to the previous level
- Cancel selection
- Leave settings unchanged
- With a long press, return to Time view

☾ LIGHT:

- Illuminate the display
- With a long press, enter **Quick menu** in Time view (to, e.g., lock buttons or set alarm), or during training (to, e.g., adjust training sounds or lock buttons)

♥-Touch: To view information during training without pressing buttons, bring the training computer near the Polar logo on the transmitter. See Feature Settings for more information.



Start With Basic Settings














To activate your Polar RS300X, press any button for one second. Once RS300X is activated, it cannot be switched off.

1. Press the RED button to access the **Language** menu. Select **English, Deutsch, Español** or **Français** with UP/DOWN and confirm with the RED button.
2. **Start with basic settings** is displayed.
3. Press the RED button and continue with basic settings.
4. Select **Time** format.
5. Enter **Time** (hours and minutes).
6. Enter **Date**.

7. Select **Units**. Select metric (kilograms, centimeters, KCAL) or imperial (pounds, feet, CAL). *Calories are always measured as kilocalories.*
8. Enter **Weight**.
9. Enter **Height**.
10. Enter **Date of birth**.
11. Select **Sex**.
12. **Settings OK?** is displayed.
Select **Yes** to accept and save settings.
RS300X enters Time view.
Select **No** to change settings. Press BACK until you return to the setting you want to change.

To modify your personal settings later, see User Settings.

Symbols on the Display

Symbol	Description
	The training computer battery level is low.
	The alarm is active.
	Time 2 is in use.
	The key lock is active.
	Current speed/pace.
	The G1 GPS sensor is in use. If the symbol is blinking, RS300X is trying to establish a connection to the GPS sensor, or the GPS sensor is trying to establish a connection to the satellites.
	Heart rate is detected when the heart symbol is blinking.
	The foot pod is in use. If the symbol is blinking, RS300X is trying to establish a connection to the foot pod.
	The training computer is recording the training session.
	Total duration of training session.
	Lap time.
	Burned calories.
	Time of day.

2. BEFORE TRAINING

Polar 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 Polar OwnIndex®. OwnIndex is comparable to maximum oxygen uptake (VO_{2max}), a commonly used aerobic capacity measure. For more information, see Interpret Your Fitness Test Results.

The OwnIndex value affects the accuracy of calorie calculation during training.

The test is developed for healthy adults. To make sure the test results are reliable:

- avoid distractions. The more relaxed you are and the more peaceful the testing environment is, the more accurate the test result will be (for instance, no television, telephone or talking).
- avoid heavy physical exertion, alcohol and unprescribed pharmacological stimulants on the test day and the day before.
- avoid eating a heavy meal or smoking 2-3 hours prior to the test.
- always perform the test in similar conditions and at the same time during the day.
- enter accurate user information.

Perform Polar Fitness Test

1. Wear the transmitter, lie down and relax for 1-3 minutes.
2. In Time view, select UP/DOWN > **Test** > **Start**. The fitness test begins as soon as the RS300X locates your heart rate. So, make sure you are relaxed and ready to take the test when you press **Start**.
3. Approximately 5 minutes later, a beep will indicate the end of the test, and the test result is displayed. Press the RED button.
4. **Update to VO_{2max} ?** is displayed.
5. Select **Yes** to update your user settings and OwnIndex with the new result. Select **No** only if you know your VO_{2max} value, and if it differs more than one fitness level (see the table on the next page) from the OwnIndex result. Your OwnIndex value will only be saved in the OwnIndex results.

Troubleshooting

- **Set your personal activity level** is displayed > Set your activity level. See User Settings for further information.
- **Fitness Test Failed** is displayed or no heart rate is shown. Check that the transmitter electrodes are moist enough and the elastic strap is snug enough around your chest. If the fitness test fails, your previous OwnIndex value will not be replaced.
- No heart rate shown > Test fails. Check that the transmitter electrodes are moist enough and that the strap is snug enough around your chest.

Interpret Your Fitness Test Results

Interpret the OwnIndex values by comparing your individual values and changes in them over time. OwnIndex can also be interpreted based on gender and age. Locate your OwnIndex in the table on the right, and see how it compares to others of the same gender and age.

Age	VERY LOW	LOW	FAIR	MODERATE	GOOD	VERY GOOD	ELITE
20-24	10-32	32-37	38-43	44-50	51-56	57-62	>62
25-29	10-31	31-35	36-42	43-48	49-53	54-59	>59
30-34	10-29	29-34	35-40	41-45	46-51	52-56	>56
35-39	10-28	28-32	33-38	39-43	44-48	49-54	>54
40-44	10-26	26-31	32-35	36-41	42-46	47-51	>51
45-49	10-25	25-29	30-34	35-39	40-43	44-48	>48
50-54	10-24	24-27	28-32	33-36	37-41	42-46	>46
55-59	10-22	22-26	27-30	31-34	35-39	40-43	>43
60-65	10-21	21-24	25-28	29-32	33-36	37-40	>40
20-24	10-27	27-31	32-36	37-41	42-46	47-51	>51
25-29	10-26	26-30	31-35	36-40	41-44	45-49	>49
30-34	10-25	25-29	30-33	34-37	38-42	43-46	>46
35-39	10-24	24-27	28-31	32-35	36-40	41-44	>44
40-44	10-22	22-25	26-29	30-33	34-37	38-41	>41
45-49	10-21	21-23	24-27	28-31	32-35	36-38	>38
50-54	10-19	19-22	23-25	26-29	30-32	33-36	>36
55-59	10-18	18-20	21-23	24-27	28-30	31-33	>33
60-65	10-16	16-18	19-21	22-24	25-27	28-30	>30

This 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 seven 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.

Follow Fitness Test Results

Fitness test results contain 16 of your latest OwnIndex values, including the dates. On average, it takes six weeks of regular training to improve your aerobic fitness noticeably. To improve your aerobic fitness most efficiently, you need to train large muscle groups.

1. Select UP/DOWN > **Test** > **Trend**.
2. Your OwnIndex result bars and date of the latest test are displayed. Press UP/DOWN to view the previous OwnIndex results.

Delete OwnIndex Values

1. Select the value you wish to delete.
2. Press and hold the LIGHT button.
3. **Delete value? No/Yes** is displayed. Confirm your selection with the RED button.

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

The $HR_{\max-p}$ definition can be set to be performed simultaneously with the Polar Fitness Test. It predicts your individual maximum heart rate value more accurately than the age-based calculation ($220 - \text{age}$), which provides only a rough estimation and may not be accurate. The most accurate way to determine your maximum heart rate is to have it measured in a laboratory by a doctor or an exercise physiologist.

Set the $HR_{\max-p}$ on by selecting UP/DOWN > **Test** > **$HR_{\max-p}$** > **On**.

OwnZone Limits

Your training computer can determine your individual aerobic heart rate zone automatically. This feature is called Polar OwnZone® (OZ). Starting every training session with the OwnZone guarantees safe and effective heart rate zones for your daily condition. It is recommended you determine your OwnZone when you change training environment or sport/user information, if you have not yet fully recovered from a previous training session, or are training for the first time after a break of one week or more.

OwnZone limits are determined in 1-5 minutes during a warm-up period by walking, jogging, or doing some other sport. Start slowly, keeping your heart rate below 100 bpm / 50 % HR_{max} . After each minute, increase your speed gradually about 10 bpm / 5% HR_{max} .

Before you start, make sure:

- you entered your user information correctly.
 - you selected the OwnZone exercise (UP/DOWN > **Settings** > **Exercise** > **OwnZone** > **Select**). When OwnZone is selected as training session type, every training session starts with OwnZone determination.
1. Wear the transmitter and the training computer.
 2. In the Time view, press the RED button and select **Start** to begin OwnZone determination.
 3. At some point during the determination, **OwnZone updated** and the OwnZone limits are displayed. Proceed normally with training session.

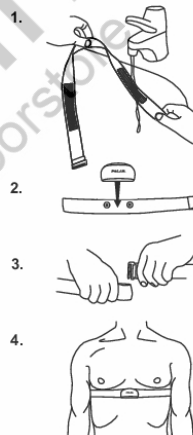
3. TRAINING

Wear the Transmitter

Before recording a training session, wear the transmitter.

1. Wet the electrode areas of the strap well under running water.
2. Attach the connector to the strap. Adjust the strap length to fit it 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.

Detach the connector from the strap when it is not in use to maximize the transmitter lifetime. See Customer Service Information for more detailed maintenance instructions.



Wear the Polar S1 foot pod*

- The S1 foot pod has to be activated from the training computer before it can be used:
UP/DOWN > **Settings** > **Features** > **S sensor** > **Footpod**.
- Install a battery before using the foot pod for the first time. For instructions, see the Polar S1 foot pod user manual.
- To improve the accuracy of speed/pace and distance measurements, calibrate the foot pod. See Feature Settings and the Polar S1 foot pod user manual.

During Training



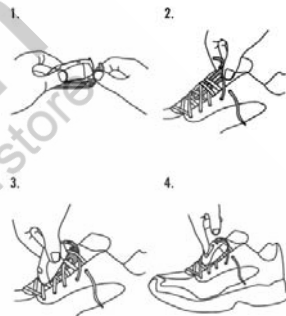
- *If you have turned on the **Help** function, **Footpod signal found** and a symbol X are displayed after turning the foot pod on.*
- *If **Check Footpod!** is displayed, the training computer is unable to receive a signal from the foot pod.*
- *Change the battery if the green light on the foot pod turns red.*

*Optional S1 foot pod required.

Attaching the S1 Foot Pod to Your Shoe

To measure speed/pace and distance accurately, make sure the foot pod is correctly positioned.

1. Detach the foot pod from the fork.
2. Loosen your shoelaces and place the fork underneath them, on top of the tongue of your shoe. Tighten the laces.
3. Fit the front part of the foot pod (closest to the RED button) to the fork and press from the rear. Fasten the flap. Make sure the foot pod does not move and is aligned with your foot.
4. Once your heart rate appears on your wrist unit, turn the foot pod on by pressing and holding the RED button on the foot pod until the green light starts to flash.



Wear the Polar G1 GPS Sensor*

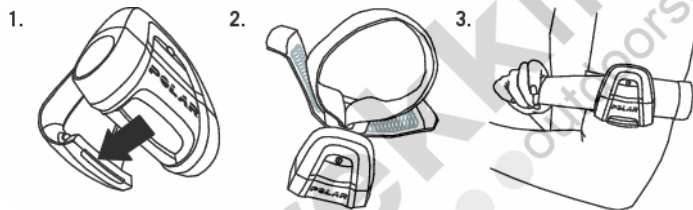
- The GPS sensor has to be activated from the training computer before it can be used: UP/DOWN > **Settings** > **Features** > **S sensor** > **GPS**.
- Install a battery before using the GPS sensor for the first time. See the Polar G1 GPS sensor user manual.

*Optional G1 GPS sensor required.

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Wearing the GPS Sensor

1. Push to open the clip.
2. Thread the armband loosely through the loops on the clip and fasten.
3. Position the armband round your upper arm and fasten. Place the sensor and the training computer on the same arm. Make sure that the "POLAR" logo is in an upright position.
4. Turn the GPS sensor on only after your heart rate appears on your training computer. See the Polar G1 GPS Sensor user manual for further instructions on turning the sensor on.



i You can fasten the sensor on a belt or on the top of a backpack without the armband.

Start Training

1. Wear the training computer, the transmitter, and additionally either foot pod or GPS sensor.
2. In Time view, press the RED button and select **Start** to start recording your training session or select **Settings** to modify sounds, heart rate view or other exercise settings before starting. Recording can also be started by long-pressing the RED button once.

To modify exercise settings during the training session, press BACK and select **Settings**.



Your training session is saved only when recording for more than one minute.

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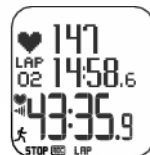
During Training

The following information is displayed during training. Press UP/DOWN to change the view. You can adjust the display options by selecting BACK > **Settings** > **Display**. The name of the display appears for a few seconds. The name indicates the lower row information.



Heart rate

Lap time / Speed / Pace
Stopwatch
Heart rate



Stopwatch

Heart rate
Lap time
Stopwatch



Lap time

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



Pace/Speed (available only with foot pod or GPS sensor)

Stopwatch

Distance

Speed/pace (depending on the selected speed view)



Distance (available only with foot pod or GPS sensor)

Zone number and countdown timer or distance / Lap time (lap time will be displayed if you have not set any timers or distances that prompt you to change zones)

Sport zones / Target heart rate zone / target speed/pace zone

Distance

Quick menu: To access the quick menu during training, press and hold LIGHT. The quick menu is a short cut to locking buttons, adjusting training sounds and other settings.

♥-Touch: Check selected information during training by bringing the training computer close to the transmitter connector. Set up the **♥-Touch** function: UP/DOWN > **Settings** > **Features** > **♥-Touch**.

Lap: Take a lap during training session by short-pressing the RED button. The display returns to normal after the lap details are shown for a couple of seconds.



You can zoom the middle/upper row information during training by pressing and holding the DOWN/UP button. Return to the normal display by pressing and holding the buttons again.

Stop Training

1. Press BACK to pause training recording.
2. Press BACK again or select **Exit** from the **Stop menu** to stop recording altogether.

Detach the transmitter connector from the strap and rinse the strap under running water after every use. Wash the strap regularly in a washing machine at 40°C/104°F after every fifth use.

Continue Training:

Continue recording the paused training session by selecting **Continue** from the **Stop menu**.

Summary:

View the summary information by selecting **Summary** from the **Stop menu**. For more information, see After Training.

4. AFTER TRAINING

Summary

After training session is paused, a summary of training information can be viewed by selecting **Summary** from the **Stop menu**. More detailed training information can be found under UP/DOWN > **File**. See Review Training Data.

Scroll UP/DOWN for the following information.

Max HR

Maximum heart rate during training session.

Avg HR

Average heart rate during training session.

Duration

Duration of training session.

Max pace / Max speed*

Maximum pace / maximum speed during training session.

Avg pace / Avg speed*

Average pace / average speed during training session.

Distance*

Total number of kilometers/miles.

*Optional GPS sensor or foot pod required to view speed and distance data.

Review Training Data

Select UP/DOWN > **File** to review training information in **Exercise Log**, **Weekly** and **Totals**.

Exercise Log




Exercise log

16 of your latest training sessions are shown as bars on the display. You can compare the duration of your training sessions and see overall trends. You can toggle between the training sessions with UP/DOWN. The training session type and the date of the selected training session are shown on the display.

When **Exercise Log** becomes full, the oldest training file is replaced with the most recent one. If you want to save the file for a longer period, transfer it to the Polar web service on www.polarpersonaltrainer.com. For further information, see Transfer Data.

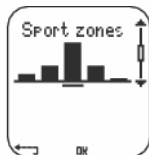
To review detailed training information, select a bar and press the RED button. Your training computer displays the following training information (depending which information is available).

 If **OK** appears above the **RED** button, even more detailed information is available.



Basic information

Training session type
Date
Time
Duration



Sport zones

Relative durations in sport zones



Lap information

Number of laps
Average duration of a lap
Best lap and duration

Weekly

In the **Weekly** log you can view accumulated data of your training sessions for previous weeks. You can toggle between the weeks with UP/DOWN. The bar on the right is entitled **This Week** and shows training summary for the current week. The other bars (named after the Sunday of the week in question) display the summaries for the past 15 weeks. View more detailed weekly information by selecting a week and pressing the RED button.

The following information is shown:

- The week title, burned calories, total distance and total duration.
- Relative durations in sport zones. You can also zoom into more detailed sport zone information by pressing the RED button. Durations individually for each sport zone are displayed.

Note that weekly information summaries cannot be deleted.

Totals

Totals includes cumulative values of information recorded during your training sessions. Total values can be used as a seasonal (or monthly) counter of your training values. The values are automatically updated after each training session. **Totals** provides the following information, including the date of last reset:

- **Total distance** (total distance if the information is available)
- **Total duration** (total training duration)
- **Total calories** (total number of burned calories)
- **Total exerc. count** (total training session count)

The total values can be reset or deleted (see the next section). To reset, select **Reset totals** from the **Totals** menu. Select the value (**All**, **Distance**, **Duration**, **Calories** or **Exerc. count**) you wish to reset.

Delete

To delete training files, select **Delete** from the **File** menu. From the **Delete** menu:

- select **Exercise** if you want to delete a training file. Next, select the training file you wish to delete.
- select **ALL exerc.** if you want to delete all training files.
- select **Totals** if you want to reset total statistics. Next, select what you wish to delete. Options are **ALL** (all total statistics), **Distance**, **Duration**, **Calories** or **Exerc. count** (training session count).

Transfer Data

You can transfer your training data from RS300X to your diary in **polarpersonaltrainer.com** once you register for the service. A Polar FlowLink™ (can be purchased separately) and WebSync software are required for data transfer.

Download the WebSync software from polarpersonaltrainer.com and install it onto your PC following the instructions on the screen.

Transfer Training Data

1. Open the WebSync data transfer software on your PC.
2. Plug the FlowLink into a USB port.
3. Place your RS300X on the FlowLink display facing down.
4. Follow the instructions on your computer screen for transferring data from your training computer to polarpersonaltrainer.com. For further instructions, see the **help section in polarpersonaltrainer.com**.

5. SETTINGS

Watch Settings

Select the value you want to change and press the RED button. Adjust the values with UP/DOWN and accept with the RED button.

Access watch settings by selecting UP/DOWN > **Settings** > **Watch**.

Time and Date Settings

Set the local time (**Time 1**) and a time difference to it (**Time 2**). With **Time zone**, you can select which time zone is used. In Time view, you can easily change the time zone from **Time 1** to **Time 2** by pressing and holding DOWN.

Set the date with **Date** setting.

Event

You can create an event in the training computer's memory. The computer will display the number of days till the event when you press and hold UP in Time view.

1. Select **Event** from the **Watch** settings menu.
2. Set the **Date** of the event.
3. Select a name for the event.

To change event details, access the **Event** settings.

- **View**: View the name and the date of the current event.
- **Date**: Change the date of the event.
- **Rename**: Rename the current event.
- **Delete**: Delete the current event.

Alarm

Select **Alarm** from the **Watch** settings menu. Set the alarm to go on **Once**, from **Monday to Friday**, **Daily**, or turn it **Off**.

Press BACK to stop the alarm or the RED button to snooze for 10 minutes. The alarm cannot be used during training.

Exercise Settings

Access exercise settings by selecting UP/DOWN > **Settings** > **Exercise**. In the **Exercise** menu there are 5 exercise options which all have their own settings.

- **Free**: No predetermined settings for the training session.
- **Basic**: Train with moderate intensity.
- **Interval**: Train with intervals.
- **OwnZone**: Train in your OwnZone.
- **Add new**: Add new training session.

ENGLISH

All options, excluding **Free**, have the following settings:

- **Select**: Select the option as your exercise setting.
- **View**: View the details of the exercise setting.
- **Edit**: Edit the details of the exercise setting. Select the **Number of zones**, **Zone type** (either **Heart rate** or **Speed/Pace**), limits for the zone(s) and **Zone guide** (either **Timers**, **Distances** or **Off**).
 - See Adjusting heart rate zones manually.
 - **Zone guide** changes the zone automatically during training session according to the settings (either set time or distance) and alerts you. When **OwnZone** is selected as training session type, only the **Zone guide** can be set manually.
- **Rename**: Rename the exercise setting.
- **Default**: Restore default settings.

Adjusting heart rate zones manually:

- **HR zone 1** limits: Adjust your zone 1 limits. When setting the upper limit, the lower limit of zone 2 is set automatically.
- **HR zone 2** limits: Adjust your zone 2 limits. When setting the lower limit, the upper limit of zone 1 is set automatically. When setting the upper limit, the lower limit of zone 3 is set automatically.
- **HR zone 3** limits: Adjust your zone 3 limits. When setting the lower limit, the upper limit of zone 2 is set automatically.

Feature Settings

Access feature settings by selecting UP/DOWN > **Settings** > **Features**.

- **S sensor**: Select which speed sensor you wish to use. Options are **Footpod**, **GPS** and **Off**.
- **Footp.calibr.:**
 - **Run**: Calibrate the foot pod by running. Turn the foot pod on. Set the **Calibration Distance** (preferably more than 1000 meters), i.e. the distance how far you want to run, in kilometers.
Press START and run ...km > Press the RED button on the training computer. Start the run by making the first step with the sensor foot onto the starting line and run the preset distance at a steady pace.
Press OK after ...km > Stop exactly on the stop line of the preset distance and press the RED button.
Stand still. Receiving data > Stand still with your arms down and wait until your training computer has received the data.
Calibration complete and **Factor** are displayed. The new calibration factor is used.

- **Manual**: When you know the calibration factor (i.e. you have calibrated the foot pod previously) you can set the factor manually. **Calibration Factor 0.000** > Adjust the value. **Calibration complete** and **Factor** are displayed.
See the foot pod calibration instructions in the Polar S1 foot pod user manual for further information.



As the most universal calibration location is a 400 m track, even in countries using the imperial units, the calibration is done in metric units.

- **Speed view**: Select **km/h** or **min/km**.
- **A.lap**: Set the automatic lap **On** or **Off**. When set **On**, enter the **Distance** of a lap.
- **♥-Touch**: Set which information is connected to the ♥-Touch function. Options are **Show Limits**, **Take lap**, **Change view**, **Light** and **Off**.

- **HR view:** Set how the heart rate is displayed. Options are **HR** and **HR%** (percentage of maximum heart rate).
- **Sport zones:** Set the lower limits for 5 sport zones.

User Settings

Access user settings by selecting UP/DOWN > **Settings** > **User**.

- **Weight:** Enter your weight.
- **Height:** Enter your height.
- **Birthday:** Enter your date of birth.
- **Sex:** Select **Male** or **Female**.
- **Activity:** Select the alternative that best describes the overall amount and intensity of your physical activity during the past three months.
 - **Low:** 0-1 hours a week. You do not participate regularly in programmed recreational sport or heavy physical activity. For instance, you walk only for pleasure, or train hard enough to cause heavy breathing or perspiration only occasionally.

- **Moderate** : 1-3 hours a week. You participate regularly in recreational sports. For instance, 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.
- **High**: 3-5 hours a week. You participate at least 3 times a week in heavy physical training. For instance, you run 20-50 km or 12-31 miles per week or spend 3-5 hours per week in comparable physical activity.
- **Top**: 5+ hours a week. You participate in heavy physical training at least 5 times a week, or you are training to improve performance for competitive purposes.
- **Heart rate : HR max** (maximum heart rate) is calculated automatically. Adjust this value only if you know your laboratory-measured value. You can also set your **HR sit** (heart rate in a sitting position).
- **VO2 max**: Age-based value is shown as default. If you perform the Polar Fitness Test, your OwnIndex value replaces this value. If you know your laboratory-measured VO_{2max} value, you can replace your OwnIndex value with it.

General Settings

Access general settings by selecting UP/DOWN > **Settings** > **General**.

- **Sound:** Set the **Volume** level (**Vol 2**, **Vol 1** or **Off**) and **TZ Alarm** (target zone alarm: **On** or **Off**).
- **Keylock:** Select **Manual** or **Automatic**. For **Automatic**, the keylock activates when you have not pressed the buttons in one minute.
- **Help:** Select **On** or **Off**. This is a function that displays short help messages when using the training computer.
- **Units.** Select metric (kilograms, kilometers, centimeters, KCAL) or imperial (pounds, miles, feet, CAL). *Calories are always measured as kilocalories.*

- **Language:** Select **English**, **Deutsch**, **Español** or **Français** as the user interface language.
- **Sleep:** Select on or off. Activating the sleep mode will help save the battery when the training computer is out of use for a long period of time. The watch alarm will still function in sleep mode. Awaken the training computer: Press any button > **Turn display on?** > **Yes** / **No**.

6. CUSTOMER SERVICE INFORMATION

Caring for Your Polar RS300X

Wrist Unit: Clean with a mild soap and water solution, dry with towel. Never use alcohol or any abrasive material (steel wool or cleaning chemicals). Keep in a cool and dry place. Do not store in a damp environment, in non-breathable material (a plastic bag or a sports bag) nor with conductive material (a wet towel). Do not expose to direct sunlight for extended periods.

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

Wash the strap regularly in a washing machine at 40°C/104°F or at least after every fifth use. This ensures reliable measurement and maximizes the life span of the transmitter. 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 transmitter connector in the washing machine or drier!

Dry and store the strap and the transmitter connector separately. Wash the strap in a washing machine before long-term storage and always after use in pool water with high chlorine content.

Service

Your Polar RS300X is designed to help you achieve personal fitness goals and indicate the level of physiological strain and intensity during training sessions. No other use is intended or implied. During the two-year guarantee/warranty period we recommend that you have service 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. Please see the separate Polar Customer Service Card for details.

Register your Polar product at <http://register.polar.fi/> to make sure we keep improving our products and services to better meet your needs.

ENGLISH

Changing Batteries

Caution!

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

Training computer

Opening the sealed back cover of the training computer voids warranty. We recommend that you have the battery replaced by an authorized Polar Service Center even after warranty period runs out. Here, your training computer will be tested for water resistance after battery replacement, and given a full periodic check.

S1 foot pod

See the instructions in the S1 foot pod user manual.

G1 GPS sensor

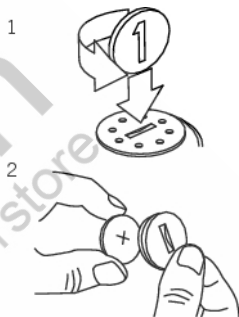
See the instructions in the G1 GPS sensor user manual.

Transmitter connector

Change the sealing ring of the battery cover every time you change the battery. 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 only. Keep the batteries away from children. If swallowed, contact a doctor immediately. Batteries should be properly disposed of according to local regulations.

When handling a new, fully charged battery, avoid clasp-like contact, i.e. simultaneous 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 its capacity and lifetime.

1. Open the battery cover of the connector with a coin by turning it from CLOSE to OPEN.
2. Replace the old battery inside the cover with a new one. Make sure the positive (+) side is facing the cover.
3. Replace the old sealing ring with a new one, fitting it snugly in the cover groove to ensure water resistance.
4. Put the cover back on and turn clockwise from OPEN to CLOSE.



Precautions

Minimizing Possible Risks: Training may include some risk. Before beginning a regular training program, answer the following questions concerning your health status. If you answer yes to any of these questions, consult a physician before starting any training program.

- Have you been physically inactive for the past 5 years?
- Do you have high blood pressure or high blood cholesterol?
- Do you have symptoms of any disease?
- Are you taking any blood pressure or heart medication?
- Do you have a history of breathing problems?
- Are you recovering from a serious illness or medical treatment?
- Do you use a pacemaker or 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, stop the training session or continue at a lighter intensity.

If you have a pacemaker, defibrillator or other implanted electronic device, you use the Polar RS300X at your own risk. Before starting use, take a maximal training stress test under the supervision of a physician. The test is to ensure the safety and reliability of the simultaneous use of the pacemaker and the Polar RS300X.

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. To avoid any skin reaction to the transmitter, wear it over a shirt. Moisten the shirt well under the electrodes to ensure flawless operation. If you use insect repellent on your skin, make sure that it does not come into contact with the transmitter.

Exercise equipment with electronic components may cause interfering stray signals. To tackle these problems, try the following:

1. Remove the transmitter from your chest and use the exercise equipment as you would normally.
2. Move the wrist unit around until you find an area in which it displays no stray reading or does not flash the heart symbol. Interference is often worst right in front of the display panel of the equipment, while the left or right side of the display is relatively free of disturbance.
3. Put the transmitter back on your chest and keep the wrist unit in this interference-free area as much as possible.

If the RS300X still does not work, the piece of equipment may be electrically too noisy for wireless heart rate measurement.

Polar RS300X may be worn when swimming. To maintain water resistance, **do not press buttons under water.** For more information, visit <http://support.polar.fi>. Water resistance of Polar products is tested according to International Standard ISO 2281. Products are divided into three categories according to their water resistance. Check the back of your Polar product for the water resistance category, and compare it to the chart below. Please note that these definitions do not necessarily apply to products of other manufacturers.

Marking on the case back	Water resistant characteristics
Water resistant	Protected against wash splashes, sweat, raindrops etc. Not suitable for swimming.
Water resistant 30 m/50 m	Suitable for bathing and swimming.
Water resistant 100 m	Suitable for swimming and snorkeling (without air tanks).

Troubleshooting

If you don't know where you are in the menu, press and hold BACK until time is displayed.

If there are no reactions to any buttons or the training computer displays unusual readings, reset the training computer by pressing four buttons (UP, DOWN, BACK and LIGHT) simultaneously for four seconds. All other settings but time and date are saved.

If the heart rate reading becomes erratic, extremely high or shows nil (00), make sure that there are no other heart rate transmitters within 1 m/3 ft and that the transmitter strap/the textile electrodes fit snugly and are wet, clean and undamaged.

If the heart rate measurement does not work with the sports apparel, try using the strap. If it works, the problem is most probably in the apparel. Please contact the apparel retailer/manufacturer.

Strong electromagnetic signals can cause erratic readings. Electromagnetic disturbances may occur near high-voltage power lines, traffic lights, overhead lines of electric railways, electric bus lines or trams, televisions, car motors, bike computers, some motor-driven training equipment, cellular phones, or at electric security gates. To avoid erratic readings, move away from possible sources of disturbance.

If the abnormal reading continues despite moving away from the source of disturbance, slow down 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 physician nevertheless.

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

If heart rate measurement fails despite the actions mentioned previously, the battery of your transmitter may be empty.

Technical Specifications

Training Computer

Battery type	CR 2032
Battery life	Average 1 year (1 h/day, 7 days/week training)
Operating temperature	-10 °C to +50 °C / 14 °F to 122 °F
Wrist strap material	Polyurethane
Back cover and wrist strap buckle	Stainless steel complying with the EU Directive 94/27/EU and amendment 1999/C 205/05 on the release of nickel from products intended to come into direct and prolonged contact with the skin.
Watch accuracy	Better than ± 0.5 seconds/day at 25 °C / 77 °F temperature.
Accuracy of heart rate measurement	$\pm 1\%$ or ± 1 bpm, whichever larger, definition applies to steady state conditions.

Transmitter

Battery type	CR 2025
Battery life	Average 2 years (1 h/day, 7 days/week)
Battery cap sealing ring	O-ring 20.0 x 1.0 Material FPM
Operating temperature	-10 °C to +50 °C / 14 °F to 122 °F
Connector material	Polyamide
Strap material	35% Polyester, 35% Polyamide, 30% Polyurethane

Limit values

Chronometer	23 h 59 min 59 s
Heart rate	15-240 bpm
Total time	0 - 9999 h 59 min 59 s
Total calories	0 - 999999 kcal/Cal
Total exercise count	65 535
Year of birth	1921 - 2020
Maximum speed with a GPS sensor	199.9 km/h
Maximum speed with footpod	29.5 km/h
Maximum files	16
Maximum laps	99
Maximum training session duration	99:59:59
Maximum training session distance	655.3 km
Maximum trip distance	9999.9 km/mi

Data Transfer System Requirements

Polar WebSync software and Polar FlowLink:	PC MS Windows (2000/XP/Vista) 32 bit
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Guarantee and Disclaimer

Limited Polar International Guarantee

This limited Polar international guarantee is issued by Polar Electro Inc. for the consumers who have purchased this product in the USA or Canada. This limited Polar international guarantee is issued by Polar Electro Oy for the consumers who have purchased this product in other countries.

Polar Electro Inc. / Polar Electro Oy guarantees to the original consumer/purchaser of this product that the product will be free from defects in material or workmanship for two years from the date of purchase.

Please keep the receipt or stamped Polar Customer Service Card as a proof of purchase!

The guarantee does not cover the battery, damage due to misuse, abuse, accidents or non-compliance with the precautions; improper maintenance, commercial use, cracked or broken cases.

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. During the guarantee period the product will be either repaired or replaced at an authorized service center free of charge.

This guarantee does not affect the consumer's statutory rights under applicable national or state laws in force, or the consumer's rights against the dealer arising from their sales/ purchase contract.

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Manufactured by Polar Electro Oy, Professorintie 5, FIN-90440 KEMPELE.
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CE 0537

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

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This marking shows that product is protected against electric shocks.



Manufactured by

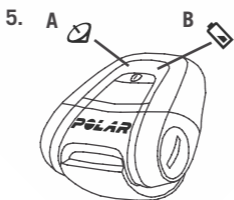
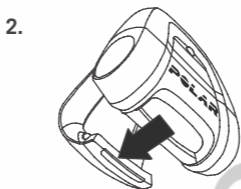
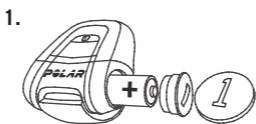
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POLAR[®]
LISTEN TO YOUR BODY

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G1 GPS Sensor
User Manual

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outdoorstore



Congratulations! You are now the proud owner of a Polar G1 GPS sensor. Polar G1 provides speed and distance data in all outdoor sports using Global Positioning System (GPS) technology.

The Polar G1 sensor determines your location by measuring continuously the distance between itself and at least four satellites. The sensor uses wireless transmission technology to transmit speed and distance data to a compatible Polar product which records and displays the data.

Polar G1 is resilient and water resistant - you can depend on its performance regardless where you train!

Using Polar G1 Sensor

Inserting Battery

1. See picture 1 on the front cover. Open the battery cover by turning it counterclockwise with a coin.
2. Place the battery inside with the positive (+) side facing the battery cover.
3. Close the battery cover by turning it clockwise with a coin.

Using Polar G1 Sensor With Polar Training Computer

To activate the G1 sensor in your training computer, select **Settings** > **Training settings** > **Speed sensor** > **GPS sensor**.

See the user manual for the training computer in question for instructions on how speed and distance data are displayed on your training computer.

Wearing Polar G1 Sensor

1. Push to open the clip (Picture 2).
2. Thread the armband loosely through the loops on the clip and fasten (Picture 3). You can fasten the sensor on a belt or on the top of a backpack without the armband.
3. Position the armband round your upper arm and fasten (Picture 4). Place the sensor and the Polar product on the same arm. Make sure that the "POLAR" logo is in an upright position.

Turning Polar G1 Sensor On/Off

To best catch satellite signals, go outdoors and away from tall buildings and trees. Press the button shortly to turn the sensor on. A flashing battery indicator led (Picture 5 b) shows the power mode (low/full). Then a red satellite indicator led (Picture 5 a) will flash as the sensor searches for satellite signals. The sensor will find the signals faster if you keep the sensor immobile during the search. A green led will start flashing when the signals are found and location is determined. Your Polar G1 sensor is now ready for action.

To turn the sensor off, press the button for one second. The power switches off automatically if the sensor cannot locate satellite signals or the sensor location does not change for 15 minutes.

Switching Power Mode

You can use the Polar G1 sensor in low or full power mode. The default mode is full power mode. By using the low power mode, you can increase battery life by up to 40 %. For maximum accuracy of speed and distance measurement, use full power mode.

When the sensor is activated, press the button for five flashes to change modes. A battery indicator led flashes four times; the green led indicating full power mode activation or the red led indicating low power mode activation.

Everytime you turn the sensor on, the flashing led indicates which mode is activated.

Battery Replacement

The red battery indicator led flashes, when battery is low (Picture 5 b). Change the battery yourself by following the instructions in Using the Polar G1 Sensor.

Use an AA-sized alkaline battery. We recommend you use a lithium battery or rechargeable NiMH battery in temperatures 5°C and below. Cold temperature decreases the life of an alkaline battery.



Keep batteries away from children. If swallowed, contact a doctor immediately. Batteries should be disposed of in compliance with local regulations.

Care and Maintenance

The following instructions will help you fulfill guarantee obligations.

- Wash the armband in a washing machine at 40°C / 104°F. Use a washing pouch. Do not soak, nor use detergent with bleach or fabric softener. Do not dry-clean. Do not spin-dry or iron.
- Clean the sensor with a mild soap and water solution. Dry it with a towel. Never use alcohol or abrasive materials (steel wool or cleaning chemicals). Never put the sensor in a washing machine or drier.
- Keep the sensor and the armband in a cool and dry place. Do not store wet in non-breathing material, such as a sports bag. Do not expose to direct sunlight for extended periods.

Service

During the warranty period, service the product at an authorized Polar Service Center only. The warranty does not cover damage caused by unauthorized service. See Limited International Polar Guarantee.

Using the G1 Sensor in Water

Polar G1 sensor is water resistant. It can be safely worn in the rain or while crossing rivers or canoeing. The GPS reception system does not function under water.

Troubleshooting

- If speed or distance readings are irregular or show zero, something in your surroundings may be blocking satellite signal reception (e.g. a building or terrain). If the sensor cannot locate the satellite signals, it will not be able to calculate its location. Speed values may therefore show zero. Distance is measured between the last location before the shadow area, and the first location after the shadow area in a straight line, i.e. curves are not counted.

- Strong electromagnetic signals can cause erratic readings. Electromagnetic disturbances may occur near high-voltage power lines, traffic lights, overhead lines of electric railways, electric bus lines or trams, televisions, car motors, bike computers, some motor driven training equipment, cellular phones, or at electric security gates. To avoid erratic readings, move away from possible sources of disturbance.
- To avoid crosstalk from another person with a Polar G1 GPS Sensor, keep a distance of at least 2 meters/6'7" between the sensors.
- In low speeds (below 3km/hour), accuracy decreases causing variation in speed values.
- If the button does not react, remove the battery to reset the sensor. If this does not work, the battery may be empty.

Technical Specifications

Transfer technology:	Polar magnetic communication technology
Battery type:	One AA sized battery (the maximum voltage allowed is 3.0 V)
Battery life:	Average 10 hours of use (20 °C / 68 °F)*
Operating temperature:	-20 °C to +60 °C / -4 °F to 140 °F
Accuracy (Distance):	+/-2%
Accuracy (Speed):	+/- 2km/h
Speed display range in Training Computers:	0-199,9 km/h or 0-124,2 mph
Water resistance:	20 m
Armband material:	Flexible textile strap: 34 % polyamide, 33 % polyester, 33 % rubber. Other parts: polyamide, silicone.

*Battery life varies depending on battery type and operating temperature.

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- **Please keep the receipt and stamped Polar Customer Service Card. The receipt is your proof of purchase!**
- The guarantee does not cover the battery, damage due to misuse, abuse, accidents or non-compliance with the precautions; improper maintenance, commercial use, cracked or broken cases and armband.
- 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. During the guarantee period the product will either be repaired or replaced at an authorized service center free of charge.
- This guarantee does not affect the consumer's statutory rights under applicable national or state laws in force, or the consumer's rights against the dealer arising from their sales/purchase contract.



This product is compliant with the Directive 1999/5/EC and 93/42/EEC. The relevant Declaration of Conformity is available at

www.support.polar.fi/declaration_of_conformity.

This Category II radiocommunication device complies with Industry Canada Standard RSS-310.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



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