

Polar CS100™

User Manual

POLAR®
LISTENS TO YOUR BODY

The information relevant to using the product with the transmitter is in blue text.

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1. INTRODUCTION TO THE POLAR CYCLING COMPUTER

1.1 PRODUCT ELEMENTS

The Polar cycling computer package consists of the following parts:



Cycling Computer

The cycling computer displays and records your cycling and exercise data during exercise. Enter your personal settings into the cycling computer and analyze exercise information after workouts.



Polar Bike Mount™

Secure the bike mount to your bike and attach the cycling computer to it.



Polar Speed Sensor™

A wireless speed sensor measures speed and distance during cycling.



Polar Coded Transmitter

CS100 set includes a transmitter. The transmitter sends your heart rate signal to the cycling computer. The electrode areas on the back of the transmitter detect your heart rate.

An elastic strap holds the transmitter around your chest.

The information relevant to using the product with the transmitter is in blue text.

CS100b set does not include a transmitter, but you can buy it as an accessory product.

Polar Web Services

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

The latest version of this user manual can be downloaded at www.polar.com/support.

1.2 USING YOUR CYCLING COMPUTER FOR THE FIRST TIME

Enter your settings in the Basic Settings mode (time, date, units, and personal settings).

How to enter Basic Settings

Entering accurate personal information ensures that you receive correct feedback based on your performance (calorie consumption, OwnZone determination etc).

Activate the cycling computer by pressing the **MIDDLE** button.

The display fills with numbers and letters.

1. Press the **MIDDLE** button. **BASIC SET** is displayed.
2. Continue by pressing the **MIDDLE** button and follow the steps below:

The display reads:	Press the RIGHT button to set the flashing value	Press the MIDDLE button to accept the value
3. Time Set <ul style="list-style-type: none">• Time Mode 24h / 12h →• AM / PM (for 12h format)	RIGHT → <ul style="list-style-type: none">• Set 24h or 12h format. RIGHT<ul style="list-style-type: none">• Set AM or PM.	MIDDLE MIDDLE

The display reads:	Press the RIGHT button to set the flashing value	Press the MIDDLE button to accept the value
<ul style="list-style-type: none"> Hours 	RIGHT <ul style="list-style-type: none"> Set the hours.* 	MIDDLE
<ul style="list-style-type: none"> Minutes 	RIGHT <ul style="list-style-type: none"> Set the minutes.* 	MIDDLE
4. Date Set** <ul style="list-style-type: none"> Day / Month 	RIGHT <ul style="list-style-type: none"> Set the day (in 24h format) or the month (in 12h format).* 	MIDDLE
<ul style="list-style-type: none"> Month / Day 	RIGHT <ul style="list-style-type: none"> Set the month (in 24h format) or the day (in 12h format).* 	MIDDLE
<ul style="list-style-type: none"> Year 	RIGHT <ul style="list-style-type: none"> Set the year.* 	MIDDLE

Note:

- *The numbers scroll faster if you press and hold the **RIGHT** button as you adjust the value.
- **The date will be displayed according to the time format selected (24h: day - month - year / 12h: month - day - year).
- After a change of battery or after you reset the cycling computer, you only need to set the time and date in the Basic Settings. You can skip the rest of the settings by pressing and holding the **LEFT** button.

The display reads:	Press the RIGHT button to set the flashing value	Press the MIDDLE button to accept the value
5. Unit kg/cm or lb/ft	RIGHT <ul style="list-style-type: none"> Set the units for weight and height: kg/cm or lb/ft. 	MIDDLE
6. Weight kg/lb	RIGHT <ul style="list-style-type: none"> Set your weight in kilograms or pounds. <p><i>Note: If you chose the wrong units, you can still change them by pressing the LEFT button and returning to step 5.</i></p>	MIDDLE
7. Height cm/ft	RIGHT <ul style="list-style-type: none"> Set your height in cm or ft. Set inches (if you chose lb/ft). 	MIDDLE MIDDLE
8. Birthday <ul style="list-style-type: none"> Day / Month Month / Day Year 	RIGHT <ul style="list-style-type: none"> Set the day (in 24h format) or the month (in 12h format). RIGHT <ul style="list-style-type: none"> Set the month (in 24h format) or the day (in 12h format). RIGHT <ul style="list-style-type: none"> Set the year. 	MIDDLE MIDDLE MIDDLE

The display reads:	Press the RIGHT button to set the flashing value	Press the MIDDLE button to accept the value
9. Sex Male / Female	RIGHT • Set male or female.	MIDDLE

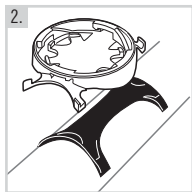
- **Settings done** is displayed.
- To change your settings, press the **LEFT** button until you return to the desired setting.
- To accept the settings, press the **MIDDLE** button and the cycling computer goes to the Time mode.

The cycling computer goes to the power save mode (blank screen) by pressing the **LEFT** button or if you do not press any button in the Time mode for five minutes. You can turn the cycling computer on again by pressing any button.

1.3 INSTALLING THE BIKE MOUNT, CYCLING COMPUTER AND SPEED SENSOR

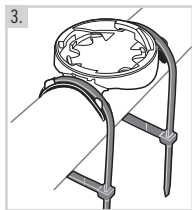
1.3.1 BIKE MOUNT AND CYCLING COMPUTER

1. You can install the bike mount and the cycling computer on the left or right side of the handlebar or on the stem with cable ties.



2. Place the rubber part on the handlebar or stem and insert the bike mount on top of it.

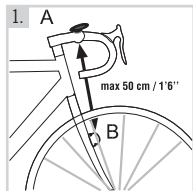
4. Position the cycling computer on to the bike mount. Turn the cycling computer clockwise until you hear a click. You can release the cycling computer by pressing it down and simultaneously turning it counter clockwise.



3. Pass the cable ties over the bike mount and adjust them around the handlebar/stem. Secure the bike mount firmly. Cut off any excess cable tie ends.

1.3.2 SPEED SENSOR

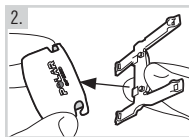
To install the speed sensor and spoke magnet, you need cutters and a small screwdriver.



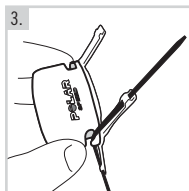
1. Attach the speed sensor to the opposite side of the front fork from the mounted cycling computer. The speed sensor and the cycling computer should be no more than 30-40 cm/ 1'-1'3" apart.

In case, the cycling computer is attached to the stem or if you are exercising in surroundings with electromagnetic interference, the distance should be minimized (minimum 30 cm/1'). The speed sensor and cycling computer should form approximately a 90° angle.

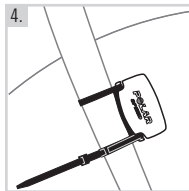
Should the distance between the cycling computer and the speed sensor be longer than recommended (for example on mountain bikes due to the front suspension), the speed sensor could be attached on the same side of the front fork as the cycling computer. In this case the maximum distance is 50 cm/1'6".



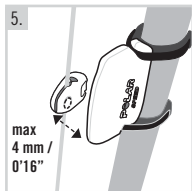
2. Attach the rubber part to the sensor.



3. Pass the cable ties through the speed sensor and rubber part holes.



4. Adjust the sensor to the front fork so that the POLAR logo faces outwards. Adjust the ties loosely. **Do not tighten them fully yet.**



5. Attach the magnet to a spoke at the same level as the sensor. The magnet hole must be facing the speed sensor. Fasten the magnet to the spoke and tighten it loosely with a screwdriver. Do not tighten it fully yet.

Fine-tune the positioning of both the magnet and the speed sensor so that the magnet passes close to the sensor but does not touch it. Adjust the sensor towards the wheel/spokes as much as possible. The gap between the sensor and the magnet should be under 4 mm/0.16". The gap is correct when you can fit a cable tie just about between the magnet and the sensor.

Rotate the front tyre so that you can see a speed reading on the display of your cycling computer. The reading indicates that the magnet and the speed sensor are positioned correctly. Once the magnet and the speed sensor are positioned correctly, tighten the screw to the magnet with a screwdriver. Also tighten the cable ties securely and cut off any excess cable tie ends.

Your safety is important to us. While riding your bike, please keep your eyes on the road to prevent any accidents and injury. Check that you can turn the handlebar normally and that the cable wires for brakes or gearing do not catch on the bike mount or the speed sensor. Check also that the bike mount or speed sensor does not hamper pedaling or the use of brakes or gearing.

Before you start cycling, you should set the wheel size of your bicycle into the cycling computer. For further information see pages 39-42.

1.4 WEARING YOUR TRANSMITTER

Coded heart rate transmission reduces interference from other heart rate monitors that are close by. To make sure that the code search is successful and to ensure trouble-free heart rate monitoring, **keep the cycling computer within 1 meter/ 3 feet of your transmitter**. Check that you are not near other people with heart rate monitors or any source of electromagnetic disturbance. For further information on interference, see Precautions on page 53.

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



1. Attach one end of the transmitter to the elastic strap.



2. Adjust the strap length to fit snugly and comfortably. Secure the strap around your chest, just below the chest muscles, and buckle the strap to the transmitter.



3. Lift the transmitter off your chest and moisten the two grooved electrode areas on the back.



4. Check that the wet electrode areas are firmly against your skin and that the Polar logo is in a central, upright position.



See the following chapter for how to start measuring your heart rate.


See detailed washing instructions in Care and Maintenance chapter.

2. EXERCISING

2.1 EXERCISE RECORDING AND HEART RATE MEASURING

You can record one Exercise File. There are two ways to start exercise recording. If you turn on the AutoStart function, the cycling computer automatically starts and stops exercise recording when you start and stop cycling. If the AutoStart function is off, you can start exercise recording by pressing the **MIDDLE** button. For further information on AutoStart and how to set the function on/off, see pages 39-40.

Starting exercise without the transmitter:	Starting exercise with the transmitter:
<ol style="list-style-type: none">1. Attach the bike mount and speed sensor on your bicycle according to the instructions on pages 12-14.2. Set your cycling computer on to the mounted bike mount.3. Activate your blank cycling computer by pressing the MIDDLE button. Before you start cycling, wait for 15 seconds until the framed heart symbol  disappears from the Time mode display. Now the computer is ready to record your exercise.4. If you have turned AutoStart on, your speed appears on the display when you start cycling. If you have turned AutoStart off, you can start exercise recording by pressing the MIDDLE button and your speed appears on the display. Your exercise time also starts running.5. If you have turned AutoStart on, the cycling computer automatically stops exercise recording when you stop cycling. If AutoStart is off, you can stop the exercise by pressing the LEFT button twice. For further information on Stopping the exercise, see page 22.	<ol style="list-style-type: none">1. Wear the transmitter as described in the section “<i>Wearing your Transmitter</i>” on page 15. Attach the bike mount and speed sensor on your bicycle according to the instructions on pages 12-14.2. Activate your blank cycling computer by pressing the MIDDLE button and start from the Time mode. The cycling computer will automatically read your heart rate. Wait until the computer detects your heart rate and the framed, flashing heart symbol  appears on the display in 15 seconds.* Exercise time is not recorded yet.3. Set your cycling computer on to the mounted bike mount. If you have turned AutoStart on, your heart rate value and speed appear on the display when you start cycling. If you have turned AutoStart off, you can start exercise recording by pressing the MIDDLE button and your heart rate value and speed appear on the display. Your exercise time also starts running.4. If you have turned AutoStart on, the cycling computer automatically stops exercise recording when you stop cycling. If AutoStart is off, you can stop the exercise by pressing the LEFT button twice. For further information on Stopping the exercise, see page 22.

- If your heart rate is not displayed and 00 appears on the display, the heart rate detection has stopped. Bring the cycling computer near the Polar logo on the transmitter to restart the heart rate detection. No button press is needed.
- If **OwnZone**® is selected, the OwnZone determination procedure begins when exercise recording starts. For further information, see the section OwnZone on page 36.
- To skip the OwnZone determination and use the previously determined OwnZone, press the **MIDDLE** button when OwnZone symbol  appears on the display. If you have not determined your OwnZone before, your age-based heart rate limits will be used.

Note: *  A frame around the heart rate symbol indicates a coded heart rate transmission.

- If the cycling computer does not display your heart rate, make sure that the transmitter electrodes are moist and that the strap is snug enough.

2.2 FUNCTIONS DURING EXERCISE

Note: Your exercise information is saved only if the stopwatch, i.e. your exercise duration, has been running for more than one minute **or** at least one lap has been stored.

Changing the display information: Press the **RIGHT** button to view the following options during exercise:

1. **Ridden distance** alternates with trip distance when you have taken at least one lap time.
Trip distance is reset to zero each time you take a lap time by pressing the **MIDDLE** button.

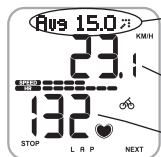


Riding speed (km/h or m/h)

Heart rate. If there is no heart rate reading or you have not set your user information, the speed is displayed instead.

SPEED **HR** Speed and **heart rate** are also displayed graphically. The more bars are displayed, the higher your **heart rate** or speed and vice versa. One speed bar represents 5 km/h or 3 mph, and when all ten bars are displayed your speed is 50 km/h or 30 mph or higher.

2. **Average speed** rise or drop indicator.



Speed

Heart rate

Note: You can also press and hold the **RIGHT** button to set the computer to browse the views automatically. Scrolling can be turned off by pressing and holding the **RIGHT** button.

3. **The kilocalories** you have burned so far. The cumulation of kilocalories starts as your heart rate is displayed. If there is no heart rate reading or you have not set your user information, the speed is displayed instead of calorie information.



Stopwatch, i.e., exercise duration.

Heart rate

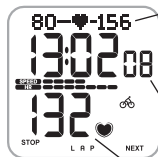
4. **The estimated time of arrival**, or if the riding distance function is off, the speed is displayed instead. If you set the distance you are going to ride, the cycling computer estimates your arrival time to the destination according to your riding speed. For further information, see page 31.



Time of day

Heart rate

5. **Heart rate limits:** On the left, you can see your lower heart rate limit and on the right your upper heart rate limit. The heart rate symbol moves left or right according to your heart rate. If the heart symbol is not visible, it means your heart rate is either below the flashing lower heart rate limit or above the flashing upper heart rate limit. In this case an alarm goes on, provided the sounds are turned on. If there is no heart rate reading, the limits are not displayed. For further information, see page 34.



Time you have exercised in target zone, i.e., within the heart rate limits.

Heart rate

