

# EDGE®500

## **GPS-ENABLED BIKE COMPUTER**



#### © 2009 Garmin Ltd. or its subsidiaries

Garmin International, Inc. 1200 East 151st Street, Olathe, Kansas 66062, USA Tel. (913) 397.8200 or (800) 800.1020

Fax (913) 397.8282

Garmin (Europe) Ltd. Liberty House, Hounsdown Business Park, Southampton, Hampshire, SO40 9LR UK Tel. +44 (0) 870.8501241 (outside the UK) 0808 2380000 (within the UK)

Fax +44 (0) 870.8501251

Garmin Corporation No. 68, Jangshu 2nd Road, Shijr, Taipei County, Taiwan Tel. 886/2.2642.9199 Fax 886/2.2642.9099

All rights reserved. Except as expressly provided herein, no part of this manual may be reproduced, copied, transmitted, disseminated, downloaded or stored in any storage medium, for any purpose without the express prior written consent of Garmin. Garmin hereby grants permission to download a single copy of this manual onto a hard drive or other electronic storage medium to be viewed and to print one copy of this manual or of any revision hereto, provided that such electronic or printed copy of this manual must contain the complete text of this copyright notice and provided further that any unauthorized commercial distribution of this manual or any revision hereto is strictly prohibited.

Information in this document is subject to change without notice. Garmin reserves the right to change or improve its products and to make changes in the content without obligation to notify any person or organization of such changes or improvements. Visit the Garmin Web site (www.garmin.com) for current updates and supplemental information concerning the use and operation of this and other Garmin products.

Garmin® is a trademark of Garmin Ltd. or its subsidiaries, registered in the USA and other countries. Garmin Training Center®, Auto Pause®, Auto Lap®, Virtual Partner®, Edge®, Garmin Connect™, GSC™10, ANT™, and ANT+™ are trademarks of Garmin Ltd. or its subsidiaries. These trademarks may not be used without the express permission of Garmin.

Windows\* is a registered trademark of Microsoft Corporation in the United States and/or other countries. Mac\* is a registered trademark of Apple Computer, Inc. Other trademarks and trade names are those of their respective owners.

<b>Table of Contents</b>	ANT+ Sensors 17
	Tips for Pairing ANT+ Sensors
Getting Started 1	with Your Garmin Device 17
About the Battery1	Putting on the Heart Rate
Installing the Edge2	Monitor18
Turning on the Edge4	Using the Heart Rate
Acquiring Satellite Signals7	Monitor19
Optional ANT+ Sensors7	Heart Rate Zone Table 20
Going for a Ride8	Replacing the Heart Rate
Saving Your Ride Data8	Monitor Battery21
Downloading Free Software 8	Installing the GSC 1022
Transferring History to Your	Replacing the GSC 10
Computer9	Battery25
Training with Your Edge 10	Calibrating Your Power
Alerts10	Meter26
Using Auto Lap by Position11	ANT+ Sensor
Using Auto Lap by Position12	Troubleshooting28
Using Auto Pause12	History 30
Using Auto Scroll	Viewing History30
Courses 14	Deleting History31
Ourses14	Data Recording31
	Data Necolality

Data Management	32
Loading Files	32
Deleting Files	33
Settings	34
Customizing Your Data	
Fields	34
Data Fields	34
Changing Your System	
Settings	38
Changing Your User Profile	
Settings	39
Updating Your Bike Profile	39
Changing the Start Notice	40
GPS Settings	40
Setting Elevation Points	41
Appendix	42
Registering Your Device	
About the Edge	
Updating the Software	
Contacting Garmin Product	
Support	42
Using the Backlight	43
- ·	

Buying Optional Accessories	43
Specifications	43
Wheel Size and	
Circumference	46
Troubleshooting	48
ndex	<b>50</b>

# **Getting Started**

### **↑** WARNING

Always consult your physician before you begin or modify any exercise program. See the *Important Safety* and *Product Information* guide in the product box for product warnings and other important information.

Before you use the Edge® the first time, complete the following tasks:

- 1. Charge the battery (page 2).
- 2. Install the Edge (page 2).
- 3. Turn on the Edge (page 4).
- 4. Acquire satellites (page 7).
- 5. Set up optional ANT+ sensors (page 7).
- 6. Go for a ride (page 8).
- 7. Save your ride (page 8).

- Download Garmin Connect<sup>™</sup>, or Garmin Training Center<sup>®</sup> (page 8).
- 9. Transfer history to your computer (page 9).

# About the Battery

### **⚠** WARNING

This product contains a lithium-ion battery. See the *Important Safety and Product Information* guide in the product box for product warnings and other important information.

The Edge is powered by a built-in lithium-ion battery that you can recharge using the AC charger or the USB cable included in the product box.

**NOTE**: The Edge will not charge when outside the temperature range of 32°F–122°F (0°C–50°C).

### Charging the Edge

#### **NOTICE**

To prevent corrosion, thoroughly dry the mini-USB port, weather cap, and surrounding area before charging or connecting to a computer.

1. Pull up the weather cap from the mini-USB port.



Mini-USB port under the weather cap

2. Plug the small end of the AC charger into the mini-USB port.

- To connect the Edge to your computer using the USB cable, see page 9.
- 3. Plug the other end of the AC charger into a standard wall outlet.
- 4. Charge the Edge for at least three hours before you begin using it.

A fully charged battery can run for approximately 18 hours before it must be recharged.

# Installing the Edge

For the best GPS reception, position the bike mount so the front of the Edge is oriented toward the sky. You can install the bike mount on the stem (shown) or the handlebars.

 Select a suitable and secure location to mount the Edge where it does not interfere with safe operation of your bike

- 2. Place the rubber disk on the back of the bike mount.
  - The rubber tabs align with the back of the bike mount so it stays in place.
- 3. Place the bike mount on the bike stem
- 4. Attach the bike mount securely using the two O-rings.



O-rings around the bike stem

5. Align the tabs on the back of the Edge with the bike mount notches.



Edge Mounted on the Bike Stem

Press down slightly and turn the Edge clockwise until it locks into place.

## Releasing the Edge

- Turn the Edge counter clockwise to unlock the device.
- 2. Lift the Edge off the mount.

## Turning on the Edge

Press and hold **POWER** to turn on the Edge.

### Configuring the Edge

The first time you turn on the Edge, you are prompted to configure system settings and user profile settings.

- Follow the on-screen instructions to complete the initial setup.
- Press ▼ and ▲ to view choices and change the default selection.
- Press **ENTER** to make a selection.
- Use the table on page 5 to answer the activity class question.

#### **Icons**

97%	Battery charge level
(B)	GPS is on and receiving signals.
₾	GPS is turned off.
$\Diamond$	Heart rate sensor active
<b>B</b>	Cadence sensor active
<b>Ø</b>	Power sensor active

### **Activity Classes**

	Training Description	Training Frequency	Training Time Per Week
0	No exercise	-	-
1	Occasional, light	Once every two weeks	Less than 15 minutes
2	exercise		15 to 30 minutes
3		Once a week	Approximately 30 minutes
4	Regular exercise and training		Approximately 45 minutes
5			45 minutes to 1 hour
6			1 to 3 hours
7		3 to 5 times per week	3 to 7 hours
8	Daily training	Almost daily	7 to 11 hours
9		Daily	11 to 15 hours
10			More than 15 hours

#### **Buttons**

Each Edge button has multiple functions based on the mode you are using.

Button	Mode	Description
POWER/ LIGHT	Timer and menu	Press and hold <b>POWER</b> to turn the device on and off.  Press <b>LIGHT</b> to activate the backlight. Press any button to extend the back light for five seconds.
BACK	Menu	Press BACK to cancel or return to the previous menu.
START/ STOP	Timer	Press <b>START/STOP</b> to start and stop the timer.
<b>V A</b>	Menu	Press ▼ or ▲ to select menus and settings.  Press and hold ▼ or ▲ to scroll quickly through settings.
LAP/ RESET	Timer	Press LAP to create a new lap. Press and hold RESET to reset the timer.
PAGE/ MENU	Timer	Press <b>PAGE</b> to scroll through training pages. Press and hold <b>MENU</b> to switch between menu and timer modes.
ENTER	Menu	Press ENTER to select options and acknowledge messages.

# Acquiring Satellite Signals

It may take 30–60 seconds to acquire signals.

- 1. Go outdoors to an open area.
- 2. Make sure the front of the Edge is oriented toward the sky.
- Wait while the Edge searches for satellites.

Stand still, and do not begin moving until the locating satellite page disappears.

**NOTE**: To turn off the GPS receiver and use the Edge indoors, see page 40.

# Optional ANT+ Sensors

**NOTE**: If you do not need to set up ANT+ sensors, you can skip this step.

To use an ANT+ sensor during your ride, you must install it and pair it with the Edge.

- For heart rate monitor instructions, see page 18.
- For GSC 10 speed and cadence sensor instructions, see page 22.
- For power meter instructions, see page 26, refer to the manufacturer's instructions, and go to www.garmin.com \intosports.

# Going for a Ride

Before you can go record history, you must acquire satellite signals (page 7).

- Press and hold MENU to view the timer page.
- Press START to start the timer. History is only recorded while the timer is running.
- 3. After completing your ride, press **STOP**.

# Saving Your Ride Data

Press and hold **RESET** to save your ride data and reset the timer.

# Downloading Free Software

Garmin provides two software options for storing and analyzing your ride data:

- Garmin Connect is Web-based software.
- Garmin Training Center is computer software.
- 1. Go to www.garmin.com /intosports.
- 2. Follow the on-screen instructions.

## Transferring History to Your Computer

1. Lift the weather cap on the back of the Edge.



Mini-USB port under weather cap

- 2. Plug the small end of the USB cable into the mini-USB port.
- Connect the larger end of the USB cable to an available USB port on your computer.

- 4. Open Garmin Connect or Garmin Training Center.
- 5. Follow the upload instructions included with the software

# Training with Your Edge

### **Alerts**

Use Edge alerts to train toward certain time, distance, calorie, heart rate, cadence, and power goals.

# Using Time, Distance, and Calorie Alerts

- 1. Press and hold **MENU**.
- 2. Select **Training** > **Alerts**.
- 3. Select Time Alert, Distance Alert, or Calorie Alert.
- 4. Turn on the alert.
- 5. Enter a time, distance, or calorie amount.
- 6. Go for a ride.

Each time you reach the alert amount, the Edge beeps and displays a message. **NOTE**: To make sure the Edge message tones are turned on, see page 38.

### **Using Advanced Alerts**

If you have an optional heart rate monitor, speed and cadence sensor, or power meter, you can set up advanced alerts.

- 1. Press and hold **MENU**.
- 2. Select **Training** > **Alerts**.
- 3. Select an option:
  - Select Heart Rate Alert to set the minimum and maximum heart rate in beats per minute (bpm).
    - **NOTE**: For more information about heart rate zones and settings, see page 19.
  - Select Cadence Alert to set the fast and slow cadence amounts in revolutions of the crank arm per minute (rpm).

- Select Power Alert to set the minimum and maximum power amounts in watts.
- 3. Go for a ride.

Each time you exceed or drop below the specified heart rate, cadence or power amount, the Edge beeps and displays a message.

**NOTE**: To make sure the Edge message tones are turned on, see page 38.

# Using Auto Lap by Position

You can use Auto Lap® to automatically mark the lap at a specific position. This feature is helpful for comparing your performance over different parts of a ride (for example, a long climb or training sprints).

Press and hold MENU.

- 2. Select Settings > Bike Settings > Auto Lap.
- In the Auto Lap Trigger field, select By Position to choose an option:
  - Select Lap Press Only to trigger the lap counter each time you press LAP and each time you pass any of those locations again.
  - Select Start And Lap to trigger the lap counter at the GPS location where you press START and at any location during the ride where you press LAP.
  - Select Mark And Lap to trigger the lap counter at a specific GPS location marked before the ride and at any location during the ride where you press LAP.

#### Training with Your Edge

- 4. Customize optional lap data fields (see page 34).
- Go for a ride.

**NOTE**: During courses, use the **By Position** option to trigger laps at all of the lap positions saved in the course.

## Using Auto Lap by Distance

You can use Auto Lap® to automatically mark the lap at a specific distance. This feature is helpful for comparing your performance over different parts of a ride (for example, every 10 miles or 40 kilometers).

- Press and hold MENU.
- 2. Select Settings > Bike Settings > Auto Lap.
- In the Auto Lap Trigger field, select By Distance to enter a value.

- 4. Customize optional lap data fields (see page 34).
- 5. Go for a ride.

## **Using Auto Pause**

You can use Auto Pause® to pause the timer automatically when you stop moving or your speed drops below a specified value. This feature is helpful if your ride includes stop lights or other places where you need to slow down or stop.

**NOTE**: The elapsed time data for Auto Pause is not saved with your history data.

- 1. Press and hold **MENU**.
- 2. Select Settings > Bike Settings > Auto Pause.

- 3. Select an option:
  - Select Off.
  - Select When Stopped to pause the timer automatically when you stop moving.
  - Select Custom Pace to pause the timer automatically when your speed drops below a specified value.
- 4. Customize optional time data fields (see page 34).

After you turn on Auto Pause, the Edge can display any paused time as Time - Elapsed.

5. Go for a ride.

# **Using Auto Scroll**

Use the auto scroll feature to automatically cycle through all of the training data pages while the timer is running.

- 1. Press and hold **MENU**.
- Select Settings > Bike Settings > Auto Scroll.
- Select a display speed: Slow, Medium, or Fast.
- 4. Go for a ride.

The training data pages scroll automatically. Press **PAGE** to manually switch pages.

### Courses

Courses allow you to train using a previously recorded activity. You can follow the course trying to match or exceed previously set goals. For example, if the original course was completed in 35 minutes, you will race against a Virtual Partner® trying to complete the course in under 35 minutes.

Garmin recommends that you use Garmin Connect or Garmin Training Center to create courses and course points. Then you can transfer them to your Edge (page 32).

#### **Course Points**

You can add course points, or places on your course that you want to remember, such as water stops or distance goals. You must use Garmin Connect or Garmin Training Center to add course points to any course.

# Creating Courses with Your Edge

Before you can create a course, you must have history with GPS track data saved to the Edge.

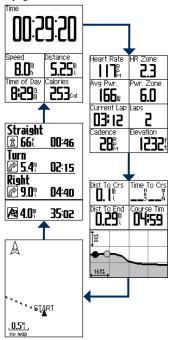
- 1. Press and hold **MENU**.
- Select Training > Courses > <Create New>.
- From the list of rides, select a previous ride on which to base your course.
- 4. Enter a descriptive course name in the top field (for example, 44KTT).

### Starting a Course

- 1. Press and hold **MENU**.
- 2. Select **Training** > **Courses**.
- 3. Select a course from the list.
- 4. Select an option:
  - Select Do Course
  - Select Map to preview the course, and press BACK to return to the course list
  - Select Profile to preview the elevation profile, and press BACK to return to the course list.

#### 5 Press **START**

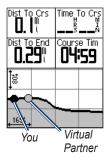
History is recorded even if you are not on the course. The "Course Complete" message appears when you finish. 5. Press **ENTER** to view the data pages:



### **Off Course Options**

You can include a warm up before you begin your course. Press **START** to begin the course, and then warm up as normal. Be sure to stay away from your course path as you warm up. When you are ready to begin, head toward your course. When you are on any part of the course path, the Edge displays an "On Course" message.

**NOTE**: As soon as you press **START**, your Virtual Partner starts the course and does not wait for you to warmup.



If you stray away from the course, the Edge displays an "Off Course" message. Use the course map or course points to find your way back to the course.

### **Stopping a Course**

Press and hold MENU, and select Training > Stop Course.

### **Deleting a Course**

- Press and hold MENU > select Training > Courses.
- 2. Select the course you want to delete.
- 3. Select **Delete Course**.
- 4 Select Ves

## **ANT+ Sensors**

The Edge is compatible with the following ANT+ accessories:

- Heart rate monitor (page 18)
- GSC 10 speed and cadence sensor (page 22)
- Third-party power meters (page 26)

For information about purchasing additional accessories, go to http://buy.garmin.com.

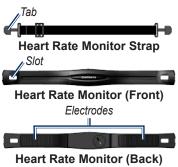
## Tips for Pairing ANT+ Sensors with Your Garmin Device

- Make sure the ANT+ sensor is compatible with your Garmin device.
- Before you pair the ANT+ sensor with your Garmin device, move 10 m away from other ANT+ sensors.

- Bring the Garmin device within range (3 m) of the ANT+ sensor.
- After you pair the first time, your Garmin device automatically recognizes the ANT+ sensor each time it is activated. This process occurs automatically when you turn on the Garmin device and only takes a few seconds when the sensors are activated and functioning correctly.
- When paired, your Garmin device only receives data from your sensor, and you can go near other sensors.

# Putting on the Heart Rate Monitor

Wear the heart rate monitor directly on your skin, just below your breastplate. It should be snug enough to stay in place during your ride.



- 1. Push one tab on the strap through the slot in the heart rate monitor.
- 2. Press the tab down.
- Wet both electrodes on the back of the heart rate monitor to create a strong connection between your chest and the transmitter.
- Wrap the strap around your chest and attach it to the other side of the heart rate monitor.

The Garmin logo should be right-side up.

After you put on the heart rate monitor, it is on standby and ready to send data.

# Using the Heart Rate Monitor

For the most accurate calorie data during your ride, set your maximum heart rate, resting heart rate, and heart rate zones using Garmin Connect or Garmin Training Center.

- 1. Turn on the Edge.
- 2. Bring the Edge within range (3 m) of the heart rate monitor.
- 3. Press and hold **MENU**.
- 4. Select Settings > Bike Settings > Heart Rate > ANT+ HR.
- Select Yes.
- 6. Select **Rescan**.
- 7. Press **BACK** to return to the main menu.

When the heart rate monitor is paired, a message appears and the heart rate icon appears on the main menu.

- 8. Customize optional data fields (page 34).
- 9 Go for a ride.

TIP: If heart rate data does not appear or if you have erratic heart rate data, you may have to tighten the strap on your chest or warm up for 5–10 minutes (see page 28).

# Viewing Your Heart Rate Zones and Settings

You can set your maximum heart rate, resting heart rate, and heart rate zones using Garmin Connect or Garmin Training Center.

- 1. Press and hold **MENU**.
- 2. Select Settings > Bike Settings > Heart Rate > HR Zones.

## Heart Rate Zone Table

	% of Maximum Heart Rate or Rest- ing Heart Rate	Perceived Exertion	Benefits
1	50–60%	Relaxed, easy pace; rhythmic breathing	Beginning-level aerobic training; reduces stress
2	60–70%	Comfortable pace; slightly deeper breathing, conversation possible	Basic cardiovascular training; good recovery pace
3	70–80%	Moderate pace; more difficult to hold conversation	Improved aerobic capacity; optimal cardiovascular training
4	80–90%	Fast pace and a bit uncomfortable; breathing forceful	Improved anaerobic capacity and threshold; improved speed
5	90–100%	Sprinting pace, unsustainable for long period of time; labored breathing	Anaerobic and muscular endurance; increased power

#### **About Heart Rate Zones**

### **ACAUTION**

Consult your physician to specify heart rate zones that are appropriate for your fitness level and health condition.

Many athletes are using heart rate zones to measure and increase their cardiovascular strength and improve their level of fitness. A heart rate zone is a set range of heartbeats per minute. The five commonly accepted heart rate zones are numbered from 1–5 according to increasing intensity.

# How Do Heart Rate Zones Affect Your Fitness Goals?

Knowing your heart rate zones can help you measure and improve your fitness by understanding and applying these principles:

Your heart rate is a good measure of exercise intensity.

Training in certain heart rate zones can help you improve cardiovascular capacity and strength.

Knowing your heart rate zones can prevent you from overtraining and can decrease your risk of injury.

# Replacing the Heart Rate Monitor Battery

The heart rate monitor contains a user-replaceable CR2032 battery.

**NOTE**: Contact your local waste disposal department to properly dispose of batteries.

 Locate the circular battery cover on the back of the heart rate monitor.



#### Using ANT+ Sensors

- Use a coin to twist the cover counter-clockwise so the arrow on the cover points to OPEN.
- 3. Remove the cover and battery.
- 4 Wait 30 seconds
- 5. Insert the new battery with the positive side facing up.

**NOTE**: Be careful not to damage or lose the O-ring gasket on the cover.

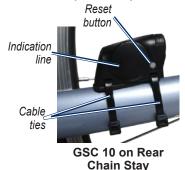
6. Use a coin to twist the cover clockwise so the arrow on the cover points to **CLOSE**.

# Installing the GSC 10

Both magnets must be aligned with their respective indication lines for the Edge to receive data.

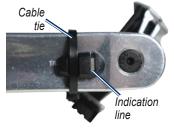
1. Place the GSC 10 on the rear chain stay (on the side opposite the drive train).

**NOTE**: Place the flat rubber pad or the triangle-shaped rubber pad on the chain stay for stability.



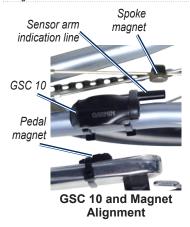
- 2. Loosely attach the GSC 10 using two cable ties
- Attach the pedal magnet to the crank arm using the adhesive mount and a cable tie.

The pedal magnet must be within 5 mm of the GSC 10. The indication line on the pedal magnet must line up with the indication line on the GSC 10.



Pedal Magnet on Crank Arm

- 4. Unscrew the spoke magnet from the plastic piece.
- 5. Place the spoke in the groove of the plastic piece and tighten slightly. The spoke magnet can face away from the GSC 10 if there is not enough room between the sensor arm and the spoke. The spoke magnet must be aligned with the sensor arm indication line.



- 6. Loosen the screw on the sensor arm.
- Move the sensor arm to within 5 mm of the spoke magnet.
   You can also tilt the GSC 10 closer to either magnet for improved alignment.

- 8. Press the **Reset** button on the GSC 10.
  - The LED turns red, then green.
- Pedal to test the sensor alignment.
   The red LED blinks each time the crank arm passes the sensor. The green LED blinks each time the wheel magnet passes the sensor arm.

**NOTE**: The LED blinks for the first 60 passes after a reset. Press **Reset** again if you require additional passes.

 When everything is aligned and working correctly, tighten the cable ties, sensor arm, and spoke magnet.

#### About the GSC 10

Cadence data from the GSC 10 is always recorded. If there is no GSC 10 paired, GPS data is used to calculate the speed and distance.

Cadence is your rate of pedaling or "spinning" measured by the number of revolutions of the crank arm per minute (rpm). There are two sensors on the GSC 10: one for cadence and one for speed.

For information about cadence alerts, see page 10.

### Non-Zero Averaging for Cadence Data

The non-zero data averaging setting is available if you are training with an optional cadence sensor. The default setting is to exclude zero values that occur when you are not pedaling.

To turn the non-zero averaging on or off, press and hold **MENU**, and select **Settings** > **Bike Settings** > **Data Avg**.

# Replacing the GSC 10 Battery

The GSC 10 contains a user-replaceable CR2032 battery.

**NOTE**: Contact your local waste disposal department to properly dispose of batteries.

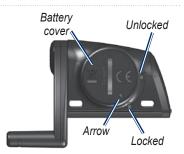
1. Locate the circular battery cover on the side of the GSC 10.



- Use a coin to twist the cover counter-clockwise until it is loose enough to remove (arrow points to unlocked).
- 3. Remove the cover and battery.
- 4. Wait 30 seconds.
- 5. Insert the new battery with the positive side facing up.

**NOTE**: Be careful not to damage or lose the O-ring gasket on the cover.

6. Use a coin to twist the cover back into place (arrow points to locked).



# Calibrating Your Power Meter

For a list of third-party power meters that are compatible with the Edge, go to www.garmin.com/intosports. For calibration instructions specific to your power meter, refer to the manufacturer's instructions.

Before you can calibrate your power meter, it must be properly installed and actively recording data.

- Press and hold MENU.
- 2. Select Settings > Bike Settings > Bike 1 > ANT+ Power > Calibrate.
- 3. Keep your power meter active by pedaling until the message appears.

### **Viewing Your Power Zones**

You can set seven custom power zones using Garmin Connect or Garmin Training Center. If you know your FTP (functional threshold power) value, you can enter it, and allow the software to calculate your power zones automatically.

- Press and hold MENU.
- 2. Select Settings > Bike Settings > Bike 1 > Power Zones.

# Non-Zero Averaging for Power Data

The non-zero data averaging setting is available if you are training with an optional power meter. The default setting is to exclude zero values that occur when you are not pedaling.

To turn the non-zero averaging on or off, press and hold MENU, and select Settings > Bike Settings > Data Avg.

# **ANT+ Sensor Troubleshooting**

Problem	Solution	
The ANT+ sensor will not pair with my device.	<ul> <li>Stay 10 m away from other ANT sensors while pairing.</li> <li>Bring the device within range (3 m) of the heart rate monitor while pairing.</li> <li>If the problem persists, replace the battery.</li> </ul>	
I have a third-party ANT+ sensor.	Make sure it is compatible with the Edge (www.garmin .com/intosports).	
The heart rate monitor strap is too big.	A smaller elastic strap is sold separately. Go to http://buy.garmin.com.	

Problem	Solution	
The heart rate data is inaccurate or erratic.	<ul> <li>Make sure the heart rate monitor is snug against your body.</li> <li>Reapply moisture to the electrodes. Use water, saliva, or electrode gel.</li> <li>Clean the electrodes. Dirt and sweat residue on the electrodes can interfere with heart rate signals.</li> <li>Position the heart rate monitor on your back instead of your chest.</li> <li>Wear a cotton shirt or wet your shirt if suitable for your activity. Synthetic fabrics that rub or flap against the heart rate monitor can create static electricity that interferes with heart rate signals.</li> <li>Move away from sources of strong electromagnetic fields and some 2.4 GHz wireless sensors, which can interfere with your heart rate monitor. Sources of interference may include very high voltage power lines, electric motors, microwave ovens, 2.4 GHz cordless phones, and wireless LAN access points.</li> </ul>	

# **History**

Your Edge automatically saves history when the timer is started. The Edge can save at least 180 hours of ride data with typical use. When the Edge memory is full, an error message appears. The Edge does not automatically delete or overwrite your history. See page 31 to learn how to delete history.

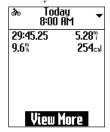
Upload your history (page 9) to Garmin Connect or Garmin Training Center periodically to keep track of all of your ride data.

History includes time, distance, calories, average speed, maximum speed, altitude, and detailed lap information. Edge history can also include heart rate, cadence, and power.

**NOTE**: History is not recorded while the timer is stopped.

## **Viewing History**

- 1. Press and hold **MENU**.
- 2. Select **History** > **Activities**.



- 3. Choose an option:
  - Use ▼ and ▲ to scroll through your activities.
  - Select View More to view the details of the entire ride or each lap.

## **Deleting History**

After you have transferred your history to your computer, you may want to delete the history from your Edge.

- 1. Press and hold **MENU**.
- 2. Select **History** > **Delete**.
- 3. Select an option:
  - Select Individual Activities to delete one activity at a time.
  - Select All Activities to delete all ride data from the history.
  - Select Old Activities to delete activities recorded more than one month ago.
  - Select All Totals to reset all the ride distance and time totals.
- 4. Select **Yes** to confirm.

## Data Recording

The Edge uses smart recording. It records key points where you change direction, speed, or heart rate.

When a third-party power meter (page 26) is paired, the Edge records points every second. Recording points every second uses more of the available space on the Edge, but creates a very accurate record of your ride.

# **Data Management**

You can use the Edge as a USB mass storage device.

NOTE: The Edge is not compatible with Windows® 95, 98, Me, or NT. It is also not compatible with Mac® OS 10.3 and earlier. This is a common limitation of most USB mass storage devices.

# Loading Files

You can manually load the following courses files to your Edge: .tcx, .fit, and .crs.

- 1. Lift the weather cap on the back of the Edge.
- 2. Plug the small end of the USB cable into the mini-USB port.
- Connect the larger end of the USB cable to an available USB port on your computer.

**NOTE**: Your Edge appears as a removable drive in My Computer on Windows computers and as a mounted volume on Mac computers.

- 4. Browse your computer for the file you want to copy.
- Highlight the file, and select Edit > Copy.
- 6. Open the "Garmin" drive or volume.
- 7. Open the "NewFiles" folder.
- 8. Select **Edit** > **Paste**.

## **Deleting Files**

#### NOTICE

Your Edge memory contains important system files that should not be deleted.

- 1. Open the Garmin drive or volume.
- 2. Highlight the file.
- 3. Press the **Delete** key on your keyboard.

#### Disconnecting the USB Cable

When you are finished managing your files, you can disconnect the USB cable

- 1. Complete the appropriate option:
  - For Windows computers, click the eject icon in your system tray.
  - For Mac computers, drag the volume icon to the Trash
- 2. Unplug the Edge from your computer.

## **Settings**

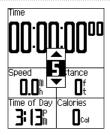
You can customize the following settings and Edge features:

- Data fields (page 34)
- System settings (page 38)
- User profiles (page 39)
- Bike profiles (page 39)
- GPS Settings (page 40)

## Customizing Your Data Fields

You can set up custom data fields for two training data pages.

- Press and hold MENU.
- 2. Select Settings > Bike Settings > Data Fields.
- 3. Select one of the pages.
- 4. Select the number of data fields you want to see on this page.



To turn off an optional page, set the number of data fields to zero.

- 5. Use **▼**, **△**, and **ENTER** to change the data fields.
- 6. Repeat for each page you wish to customize.

#### Data Fields

Data fields with the \* symbol display statute or metric units. Data fields with the \*\* symbol require an optional accessory.

Data Field	Description
Cadence **	Revolutions of the crank arm per minute.
Cadence – Avg. **	Average cadence for the duration of your current ride.
Cadence - Lap **	Average cadence for the current lap.
Calories	Amount of calories burned.
Distance *	Distance traveled on the current ride.
Dist – Lap *	Distance traveled in the current lap.
Elevation *	Distance above or below sea level.
GPS Accuracy *	Margin of error for your exact location. For example, your GPS location is accurate to within +/- 19 ft.

Data Field	Description
Grade	Calculation of rise over run. For example, if for every 10 feet you climb (elevation) you travel 200 feet (distance), your grade is 5%.
Heading	Current direction you are traveling.
Heart Rate **	Heart rate in beats per minute (bpm).
HR – %HRR **	Percentage of heart rate reserve (maximum heart rate minus resting heart rate).
HR – %Max. **	Percentage of maximum heart rate.
HR – Avg. **	Average heart rate for the ride.
HR – Avg. %HRR **	Average percentage of heart rate reserve (maximum heart rate minus resting heart rate) for the run.

#### Settings

Data Field	Description
HR – Avg. %Max. **	Average percentage of maximum heart rate for the run.
HR – Lap **	Average heart rate in the current lap.
HR – Lap %HRR **	Average percentage of heart rate reserve (maximum heart rate minus resting heart rate) for the lap.
HR – Lap %Max. **	Average percentage of maximum heart rate for the lap.
HR Graph **	Line graph showing your current heart rate zone (1-5).
HR Zone **	Current range of heart rate (1–5). The default zones are based on your user profile, maximum heart rate, and resting heart rate.

Data Field	Description
Laps	Amount of laps completed.
Power **	Current power output in watts.
Power – Avg. **	Average power output for the duration of your current ride.
Power – KiloJoules **	Total (cumulative) amount of power output in kilojoules.
Power – Lap	Average power output in the current lap.
Power – Max.	Top power achieved during the current ride.
Power Zone	Current range of power output (1–7) based on your FTP or custom settings.
PWR – Mov. Avg. 3s	The three-second moving average of power output.

Data Field	Description
PWR – Mov. Avg. 30s	The 30-second moving average of power output.
Speed *	Current speed.
Speed - Avg. *	Average speed for the ride.
Speed – Lap *	Average speed in the current lap.
Temperature *	Current temperature in Fahrenheit or Celsius.
Time	Stopwatch time.
Time – Avg. Lap	Average time to complete the laps so far.
Time - Elapsed	Amount of paused time during the current ride. Auto Pause must be turned on.
Time – Lap	Amount of time in the current lap.

Data Field	Description
Time of Day	Current time of day based on your time settings (format, time zone, and daylight saving time).
Total Ascent *	Total elevation gain for the current ride.
Total Descent	Total elevation lost for the current ride.
Vertical Speed *	Rate of ascent or descent in feet/meters per hour.

## Changing Your System Settings

#### **Changing the Audible Tones**

- 1. Press and hold MENU.
- 2. Select Settings > System > Tones.
- 3. Turn on or turn off the tones for keys and messages.

#### Changing the Backlight

- 1. Press and hold MENU.
- Select Settings > System > Display.
- 3. Change the settings:
  - Select Backlight Timeout to change the amount of time the backlight stays on.
    - **TIP**: Use a short backlight setting to conserve battery power.
  - Select Backlight Level to change the brightness.

 Select Contrast to change the level of screen contrast.

#### **Changing the System Setup**

You can modify all of the settings you configured in the initial setup.

- 1. Press and hold **MENU**.
- 2. Select Settings > System.
- 3. Select an option:
  - Select System Setup to modify language, position format, unit format, and time format.
  - Select **Initial Setup** to modify all of the configuration settings in the initial setup.
- 4. Follow the on-screen instructions.

#### **Time Zones and Time Formats**

Each time you turn on the Edge and acquire satellites, the Edge automatically detects your time zone and the current time of day. To change the time format to 12 hour or 24 hour, see page 38.

# Changing Your User Profile Settings

The Edge uses information that you enter about yourself to calculate accurate ride data

- Press and hold MENU.
- Select Settings > User Profile to modify gender, age, weight, height, and activity class settings.
- 3. Follow the on-screen instructions.

**NOTE**: For information about your activity class, see page 5.

## Updating Your Bike Profile

The Edge uses the bike weight, the odometer value, and the wheel size to calculate accurate ride data

- Press and hold MENU.
- 2. Select Settings > Bike Settings > Bike 1 > Bike Details.
- 3. Enter a name for the bike profile.
- 4. Enter the bike weight and odometer value.
- In the Wheel Size field, select an option:
  - Select Auto to calculate your wheel size using GPS distance.
  - Select Custom to enter your wheel size.

For a table of wheel sizes and circumferences, see page 46.

### Changing the Start Notice

This feature automatically detects when your Edge has acquired satellites and is moving. It is a reminder to start the timer so you can record your ride data.

- 1. Press and hold MENU.
- 2. Select Settings > Bike Settings > Start Notice.
- 3. In the **Mode** field, select an option:
  - Select Off.
  - Select Once.
  - Select Repeat to change the amount of time to delay the reminder.

## **GPS Settings**

GPS settings include the following:

- Turning satellites off (page 40)
- Viewing the satellite page (page 41)
- Using elevation points (page 41)

#### **Training Indoors**

- Press and hold MENU.
- Select GPS > GPS Status.
- 3. Select Off.

When GPS is off, speed and distance data are not available, unless you are using the Edge with the GSC 10. The next time you turn on the Edge, it will search for satellite signals again.

#### Satellite Page

The satellite page shows your current GPS satellite information. To view the satellite page, press and hold **MENU**, and select **GPS** > **Satellite**.

On the satellite page, GPS accuracy appears at the top of the page. The black bars represent the strength of each satellite signal received (the number of the satellite appears below each bar).

For more information about GPS, go to www.garmin.com/aboutGPS.

## Setting Elevation Points

You can save up to 10 elevation points. Using an elevation point each time you begin a particular training ride provides more consistent and accurate elevation data.

- Press and hold MENU.
- 2. Select GPS > Set Elevation.

- 3. Enter a descriptive name.
- 4 Select Save

The next time you turn on the Edge, it automatically searches for elevation points within 30 m of your location. The Edge uses the elevation data as the starting point.

**NOTE**: If you do not want to use the saved elevation point data, you must delete elevation point.

#### **Editing Elevation Points**

- 1. Press and hold MENU.
- 2 Select GPS > Elevation Points
- 3. Select the elevation point you wish to edit.
- 4. Edit the name and elevation.

## **Appendix**

## Registering Your Device

Help us better support you by completing our online registration today:

- Go to http://my.garmin.com.
- Keep the original sales receipt, or a photocopy, in a safe place.

## About the Edge

To display important software information and your unit ID, press and hold **MENU**, and select **Settings** > About **Edge**.

## **Updating the Software**

- 1. Choose an option:
  - Use WebUpdater. Go to www.garmin.com/products /webupdater/.
  - Use Garmin Connect. Go to http://connect.garmin.com/.
- Follow the on-screen instructions.

## Contacting Garmin Product Support

Contact Garmin Product Support if you have any questions about this product:

- In the USA, go to www.garmin .com/support, or contact Garmin USA by phone at (913) 397.8200 or (800) 800.1020.
- In the UK, contact Garmin (Europe) Ltd. by phone at 0808 2380000.
- In Europe, go to www.garmin.com /support and click Contact Support for in-country support

information, or contact Garmin (Europe) Ltd. by phone at +44 (0) 870.8501241.

## Using the Backlight

- Press LIGHT to turn on the backlight.
- Press any button to extend the backlight another 5 seconds.
  - **NOTE**: Alerts and messages also activate the backlight.
- Change the backlight settings (page 38)

#### Buying Optional Accessories

Go to http://buy.garmin.com or contact your Garmin dealer for information about optional accessories and replacement parts.

## **Specifications**

Edge Specifications	
Physical size	W × H × D: 1.9 × 2.7 × 0.85 in (48.3 × 68.6 × 21.6 mm)
Weight	2.0 oz. (56.7 g)
Display	W × H: 1.25 × 1.5 in. (31.8 x 37 mm)
Resolution	W × H: 128 × 160 pixels, with LED backlight
Water resistance	IPX7
Data storage	Approximately 50 MB (at least 180 hours of ride data, typical use)
Computer interface	USB
Battery type	700 mAh rechargeable, built-in, lithium-ion battery
Battery life	18 hours, typical usage

#### Appendix

Edge Specifications	
Operating temperature range	From 5°F to 140°F (from -15°C to 60°C)
Charging temperature range	From 32°F to 122°F (from 0°C to 50°C)
Radio frequency/ protocol	2.4 GHz/Dynastream ANT+ wireless communications protocol
GPS receiver	High-sensitivity integrated GPS receiver
Altimeter	Internal barometric altimeter

Bike Mount Specifications	
Physical size	W × H × D: 37.8 × 37.8 × 9.2 in (37.8 × 37.8 × 9.2 mm)
Weight (including O-rings and rubber spacer pad)	0.28 oz. (7.9 g)
O-rings (EPDM)	Two sizes:  1.3 × 1.5 × 0.9 in. AS568-125  1.7 × 1.9 × 0.9 in. AS568-131  NOTE: Use EPDM (Ethylene Propylene Diene Monomer) replacement O-rings only. Go to http://buy .garmin.com or contact your Garmin dealer.

Heart Rate Monitor Specifications	
Physical size	W × H × D: 13.7 × 1.3 × 0.4 in. (34.7 × 3.4 × 1.1 cm)
Weight	1.6 oz. (44 g)
Water resistance	32.9 ft. (10 m)
Transmission range	Approximately 9.8 ft. (3 m)
Battery	User-replaceable CR2032 (3 volts) Perchlorate Material – special handling may apply. See www.dtsc.ca.gov /hazardouswaste /perchlorate.
Battery life	Approximately 3 years (1 hour per day)

Heart Rate Monitor Specifications	
Operating temperature	From 14°F to 122°F (from 10°C to 50°C) <b>NOTE</b> : In cold conditions, wear appropriate clothing to keep the heart rate monitor near your body temperature.
Radio frequency/ protocol	2.4 GHz ANT+ wireless communications protocol

GSC 10 Specifications	
Physical size	2.0 × 1.2 × 0.9 in (5.1 × 3.0 × 2.3 cm)
Weight	0.9 oz. (25 g)
Water resistance	IPX7
Transmission range	Approximately 9.8 ft. (3 m)

#### **Appendix**

GSC 10 Specifications		
Battery	User-replaceable CR2032 (3 volts) Perchlorate Material – special handling may apply. See www.dtsc.ca.gov /hazardouswaste /perchlorate.	
Battery life	Approximately 1.4 years (1 hour per day)	
Operating temperature	From 5°F to 158°F (from -15°C to 70°C)	
Radio frequency/ protocol	2.4 GHz ANT+ wireless communications protocol	

# Wheel Size and Circumference

The wheel size is marked on both sides of the tire. To modify your bike profile, see page 39.

Wheel Size	L (mm)
12 × 1.75	935
14 × 1.5	1020
14 × 1.75	1055
16 × 1.5	1185
16 × 1.75	1195
18 × 1.5	1340
18 × 1.75	1350
20 × 1.75	1515
20 × 1-3/8	1615
22 × 1-3/8	1770
22 × 1-1/2	1785
24 × 1	1753
24 × 3/4 Tubular	1785
24 × 1-1/8	1795
24 × 1-1/4	1905
24 × 1.75	1890
24 × 2.00	1925
24 × 2.125	1965

Wheel Size	L (mm)
26 × 7/8	1920
26 × 1(59)	1913
26 × 1(65)	1952
26 × 1.25	1953
26 × 1-1/8	1970
26 × 1-3/8	2068
26 × 1-1/2	2100
26 × 1.40	2005
26 × 1.50	2010
26 × 1.75	2023
26 × 1.95	2050
26 × 2.00	2055
26 × 2.10	2068
26 × 2.125	2070
26 × 2.35	2083
26 × 3.00	2170
27 × 1	2145
27 × 1-1/8	2155

Wheel Size	L (mm)
27 × 1-1/4	2161
27 × 1-3/8	2169
650 × 35A	2090
650 × 38A	2125
650 × 38B	2105
700 × 18C	2070
700 × 19C	2080
700 × 20C	2086
700 × 23C	2096
700 × 25C	2105
700 × 28C	2136
700 × 30C	2170
700 × 32C	2155
700C Tubular	2130
700 × 35C	2168
700 × 38C	2180
700 × 40C	2200

## **Troubleshooting**

Problem	Solution
The buttons do not respond. How do I reset the Edge?	Press and hold the <b>POWER</b> , <b>MENU</b> , and <b>V</b> button simultaneously to reset the Edge. <b>NOTE</b> : This does not erase any of your data or settings.
I want to clear all the user data from my Edge.	Turn off the Edge.     Press and hold MENU and POWER until the message appears.     Select Yes to clear all user data.     NOTE: This deletes all user-entered information including history.
My Edge does not acquire satellite signals.	Take your Edge out of parking garages and away from tall buildings and trees.     Turn on the Edge.     Remain stationary for several minutes.
The battery gauge does not seem accurate.	Allow the Edge battery to fully discharge, and then fully charge the battery (without interrupting the charge cycle).
The battery does not last long.	Reduce the back light time (page 38).
How do I know my Edge is in USB mass storage mode?	You should see a new removable disk drive in My Computer on Windows computers and a mounted volume on Mac computers.

Problem	Solution
I cannot see any new removable drives in my list of drives.	If you have several network drives mapped on your computer, Windows may have trouble assigning drive letters to your Garmin drives. See the Help file for your operating system to learn how to assign drive letters.
Some of my data is missing from my Edge history.	When the Edge memory is full, it will no longer record data.  Transfer data to your computer regularly to avoid losing data.
I need to replace the O-rings for the mount.	Go to http://buy.garmin.com or contact your Garmin dealer. Purchase O-rings made of EPDM only.

Index	C cadence	distance alerts 10 downloading software 8
A accessories 43 acquiring satellite signals 7, 48 activity classes 5 alerts 10 ANT+ sensors 7, 17–29 troubleshooting 28 Auto Lap 11, 12 Auto Pause 12 Auto Scroll 13  B backlight 38, 43 battery 48 charging 1 conserving 38 bike mount 3, 44 bike profile 39 buttons 6	alerts 10 data fields 35 training 25 calibrating your power meter 26 calorie alerts 10 calories 35 charging the Edge 1, 2 clearing user data 48 courses 14–16 loading 32 custom data fields 34–37  D data fields 34–37 data recording 31 data uploading 32 deleting files 33 history 31 distance data fields 35	elapsed time 12 elevation data fields 35, 37 points 41  F files deleting 33 loading 32  G Garmin Connect 8, 9, 14, 30 Garmin Product Support 42 Garmin Training Center 8, 9, 14, 30  GPS accuracy 35 satellite page 41 settings 40 grade 35

GSC 10 25, 45 battery 25 installing 22	L lithium-ion battery 1, 43 loading files 32	R recording history 8 registration 42
H heart rate alerts 10 data fields 35 settings 19 zones 19–21 heart rate monitor 45 battery 21 putting on 18 using 19 history 30, 49 deleting 31 transferring 9 viewing 30  I icons 4 initial setup 4, 38 installing the Edge 3	M mount 3, 44  O O-rings 3, 44, 49  P pairing ANT+ sensors 7, 17 pedal magnet 23 power alerts 11 data fields 36 data recording 31 zones 27 power meters 26 product registration 42 profile bike 39 user 39	replacement parts 43 resetting Edge 48  S safety information 1 satellite signals 41 acquiring 7 saving your data 8 sensors, pairing 7 settings 34 smart recording 31 software downloads 8 software updates 42 software version 42 specifications 43 speed data fields 37 speed and cadence sensor 45 spoke magnet 23 start notice message 40

Т	W
technical specifications 43	weather cap 2, 9
time	wheel sizes 39, 46
data fields 37 zones and formats 39 time alerts 10 timer 8 tire size 39 tones 38 training indoors 40 training with your Edge 10 transferring data 9 troubleshooting 28, 48	zones heart rate 19 power 27
U unit ID 42 USB 2, 9, 32, 48 user profile 39	
vertical speed 37 Virtual Partner 14, 16	

For the latest free software updates (excluding map data) throughout the life of your Garmin products, visit the Garmin Web site at www.garmin.com.



© 2009 Garmin Ltd. or its subsidiaries

Garmin International, Inc. 1200 East 151st Street, Olathe, Kansas 66062, USA

Garmin (Europe) Ltd. Liberty House, Hounsdown Business Park, Southampton, Hampshire, SO40 9LR UK

Garmin Corporation
No. 68, Jangshu 2<sup>nd</sup> Road, Shijr, Taipei County, Taiwan