GARMIN.

owner's manual

FORERUNNER® 310XT

MULTISPORT GPS TRAINING DEVICE

> **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.

Introduction

Thank you for purchasing the Garmin® Forerunner® 310XT GPS-enabled sports watch.

Product Registration

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.

Contact Garmin

Contact Garmin Product Support if you have any questions while using your Forerunner. 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.

Table of Contents

> **WARNING:** This product contains a non-replaceable lithium-ion battery. See the *Important Safety and Product Information* guide in the product box for important battery safety information.

Caring for the Forerunner

Clean the Forerunner or the optional heart rate monitor using a cloth dampened with a mild detergent solution. Wipe dry. Avoid chemical cleaners and solvents that may damage plastic components.

Do not store the Forerunner where prolonged exposure to temperature extremes may occur (such as in the trunk of a car), because permanent damage may result.

User information, such as history, locations, and tracks, is retained indefinitely in the memory of the unit without the need for external power. Back up important user data by transferring it to Garmin Connect. See page 9.

Free Software

Go to www.garmin.com/products /forerunner310xt for information about Garmin Connect™ Web-based software. Use this software to store and analyze your workout data.

More Information

For information about accessories, go to http://buy.garmin.com, or contact your Garmin dealer.

Getting Started

Buttons

❶ power ⏻

- Press and hold to turn the Forerunner on and off.
- Press to turn on and to adjust the backlight. A status page appears.

❷ mode

- Press to view the timer page and menu page. The map page and the compass page also appear if they are active.
- Press to exit a menu or a page. Your settings are saved.
- Press and hold to switch sport modes.

❸ lap/reset

- Press to create a new lap.
- Press and hold to reset the timer.

❹ start/stop

Press to start or to stop the timer.

❺ enter

Press to select options and to acknowledge messages.

❻ ▲▼ arrows (up/down)

- Press to scroll through menus and settings.

⚠️ **TIP:** Press and hold ▲▼ to scroll quickly through the settings.

- Press to scroll through training pages during a workout.

- On the Virtual Partner® page, press and hold to adjust the Virtual Partner pace.

Forerunner Backlight

Press ⏻ to turn on the backlight for fifteen seconds. Use ▲▼ to adjust the backlight level. This window also shows several status icons.

Icons

📶	GPS is on, and the Forerunner is receiving satellite signals.
⌂	GPS is off for use indoors.
⏱	The timer is running.
♡	The heart rate sensor is active.
🦶	The foot pod sensor is active.
🚴	The speed/cadence sensor is active.
⚡	The power sensor is active.
🔋	Battery charge level.
🔌	The battery is charging.

Step 1: Charge the Battery

NOTE: To prevent corrosion, thoroughly dry the charging contacts and the surrounding area before charging.

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

1. Plug the USB connector on the charging clip cable into the AC adapter.
2. Plug the AC adapter into a standard wall outlet.
3. Align the charging clip posts with the contacts on the back of the Forerunner.

Contacts

4. Clip the charger securely over the face of the Forerunner.

Charging clip

A fully charged battery will last up to 20 hours, depending on usage.

Step 2: Turn on Your Forerunner

Press and hold ⏻ to turn on your Forerunner.

Forerunner uses information that you enter about yourself to calculate calorie consumption.

To configure the Forerunner:
The Forerunner uses your user profile to calculate accurate calorie data. See page 5 for information on activity class and lifetime athlete information.

1. Follow the on-screen instructions to configure the Forerunner and set your user profile.
2. Press ▲ ▼ to view choices and change the default selection.
3. Press **enter** to make a selection.

If you are using an ANT+ heart rate monitor, select **Yes** during the configuration to allow the heart rate monitor to pair (connect) with your Forerunner. See page 6 for more information.

When you initially turn on the Forerunner and are completing the setup wizard, use the table below to set your activity class. Indicate if you are a lifetime athlete.

A lifetime athlete is an individual who has trained intensely for many years (with the exception of minor injuries) and has a resting heart rate of 60 beats per minute (bpm) or less.

Activity Class Chart

	Training Description	Training Frequency	Training Time Per Week
0	No exercise	-	-
1	Occasional, light exercise	Once every two weeks	Less than 15 minutes
2			15 to 30 minutes
3		Once a week	Approximately 30 minutes
4	Regular exercise and training	2 to 3 times per week	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

Activity Class Chart provided by Firstbeat Technologies Ltd., portions of which are based on Jackson et al. Prediction of functional aerobic capacity without exercise testing. Medicine and Science in Sports & Exercise 22:863:870, 1990.

Step 3: Acquire Satellite Signals

It may take 30–60 seconds to acquire satellite signals. Go outdoors to an open area. For the best reception, ensure that the face of the Forerunner is oriented toward the sky.

When the Forerunner has acquired satellite signals, the training page appears with the satellite icon (◉) at the top.

> **NOTE:** By default, the settings on your Forerunner update the time and correct time zone automatically according to satellite information.

Step 4: Pair the Heart Rate Monitor (Optional)

While you are trying to pair your heart rate monitor with your Forerunner for the first time, move 10 m away from other heart rate monitors.

Using the Heart Rate Monitor

The heart rate monitor is on standby and ready to send data. Wear the heart rate monitor directly on your skin, just below your breastplate. It should be snug enough to stay in place during your run.

1. Snap one side of the strap to the heart rate monitor module.
2. Wet both electrodes on the back of the heart rate monitor strap to create a strong connection between your chest and the transmitter.

Heart Rate Monitor Module (Front)

Snaps

Heart Rate Monitor Module (Back)

Electrodes

Heart Rate Monitor Strap (Back)

3. Wrap the strap around your chest, and snap it to the other side of the module.

> **NOTE:** The Garmin logo should be right-side up.

4. Bring the Forerunner within range (3 m) of the heart rate monitor.

> **NOTE:** If the heart rate data is erratic or does not appear, you may have to tighten the strap on your chest or warm up for 5–10 minutes.

5. Press **mode** > select **Settings** > **Run Settings** > **Heart Rate** > **ANT+ HR** > **Yes**.

Heart Rate Settings

For the most accurate calorie data, set your maximum heart rate and resting heart rate. You can set five heart rate zones to help you to measure and increase your cardiovascular strength. If you configured your device in the setup wizard to include a heart rate monitor, this step is unnecessary.

1. Press **mode** > select **Settings** > **Run Settings** > **Heart Rate** > **HR Zones**.

2. Follow the on-screen instructions.

NOTE: Press and hold **mode** and change the sport settings. Follow steps 1 and 2 to configure your heart rate settings for biking and other sports modes.

Step 5: Customize Your Sport Settings (Optional)

1. Press and hold **mode** to change the sport mode.

2. Press **mode** > select **Settings** > Select the sport setting.

Select **Data Fields** to customize up to four data pages for your activity see page 28.

Step 6: Go workout!

1. Press **mode** to view the training page.

2. Press **start** to start the timer.

3. After completing your activity, press **stop**.

Step 7: Download Free Software

1. Go to www.garmin.com /forerunner310xt/owners.

2. Click **Garmin Connect**, and create a free myGarmin™ account.

3. Follow the on-screen instructions.

Step 8: Send Workout Data to Your Computer

NOTE: You must download software as instructed in Step 7 so that the necessary USB drivers are installed before connecting the USB ANT Stick™ to your computer.

1. Plug the USB ANT Stick into an available USB port on your computer.

2. Bring your Forerunner within 5 m of your computer.
3. Follow the on-screen instructions.
4. Ensure pairing is enabled.
5. Use Garmin Connect to view and analyze your data.

Resetting the Forerunner

If your Forerunner is not operating properly, press **mode** and **lap/reset** simultaneously until the screen goes blank. This does not erase any of your data or settings.

Training

![icon] **NOTE:** Always consult your physician before you begin or modify any exercise program.

Use your Forerunner to set alerts, train with a Virtual Partner™, program interval or custom workouts, and plan courses based on existing activities. The Forerunner offers several training features and optional settings.

About the Training Page

Press **mode** to view the training page. Use ▲▼ to scroll through the available pages.

```
Time
00:00:00
Speed        Distance
0.0 ᵐ/h       0 ft
```
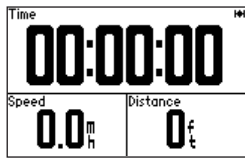
To customize the data fields on the training pages, see page 28.

Sport Mode

Press and hold **mode** to change the sport mode. All settings are specific to the current sport that you have selected.

Auto Lap®

You can use Auto Lap to automatically mark the lap at a specific position or after you have traveled a specific distance. This setting is helpful for comparing your performance over different parts of a run (every 2 miles or every major hill, for example).

1. Press **mode** > select **Settings** > select sport settings (depends on your current sport mode) > **Auto Lap**.

2. In the Auto Lap Trigger field, select **By Distance** to enter a value or **By Position** to choose an option:

   • **Lap Press Only**—marks a lap each time you press **lap** and each time you pass any of those locations again.

   • **Start and Lap**—marks a lap at the GPS location where you press **start** and at any locations during the run where you pressed **lap**.

   • **Mark and Lap**—marks a lap at the specific GPS location you mark when you select this option and at any location during the run where you pressed **lap**.

⚠ **NOTE:** When doing a course (see page 18), use **By Position** to mark laps at all of the lap positions marked in the course.

Auto Pause®

Auto Pause is helpful if your training includes stop lights or other places where you need to slow down or stop.

1. Press **mode** > select **Settings** > select the sport setting option (depends on your current sport mode see page 10).

2. Select **Auto Pause**.

3. Select one of the following options:

   • **Off**

   • **When Stopped**—pauses timer automatically when you stop moving.

   • **Custom Pace**—pauses timer automatically when your speed drops below a specified value.

Auto Scroll

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

1. Press **mode** > select **Settings** > select the sport setting option (depends on your current sport mode see page 10).
2. Select **Auto Scroll**.
3. Select a display speed: **Slow**, **Medium**, or **Fast**.

Heart Rate

1. Press **mode** > select **Settings** > > select the sport setting option (depends on your current sport mode see page 10).
2. Select **Heart Rate.**

ANT+ HR—turn on or turn off pairing with the optional heart rate monitor.

HR Zones—starts the heart rate zone configuration wizard. Follow the on-screen instructions.

Heart Rate Zones

⚠ **CAUTION:** Consult your physician to specify heart rate zones/targets 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. The Forerunner sets the heart rate zone ranges (see the table on page 46) based on your maximum and resting heart rates set in your user profile (see page 33).

You can customize your heart rate zones in your Garmin Connect user profile and then transfer data to your Forerunner.

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.

Virtual Partner®

1. Press **mode** > select **Settings** > > select the sport setting option (depends on your current sport mode see page 10).

2. Select **Virtual Partner** > **On**.

Your Virtual Partner is a unique tool designed to help you meet your training goals. The Virtual Partner competes with you every time you and the timer are running.

If you make changes to the Virtual Partner pace/speed before you start the timer, those changes are saved. If you make changes to the Virtual Partner during the run, when the timer is started, the changes will not be saved when the timer is reset. If you make changes during a run, the Virtual Partner uses the new pace from your location.

To change the Virtual Partner (VP) pace:

1. Press **mode** to view the training page.

2. Use ▲ ▼ to view the Virtual Partner page.

VP Pace : 08:00/mi		*Virtual Partner*
Distance Behind	Time Behind	*You*
0.12 mi	00:53	
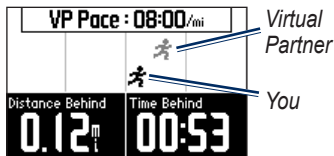
3. Press and hold ▲ ▼ to increase or decrease the VP pace.

4. To save the changes, press **mode** to exit or wait for the page to timeout.

Alerts

Use your Forerunner alerts to train toward certain time, distance, and heart rate goals. You can set separate alerts in each sport mode.

> **NOTE:** Alerts do not function during interval or custom workouts.

1. Press **mode** > select **Training** > select the sport alerts option (depends on your current sport mode see page 10).

2. Use ▲ ▼ and press **enter** to enter information for any of the following alarms:

   • **Time Alert**—notifies you when you have run for a specific amount of time.

   • **Distance Alert**—notifies you when you have run a specific distance.

   • **Calorie Alert**—notifies you when you have burned a specific number of calories.

   • **HR Alert**—notifies you if your heart rate exceeds, or drops below a specific number of beats per minute (bpm).

NOTE: To use HR alerts, you must have a Forerunner 310XT and a heart rate monitor.

• **Cadence Alert**—notifies you if your cadence exceeds, or drops below a specific number of revolutions of crank arm per minute (rpm).

NOTE: To use cadence alerts, you must have a Forerunner 310XT and a foot pod or bike cadence sensor.

• **Power Alert**—notifies you if your power exceeds, or drops below a specific value in Watts.

NOTE: To use power alerts, you must have a Forerunner 310XT and a power meter.

Workouts

Press **mode** > select **Training** > **Workouts** to choose the type of workout right for you.

NOTE: While performing a workout, press ▲ ▼ to view more data pages.

When you complete all steps in your workout, the "Workout Finished" message appears.

Interval Workouts

You can create an interval workout based on time or on distance and rest portions of the workout. You can have only one interval workout created at one time. If you create an additional interval workout, the previous workout is overwritten.

To create an interval workout:
1. Press **mode** > select **Training** > **Workouts** > **Interval**.

2. Select the **Type** of interval workout.

3. Enter the duration value.

4. Select the **Rest Type**.

5. Enter the duration value.

6. Select **More** and enter the **Reps** value.

7. Select **Warmup Yes** and **Cooldown Yes** (optional).

8. Select **Do Workout**.

9. Press **start**.

To end a workout early:
1. Press **stop**.

2. Press and hold **reset**.

If you are doing a warm up or cool down, press **lap** at the end of your warm-up lap to start your first interval. At the end of your last interval, the Forerunner automatically starts a cool-down lap. When you are finished cooling down, press **lap** to end your workout.

As you approach the end of the interval, an alarm counts down the time until a new interval begins. To end an interval early, press the **lap/reset** button.

Custom Workouts

Custom workouts can include goals for each workout step and varied distances, times, and calories. Use Garmin Connect to create and edit workouts and transfer them to your Forerunner. You can also schedule workouts using Garmin Connect. You can plan workouts in advance and store them on your Forerunner.

NOTE: For more information about transferring data to your Forerunner, see page 9.

To create a custom workout using the Forerunner:
1. Press **mode** > **Training** > **Workouts** > **Custom**.

2. Select **New**.

3. Enter a workout name in the top field.

4. Select **1. Open No Target**, and then select **Edit Step**.

5. In the **Duration** field, select how long you want the step to last. If you select **Open**, you can end the step during your workout by pressing **lap**.

6. Below **Duration**, enter the value where you want the step to end.

7. In the Target field, select your goal during the step (speed, heart rate, cadence, power, or none).

8. Below Target, enter a goal value for this step (if necessary). For example, if your target is heart rate, select a heart rate zone or enter a custom range.

9. When you are finished with this step, press **mode**.

10. To add another step, select **<Add New Step>**. Repeat steps 5-9.

11. To mark any step as a rest step, select the step. Then select **Mark as Rest Step** from the menu. Rest steps are noted in your workout history.

To repeat steps:
1. Select **<Add New Step>**.

2 In the **Duration** field, select **Repeat**.

3. In the **Back to Step** field, select the step you want to return to.

4. In the **Number of Reps** field, enter the number of repetitions.

5. Press **mode** to continue.

To start a custom workout:
1. Press **mode** > **Training** > **Workouts** > **Custom**.

2. Select the workout.

3. Select **Do Workout**.

4. Press **start**.

After you begin a custom workout, the Forerunner displays each step of the workout, including the name of

the step, the goal (if any), and current workout data.

As you approach the end of each step, an alarm counts down the time until a new step begins.

To end a custom workout step early:
Press **lap/reset**.

To delete a custom workout:
1. Press **mode** > **Training** > **Workouts** > **Custom**.
2. Select the workout.
3. Select **Delete Workout** > **Yes**.

Courses

Another way you can use the Forerunner for custom training is to follow courses based on a previously recorded activity. You can follow the course trying to match or exceed a previous performance. You can also race against the Virtual Partner when training with courses.

Creating Courses
Use Garmin Connect to create courses and course points and transfer them to your Forerunner.

> **NOTE:** For more information about transferring data to your Forerunner, see page 9.

To create a course using the Forerunner:
1. Press **mode** > select **Training** > **Courses** > **New**.
2. From the History page, select an entry on which to base your course.
3. Enter a name for your course.
4. Press **mode** to exit.

To start a course:
1. Press **mode** > select **Training** > **Courses**.
2. Select a course from the list.
3. Select **Do Course**.

4. Press **start**. History is recorded even if you are not on the course.

To end a course manually, press **stop** > press and hold **reset**.

Beginning a Course
You can include a warm up before you begin your course. Press **start** to begin the course, and then warm up. Stay away from your course path as you warm up. When you are ready to begin your course, head toward your course. When you are on any part of the course path, the Forerunner displays an "On Course" message.

When you start a course, your Virtual Partner also starts the course. If you are warming up and are not on the course, the first time that you join the course, your Virtual Partner restarts the course from your current location.

If you stray away from the course, the Forerunner displays an "Off Course" message. Use the navigation page to find your way back to the course.

To delete a course:
1. Press **mode** > select **Training** > **Courses**.
2. Select a course from the list.
3. Select **Delete Course**.
4. Select **Yes** to delete the course.
5. Press **mode** to exit.

Multisport Workouts

Triathletes, duathletes, and other multisport competitors can take advantage of the Forerunner's multisport workouts. When you set up a multisport workout, you can switch between sport modes and still view your total time and distance for all sports. For example, you can switch from Biking mode to Running

mode and view your total time and distance for biking and running throughout your workout.

The Forerunner stores multisport workouts in history and includes total time, distance, average heart rate, and calories for all sports in the workout. It also includes specific details for each sport.

You can use multisport workouts manually, or you can preset multisport workouts for races and other events.

Using Multisport Manually

You can create a manual multisport workout by changing sport modes during your workout without resetting the timer. When you change sport modes, press ▲ ▼ to see the Multisport Timer page.

To create a multisport workout manually:

1. Start and complete a workout in any sport. Press **stop** to finish your workout, but do not reset the timer.

2. Press and hold **mode** until the Change Sport menu appears.

3. Select another sport.

4. Press **start** to begin your workout in the new sport.

Auto Multisport Workouts

If you are participating in a race or event, you can set up an auto multisport workout that includes each sport in the event. You can also include transition time from one sport to the next. Move seamlessly from sport to sport by pressing the lap button.

To create an auto multisport workout:

1. Press **mode** > select **Training** > **Auto Multisport**.

2. To change a sport mode in the list, select the sport.

3. Select an option from the menu. **Edit Leg** changes this sport mode to a different sport. **Insert Leg** inserts another sport mode before this sport. **Remove Leg** removes this sport mode from the list.

4. To add a sport mode to the end of the list, select **<Add Sport>**.

5. To include transition time between each sport mode, select **Include Transition**.

6. To start your workout, select **Start Multisport**.

To change from one sport mode to the next, press **lap**. If you have included transition time, press **lap** when you are finished with one sport to start the transition time.

Press **lap** again to end the transition time and begin the next sport.

To stop Auto Multisport:
Press **mode** > select **Training** > **Stop Multisport**. You can also clear a multisport workout by pressing **stop** and then pressing and holding **reset** to reset the timer.

Swimming with your Forerunner

The Forerunner watch is swim proof for surface swimming. Use the timer to record your swim time. GPS data may not record while you swim.

⚠ **WARNING:** Scuba diving with the Forerunner may damage the products and will void the warranty.

History

Your Forerunner automatically saves history when you start the timer. The Forerunner can record up to 1000 laps and approximately 20 hours of detailed tracklog data (when recording approximately 1 trackpoint every 4 seconds). Tracklog data includes your GPS position (if available) and accessory data such as heart rate data.

When the Forerunner memory is full, an error message is displayed. Upload your history to Garmin Connect periodically to keep track of all of your data (see page 8).

NOTE: Your Forerunner will not automatically delete or overwrite your data. See page 23 to learn how to delete lap data.

Viewing and Deleting History

You can view the following data on your Forerunner: time, distance, average pace/speed, calories, average heart rate data, and average cadence.

To view activity history:
1. Press **mode** > select **History** > **Activities**.
2. Use ▲ ▼ to scroll through the activities. Select **View More** to view Averages and Maximums. Select **View More** > **View Laps** to view lap summaries.

To delete activity history:
1. Press **mode** > select **History** > **Delete**.
2. Select an option:
   • **Individual Activities**—delete individual activities.
   • **All Activities**—delete all activities from the history.

- **Old Activities**—delete activities recorded more than one month ago.
- **Totals**—reset all your totals.

Viewing and Deleting Totals

The Forerunner records the total distance traveled and time you have worked out with your Forerunner.

To view the history, press **mode** > select **History** > **Totals** > select the sport.

Deleting History

After you have transferred your history to Garmin Connect, you can delete the history from your Forerunner.

1. Press **mode** > select **History** > **Delete**.
2. Select an option:
    - **Individual Activities**

- **All Activities**—delete all activities from the history.
- **Old Activities**—delete activities recorded more than one month ago.
- **Totals**—reset all your totals.

Navigation

Use the GPS navigation features on your Forerunner to view your path on a map, save locations you want to remember and find your way home.

Viewing the map

Before you use the navigation features, you may want to configure the Forerunner to display the Map page.

To add the Map page:
1. Press **mode** > select **Settings** > **System** > **Map**.
2. In the Show Map field, select **Yes**.

Press **mode** to see the Timer, Map, and Main Menu pages. When you start the timer and begin to move, a tiny dotted line appears on the map, showing you exactly where you have traveled. This dotted line is called a track.

To zoom in or out on the map, press ▲ ▼.

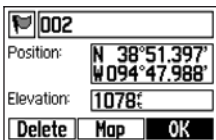*Points to North*

You

Zoom level

Map

Marking Locations

A location is any point that you store in memory. If you want to remember landmarks or return to a certain spot, mark a location there. The location appears on the map with a name and a symbol. You can find, view, and go to locations at any time.

To mark your location:
1. Go to the place where you want to mark a location.

2. Press **mode** > select **GPS** > **Save Location**.

🏳 002	
Position:	N 38°51.397' W094°47.988'
Elevation:	1078:
Delete	**Map**	**OK**

3. Enter a name in the top field.

4. Select **OK**.

To mark a location using lat/lon coordinates:
1. Press **mode** > select **GPS** > **Save Location**.

2. Select the **Position** field. Enter the latitude and longitude of the location you want to mark.

3. Make other changes as necessary and select **OK**.

To find and go to a location:
1. Press **mode** >select **GPS** > **Go to Location**.

2. All of your saved locations are shown.

3. Press ▲ ▼ to find a location in the list, and press **enter** to select.

4. Select **Go To**. Follow the line on the map to the location.

When you are going to a location, the Map and Compass pages are added automatically. Press **mode** to view these pages. On the Compass page, the arrow points toward the location. Go in the direction of the arrow to reach the location. The Compass page also shows the distance and time left until you reach the the location.

Compass

To stop going to a location:
Press **mode** > select **GPS** > **Stop Go To**.

To edit or delete a location:
1. Press **mode** > select **GPS** > **Go to Location**.
2. Select the location you want to edit.
3. Change the information as necessary. To delete the location, select **Delete**.

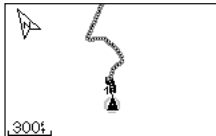## Back to Start

If you want to return to the starting point, the Forerunner can take you back along the exact path you traveled using Back to Start.

To go back to your starting point:
Press **mode** > select **GPS** > **Back to Start**.

A line appears on the map from your current location to your starting point.

Follow the line back to your starting point.

Viewing GPS Information

The Satellite page displays information about the GPS signals the Forerunner is currently receiving. Press **mode** > select **GPS** > **Satellites** to view the Satellite page.

Each GPS satellite in space has a specific number. The numbers of several GPS satellites appear on the circular graphic. The number corresponds to the current position of that satellite in space. Each highlighted number on the graphic corresponds to a satellite from which the Forerunner is currently receiving signals.

Press ▲ ▼ on the Satellite page to view satellite strength information. The black bars represent the strength of each satellite signal received (the number of the satellite appears below each bar).

Settings

Press **mode** > select **Settings**.

TIP: When finished selecting options or entering values on your Forerunner, press **mode** to save the setting.

Data Fields

You can show/hide the following pages and customize up to four data fields on four sport-specific pages.

NOTE: You can see only the pages for the sport mode you have currently selected (see page 10).

To set data fields:
1. Press **mode** > select **Settings** > select the sport setting option (depends on your current sport mode see page 10).
2. Select **Data Fields**.
3. Select one of the training pages.

4. Press ▲ ▼ to select the number of data fields.

Data Field Options

* Denotes a data field showing statute or metric units.
** Requires an optional accessory.

Data Field	Description
Cadence **	Steps per minute or 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	Number of calories burned.
Distance *	Distance traveled on the current run.
Dist–Lap *	Distance traveled in the current lap.

Data Field	Description
Dist–Nautical	Distance in nautical miles.
Elevation *	Distance above/below sea level.
GPS Accuracy *	Margin of error for your exact location. For example, your GPS location is accurate to within +/- 19 ft.
Grade	Calculation of rise over run. For example, if for every 10 ft. you climb (elevation) you travel 200 ft. (distance), your grade is 5%.
HR **	Heart rate in bpm.
HR–%Max **	Percentage of maximum heart rate.

Data Field	Description
HR–%HRR **	Percentage of heart rate reserve (maximum heart rate minus resting heart rate).
HR–Avg **	Average heart rate for the run.
HR–Avg %Max **	Average percentage of maximum heart rate for the run.
HR–Avg %HRR **	Average percentage of heart rate reserve (maximum heart rate minus resting heart rate) for the run.
HR–Lap **	Average heart rate for the lap.
HR–Lap %Max **	Average percentage of maximum heart rate for the lap.

Data Field	Description
HR–Lap %HRR**	Average percentage of heart rate reserve (maximum heart rate minus resting 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.
Heading	Current direction you are traveling.
Laps	Amount of laps completed.
Pace *	Current pace.
Pace–Avg *	Average pace for the run.

Data Field	Description
Pace–Lap *	Average pace in the current lap.
Speed *	Current speed.
Speed–Avg *	Average speed for the run.
Speed–Nautical	Speed in Knots.
Speed–Lap *	Average speed in the current lap.
Power **	Current power output in watts or % FTP.
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.

Data Field	Description
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.
Sunrise	Time of sunrise based on your GPS position.
Sunset	Time of sunset based on your GPS position.
Time	Stopwatch time.
Time–Avg Lap	Average time to complete the laps so far.
Time–Lap	Amount of time in the current lap.

Data Field	Description
Time–Elapsed Run	Total amount of time from the beginning to the end of the activity (including any pauses or stops).
Time of Day	Current time based on time settings (see page 33). The default setting automatically updates the time information.

System

Press **mode** > select **Settings** > **System**.

Language—change the on-screen text language. Changing the text language does not change the language of user-entered data, such as course names.

To download a language not included on your device, go to www.garmin .com/forerunner310xt/owners and click Garmin Connect. Your device can only contain one downloaded language at a time.

To turn message tones or vibration alerts on or off:
1. Press **mode** > select **Settings** > **System** > **Tones and Vibration**.
2. Select from the following options:
   - **Key Tones**—turn button tones on or off.
   - **Message Tones**—turn message tones on or off.
   - **Message Vibration**—turn message vibrations on or off.

To change the display settings:
1. Press **mode** > select **Settings** > **System** > **Display**.
2. Select from the following options:

- **Backlight Timeout**—select the amount of time the backlight stays on. Use a short backlight setting to conserve battery power.
- **Contrast**—select the amount of screen contrast.

To change map settings:
1. Press **mode** > select **Settings** > **System** > **Map**.
2. To change the orientation of the map, press **enter** and select an option.
   - **North Up**—orients the map with North at the top of the screen.
   - **Track Up**—orients the map with your direction of travel at the top of the screen.
3. To show/hide waypoints on the map, select **Show** or **Hide** in the **User Locations** field.

4. To view the Map page as part of the page loop, select **Yes** in the **Show Map** field.

About—view the software version, the GPS version, and the unit ID.

Units—select **Statute** or **Metric** for the units of measure.

To change units of measure:
1. Press **mode** > select **Settings** > **System** > **Units**.
2. Select units of measure for distance, elevation, weight/height, pace/speed, and position.

To change time settings:
1. Press **mode** > select **Settings** > **System** > **Time**.
2. Select a time format and a time zone.

User Profile

Press **mode** > select **Settings** > **User Profile**. The Forerunner uses information that you enter about yourself to calculate calorie consumption. The setup wizard also helps configure your profile before you begin using the Forerunner.

Calorie expenditure and heart rate analysis technology is provided and supported by Firstbeat Technologies Ltd. For more information, go to http://www.firstbeattechnologies .com/files/Energy_Expenditure _Estimation.

ANT+

Linking to Fitness Equipment

ANT+ technology links your heart rate monitor to fitness equipment so you can view your heart rate on the equipment console. Look for the ANT+ Link Here logo on compatible fitness equipment.

See www.garmin.com/antplus for more linking instructions.

Accessories

See page 35 for accessory information.

Computer

Move away (10 m) from other ANT+ accessories while the Forerunner is trying to pair with the computer for the first time.

1. Verify that the computer is set up for data upload and that pairing is enabled in the ANT Agent. See page 9.

2. Press **mode** > select **Settings** > **System** > **Data Transfer** > **Computer**.

3. Select **Pairing** > **On**.

4. Bring your Forerunner within range (3 m) of the computer.

5. When the ANT Agent finds your Forerunner, ANT Agent displays the unit ID and asks you if you want to pair. Select **yes**.

6. Your Forerunner should display the same number ANT Agent displayed. If so, select **yes** on your Forerunner to complete the pairing process.

NOTE: To prevent from transferring data to/from any computer, even a paired computer, press **mode** > **Settings** > **System** > **Data Transfer** > **Computer** > **Enabled** > **No**.

Send All Data

By default, your Forerunner only sends new data to your computer. To send all data to your computer again, press **mode** > **History** > **Force Send** > **Yes**.

Using Accessories

The following ANT+ accessories are compatible with the Forerunner 310XT:

• Heart rate monitor
• Foot pod
• GSC™ 10 speed and cadence bike sensor
• USB ANT Stick (see page 9 and page 34)
• ANT+ power meters

To purchase accessories, go to http://buy.garmin.com or contact your Garmin dealer.

Pairing Accessories

If you purchased an accessory with ANT+ wireless technology, you need to pair it with your Forerunner.

Pairing is connecting ANT+ accessories, such as the heart rate

monitor, with your Forerunner. The pairing process only takes a few seconds when the accessories are activated and functioning correctly. When paired, your Forerunner only receives data from your accessory, even if you are near other accessories.

After you pair the first time, your Forerunner automatically recognizes your accessory each time the accessory is activated.

TIP: The accessory needs to send data to complete the pairing process. You need to wear the heart rate monitor, take a step wearing the foot pod, or pedal your bike with the GSC 10.

Status Icons

Press and release ⏻ to view the status icons.

♥	Heart rate monitor active
⚡	Speed and cadence sensor active
🦶	Foot pod active
⚙	Power sensor active

Heart Rate Monitor

For information about putting on the heart rate monitor, see page 6.

Heart Rate Monitor Tips

If you are noticing inaccurate or erratic heart rate data, use the following tips.

- Make sure the heart rate monitor is snug against your body.
- Reapply water, saliva, or electrode gel to the electrodes.

- Clean the electrodes. Dirt and sweat residue can interfere with heart rate signals.
- 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.
- 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.

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.

To replace the battery:
1. Use a small Phillips screwdriver to remove the four screws on the back of the module.
2. Remove the cover and battery. Wait 30 seconds. Insert the new battery with the positive side facing up.

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

3. Replace the back cover and the four screws.

Caring for the Heart Rate Monitor

NOTE: Unsnap the module before cleaning the strap.

To prolong the life of your heart rate monitor, rinse the strap after every use.

Hand wash the strap in cold water with a mild detergent after every five uses. Do not put the strap in a washing machine or a dryer.

Foot Pod

Your Forerunner is compatible with the foot pod. You can use the foot pod to send data for your Forerunner when training indoors, when your GPS signal is weak, or when you lose satellite signals. The foot pod is on standby and ready to send data (like the heart rate monitor). You must pair the foot pod with your Forerunner.

Calibrating the Foot Pod

Calibrating your foot pod is optional and can improve accuracy. There are three ways to adjust the calibration: distance, GPS, and manual.

Distance Calibration

For best results, the foot pod should be calibrated using the inside lane of a regulation track. A regulation track (2 laps = 800 m) is more accurate than a treadmill.

1. Press **mode** > select **Settings** > **Sport Settings** > **Foot Pod**.
2. Select **Yes** in the Foot pod sensor present field.
3. Select **calibration**.
4. Select **By Distance**
5. Select a distance.
6. Select **continue.**
7. Press **start** to begin recording.
8. Run or walk the distance.
9. Press **stop**.

GPS Calibration

You must have GPS signals to calibrate the Foot Pod using GPS.

1. Press **mode** > select **Settings** > **Sport Settings** > **Foot Pod**.
2. Select **Yes** in the Foot pod sensor present field.
3. Select **calibration**.
4. Select **By GPS**
5. Enter a distance in the Choose Your Distance field.
6. Select **Continue**.
7. Press **Start**.
8. Run or walk. The Forerunner informs you that you have traveled far enough.

Manual Calibration

If your foot pod distance seems slightly high or low each time you run, you can manually adjust the calibration factor.

Press **mode** > select **Settings** > **Run Settings** > **Foot Pod** > **Calibration Factor**. Adjust the calibration factor. Increase the calibration factor if your distance is too low; decrease the calibration factor if your distance is too high.

Bike Details

To enter information specific to your bike in order to calibrate your sensors more accurately, complete the following steps:

1. Press and hold **mode** to select the bike sport mode.

2. Press **mode** > **Settings** > **Bike Settings** > bike name > **Bike Details**.

3. Modify the information in the Name, Weight, and Odometer fields.

4. You can select custom in the Wheel Size field to manually enter your wheel size.

NOTE: The automatic default in the Wheel size field, calculates your wheel size automatically using GPS distance.

Power Meter

For a list of compatible third-party power meters, go to www.garmin .com.

Power Calibration

1. Press **mode** > select **Settings** > **Bike Settings** > bike name > **ANT+Power** .

2. Select **Yes** in the Power Meter Present? field.

3. Select **Calibrate**.

For calibration instructions specific to your power meter, refer to the manufacturer's instructions.

Power Zones

1. Press and hold **mode** to select the Bike mode.

2. Select **Settings** > **Bike Settings** > bike name > **Power Zones**.

You can set seven custom power zones (1=lowest, 7=highest). If you know your FTP (functional threshold power), you can enter it, and allow the device to calculate your power zones automatically. You can also enter your power zones manually.

GSC 10

Your Forerunner is compatible with the GSC 10 speed and cadence bike sensor. You must pair the GSC 10 with your Forerunner.

Calibrating the Bike Sensor

Calibrating your bike sensor is optional and can improve accuracy.

1. Press **mode** > select **Settings** > **Bike Settings** > bike name > **ANT+Spd/Cad**.

2. Select **YES** in the Bike Sensors Present? field.

3. If necessary, press **More** for advanced sensor configuration.

Appendix

Resetting the Forerunner

If your Forerunner is not operating properly, press and hold **mode** and **lap/reset** simultaneously until the screen goes blank (about 7 seconds) to reset your Forerunner. This does not erase any of your data or settings.

Clearing User Data

⚠ **CAUTION:** This deletes all user-entered information including history.

1. Turn off the Forerunner.
2. Press and hold **mode** and ⏻ until the message appears.
3. Select **Yes** to clear all user data.

Updating the Forerunner Software Using Garmin Connect

Go to www.garmin.com/products /forerunner310xt for information about Forerunner software updates and Garmin Connect Web-based software.

If there is new software available, Garmin Connect alerts you to update the Forerunner's software. Follow the on-screen instructions. Make sure your device stays in range of the computer during the update process.

Battery Information

Actual battery life depends on use of the following items: GPS, backlight, and ANT+ computer connection.

With a fully charged battery, the Forerunner can operate up to 20 hours with GPS on.

Specifications

Forerunner
Watch size, without straps:
W × L × D: 2.13 × 2.20 × 0.75 in.
(54 × 56 × 19 mm)

Weight: 2.5 oz. (72 g)

Display: 1.3 × 0.8 in. (33 × 21 mm),
160 × 100 pixels resolution, with
LED backlight.

Water resistance: surface swimming

Data storage: approximately 20
hours of data (assuming 1 trackpoint
is being recorded every 4 seconds).

Memory: up to 1000 laps; 100 user
locations (waypoints).

Computer interface: USB ANT
Stick

Battery type: 700 mA rechargeable
lithium-ion battery

Battery life: up to 20 hours, typical
use.

Operating temperature range:
From -4°F to 140°F (from -20°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 Antenna: internal patch

GPS Receiver: high-sensitivity
integrated

USB ANT Stick
Physical size: L × W × D: 2.32 ×
0.71 × 0.28 in. (59 × 18 × 7 mm)

Weight: 0.01 lbs. (6 g)

Transmission range: Approximately
16.4 ft. (5 m)

Operating temperature: From 14°F to 122°F (from -10°C to 50°C)

Radio frequency/protocol: 2.4 GHz/Dynastream ANT+ wireless communications protocol

Power source: USB

Heart Rate Monitor
Physical size (module):
W × H × D: 2.4 × 1.3 × 0.4 in. (62 × 34 × 11 mm)

Strap length: expands from 21 in. to 29.5 in.(expands from 533.4 mm to 749.3 mm)

Weight: 1.6 oz. (45 g)

Water Resistance: 98.4 ft. (30 m)

NOTE: This product does not transmit heart rate data to your GPS device while swimming.

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 4.5 years (1 hour per day)

Operating temperature: from 23°F to 122°F (from -5°C to 50°C)

Radio frequency/protocol: 2.4 GHz ANT wireless communications protocol

System Compatibility: ANT+

Software License Agreement

BY USING THE FORERUNNER, YOU AGREE TO BE BOUND BY THE TERMS AND CONDITIONS OF THE FOLLOWING SOFTWARE LICENSE AGREEMENT. PLEASE READ THIS AGREEMENT CAREFULLY.

Garmin grants you a limited license to use the software embedded in this device (the "Software") in binary executable form in the normal operation of the product. Title, ownership rights, and intellectual property rights in and to the Software remain in Garmin.

You acknowledge that the Software is the property of Garmin and is protected under the United States of America copyright laws and international copyright treaties. You further acknowledge that the structure, organization, and code of the Software are valuable trade secrets of Garmin and that the Software in source code form remains a valuable trade secret of Garmin. You agree not to decompile, disassemble, modify, reverse assemble, reverse engineer, or reduce to human readable form the Software or any part thereof or create any derivative works based on the Software. You agree not to export or re-export the Software to any country in violation of the export control laws of the United States of America.

Declaration of Conformity (DoC)

Hereby, Garmin, declares that this Forerunner is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

To view the full Declaration of Conformity, see the Garmin Web site for your Garmin product: www.garmin.com.

Troubleshooting

Problem	Solution/Answer
My Forerunner never gets satellite signals.	Press **mode** > select **GPS** > **GPS Status.** Ensure GPS is enabled. Take your Forerunner outside and away from tall buildings. Remain stationary for several minutes.
The battery gauge does not seem accurate.	Allow the Forerunner to fully discharge, and then fully charge it (without interrupting the charge cycle).
The heart rate monitor, foot pod, or GSC 10 will not pair with the Forerunner.	Stay 10 m away from other ANT+ accessories while pairing. Bring the Forerunner within range (3 m) of the sensor while pairing. Restart the scan for the accessory (see page 35). Make sure the accessory is sending data (for example, you need to be wearing the heart rate monitor). If the problem persists, replace the battery in the accessory.
The heart rate data is inaccurate.	See page 36.
The heart rate monitor strap is too big.	A smaller elastic strap is sold separately. Go to http://buy.garmin.com.
Some of my data is missing from my Forerunner.	The Forerunner will no longer record data if you do not transfer it to your computer. Transfer data regularly to avoid losing data.

Heart Rate Zone Table

	% of Maximum Heart Rate or Resting 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

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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.