

GARMIN[®]

Forerunner[®] 230/235



Owner's Manual

All rights reserved. Under the copyright laws, this manual may not be copied, in whole or in part, without the written consent of Garmin. Garmin reserves the right to change or improve its products and to make changes in the content of this manual without obligation to notify any person or organization of such changes or improvements. Go to www.garmin.com for current updates and supplemental information concerning the use of this product.

Garmin®, the Garmin logo, ANT+®, Auto Lap®, Auto Pause®, Forerunner®, and VIRB® are trademarks of Garmin Ltd. or its subsidiaries, registered in the USA and other countries. Connect IQ™, Garmin Connect™, Garmin Express™, and tempe™ are trademarks of Garmin Ltd. or its subsidiaries. These trademarks may not be used without the express permission of Garmin.

Android™ is a trademark of Google, Inc. Apple® and Mac® are trademarks of Apple Inc., registered in the U.S. and other countries. The Bluetooth® word mark and logos are owned by the Bluetooth SIG, Inc. and any use of such marks by Garmin is under license. The Cooper Institute®, as well as any related trademarks, are the property of The Cooper Institute. Advanced heartbeat analytics by Firstbeat. Windows® is a registered trademark of Microsoft Corporation in the United States and other countries. Other trademarks and trade names are those of their respective owners.

This product may contain a library (Kiss FFT) licensed by Mark Borgerding under the 3-Clause BSD License (<http://opensource.org/licenses/BSD-3-Clause>).

This product is ANT+® certified. Visit www.thisisant.com/directory for a list of compatible products and apps.

M/N: AA2758

Table of Contents

Introduction	1	Foot Pod.....	8
Keys.....	1	Setting Up Your User Profile.....	8
Locking and Unlocking the Device Keys.....	1	Activity Profiles.....	8
Status Icons.....	1	Changing Your Activity Profile.....	8
Opening the Menu.....	1	Activity Settings.....	8
Training	1	Customizing the Data Screens.....	8
Going for a Run.....	1	Alerts.....	8
Forerunner 235 Only.....	1	Using Auto Pause®.....	8
Wearing the Device and Heart Rate.....	1	Marking Laps by Distance.....	9
Viewing the Heart Rate Widget.....	1	Using Auto Scroll.....	9
Broadcasting Heart Rate Data to Garmin® Devices.....	2	Changing the GPS Setting.....	9
Tips for Erratic Heart Rate Data.....	2	Power Save Timeout Settings.....	9
Activity Tracking.....	2	Activity Tracking Settings.....	9
Turning On Activity Tracking.....	2	System Settings.....	9
Using the Move Alert.....	2	Changing the Device Language.....	9
Auto Goal.....	2	Time Settings.....	9
Using Do Not Disturb Mode.....	2	Backlight Settings.....	9
Sleep Tracking.....	2	Setting the Device Sounds.....	9
Training Indoors.....	2	Changing the Units of Measure.....	9
Workouts.....	2	Format Settings.....	9
Following a Workout From the Web.....	3	Data Recording Settings.....	9
Starting a Workout.....	3	Device Information	10
About the Training Calendar.....	3	Charging the Device.....	10
Interval Workouts.....	3	Specifications.....	10
Personal Records.....	3	Forerunner Specifications.....	10
Heart Rate Features	3	Heart Rate Monitor Specifications.....	10
Setting Your Heart Rate Zones.....	4	Device Care.....	10
Letting the Device Set Your Heart Rate Zones.....	4	Cleaning the Device.....	10
Physiological Measurements.....	4	Caring for the Heart Rate Monitor.....	10
About VO2 Max. Estimates.....	4	User Replaceable Batteries.....	10
Viewing Your Predicted Race Times.....	4	Troubleshooting	11
Recovery Advisor.....	4	Support and Updates.....	11
Recovery Heart Rate.....	5	Getting More Information.....	11
Turning Off the Wrist Heart Rate Monitor.....	5	Acquiring Satellite Signals.....	11
Smart Features	5	Improving GPS Satellite Reception.....	11
Pairing Your Smartphone.....	5	Resetting the Device.....	11
Phone Notifications.....	5	Clearing User Data.....	11
Opening the Music Controls.....	5	Restoring All Default Settings.....	11
Playing Audio Alerts During Your Run.....	5	Viewing Device Information.....	11
Widgets.....	5	Updating the Software.....	11
Bluetooth Controls Widget.....	5	Maximizing Battery Life.....	11
Viewing the Weather Widget.....	6	My daily step count does not appear.....	11
VIRB Remote.....	6	Tips for Erratic Heart Rate Data.....	11
Bluetooth Connected Features.....	6	Appendix	12
Turning On the Smartphone Connection Alert.....	6	Data Fields.....	12
Locating a Lost Smartphone.....	6	Software License Agreement.....	12
Turning Off Bluetooth Technology.....	6	BSD 3-Clause License.....	12
Connect IQ™ Features.....	6	Heart Rate Zone Calculations.....	13
Downloading Connect IQ Features.....	6	VO2 Max. Standard Ratings.....	13
History	6	Index	14
Viewing History.....	6		
Viewing Your Time in Each Heart Rate Zone.....	7		
Viewing Data Totals.....	7		
Deleting History.....	7		
Data Management.....	7		
Deleting Files.....	7		
Disconnecting the USB Cable.....	7		
Sending Data to Your Garmin Connect Account.....	7		
Garmin Connect.....	7		
Customizing Your Device	7		
ANT+ Sensors.....	7		
Pairing ANT+ Sensors.....	7		

Introduction

⚠ WARNING

See the *Important Safety and Product Information* guide in the product box for product warnings and other important information.

Always consult your physician before you begin or modify any exercise program.

Keys



①		Hold to turn the device on and off. Select to turn the backlight on and off.
②		Select to start and stop the timer. Select to choose an option or to acknowledge a message.
③		Select to mark a new lap. Select to return to the previous screen.
④		Select to scroll through the widgets, data screens, options, and settings. Select > to select an activity profile. Select > to open the menu. Hold to view the options menu.

Locking and Unlocking the Device Keys

You can lock the device keys to avoid accidental key presses during an activity or in watch mode.

- 1 Hold .
- 2 Select **Lock Device**.
- 3 Hold to unlock the device keys.

Status Icons

Icons appear at the top of the home screen. A flashing icon means the device is searching for a signal. A solid icon means the signal was found or the sensor is connected.

	GPS status
	Bluetooth® technology status
	Heart rate status
	Foot pod status
	Speed and cadence sensor status
	tempe™ sensor status
	VIRB® camera status

Opening the Menu

- 1 Select .
- 2 Select .

Training

Going for a Run

The first fitness activity you record on your device can be a run, ride, or any outdoor activity. You may need to charge the device ([Charging the Device, page 10](#)) before starting the activity.

- 1 Select , and select an activity profile.
- 2 Go outside, and wait while the device locates satellites.
- 3 Select to start the timer.
- 4 Go for a run.



- 5 After you complete your run, select to stop the timer.
- 6 Select an option:
 - Select **Resume** to restart the timer.
 - Select **Save** to save the run and reset the timer. You can select the run to view a summary.



- Select **Discard** > **Yes** to delete the run.

Forerunner 235 Only

Wearing the Device and Heart Rate

- Wear the Forerunner device above your wrist bone.
- NOTE:** The device should be snug but comfortable, and it should not move while running.

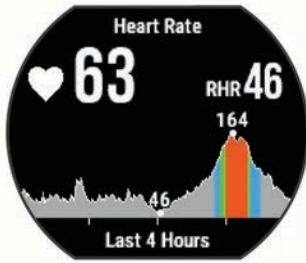


- Do not damage the heart rate sensor on the back of the device.
- See ([Tips for Erratic Heart Rate Data, page 2](#)) for more information about wrist-based heart rate.

Viewing the Heart Rate Widget

The widget displays your current heart rate in beats per minute (bpm), lowest resting heart rate for today, and a graph of your heart rate.

- 1 From the time of day screen, select .



- 2 Select **⌘** to view your average resting heart values for the last 7 days.

Broadcasting Heart Rate Data to Garmin® Devices

You can broadcast your heart rate data from your Forerunner device and view it on paired Garmin devices. For example, you can broadcast your heart rate data to an Edge® device while cycling, or to a VIRB action camera during an activity.

NOTE: Broadcasting heart rate data decreases battery life.

- 1 Select **V** to view the heart rate widget.
- 2 Hold **⏏**.
- 3 Select **Broadcast Heart Rate**.

The Forerunner device starts broadcasting your heart rate data, and **⏏❤** appears.

NOTE: You can view only the heart rate widget while broadcasting heart rate data.

- 4 Pair your Forerunner device with your Garmin ANT+® compatible device.

NOTE: The pairing instructions differ for each Garmin compatible device. See your owner's manual.

TIP: To stop broadcasting your heart rate data, select any key, and select Yes.

Tips for Erratic Heart Rate Data

If the heart rate data is erratic or does not appear, you can try these tips.

- Clean and dry your arm before putting on the device.
- Avoid wearing sunscreen under the device.
- Wear the device above your wrist bone. The device should be snug but comfortable.
- **NOTE:** You can try wearing the device higher on your forearm. You can try wearing the device on your other arm.
- Warm up for 5 to 10 minutes and get a heart rate reading before starting your activity.
- **NOTE:** In cold environments, warm up indoors.
- Rinse the device with fresh water after each workout.

Activity Tracking

Turning On Activity Tracking

The activity tracking feature records your daily step count, step goal, distance traveled, and calories burned for each recorded day. Your calories burned includes your base metabolism plus activity calories.

Activity tracking can be enabled during the initial device setup, or at any time.

- 1 Select **Menu > Settings > Activity Tracking > Status > On**.

Your step count does not appear until the device locates satellites and sets the time automatically. The device may need a clear view of the sky to locate satellite signals.

- 2 From the time of day screen, select **V** to view the activity tracking widget.

The step count is updated periodically.

Using the Move Alert

Before you can use the move alert, you must turn on activity tracking.

Sitting for prolonged periods of time can trigger undesirable metabolic state changes. The move alert reminds you to keep moving. After one hour of inactivity, Move! and the red bar appear. The device also beeps or vibrates if audible tones are turned on ([Setting the Device Sounds, page 9](#)).

Go for a short walk (at least a couple of minutes) to reset the move alert.

Auto Goal

Your device creates a daily step goal automatically, based on your previous activity levels. As you move during the day, the device shows your progress toward your daily goal **1**.



If you choose not to use the auto goal feature, you can set a personalized step goal on your Garmin Connect™ account.

Using Do Not Disturb Mode

Before you can use do not disturb mode, you must pair your device with a smartphone ([Pairing Your Smartphone, page 5](#)).

You can use do not disturb mode to turn off the backlight, alert tones, and vibrations. For example, you can use this mode while sleeping or watching a movie.

NOTE: You can set your normal sleep hours in the user settings on your Garmin Connect account. The device automatically enters do not disturb mode during your normal sleep hours.

- 1 From the time of day screen, select **⏏** to view the controls widget.
- 2 Select **⌘ > Do Not Disturb > On**.

You can turn off do not disturb mode from the controls widget.

Sleep Tracking

While you are sleeping, the device monitors your movement. Sleep statistics include total hours of sleep, sleep levels, and sleep movement. You can set your normal sleep hours in the user settings on your Garmin Connect account. You can view your sleep statistics on your Garmin Connect account.

Training Indoors

The device includes indoor activity profiles where GPS is turned off. You can turn off GPS when you are training indoors or to save battery life.

NOTE: Any change to the GPS setting is saved to the active profile.

Select **Menu > Activity Settings > GPS > Off**.

When running with GPS turned off, speed and distance are calculated using the accelerometer in the device. The accelerometer is self-calibrating. The accuracy of the speed and distance data improves after a few outdoor runs using GPS.

Workouts

You can create custom workouts that include goals for each workout step and for varied distances, times, and calories. You

can create workouts using Garmin Connect or select a training plan that has built-in workouts from Garmin Connect, and transfer them to your device.

You can schedule workouts using Garmin Connect. You can plan workouts in advance and store them on your device.

Following a Workout From the Web

Before you can download a workout from Garmin Connect, you must have a Garmin Connect account ([Garmin Connect, page 7](#)).

- 1 Connect the device to your computer.
- 2 Go to www.garminconnect.com.
- 3 Create and save a new workout.
- 4 Select **Send to Device**, and follow the on-screen instructions.
- 5 Disconnect the device.

Starting a Workout

Before you can start a workout, you must download a workout from your Garmin Connect account.

- 1 Select **Menu > Training > My Workouts**.
- 2 Select a workout.
- 3 Select **Do Workout**.

After you begin a workout, the device displays each step of the workout, the target (if any), and current workout data.


About the Training Calendar

The training calendar on your device is an extension of the training calendar or schedule you set up in Garmin Connect. After you have added a few workouts to the Garmin Connect calendar, you can send them to your device. All scheduled workouts sent to the device appear in the training calendar list by date. When you select a day in the training calendar, you can view or do the workout. The scheduled workout stays on your device whether you complete it or skip it. When you send scheduled workouts from Garmin Connect, they overwrite the existing training calendar.


Using Garmin Connect Training Plans

Before you can download and use a training plan, you must have a Garmin Connect account ([Garmin Connect, page 7](#)).


You can browse your Garmin Connect account to find a training plan, schedule workouts, and send them to your device.


- 1 Connect the device to your computer.
- 2 From your Garmin Connect account, select and schedule a training plan.
- 3 Review the training plan in your calendar.
- 4 Select , and follow the on-screen instructions.

Interval Workouts



You can create interval workouts based on distance or time. The device saves your custom interval workout until you create another interval workout. You can use open intervals for track workouts and when you are running a known distance. When you select , the device records an interval and moves to a rest interval.

Creating an Interval Workout

- 1 Select **Menu > Training > Intervals > Edit > Interval > Type**.
- 2 Select **Distance, Time, or Open**.
TIP: You can create an open-ended interval by setting the type to Open.
- 3 Select **Duration**, enter a distance or time interval value for the workout, and select .
- 4 Select **Rest > Type**.
- 5 Select **Distance, Time, or Open**.



- 6 If necessary, enter a distance or time value for the rest interval, and select .
- 7 Select one or more options:
 - To set the number of repetitions, select **Repeat**.
 - To add an open-ended warm up to your workout, select **Warm Up > On**.
 - To add an open-ended cool down to your workout, select **Cool Down > On**.

Starting an Interval Workout

- 1 Select **Menu > Training > Intervals > Do Workout**.
- 2 Select .
- 3 When your interval workout has a warm up, select  to begin the first interval.
- 4 Follow the on-screen instructions.

When you complete all of the intervals, a message appears.

Stopping a Workout

- At any time, select  to end a workout step.
- At any time, select  to stop the timer.

Personal Records

When you complete an activity, the device displays any new personal records you achieved during that activity. Personal records include your fastest time over several typical race distances and longest run or ride.

Viewing Your Personal Records

- 1 Select **Menu > My Stats > Records**.
- 2 Select a sport.
- 3 Select a record.
- 4 Select **View Record**.

Restoring a Personal Record

You can set each personal record back to the one previously recorded.

- 1 Select **Menu > My Stats > Records**.
- 2 Select a sport.
- 3 Select a record to restore.
- 4 Select **Previous > Yes**.

NOTE: This does not delete any saved activities.

Clearing a Personal Record

- 1 Select **Menu > My Stats > Records**.
- 2 Select a sport.
- 3 Select a record to delete.
- 4 Select **Clear Record > Yes**.

NOTE: This does not delete any saved activities.

Clearing All Personal Records

- 1 Select **Menu > My Stats > Records**.
- NOTE:** This does not delete any saved activities.
- 2 Select a sport.
- 3 Select **Clear All Records > Yes**.

The records are deleted only for that sport.

Heart Rate Features

This manual is for the Forerunner 230 and 235 models. The heart rate features described in this section apply to both Forerunner models. You must have a heart rate monitor to use these features.

Forerunner 230: This device is compatible with ANT+ heart rate monitors.

Forerunner 235: This device has a wrist-based heart rate monitor and is compatible with ANT+ heart rate monitors.

Setting Your Heart Rate Zones

The device uses your user profile information from the initial setup to determine your default heart rate zones. You can manually enter heart rate values and set the range for each zone.

- 1 Select **Menu > My Stats > User Profile > Heart Rate Zones**.
- 2 Select **Max. HR**, and enter your maximum heart rate.
- 3 Select **Resting HR**, and enter your resting heart rate.
- 4 Select **Zones > Based On**.
- 5 Select an option:
 - Select **BPM** to view and edit the zones in beats per minute.
 - Select **%Max. HR** to view and edit the zones as a percentage of your maximum heart rate.
 - Select **%HRR** to view and edit the zones as a percentage of your heart rate reserve (maximum heart rate minus resting heart rate).
- 6 Select a zone, and enter a value for each heart rate zone.

Letting the Device Set Your Heart Rate Zones

The default settings allow the device to detect your maximum heart rate and set your heart rate zones as a percentage of your maximum heart rate.

- Verify that your user profile settings are accurate ([Setting Up Your User Profile, page 8](#)).
- Run often with your compatible heart rate monitor.
- Try a few heart rate training plans, available from your Garmin Connect account.
- View your heart rate trends and time in zones using your Garmin Connect account.

Physiological Measurements

These physiological measurements require a compatible heart rate monitor. The measurements are estimates that can help you track and understand your training runs and race performances.

NOTE: The estimates may seem inaccurate at first. The device requires a few runs to learn about your running performance.

VO2 max.: VO2 max. is the maximum volume of oxygen (in milliliters) you can consume per minute per kilogram of body weight at your maximum performance.

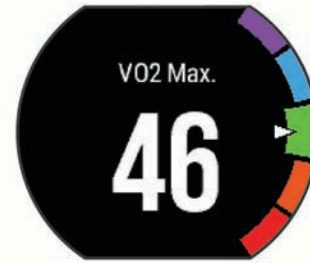
Predicted race times: Your device uses the VO2 max. estimate and published data sources to provide a target race time based on your current state of fitness. This projection also presumes you have completed the proper training for the race.

Recovery advisor: The recovery advisor displays how much time remains before you are fully recovered and ready for the next hard workout.

About VO2 Max. Estimates

VO2 max. is the maximum volume of oxygen (in milliliters) you can consume per minute per kilogram of body weight at your maximum performance. In simple terms, VO2 max. is an indication of athletic performance and should increase as your level of fitness improves. VO2 max. estimates are provided and supported by Firstbeat Technologies Ltd. You can use your Garmin device paired with a compatible heart rate monitor to display your running VO2 max. estimate.

Your VO2 max. estimate appears as a number and position on the color gauge.



Purple	Superior
Blue	Excellent
Green	Good
Orange	Fair
Red	Poor

VO2 max. data and analysis is provided with permission from The Cooper Institute[®]. For more information, see the appendix ([VO2 Max. Standard Ratings, page 13](#)), and go to www.CooperInstitute.org.

Getting Your VO2 Max. Estimate for Running

This feature requires a heart rate monitor.

For the most accurate estimate, complete the user profile setup ([Setting Up Your User Profile, page 8](#)), and set your maximum heart rate ([Setting Your Heart Rate Zones, page 4](#)). The estimate may seem inaccurate at first. The device requires a few runs to learn about your running performance.

- 1 Run for at least 10 minutes outdoors.
- 2 After your run, select **Save**.
- 3 Select **Menu > My Stats > VO2 Max.**

Viewing Your Predicted Race Times

This feature requires a heart rate monitor.

For the most accurate estimate, complete the user profile setup ([Setting Up Your User Profile, page 8](#)), and set your maximum heart rate ([Setting Your Heart Rate Zones, page 4](#)). Your device uses the VO2 max. estimate ([About VO2 Max. Estimates, page 4](#)) and published data sources to provide a target race time based on your current state of fitness. This projection also presumes you have completed the proper training for the race.

NOTE: The projections may seem inaccurate at first. The device requires a few runs to learn about your running performance.

Select **Menu > My Stats > Race Predictor**.

Your projected race times appear for 5K, 10K, half marathon, and marathon distances.

Recovery Advisor

You can use your Garmin device with a heart rate monitor to display how much time remains before you are fully recovered and ready for the next hard workout. Recovery advisor technology is provided and supported by Firstbeat.

Recovery time: The recovery time appears immediately following an activity. The time counts down until it is optimal for you to attempt another hard workout.

Turning On the Recovery Advisor

For the most accurate estimate, complete the user profile setup ([Setting Up Your User Profile, page 8](#)), and set your maximum heart rate ([Setting Your Heart Rate Zones, page 4](#)).

- 1 Select **Menu > My Stats > Recovery Advisor > Status > On**.
- 2 Go for a run.
- 3 After your run, select **Save**.

The recovery time appears. The maximum time is 4 days.



Recovery Heart Rate

If you are training with a heart rate monitor, you can check your recovery heart rate value after each activity. Recovery heart rate is the difference between your exercising heart rate and your heart rate two minutes after the exercise has stopped. For example, after a typical training run, you stop the timer. Your heart rate is 140 bpm. After two minutes of no activity or cool down, your heart rate is 90 bpm. Your recovery heart rate is 50 bpm (140 minus 90). Some studies have linked recovery heart rate to cardiac health. Higher numbers generally indicate healthier hearts.

TIP: For best results, you should stop moving for two minutes while the device calculates your recovery heart rate value. You can save or discard the activity after this value appears.

Turning Off the Wrist Heart Rate Monitor

The default setting for the Forerunner 235 is Auto. The device uses wrist-based heart rate automatically unless there is an accessory heart rate monitor connected to the device.

Select **Menu > Settings > Heart Rate Monitor > Off**.

Smart Features

Pairing Your Smartphone

You should connect your Forerunner device to a smartphone to complete the setup and use the full features of the device.

- 1 Go to www.garmin.com/intosports/apps, and download the Garmin Connect Mobile app to your smartphone.
- 2 From the Forerunner device, select **Menu > Settings > Bluetooth > Pair Mobile Device**.
- 3 Open the Garmin Connect Mobile app.
- 4 Select an option to add your device to your Garmin Connect account:
 - If this is the first device you have paired with the Garmin Connect Mobile app, follow the on-screen instructions.
 - If you have already paired another device with the Garmin Connect Mobile app, from the settings, select **Garmin Devices > +**, and follow the on-screen instructions.

Phone Notifications

Phone notifications require a compatible smartphone to be paired with the Forerunner device. When your phone receives messages, it sends notifications to your device.

Enabling Bluetooth Notifications

- 1 Select **Menu > Settings > Bluetooth > Smart Notifications**.
- 2 Select **During Activity**.
- 3 Select **Off, Show Calls Only, or Show All**.
- 4 Select **Not During Activity**.
- 5 Select **Off, Show Calls Only, or Show All**.

NOTE: You can change the audible sounds for notifications.

Viewing Notifications

- When a notification appears on your Forerunner device, select **🔔** to view the notification.
- Select **✓** to clear the notification.
- From the time of day screen, select **▲** to view all of your notifications on the notifications widget.

Managing Notifications

You can use your compatible smartphone to manage notifications that appear on your Forerunner device.

Select an option:

- If you are using an Apple® device, use the notification center settings on your smartphone to select the items to show on the device.
- If you are using an Android™ device, use the app settings in the Garmin Connect Mobile app to select the items to show on the device.

Opening the Music Controls

Music controls require a compatible smartphone to be paired with the device.

Hold **▲**, and select **Music Controls**.

Playing Audio Alerts During Your Run

Before you can set up audio alerts, you must have a smartphone with the Garmin Connect Mobile app paired to your Forerunner device.

You can set the Garmin Connect Mobile app to play motivational status announcements on your smartphone during the run. Audio alerts include the lap number and lap time, pace or speed, and heart rate data. During an audio alert, the Garmin Connect mobile app mutes the primary audio of the smartphone to play the announcement. Volume levels can be customized on the Garmin Connect Mobile app.

- 1 From the settings in the Garmin Connect Mobile app, select **Garmin Devices**.
- 2 Select your device.
- 3 If necessary, select **Device Settings**.
- 4 Select **Audio Alerts**.

Widgets

Your device comes preloaded with widgets that provide at-a-glance information. Some widgets require a Bluetooth connection to a compatible smartphone.

Notifications: Alerts you to incoming calls and texts based on your smartphone notification settings.

Calendar: Displays upcoming meetings from your smartphone calendar.

Weather: Displays the current temperature and weather forecast.



Activity Tracking: Tracks your daily step count, step goal, distance traveled, calories burned, and sleep statistics.



Heart Rate: Displays your current heart rate in beats per minute (bpm), lowest resting heart rate for today, and a graph of your heart rate.

Controls: Allows you to turn on and off the Bluetooth connectivity and features including do not disturb, find my phone, and manual syncing.

VIRB controls: Provides camera controls when you have a VIRB device paired with your Forerunner device.

Bluetooth Controls Widget

	Turns on or off do not disturb mode.
	Turns on or off Bluetooth technology.

	Synchronizes your data with the Garmin Connect Mobile app.
	Activates the find my phone feature. It sends a beacon to your smartphone that is paired and in range of your Forerunner device.

Viewing the Weather Widget

- 1 From the time of day screen, select **V** to view the weather widget.
- 2 Select **f** to view hourly weather data.
- 3 Scroll down to view daily weather data.

VIRB Remote

The VIRB remote function allows you to control your VIRB action camera using your device. Go to www.garmin.com/VIRB to purchase a VIRB action camera.

Controlling a VIRB Action Camera

Before you can use the VIRB remote function, you must enable the remote setting on your VIRB camera. See the *VIRB Series Owner's Manual* for more information.

- 1 Turn on your VIRB camera.
- 2 Pair the VIRB camera with your Forerunner device (*Pairing ANT+ Sensors, page 7*).
- 3 On the Forerunner device, select the VIRB accessory.
When the VIRB accessory is paired, the VIRB screen is added to the data screens for the active profile.
- 4 Select an option:
 - Select **Timer Start/Stop** to control the camera using the timer **f**.
Video recording automatically starts and stops with the Forerunner device timer.

Bluetooth Connected Features

The Forerunner device has several Bluetooth connected features for your compatible smartphone using the Garmin Connect Mobile app. For more information, go to www.garmin.com/intosports/apps.

LiveTrack: Allows friends and family to follow your races and training activities in real time. You can invite followers using email or social media, allowing them to view your live data on a Garmin Connect tracking page.

Activity uploads: Automatically sends your activity to the Garmin Connect Mobile app as soon as you finish recording the activity.

Software updates: Your device wirelessly downloads the latest software update. The next time you turn on the device, you can follow the on-screen instructions to update the software.

Workout downloads: Allows you to browse for workouts in the Garmin Connect Mobile app and wirelessly send them to your device.

Social media interactions: Allows you to post an update to your favorite social media website when you upload an activity to the Garmin Connect Mobile app.

Notifications: Displays phone notifications and messages on your Forerunner device.

Turning On the Smartphone Connection Alert

You can set the Forerunner device to alert you when your paired smartphone connects and disconnects using Bluetooth wireless technology.

Select **Menu > Settings > Bluetooth > Connection Alert > On**.

Locating a Lost Smartphone

You can use the find my phone feature to help locate a lost smartphone that is paired using Bluetooth wireless technology and currently within range.

1 From the time of day screen, select **A** to view the controls widget.

2 Select **f > Find My Phone**.

The Forerunner device begins searching for your paired smartphone. Bars appear on the Forerunner device screen corresponding to the Bluetooth signal strength, and an audible alert sounds on your smartphone.

3 Select **↵** to stop searching.

Turning Off Bluetooth Technology

1 From the time of day screen, select **A** to view the controls widget.

2 Select **f > Bluetooth > Off**.

f is gray when Bluetooth technology is turned off.

Connect IQ™ Features

You can add Connect IQ features to your watch from Garmin and other providers using the Garmin Connect Mobile app. You can customize your device with watch faces, data fields, widgets, and apps.

Watch Faces: Allow you to customize the appearance of the clock.

Data Fields: Allow you to download new data fields that present sensor, activity, and history data in new ways. You can add Connect IQ data fields to built-in features and pages.

Widgets: Provide information at a glance, including sensor data and notifications.

Apps: Add interactive features to your watch, such as new outdoor and fitness activity types.

Downloading Connect IQ Features

Before you can download Connect IQ features from the Garmin Connect Mobile app, you must pair your Forerunner device with your smartphone.

- 1 From the settings in the Garmin Connect Mobile app, select **Connect IQ Store**.
- 2 If necessary, select your device.
- 3 Select a Connect IQ feature.
- 4 Follow the on-screen instructions.

Downloading Connect IQ Features Using Your Computer

- 1 Connect the device to your computer using a USB cable.
- 2 Go to www.garminconnect.com.
- 3 From your devices widget, select **Connect IQ Store**.
- 4 Select a Connect IQ feature.
- 5 Select **Send to Device**, and follow the on-screen instructions.

History

History includes time, distance, calories, average pace or speed, lap data, and optional ANT+ sensor information.

NOTE: When the device memory is full, your oldest data is overwritten.

Viewing History

- 1 Select **Menu > History > Activities**.
- 2 Select **A** or **V** to view your saved activities.
- 3 Select an activity.
- 4 Select an option:
 - Select **Details** to view additional information about the activity.
 - Select **Laps** to select a lap and view additional information about each lap.

- Select **Time in Zone** to view your time in each heart rate zone.
- Select **Delete** to delete the selected activity.

Viewing Your Time in Each Heart Rate Zone

Before you can view heart rate zone data, you must pair your device with a compatible heart rate monitor, complete an activity, and save the activity.

Viewing your time in each heart rate zone can help you adjust your training intensity.

- 1 Select **≡** > **History** > **Activities**.
- 2 Select an activity.
- 3 Select **Time in Zone**.

Viewing Data Totals

You can view the accumulated distance and time data saved to your device.

- 1 Select **Menu** > **History** > **Totals**.
- 2 Select an option to view weekly or monthly totals.

Deleting History

- 1 Select **Menu** > **History** > **Options**.
- 2 Select an option:
 - Select **Delete All Activities** to delete all activities from the history.
 - Select **Reset Totals** to reset all distance and time totals.

NOTE: This does not delete any saved activities.
- 3 Confirm your selection.

Data Management

NOTE: The device is not compatible with Windows® 95, 98, Me, Windows NT®, and Mac® OS 10.3 and earlier.

Deleting Files

NOTICE

If you do not know the purpose of a file, do not delete it. Your device memory contains important system files that should not be deleted.

- 1 Open the **Garmin** drive or volume.
- 2 If necessary, open a folder or volume.
- 3 Select a file.
- 4 Press the **Delete** key on your keyboard.

Disconnecting the USB Cable

If your device is connected to your computer as a removable drive or volume, you must safely disconnect your device from your computer to avoid data loss. If your device is connected to your Windows computer as a portable device, it is not necessary to safely disconnect.

- 1 Complete an action:
 - For Windows computers, select the **Safely Remove Hardware** icon in the system tray, and select your device.
 - For Mac computers, drag the volume icon to the trash.
- 2 Disconnect the cable from your computer.

Sending Data to Your Garmin Connect Account

You can upload all of your activity data to your Garmin Connect account for comprehensive analysis. You can view a map of your activity and share your activities with friends.

- 1 Connect the device to your computer using the USB cable.
- 2 Go to www.garminconnect.com/start.

- 3 Follow the on-screen instructions.

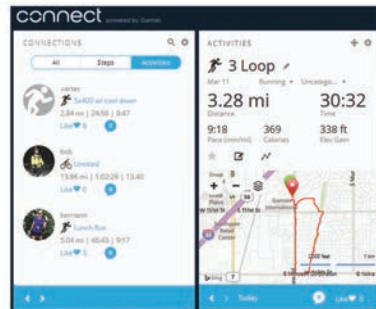
Garmin Connect

You can connect with your friends on Garmin Connect. Garmin Connect gives you the tools to track, analyze, share, and encourage each other. Record the events of your active lifestyle including runs, walks, rides, swims, hikes, triathlons, and more. To sign up for a free account, go to www.garminconnect.com/start.

Store your activities: After you complete and save an activity with your device, you can upload that activity to your Garmin Connect account and keep it as long as you want.

Analyze your data: You can view more detailed information about your activity, including time, distance, elevation, heart rate, calories burned, an overhead map view, pace and speed charts, and customizable reports.

NOTE: Some data requires an optional accessory such as a heart rate monitor.



Plan your training: You can choose a fitness goal and load one of the day-by-day training plans.

Track your progress: You can track your daily steps, join a friendly competition with your connections, and meet your goals.

Share your activities: You can connect with friends to follow each other's activities or post links to your activities on your favorite social networking sites.

Manage your settings: You can customize your device and user settings on your Garmin Connect account.

Access the Connect IQ store: You can download apps, watch faces, data fields, and widgets.

Customizing Your Device

ANT+ Sensors

Your device can be used with wireless ANT+ sensors. For more information about compatibility and purchasing optional sensors, go to <http://buy.garmin.com>.

Pairing ANT+ Sensors

Pairing is the connecting of ANT+ wireless sensors, for example, connecting a heart rate monitor with your Garmin device. The first time you connect an ANT+ sensor to your device, you must pair the device and sensor. After the initial pairing, the device automatically connects to the sensor when you start your activity and the sensor is active and within range.

NOTE: If your device was packaged with an ANT+ sensor, they are already paired.

- 1 Install the sensor or put on the heart rate monitor.
- 2 Bring the device within 1 cm of the sensor, and wait while the device connects to the sensor.

When the device detects the sensor, a message appears. You can customize a data field to display sensor data.

- 3 If necessary, select **Menu > Settings > Sensors and Accessories** to manage ANT+ sensors.

Foot Pod

Your device is compatible with the foot pod. You can use the foot pod to record pace and distance instead of using GPS when you are training indoors or when your GPS signal is weak. The foot pod is on standby and ready to send data (like the heart rate monitor).

After 30 minutes of inactivity, the foot pod powers off to conserve the battery. When the battery is low, a message appears on your device. Approximately five hours of battery life remain.

Going for a Run Using a Foot Pod

Before you go for a run, you must pair the foot pod with your Forerunner device ([Pairing ANT+ Sensors, page 7](#)).

You can run indoors using a foot pod to record pace, distance, and cadence. You can also run outdoors using a foot pod to record cadence data with your GPS pace and distance.

- 1 Install your foot pod according to the accessory instructions.
- 2 Select the **Run Indoor** activity profile.
- 3 Go for a run.

Foot Pod Calibration

The foot pod is self-calibrating. The accuracy of the speed and distance data improves after a few outdoor runs using GPS.

Setting Up Your User Profile

You can update your gender, birth year, height, weight, and heart rate zone settings. The device uses this information to calculate accurate training data.

- 1 Select **Menu > My Stats > User Profile**.
- 2 Select an option.

Activity Profiles

Activity profiles are a collection of settings that optimize your device based on how you are using it. For example, the settings and data screens are different when you are using the device for running than for riding your bike.

When you are using a profile and you change settings such as data fields or alerts, the changes are saved automatically as part of the profile.

Changing Your Activity Profile

The device has default activity profiles. You can modify each of the saved activity profiles.

TIP: The default activity profiles use a specific accent color for each sport.

- 1 Select **Menu > Settings > Activity Profiles**.
- 2 Select a profile.

You can show or hide the default activity profiles.

Activity Settings

These settings allow you to customize your device based on your training needs. For example, you can customize data screens and enable alerts and training features.

Customizing the Data Screens

You can customize data screens based on your training goals or optional accessories. For example, you can customize one of the data screens to display your lap pace or heart rate zone.

- 1 Select **Menu > Activity Settings > Data Screens**.
- 2 Select a screen.
Some screens can only be turned on or off.
- 3 If necessary, edit the number of data fields.
- 4 Select a data field to change it.

Alerts

You can use alerts to train toward specific heart rate, pace, time, distance, cadence, and calories goals and to set run/walk time intervals.

Setting Range Alerts

A range alert notifies you when the device is above or below a specified range of values. For example, if you have an optional heart rate monitor, you can set the device to alert you when your heart rate is below zone 2 and over zone 5 ([Setting Your Heart Rate Zones, page 4](#)).

- 1 Select **Menu > Activity Settings > Alerts > Add New**.
- 2 Select the type of alert.
Depending on your accessories and the activity profile, the alerts may include heart rate, pace, speed, and cadence.
- 3 If necessary, turn on the alert.
- 4 Select a zone or enter a value for each alert.

Each time you exceed or drop below the specified range, a message appears. The device also beeps or vibrates if audible tones are turned on ([Setting the Device Sounds, page 9](#)).

Setting a Recurring Alert

A recurring alert notifies you each time the device records a specified value or interval. For example, you can set the device to alert you every 30 minutes.

- 1 Select **Menu > Activity Settings > Alerts > Add New**.
- 2 Select an option:
 - Select **Custom**, select a message, and select an alert type.
 - Select **Time, Distance, or Calories**.
- 3 Enter a value.

Each time you reach the alert value, a message appears. The device also beeps or vibrates if audible tones are turned on ([Setting the Device Sounds, page 9](#)).

Setting Walk Break Alerts

Some running programs use timed walking breaks at regular intervals. For example, during a long training run, you can set the device to alert you to run for 4 minutes, and then walk for 1 minute, and repeat. You can use the Auto Lap[®] feature while using the run/walk alerts.

NOTE: Walk break alerts are available only for running profiles.

- 1 Select **Menu > Activity Settings > Alerts > Add New**.
- 2 Select **Run/Walk**.
- 3 Enter a time for the run interval.
- 4 Enter a time for the walk interval.

Each time you reach the alert value, a message appears. The device also beeps or vibrates if audible tones are turned on ([Setting the Device Sounds, page 9](#)).

Editing an Alert

- 1 Select **Menu > Activity Settings > Alerts**.
- 2 Select an alert.
- 3 Edit the alert values or settings.

Using Auto Pause[®]

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

NOTE: History is not recorded while the timer is stopped or paused.

- 1 Select **Menu > Activity Settings > Auto Pause**.

2 Select an option:

- Select **When Stopped** to pause the timer automatically when you stop moving.
- Select **Custom** to pause the timer automatically when your pace or speed drops below a specified value.

Marking Laps by Distance

You can use the Auto Lap feature to mark a lap at a specific distance automatically. This feature is helpful for comparing your performance over different parts of a run (for example, every 1 mi. or 5 km).

1 Select **Menu > Activity Settings > Laps > Auto Distance**.

2 Select a distance.

Each time you complete a lap, a message appears that displays the time for that lap. The device also beeps or vibrates if audible tones are turned on ([Setting the Device Sounds, page 9](#)).

If necessary, you can customize the data screens to display additional lap data.

Using Auto Scroll

You can use the auto scroll feature to cycle through all of the training data screens automatically while the timer is running.

1 Select **Menu > Activity Settings > Auto Scroll**.

2 Select a display speed.

Changing the GPS Setting

By default, the device uses GPS to locate satellites. For increased performance in challenging environments and faster GPS position location, you can enable GPS and GLONASS. Using GPS and GLONASS reduces battery life more than using only GPS.

Select **Menu > Activity Settings > GPS > GPS + GLONASS**.

Power Save Timeout Settings

The timeout settings affect how long your device stays in training mode, for example, when you are waiting for a race to start. Select **Menu > Activity Settings > Power Save Timeout**.

Normal: Sets the device to enter low-power watch mode after 5 minutes of inactivity.

Extended: Sets the device to enter low-power watch mode after 25 minutes of inactivity. The extended mode can result in shorter battery life between charges.

Activity Tracking Settings

Select **Menu > Settings > Activity Tracking**.

Status: Enables the activity tracking feature.

Move Alert: Displays a message and move bar on the time of day screen. The device also beeps or vibrates if audible tones are turned on ([Setting the Device Sounds, page 9](#)).

System Settings

Select **Menu > Settings > System**.

- Language Settings ([Changing the Device Language, page 9](#))
- Time Settings ([Time Settings, page 9](#))
- Backlight Settings ([Backlight Settings, page 9](#))
- Sound Settings ([Setting the Device Sounds, page 9](#))
- Unit Settings ([Changing the Units of Measure, page 9](#))
- Format Settings ([Format Settings, page 9](#))
- Data Recording Settings ([Data Recording Settings, page 9](#))

Changing the Device Language

Select **Menu > Settings > System > Language**.

Time Settings

Select **Menu > Settings > System > Clock**.

Watch Face: Allows you to select a watch face design.

Use Profile Color: Sets the accent color for the time of day screen to be the same as the activity profile color.

Background: Sets the background color to black or white.

Time Format: Sets the device to show time in a 12-hour or a 24-hour format.

Set Automatically: Allows you to set the time manually or automatically based on your GPS position.

Time Zones

Each time you turn on the device and acquire satellites, the device automatically detects your time zone and the current time of day.

Setting the Time Manually

By default, the time is set automatically when the device acquires satellite signals.

1 Select **Menu > Settings > System > Clock > Set Automatically > Off**.

2 Select **Set Time**, and enter the time of day.

Setting the Alarm

1 Select **Menu > Settings > Alarms > Add New > Status > On**.

2 Select **Time**, and enter a time.

3 Select **Sounds**, and select an option.

4 Select **Repeat**, and select an option.

Deleting an Alarm

1 Select **Menu > Settings > Alarms**.

2 Select an alarm.

3 Select **Remove > Yes**.

Backlight Settings

Select **Menu > Settings > System > Backlight**.

Keys and Alerts: Sets the backlight to turn on for key presses and alerts.

Wrist Turn: Allows your device to turn on the backlight automatically when you rotate your wrist toward your body.

Timeout: Sets the length of time before the backlight turns off.

Setting the Device Sounds

The device sounds include key tones, alert tones, and vibrations.

Select **Menu > Settings > System > Sounds**.

Changing the Units of Measure

You can customize the units of measure for distance, pace and speed, weight, height, and temperature.

1 Select **Menu > Settings > System > Units**.

2 Select a measurement type.

3 Select a unit of measure.

Format Settings

Select **Menu > Settings > System > Format**.

Pace/Speed Preference: Sets the device to display speed or pace for running, cycling, or other activities. This preference affects several training options, history, and alerts.

Start of Week: Sets the first day of the week for your weekly history totals.

Data Recording Settings

Select **Menu > Settings > System > Data Recording**.

Smart: Records key points where you change direction, pace, or heart rate. Your activity record is smaller, allowing you to store more activities on the device memory.

Every Second: Records points every second. It creates a very detailed record of your activity and increases the size of the activity record.

Device Information

Charging the Device

⚠ WARNING

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

NOTICE

To prevent corrosion, thoroughly clean and dry the contacts and the surrounding area before charging or connecting to a computer. Refer to the cleaning instructions in the appendix.

- 1 Plug the USB cable into a USB port on your computer.
- 2 Align the charger posts with the contacts on the back of the device, and connect the charging clip ① securely to the device.



- 3 Charge the device completely.
- 4 Press ② to remove the charger.

Specifications

Forerunner Specifications

Battery type	Rechargeable, built-in lithium-ion battery
Forerunner 230 battery life, watch mode	Up to 12 wk. Up to 11 wk. with activity tracking Up to 5 wk. with activity tracking and smartphone notifications
Forerunner 230 battery life, activity mode	Up to 16 hr. in GPS mode Up to 12 hr. in GPS + GLONASS mode
Forerunner 235 battery life, watch mode	Up to 9 wk. Up to 8 wk. with activity tracking Up to 4 wk. with activity tracking and smartphone notifications Up to 9 days with activity tracking, smartphone notifications, and wrist-based heart rate
Forerunner 235 battery life, activity mode with wrist-based heart rate	Up to 11 hr. in GPS mode Up to 9 hr. in GPS + GLONASS mode
Water rating	5 ATM*
Operating temperature range	From -20° to 60°C (from -4° to 140°F)
Charging temperature range	From 0° to 45°C (from 32° to 113°F)
Radio frequency/protocol	2.4 GHz ANT+ wireless communications protocol Bluetooth Smart wireless technology

*The device withstands pressure equivalent to a depth of 50 m. For more information, go to www.garmin.com/waterrating.

Heart Rate Monitor Specifications

Battery type	User-replaceable CR2032, 3 volts
Battery life	Up to 4.5 yr. at 1 hr./day
Water resistance	3 ATM* NOTE: This product does not transmit heart rate data while swimming.
Operating temperature range	From -5° to 50°C (from 23° to 122°F)
Radio frequency/protocol	2.4 GHz ANT+ wireless communications protocol

*The device withstands pressure equivalent to a depth of 30 m. For more information, go to www.garmin.com/waterrating.

Device Care

NOTICE

Avoid extreme shock and harsh treatment, because it can degrade the life of the product.

Avoid pressing the keys under water.

Do not use a sharp object to clean the device.

Avoid chemical cleaners, solvents, and insect repellents that can damage plastic components and finishes.

Thoroughly rinse the device with fresh water after exposure to chlorine, salt water, sunscreen, cosmetics, alcohol, or other harsh chemicals. Prolonged exposure to these substances can damage the case.

Do not store the device where prolonged exposure to extreme temperatures can occur, because it can cause permanent damage.

Cleaning the Device

NOTICE

Even small amounts of sweat or moisture can cause corrosion of the electrical contacts when connected to a charger. Corrosion can prevent charging and data transfer.

- 1 Wipe the device using a cloth dampened with a mild detergent solution.
- 2 Wipe it dry.

After cleaning, allow the device to dry completely.

Caring for the Heart Rate Monitor

NOTICE

You must unsnap and remove the module before washing the strap.

A build up of sweat and salt on the strap can decrease the ability of the heart rate monitor to report accurate data.

- Go to www.garmin.com/HRMcare for detailed washing instructions.
- Rinse the strap after every use.
- Machine wash the strap after every seven uses.
- Do not put the strap in a dryer.
- When drying the strap, hang it up or lay it flat.
- To prolong the life of your heart rate monitor, unsnap the module when not in use.

User Replaceable Batteries

⚠ WARNING

Do not use a sharp object to remove batteries.

Keep the battery away from children.

Never put batteries in mouth. If swallowed, contact your physician or local poison control center.

Replaceable coin cell batteries may contain perchlorate material. Special handling may apply. See www.dtsc.ca.gov/hazardouswaste/perchlorate.

CAUTION

Contact your local waste disposal department to properly recycle the batteries.

Troubleshooting

Support and Updates

Garmin Express™ (www.garmin.com/express) provides easy access to these services for Garmin devices.

- Product registration
- Product manuals
- Software updates
- Data uploads to Garmin Connect

Getting More Information

- Go to www.garmin.com/intosports.
- Go to www.garmin.com/learningcenter.
- Go to <http://buy.garmin.com>, or contact your Garmin dealer for information about optional accessories and replacement parts.

Acquiring Satellite Signals

The device may need a clear view of the sky to acquire satellite signals. The time and date are set automatically based on the GPS position.

- 1 Go outdoors to an open area.
The front of the device should be oriented toward the sky.
- 2 Wait while the device locates satellites.
It may take 30–60 seconds to locate satellite signals.

Improving GPS Satellite Reception

- Frequently sync the device to your Garmin Connect account:
 - Connect your device to a computer using the USB cable and the Garmin Express application.
 - Sync your device to the Garmin Connect Mobile app using your Bluetooth enabled smartphone.



While connected to your Garmin Connect account, the device downloads several days of satellite data, allowing it to quickly locate satellite signals.

- Take your device outside to an open area away from tall buildings and trees.
- Remain stationary for a few minutes.

Resetting the Device

If the device stops responding, you may need to reset it.




NOTE: Resetting the device may erase your data or settings.

- 1 Hold  for 15 seconds.
The device turns off.
- 2 Hold  for one second to turn on the device.

Clearing User Data

You can restore all of the device settings to the factory default values.

NOTE: This deletes all user-entered information, but it does not delete your history.

- 1 Hold , and select **Yes** to turn off the device.
- 2 While holding , hold  to turn on the device.
- 3 Select **Yes**.

Restoring All Default Settings

NOTE: This deletes all user-entered information and activity history.

You can reset all settings back to the factory default values.
Select **Menu > Settings > System > Restore Defaults > Yes**.

Viewing Device Information

You can view the unit ID, software version, regulatory information, and license agreement.

Select **Menu > Settings > System > About**.

Updating the Software

Before you can update your device software, you must have a Garmin Connect account, and you must download the Garmin Express application.

- 1 Connect the device to your computer using the USB cable.
When new software is available, Garmin Express sends it to your device.
- 2 Follow the on-screen instructions.
- 3 Do not disconnect your device from the computer during the update process.

Maximizing Battery Life

- Shorten the backlight timeout ([Backlight Settings, page 9](#)).
- Shorten the timeout to watch mode ([Power Save Timeout Settings, page 9](#)).
- Turn off activity tracking ([Activity Tracking, page 2](#)).
- Select the **Smart** recording interval ([Data Recording Settings, page 9](#)).
- Turn off GLONASS ([Changing the GPS Setting, page 9](#)).
- Turn off the Bluetooth wireless feature ([Turning Off Bluetooth Technology, page 6](#)).
- Turn off wrist-based heart rate monitoring ([Turning Off the Wrist Heart Rate Monitor, page 5](#)).

My daily step count does not appear

The daily step count is reset every night at midnight.

If dashes appear instead of your step count, allow the device to acquire satellite signals and set the time automatically.

Tips for Erratic Heart Rate Data

If the heart rate data is erratic or does not appear, you can try these tips.

- Reapply water to the electrodes and contact patches (if applicable).
- Tighten the strap on your chest.
- Warm up for 5 to 10 minutes.
- Follow the care instructions ([Caring for the Heart Rate Monitor, page 10](#)).
- Wear a cotton shirt or thoroughly wet both sides of the strap.
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 that can interfere with your heart rate monitor.

Sources of interference may include strong electromagnetic fields, some 2.4 GHz wireless sensors, high-voltage power

lines, electric motors, ovens, microwave ovens, 2.4 GHz cordless phones, and wireless LAN access points.

Appendix

Data Fields

Some data fields require ANT+ accessories to display data.

%HRR: The percentage of heart rate reserve (maximum heart rate minus resting heart rate).

24-Hour Max.: The maximum temperature recorded in the last 24 hours.

24-Hour Min.: The minimum temperature recorded in the last 24 hours.

Average %HRR: The average percentage of heart rate reserve (maximum heart rate minus resting heart rate) for the current activity.

Average Cadence: Cycling. The average cadence for the current activity.

Average Cadence: Running. The average cadence for the current activity.

Average HR: The average heart rate for the current activity.

Average HR %Max.: The average percentage of maximum heart rate for the current activity.

Average Lap Time: The average lap time for the current activity.

Average Pace: The average pace for the current activity.

Average Speed: The average speed for the current activity.

Cadence: Cycling. The number of revolutions of the crank arm. Your device must be connected to a cadence accessory for this data to appear.

Cadence: Running. The steps per minute (right and left).

Calories: The amount of total calories burned.

Distance: The distance traveled for the current track or activity.

Elapsed Time: The total time recorded. For example, if you start the timer and run for 10 minutes, then stop the timer for 5 minutes, then start the timer and run for 20 minutes, your elapsed time is 35 minutes.

Elevation: The altitude of your current location above or below sea level.

Heart Rate: Your heart rate in beats per minute (bpm). Your device must be connected to a compatible heart rate monitor.

HR %Max.: The percentage of maximum heart rate.

HR Zone: The current range of your heart rate (1 to 5). The default zones are based on your user profile and maximum heart rate (220 minus your age).

Lap %HRR: The average percentage of heart rate reserve (maximum heart rate minus resting heart rate) for the current lap.

Lap Cadence: Cycling. The average cadence for the current lap.

Lap Cadence: Running. The average cadence for the current lap.

Lap Distance: The distance traveled for the current lap.

Lap HR: The average heart rate for the current lap.

Lap HR %Max.: The average percentage of maximum heart rate for the current lap.

Lap Pace: The average pace for the current lap.

Laps: The number of laps completed for the current activity.

Lap Speed: The average speed for the current lap.

Lap Time: The stopwatch time for the current lap.

Last Lap Cadence: Cycling. The average cadence for the last completed lap.

Last Lap Cadence: Running. The average cadence for the last completed lap.

Last Lap Distance: The distance traveled for the last completed lap.

Last Lap Pace: The average pace for the last completed lap.

Last Lap Speed: The average speed for the last completed lap.

Last Lap Time: The stopwatch time for the last completed lap.

Maximum Speed: The top speed for the current activity.

Pace: The current pace.

Speed: The current rate of travel.

Sunrise: The time of sunrise based on your GPS position.

Sunset: The time of sunset based on your GPS position.

Temperature: The temperature of the air. Your body temperature affects the temperature sensor.

Time in Zone: The time elapsed in each heart rate or power zone.

Time of Day: The time of day based on your current location and time settings (format, time zone, daylight saving time).

Timer: The stopwatch time for the current activity.

Training Effect: The current impact (1.0 to 5.0) on your aerobic fitness.

Software License Agreement

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

Garmin Ltd. and its subsidiaries ("Garmin") grant 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 and/or its third-party providers.

You acknowledge that the Software is the property of Garmin and/or its third-party providers 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, for which source code is not provided, are valuable trade secrets of Garmin and/or its third-party providers and that the Software in source code form remains a valuable trade secret of Garmin and/or its third-party providers. 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 or the export control laws of any other applicable country.

BSD 3-Clause License

Copyright © 2003-2010, Mark Borgerding

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

- Neither the author nor the names of any contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Zone	% of Maximum Heart Rate	Perceived Exertion	Benefits
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

Heart Rate Zone Calculations

Zone	% of Maximum 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

VO2 Max. Standard Ratings

These tables include standardized classifications for VO2 max. estimates by age and gender.

Males	Percentile	20–29	30–39	40–49	50–59	60–69	70–79
Superior	95	55.4	54	52.5	48.9	45.7	42.1
Excellent	80	51.1	48.3	46.4	43.4	39.5	36.7
Good	60	45.4	44	42.4	39.2	35.5	32.3
Fair	40	41.7	40.5	38.5	35.6	32.3	29.4
Poor	0–40	<41.7	<40.5	<38.5	<35.6	<32.3	<29.4

Females	Percentile	20–29	30–39	40–49	50–59	60–69	70–79
Superior	95	49.6	47.4	45.3	41.1	37.8	36.7
Excellent	80	43.9	42.4	39.7	36.7	33	30.9
Good	60	39.5	37.8	36.3	33	30	28.1
Fair	40	36.1	34.4	33	30.1	27.5	25.9
Poor	0–40	<36.1	<34.4	<33	<30.1	<27.5	<25.9

Data reprinted with permission from The Cooper Institute. For more information, go to www.CooperInstitute.org.

Index

A

accessories 7, 11
activity tracking 2, 9
alarms 9
alerts 8
ANT+ sensors 7
 pairing 7
applications 6
 smartphone 5
Auto Lap 9
Auto Pause 8
Auto Scroll 9

B

backlight 1, 9
battery
 charging 10
 maximizing 6, 9, 11
 replacing 10
Bluetooth technology 1, 5, 6

C

cadence 8
calendar 3
calorie, alerts 8
charging 10
cleaning the device 10
clock 1, 9
Connect IQ 6
customizing the device 8

D

data
 recording 9
 storing 7
 transferring 7
data fields 6, 8, 12
deleting
 all user data 7, 11
 history 7
 personal records 3
distance, alerts 8

F

foot pod 8

G

Garmin Connect 2, 3, 5–7
Garmin Connect Mobile 5
Garmin Express
 registering the device 11
 updating software 11
GLONASS 9
GPS 1, 2, 9
 signal 11

H

heart rate 1, 3, 8
 monitor 2, 4, 5, 10, 11
 pairing sensors 2
 zones 4, 7, 13
history 5–7, 9
 deleting 7
 sending to computer 7

I

icons 1
indoor training 2, 8
intervals, workouts 3

K

keys 1, 5, 10

L

language 9
laps 1
locking, keys 1

M

maps, updating 11
menu 1

N

notifications 5

P

pace 8, 9
pairing
 ANT+ sensors 2
 smartphone 5
pairing ANT+ sensors 7
personal records 3
 deleting 3
product registration 11
profiles 8
 activity 1
 user 8
projected finish time 4

R

recovery 4
registering the device 11
resetting the device 11

S

satellite signals 11
saving activities 1
screen 9
settings 8, 9, 11
 device 9
sleep mode 2
smartphone 5, 6
 applications 5, 6
 pairing 5
software
 license 11
 updating 11
 version 11
software license agreement 12
specifications 10
speed 9
system settings 9

T

time 9
 alerts 8
 settings 9
time zones 9
timer 1, 6
tones 9
training 1, 3, 6, 8
 plans 2, 3
troubleshooting 2, 11

U

unit ID 11
units of measure 9
updates, software 11
USB 11
 disconnecting 7
user data, deleting 7
user profile 8

V

vibration 9
VIRB remote 6
VO2 max. 4, 13

W

walking intervals 8
watch faces 6
watch mode 9, 11
weather 6
widgets 1, 5, 6
workouts 2, 3
 loading 3

Z

zones
 heart rate 4

time 9

www.garmin.com/support



1800 235 822



+43 (0) 820 220230



+ 32 2 672 52 54



0800 770 4960



1-866-429-9296



+385 1 5508 272
+385 1 5508 271



+420 221 985466
+420 221 985465



+ 45 4810 5050



+ 358 9 6937 9758



+ 331 55 69 33 99



+ 39 02 36 699699



(+52) 001-855-792-7671



0800 427 652



0800 0233937



+47 815 69 555



00800 4412 454
+44 2380 662 915



+35 1214 447 460



+386 4 27 92 500



0861 GARMIN (427 646)
+27 (0)11 251 9800



+34 93 275 44 97



+ 46 7744 52020



+886 2 2642-9199 ext 2



0808 238 0000
+44 870 850 1242



+49 (0) 89 858364880
zum Ortstarif - Mobilfunk
kann abweichen



913-397-8200
1-800-800-1020

