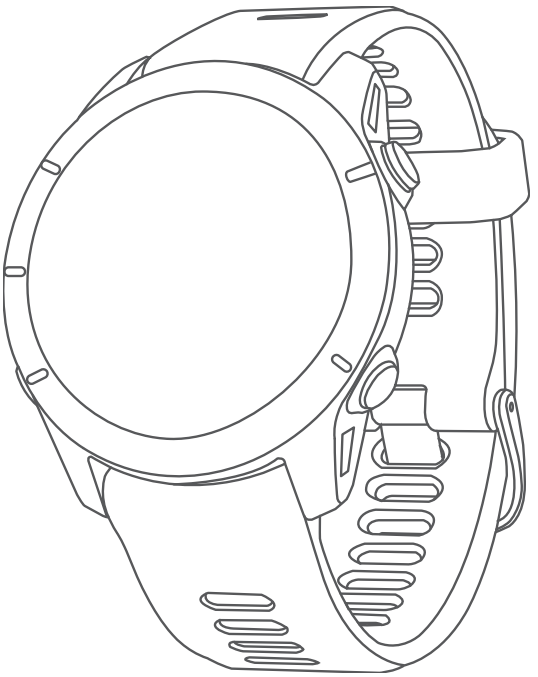
GARMIN®



# FORERUNNER® 255 SERIES

## Owner's Manual

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# 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.

## Setting Up Your Watch

To take full advantage of the Forerunner features, complete these tasks.

- Pair the Forerunner watch with your phone using the Garmin Connect™ app (*Pairing Your Phone*, page 71).
- Set up Wi-Fi® networks (*Connecting to a Wi-Fi Network*, page 73).
- Set up safety features (*Safety and Tracking Features*, page 76).
- Set up music (*Music*, page 67).
- Set up your Garmin Pay™ wallet (*Setting Up Your Garmin Pay Wallet*, page 33).

## Overview




**① LIGHT**

- Press to turn the watch on.
- Press to turn the backlight on and off.
- Hold to view the controls menu for quick access to frequently used functions.

**② UP**

- Press to scroll through the glances, data screens, options, and settings.
- Hold to view the menu.
- Hold to manually change sports during an activity.

**③ DOWN**

- Press to scroll through the glances, data screens, options, and settings.
- Hold to open the music controls (*Music*, page 67).

**④ BACK**

- Press to return to the previous screen.
- Press to record a lap, rest, or transition during an activity.

**⑤ START · STOP**

- Press to start and stop the activity timer.
- Press to choose an option or to acknowledge a message.

## GPS Status and Status Icons

For outdoor activities, the status ring turns green when GPS is ready. A flashing icon means the watch is searching for a signal. A solid icon means the signal was found or the sensor is connected.

| GPS | GPS status |
|---|---|
|  | Battery status |
|  | Phone connection status |
|  | Wi-Fi technology status (Forerunner music watches only) |
|  | Heart rate status |
|  | Running Dynamics Pod status |
|  | Speed and cadence sensor status |
|  | Bike lights status |
|  | Bike radar status |
|  | Extended display mode status |
|  | Power meter status |
|  | tempe™ sensor status |
|  | VIRB® camera status |

## Using the Watch

- Hold **LIGHT** to view the controls menu (*Controls*, page 30).
- From the watch face, press **UP** or **DOWN** to scroll through the glance loop (*Glances*, page 14).
- From the watch face, press **START** to start an activity or open an app (*Activities and Apps*, page 2).
- Hold **UP** to customize the watch face (*Customizing the Watch Face*, page 14), adjust settings (*System Settings*, page 88), pair wireless sensors (*Pairing Your Wireless Sensors*, page 58), and more.

# Activities and Apps

Your watch can be used for indoor, outdoor, athletic, and fitness activities. When you start an activity, the watch displays and records sensor data. You can create custom activities or new activities based on default activities (*Creating a Custom Activity*, page 13). When you finish your activities, you can save and share them with the Garmin Connect community.

You can also add Connect IQ™ activities and apps to your watch using the Connect IQ app (*Connect IQ Features*, page 75).

For more information about activity tracking and fitness metric accuracy, go to garmin.com/ataccuracy.

## Starting an Activity

When you start an activity, GPS turns on automatically (if required).

1. Press **START**.
2. Select an option:
   - Select an activity from your favorites.
   - Select , and select an activity from the extended activity list.
3. If the activity requires GPS signals, go outside to an area with a clear view of the sky, and wait until the watch is ready.

   The watch is ready after it establishes your heart rate, acquires GPS signals (if required), and connects to your wireless sensors (if required).
4. Press **START** to start the activity timer.

   The watch records activity data only while the activity timer is running.

### Tips for Recording Activities

- Charge the watch before starting an activity (*Charging the Watch*, page 90).
- Press **BACK** to record laps, start a new set or pose, or advance to the next workout step.
- Press **UP** or **DOWN** to view additional data screens.
- During an activity, hold **UP**, and select **Change Sport** to transition to a different activity type.

  When your activity includes two or more sports, it is recorded as a multisport activity.

### Stopping an Activity

1. Press **STOP**.
2. Select an option:
   - To resume your activity, select **Resume**.
   - To save the activity and view the details, select **Save**, press **START**, and select an option.

     **NOTE:** After you save the activity, you can enter self-evaluation data (*Evaluating an Activity*, page 4).
   - To suspend your activity and resume it at a later time, select **Resume Later**.
   - To mark a lap, select **Lap**.
   - To navigate back to the starting point of your activity along the path you traveled, select **Back to Start** > **TracBack**.

     **NOTE:** This feature is available only for activities that use GPS.
   - To navigate back to the starting point of your activity by the most direct path, select **Back to Start** > **Straight Line**.

     **NOTE:** This feature is available only for activities that use GPS.
   - To measure the difference between your heart rate at the end of the activity and your heart rate two minutes later, select **Recovery Heart Rate**, and wait while the timer counts down.
   - To discard the activity, select **Discard**.

   **NOTE:** After stopping the activity, the watch saves it automatically after 30 minutes.

### Evaluating an Activity

Before you can evaluate an activity, you must enable the self-evaluation setting on your Forerunner watch (*Enabling Self Evaluation*, page 46).

**NOTE:** This feature is not available for all activities.

1. After you complete an activity, select **Save** (*Stopping an Activity*, page 3).
2. Select a number that corresponds with your perceived effort.

   **NOTE:** You can select » to skip the self evaluation.
3. Select how you felt during the activity.

You can view evaluations in the Garmin Connect app.

## Outdoor Activities

The Forerunner device comes preloaded with outdoor activities, such as running and cycling. GPS is turned on for outdoor activities. You can add new activities based on default activities, such as walking or rowing. You can also add custom activities to your device (*Creating a Custom Activity*, page 13).

## Going for a Run

The first fitness activity you record on your watch can be a run, ride, or any outdoor activity. You may need to charge the watch before starting the activity (*Charging the Watch*, page 90).

The device records activity data only while the activity timer is running.

1. Press **START**, and select an activity.
2. Go outside, and wait while the watch locates satellites.
3. Press **START**.
4. Go for a run.




**NOTE:** On a Forerunner music watch, hold DOWN while in an activity to open the music controls (*Music Playback Controls*, page 70).

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




**NOTE:** For more run options, see *Stopping an Activity*, page 3.

## Going for a Track Run

Before you go for a track run, make sure you are running on a standard-shape, 400 m track.

You can use the track run activity to record your outdoor track data, including distance in meters and lap splits.

1. Stand on the outdoor track.
2. From the watch face, press **START**.
3. Select **Track Run**.
4. Wait while the watch locates satellites.
5. If you are running in lane 1, skip to step 11.
6. Press **UP**.
7. Select the activity settings.
8. Select **Lane Number**.
9. Select a lane number.
10. Press **BACK** twice to return to the activity timer.
11. Press **START**.
12. Run around the track.

    After you run 3 laps, your watch records the track dimensions and calibrates your track distance.
13. After you complete your activity, press **STOP**, and select **Save**.

### Tips for Recording a Track Run

- Wait until the GPS status indicator turns green before starting a track run.
- During your first run on an unfamiliar track, run for a minimum of 3 laps to calibrate your track distance.

  You should run slightly past your starting point to complete the lap.
- Run each lap in the same lane.

  **NOTE:** The default Auto Lap® distance is 1600 m, or 4 laps around the track.
- If you are running in a lane other than lane 1, set the lane number in the activity settings.

## Recording an Ultra Run Activity

1. Press **START**.
2. Select **Ultra Run**.
3. Press **START** to start the activity timer.
4. Start running.
5. Press **BACK** to record a lap and start the rest timer.

   **NOTE:** You can configure the Lap Key setting to record a lap and start the rest timer, start the rest timer only, or record a lap only (*Activities and App Settings*, page 80).
6. When you are done resting, press **BACK** to resume running.
7. Press **UP** or **DOWN** to view additional data pages (optional).
8. After you complete your activity, press **STOP**, and select **Save**.

### Triathlon Training

When you participate in a triathlon, you can use the triathlon activity to quickly transition to each sport segment, to time each segment, and to save the activity.

1. Press **START**.
2. Select **Triathlon**.
3. Press **START** to start the activity timer.
4. Press **BACK** at the beginning and end of each transition.

   The transition feature is on by default, and the transition time is recorded separately from the activity time. The transition feature can be turned on or off in the triathlon activity settings. If transitions are turned off, press BACK to change sports.
5. After you complete your activity, press **STOP**, and select **Save**.

### Creating a Multisport Activity

1. Press **START**.
2. Select **Add** > **Multisport**.
3. Select a multisport activity type, or enter a custom name.

   Duplicate activity names include a number. For example, Triathlon(2).
4. Select two or more activities.
5. Select an option:
   - Select an option to customize specific activity settings. For example, you can select whether to include transitions.
   - Select **Done** to save and use the multisport activity.
6. Select ✓ to add the activity to your list of favorites.

### Using an eBike

Before you can use a compatible eBike, such as a Shimano STEPS™ eBike, you must pair it with your Forerunner device (*Pairing Your Wireless Sensors*, page 58).

### Viewing Your Ski Runs

Your watch records the details of each downhill skiing or snowboarding run using the auto run feature. This feature is turned on by default for downhill skiing and snowboarding. It automatically records new ski runs based on your movement. The activity timer pauses when you stop moving downhill and when you are on a chairlift. The activity timer remains paused during the chairlift ride. You can start moving downhill to restart the activity timer. You can view run details from the paused screen or while the activity timer is running.

1. Start a skiing or snowboarding activity.
2. Hold **UP**.
3. Select **View Runs**.
4. Press **UP** and **DOWN** to view details of your last run, your current run, and your total runs.

   The run screens include time, distance traveled, maximum speed, average speed, and total descent.

## Swimming

***NOTICE***

The device is intended for surface swimming. Scuba diving with the device may damage the product and will void the warranty.

**NOTE:** The watch has wrist-based heart rate enabled for swim activities. The watch is also compatible with the HRM-Pro™ series, HRM-Swim™, and HRM-Tri™ accessories (*Chest Heart Rate While Swimming*, page 62). If both wrist-based heart rate and chest heart rate data are available, your watch uses the chest heart rate data.

## Swimming in Open Water

You can record swim data including distance, pace, and stroke rate. You can add data screens to the default open water swimming activity (*Customizing the Data Screens*, page 82).

1. Press **START**.
2. Select **Open Water**.
3. Go outside and wait while the watch locates satellites.
4. Press **START** to start the activity timer.
5. Start swimming.
6. Press **UP** or **DOWN** to view additional data pages (optional).
7. After you complete your activity, press **STOP**, and select **Save**.

## Going for a Pool Swim

1. Press **START**.
2. Select **Pool Swim**.
3. Select your pool size, or enter a custom size.
4. Press **START**.

   The device records swim data only while the activity timer is running.
5. Start your activity.

   The device automatically records swim intervals and lengths.
6. Press **UP** or **DOWN** to view additional data pages (optional).
7. When resting, press **BACK** to pause the activity timer.
8. Press **BACK** to restart the activity timer.
9. After you complete your activity, press **STOP**, and select **Save**.

## Tips for Swimming Activities

- Press **BACK** to record an interval during open water swimming.
- Before starting a pool swimming activity, follow the on-screen instructions to select your pool size or enter a custom size.

  The watch measures and records distance by completed pool lengths. The pool size must be correct to display accurate distance. The next time you start a pool swimming activity, the watch uses this pool size. You can hold **UP**, select the activity settings, and select **Pool Size** to change the size.
- For accurate results, swim the entire pool length, and use one stroke type for the entire length. Pause the activity timer when resting.
- Press **BACK** to record a rest during pool swimming (*Auto Rest and Manual Rest*, page 9).

  The watch automatically records swim intervals and lengths for pool swimming.
- To help the watch count your lengths, use a strong push off the wall and glide before your first stroke.
- When doing drills, you must either pause the activity timer or use the drill logging feature (*Training with the Drill Log*, page 9).

## Swim Terminology

**Length**: One trip down the pool.

**Interval**: One or more consecutive lengths. A new interval starts after a rest.

**Stroke**: A stroke is counted every time your arm wearing the watch completes a full cycle.

**Swolf**: Your swolf score is the sum of the time for one pool length and the number of strokes for that length. For example, 30 seconds plus 15 strokes equals a swolf score of 45. For open water swimming, swolf is calculated over 25 meters. Swolf is a measurement of swimming efficiency and, like golf, a lower score is better.

**Critical swim speed (CSS)**: Your CSS is the theoretical speed that you can maintain continuously without exhaustion. You can use your CSS to guide your training pace and monitor your improvement.

## Stroke Types

Stroke type identification is available only for pool swimming. Your stroke type is identified at the end of a length. Stroke types appear in your Garmin Connect account. You can also select stroke type as a custom data field (*Customizing the Data Screens*, page 82).

| | |
|---|---|
| Free | Freestyle |
| Back | Backstroke |
| Breast | Breaststroke |
| Fly | Butterfly |
| Mixed | More than one stroke type in an interval |
| Drill | Used with drill logging (*Training with the Drill Log*, page 9) |

## Auto Rest and Manual Rest

**NOTE:** Swim data is not recorded during a rest. To view other data screens, you can press UP or DOWN.

The auto rest feature is available only for pool swimming. Your watch automatically detects when you are resting, and the rest screen appears. If you rest for more than 15 seconds, the watch automatically creates a rest interval. When you resume swimming, the watch automatically starts a new swim interval. You can turn on the auto rest feature in the activity options (*Adding or Removing a Favorite Activity*, page 13).

**TIP:** For best results using the auto rest feature, minimize your arm motions while resting.

During a pool or open water swim activity, you can manually mark a rest interval by pressing BACK.

## Training with the Drill Log

The drill log feature is available only for pool swimming. You can use the drill log feature to manually record kick sets, one-arm swimming, or any type of swimming that is not one of the four major strokes.

1. During your pool swim activity, press **UP** or **DOWN** to view the drill log screen.
2. Press **BACK** to start the drill timer.
3. After you complete a drill interval, press **BACK**.

   The drill timer stops, but the activity timer continues to record the entire swim session.
4. Select a distance for the completed drill.

   Distance increments are based on the pool size selected for the activity profile.
5. Select an option:
   - To start another drill interval, press **BACK**.
   - To start a swim interval, press **UP** or **DOWN** to return to the swim training screens.

# Indoor Activities

The watch can be used for training indoors, such as running on an indoor track or using a stationary bike or indoor trainer. GPS is turned off for indoor activities.

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

**TIP:** Holding the handrails of the treadmill reduces accuracy.

When cycling with GPS turned off, speed and distance data are not available unless you have an optional sensor that sends speed and distance data to the watch, such as a speed or cadence sensor.

## Going for a Virtual Run

You can pair your watch with a compatible third-party app to transmit pace, heart rate, or cadence data.

1. Press **START**.
2. Select **Virtual Run**.
3. On your tablet, laptop, or phone, open the Zwift™ app or another virtual training app.
4. Follow the on-screen instructions to start a running activity and pair the devices.
5. Press **START** to start the activity timer.
6. After you complete your activity, press **STOP**, and select **Save**.

## Calibrating the Treadmill Distance

To record more accurate distances for your treadmill runs, you can calibrate the treadmill distance after you run at least 1.5 km (1 mi.) on a treadmill. If you use different treadmills, you can manually calibrate the treadmill distance on each treadmill or after each run.

1. Start a treadmill activity (*Starting an Activity*, page 3).
2. Run on the treadmill until your watch records at least 1.5 km (1 mi.).
3. After you finish the activity, press **STOP** to stop the activity timer.
4. Select an option:
   - To calibrate the treadmill distance the first time, select **Save**.
     The device prompts you to complete the treadmill calibration.
   - To manually calibrate the treadmill distance after the first-time calibration, select **Calibrate & Save** > ✔.
5. Check the treadmill display for the distance traveled, and enter the distance on your watch.

## Health Snapshot™

The Health Snapshot feature is an activity on your watch that records several key health metrics while you hold still for two minutes. It provides a glimpse of your overall cardiovascular status. The watch records metrics such as your average heart rate, stress level, and respiration rate. You can add the Health Snapshot activity to the list of your favorite activities (*Adding or Removing a Favorite Activity*, page 13).

## Recording a Strength Training Activity

You can record sets during a strength training activity. A set is multiple repetitions (reps) of a single move. You can create and find strength workouts using Garmin Connect and send them to your watch.

1. Press **START**.
2. Select **Strength**.

   The first time you record a strength training activity, you must select which wrist your watch is on.
3. Select a workout.

   **NOTE:** If you don't have any strength workouts downloaded to your watch, you can select **Free** > **START**, and go to step 6.
4. Press **DOWN** to view a list of workout steps (optional).

   **TIP:** While viewing workout steps, you can press START to view an animation of the selected exercise, if available.
5. Press **START** > **Do Workout** > **START** > **Start Workout** to start the set timer.
6. Start your first set.

   The device counts your reps. Your rep count appears when you complete at least four reps.

   **TIP:** The device can only count reps of a single move for each set. When you want to change moves, you should finish the set and start a new one.
7. Press **BACK** to finish the set.

   The watch displays the total reps for the set. After several seconds, the rest timer appears.
8. If necessary, edit the number of reps.

   **TIP:** You can also add the weight used for the set.
9. When you are done resting, press **BACK** to start your next set.
10. Repeat for each strength training set until your activity is complete.
11. After your last set, press **STOP** to stop the set timer.
12. Select **Stop Workout** > **Save**.

### Tips for Recording Strength Training Activities

- Do not look at the watch while performing reps.

  You should interact with the watch at the beginning and end of each set, and during rests.
- Focus on your form while performing reps.
- Perform bodyweight or free weight exercises.
- Perform reps with a consistent, wide range of motion.

  Each rep is counted when the arm wearing the watch returns to the starting position.

  **NOTE:** Leg exercises may not be counted.
- Turn on automatic set detection to start and stop your sets.
- Save and send your strength training activity to your Garmin Connect account.

  You can use the tools in your Garmin Connect account to view and edit activity details.

### Recording a HIIT Activity

You can use specialized timers to record a high-intensity interval training (HIIT) activity.

1. Press **START**.
2. Select **HIIT**.
3. Select an option:
   - Select **Free** to record an open, unstructured HIIT activity.
   - Select **HIIT Timers** (*HIIT Timers*, page 12).
   - Select **Workouts** to follow a saved workout.
4. If necessary, follow the on-screen instructions.
5. Press **START** to start your first round.

   The device displays a countdown timer and your current heart rate.
6. If necessary, press **BACK** to manually move to the next round or rest.
7. After you complete your activity, press **STOP**, and select **Save**.

#### HIIT Timers

You can use specialized timers to record a high-intensity interval training (HIIT) activity.

**AMRAP**: The AMRAP timer records as many rounds as possible during a set time period.

**EMOM**: The EMOM timer records a set number of moves every minute on the minute.

**Tabata**: The Tabata timer alternates between 20-second intervals of maximum effort and 10 seconds of rest.

**Custom**: You can set your move time, rest time, number of moves, and number of rounds.

### Using an Indoor Trainer

Before you can use a compatible indoor trainer, you must pair the trainer with your watch using ANT+® technology (*Pairing Your Wireless Sensors*, page 58).

You can use your watch with an indoor trainer to simulate resistance while following a course, ride, or workout. While using an indoor trainer, GPS is turned off automatically.

1. Press **START**.
2. Select **Bike Indoor**.
3. Hold **UP**.
4. Select **Smart Trainer Options**.
5. Select an option:
   - Select **Free Ride** to go for a ride.
   - Select **Follow Workout** to follow a saved workout (*Workouts*, page 37).
   - Select **Follow Course** to follow a saved course (*Courses*, page 53).
   - Select **Set Power** to set the target power value.
   - Select **Set Grade** to set the simulated grade value.
   - Select **Set Resistance** to set the resistance force applied by the trainer.
6. Press **START** to start the activity timer.

   The trainer increases or decreases resistance based on the elevation information in the course or ride.

## Customizing Activities and Apps

You can customize the activities and apps list, data screens, data fields, and other settings.

### Adding or Removing a Favorite Activity

The list of your favorite activities appears when you press **START** from the watch face, and it provides quick access to the activities you use most frequently. You can add or remove favorite activities at any time.

1. Hold **UP**.
2. Select **Activities & Apps**.

   Your favorite activities appear at the top of the list.
3. Select an option:
   - To add a favorite activity, select the activity, and select **Set as Favorite**.
   - To remove a favorite activity, select the activity, and select **Remove from Favorites**.

### Changing the Order of an Activity in the Apps List

1. Hold **UP**.
2. Select **Activities & Apps**.
3. Select an activity.
4. Select **Reorder**.
5. Press **UP** or **DOWN** to adjust the position of the activity in the apps list.

### Creating a Custom Activity

1. Press **START**.
2. Select **Add**.
3. Select an option:
   - Select **Copy Activity** to create your custom activity starting from one of your saved activities.
   - Select **Other** to create a new custom activity.
4. If necessary, select an activity type.
5. Select a name or enter a custom name.

   Duplicate activity names include a number, for example: Bike(2).
6. Select an option:
   - Select an option to customize specific activity settings. For example, you can customize the data screens or auto features.
   - Select **Done** to save and use the custom activity.
7. Select ✓ to add the activity to your list of favorites.

# Appearance

You can customize the appearance of the watch face and the quick access features in the glance loop and controls menu.

## Watch Face Settings

You can customize the appearance of the watch face by selecting the layout, colors, and additional data. You can also download custom watch faces from the Connect IQ store.

### Customizing the Watch Face

Before you can activate a Connect IQ watch face, you must install a watch face from the Connect IQ store (*Connect IQ Features*, page 75).

You can customize the watch face information and appearance, or activate an installed Connect IQ watch face.

1. From the watch face, hold **UP**.
2. Select **Watch Face**.
3. Press **UP** or **DOWN** to preview the watch face options.
4. Select **Add New** to scroll through additional pre-loaded watch faces.
5. Select **START** > **Apply** to activate a pre-loaded watch face or an installed Connect IQ watch face.
6. If using a pre-loaded watch face, select **START** > **Customize**.
7. Select an option:
   - To change the style of the numbers for the analog watch face, select **Dial**.
   - To change the style of the hands for the analog watch face, select **Hands**.
   - To change the style of the numbers for the digital watch face, select **Layout**.
   - To change the style of the seconds for the digital watch face, select **Seconds**.
   - To change the data that appears on the watch face, select **Data**.
   - To add or change an accent color for the watch face, select **Accent Color**.
   - To change the background color, select **Bkgd. Color**.
   - To save the changes, select **Done**.
8. To save all changes, select **Apply**.

## Glances

Your watch comes preloaded with glances that provide quick information (*Viewing the Glance Loop*, page 16). Some glances require a Bluetooth® connection to a compatible phone.

Some glances are not visible by default. You can add them to the glance loop manually (*Customizing the Glance Loop*, page 16).

| Name | Description |
| --- | --- |
| ABC | Displays combined altimeter, barometer, and compass information. |
| Body Battery™ | With all day wear, displays your current Body Battery level and a graph of your level for the last several hours (*Body Battery*, page 17). |
| Calendar | Displays upcoming meetings from your phone calendar. |
| Calories | Displays your calorie information for the current day. |
| Device usage | Displays the current software version and device usage statistics. |
| Floors climbed | Tracks your floors climbed and progress toward your goal. |
| Garmin® coach | Displays scheduled workouts when you select a Garmin coach adaptive training plan in your Garmin Connect account. The plan adjusts to your current level of fitness, coaching and schedule preferences, and race date. |
| Health Snapshot | Displays summaries of your saved Health Snapshot sessions (*Health Snapshot™*, page 10). |
| Heart rate | Displays your current heart rate in beats per minute (bpm) and a graph of your average resting heart rate (RHR). |
| History | Displays your activity history and a graph of your recorded activities. |
| HRV Status | Displays your seven-day average of your overnight heart rate variability. |
| Intensity minutes | Tracks your time spent participating in moderate to vigorous activities, your weekly intensity minutes goal, and progress toward your goal. |
| Last activity | Displays a brief summary of your last recorded activity. |
| Last ride<br>Last run<br>Last swim | Displays a brief summary of your last recorded activity and history of the specified sport. |
| Music controls | Provides music player controls for your phone or watch music. |
| Notifications | Alerts you to incoming calls, texts, social network updates, and more, based on your phone notification settings (*Enabling Bluetooth Notifications*, page 71). |
| Performance | Displays performance measurements that help you track and understand your training activities and race performances (*Performance Measurements*, page 20). |
| Primary race | Displays the race event you designate as the primary race in your Garmin Connect calendar (*Race Calendar and Primary Race*, page 35). |
| Pulse oximeter | Allows you to take a manual pulse oximeter reading (*Getting Pulse Oximeter Readings*, page 52). If you are too active for the watch to determine your pulse oximeter reading, the measurements are not recorded. |
| Race calendar | Displays your upcoming race events set in your Garmin Connect calendar (*Race Calendar and Primary Race*, page 35). |
| RCT camera controls | Allows you to manually take a photo, record a video clip, and customize settings (*Using the Varia Camera Controls*, page 63). |
| Respiration | Your current respiration rate in breaths per minute and seven-day average. You can do a breathing activity to help you relax. |
| Sleep | Displays total sleep time, a sleep score, and sleep stage information for the previous night. |

| Name | Description |
| --- | --- |
| Steps | Tracks your daily step count, step goal, and data for previous days. |
| Stress | Displays your current stress level and a graph of your stress level. You can do a breathing activity to help you relax. If you are too active for the watch to determine your stress level, stress measurements are not recorded. |
| Sunrise and sunset | Displays sunrise, sunset, and civil twilight times. |
| Training status | Displays your current training status and training load, which shows you how your training affects your fitness level and performance (*Training Status*, page 25). |
| Weather | Displays the current temperature and weather forecast. |
| Women's health | Displays your current cycle or pregnancy tracking status. You can view and log your daily symptoms. |

## Viewing the Glance Loop

Glances provide quick access to health data, activity information, built-in sensors, and more. When you pair your watch, you can view data from your phone, such as notifications, weather, and calendar events.

1 Press **UP** or **DOWN**.

The watch scrolls through the glance loop and displays summary data for each glance.




2 Press **START** to view more information.

3 Select an option:

- Press **DOWN** to view details about a glance.
- Press **START** to view additional options and functions for a glance.

## Customizing the Glance Loop

1 Hold **UP**.

2 Select **Appearance** > **Glances**.

3 Select an option:

- To change the location of a glance in the loop, select a glance, and press **UP** or **DOWN**.
- To remove a glance from the loop, select a glance, and select .
- To add a glance to the loop, select **Add**, and select a glance.

  **TIP:** You can select **Create Folder** to create folders that contain multiple glances (*Creating Glance Folders*, page 17).

### Creating Glance Folders

You can customize the glance loop to create folders of related glances.

1. Hold **UP**.
2. Select **Appearance** > **Glances** > **Add** > **Create Folder**.
3. Select the glances to include in the folder, and select **Done**.

   **NOTE:** If the glances are already in the glance loop, you can move or copy them into the folder.
4. Select or enter a name for the folder.
5. Select an icon for the folder.
6. If necessary, select an option:
   - To edit the folder, scroll to the folder in the glance loop, and hold **UP**.
   - To edit the glances in the folder, open the folder and select **Edit** (*Customizing the Glance Loop*, page 16).

## Body Battery

Your watch analyzes your heart rate variability, stress level, sleep quality, and activity data to determine your overall Body Battery level. Like a gas gauge on a car, it indicates your amount of available reserve energy. The Body Battery level range is from 5 to 100, where 5 to 25 is very low reserve energy, 26 to 50 is low reserve energy, 51 to 75 is medium reserve energy, and 76 to 100 is high reserve energy.

You can sync your watch with your Garmin Connect account to view your most up-to-date Body Battery level, long-term trends, and additional details (*Tips for Improved Body Battery Data*, page 18).

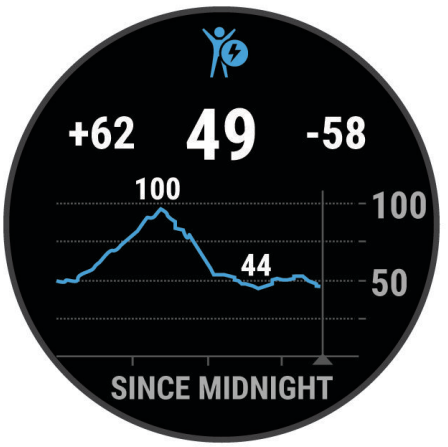
### Viewing the Body Battery Glance

The Body Battery glance displays your current Body Battery level and a graph of your Body Battery level for the last several hours.

1 Press **UP** or **DOWN** to view the Body Battery glance.

**NOTE:** You may need to add the glance to your glance loop (*Customizing the Glance Loop*, page 16).

2 Press **START** to view a graph of your body battery level since midnight.




3 Press **DOWN** to view a combined graph of your Body Battery and stress levels.

Blue bars indicate periods of rest. Orange bars indicate periods of stress. Gray bars indicate times when you were too active to determine your stress level.




### Tips for Improved Body Battery Data

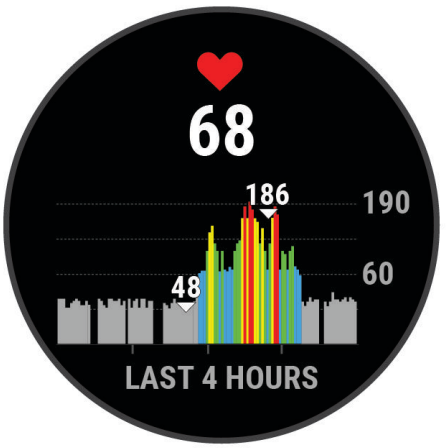
- For more accurate results, wear the watch while sleeping.
- Good sleep charges your Body Battery.
- Strenuous activity and high stress can cause your Body Battery to drain more quickly.
- Food intake, as well as stimulants like caffeine, has no impact on your Body Battery.

## Viewing the Heart Rate Glance

1 From the watch face, press **UP** or **DOWN** to view the heart rate glance.

**NOTE:** You may need to add the glance to your glance loop (*Customizing the Glance Loop*, page 16).

2 Press **START** to view your current heart rate in beats per minute (bpm) and a graph of your heart rate for the last 4 hours.




3 Press **DOWN** to view your average resting heart rate values for the last 7 days.

## Viewing the Weather Glance

Weather requires a Bluetooth connection to a compatible phone.

1 From the watch face, select **UP** or **DOWN** to view the weather glance.

2 Select **START** to view weather details.

3 Select **UP** or **DOWN** to view hourly, daily, and weather trend data.

## Women's Health

### Menstrual Cycle Tracking

Your menstrual cycle is an important part of your health. You can use your watch to log physical symptoms, sex drive, sexual activity, ovulation days, and more. You can learn more and set up this feature in the Health Stats settings of the Garmin Connect app.

- Menstrual cycle tracking and details
- Physical and emotional symptoms
- Period and fertility predictions
- Health and nutrition information

**NOTE:** You can use the Garmin Connect app to add and remove glances.

### Pregnancy Tracking

The pregnancy tracking feature displays weekly updates on your pregnancy and provides health and nutrition information. You can use your watch to log physical and emotional symptoms, blood glucose readings, and baby movement. You can learn more and set up this feature in the Health Stats settings of the Garmin Connect app.

## Using the Stress Level Glance

The stress level glance displays your current stress level and a graph of your stress level for the last several hours. It can also guide you through a breathing activity to help you relax (*Customizing the Glance Loop*, page 16).

1. While you are sitting or inactive, press **UP** or **DOWN** to view the stress level glance.
2. Press **START**.
3. Select an option:
   - Press **DOWN** to view additional details.

     **TIP:** Blue bars indicate periods of rest. Orange bars indicate periods of stress. Gray bars indicate times when you were too active to determine your stress level.
   - Press **START** to start a **Breathwork** activity.

## Performance Measurements

These performance measurements are estimates that can help you track and understand your training activities and race performances. The measurements require a few activities using wrist-based heart rate or a compatible chest heart rate monitor. Cycling performance measurements require a heart rate monitor and a power meter.

These estimates are provided and supported by Firstbeat Analytics™. For more information, go to www.garmin.com/performance-data/running/.

**NOTE:** The estimates may seem inaccurate at first. The watch requires you to complete a few activities to learn about your 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 (*About VO2 Max. Estimates*, page 21).

**Predicted race times**: The watch uses the VO2 max. estimate and your training history to provide a target race time based on your current state of fitness (*Viewing Your Predicted Race Times*, page 22).

**HRV status**: The watch analyzes your wrist heart rate readings while you are sleeping to determine your heart rate variability (HRV) status based on your personal, long-term HRV averages (*Heart Rate Variability Status*, page 23).

**Performance condition**: Your performance condition is a real-time assessment after 6 to 20 minutes of activity. It can be added as a data field so you can view your performance condition during the rest of your activity. It compares your real-time condition to your average fitness level (*Performance Condition*, page 23).

**Lactate threshold**: Lactate threshold requires a chest heart rate monitor. Lactate threshold is the point where your muscles start to rapidly fatigue. Your watch measures your lactate threshold level using heart rate data and pace (*Lactate Threshold*, page 24).

### 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. The Forerunner device requires wrist-based heart rate or a compatible chest heart rate monitor to display your VO2 max. estimate. The device has separate VO2 max. estimates for running and cycling. You must run either outside with GPS or ride with a compatible power meter at a moderate level of intensity for several minutes to get an accurate VO2 max. estimate.

On the device, your VO2 max. estimate appears as a number, description, and position on the color gauge. On your Garmin Connect account, you can view additional details about your VO2 max. estimate, such as where it ranks for your age and sex.




| | |
|---|---|
| Purple | Superior |
| Blue | Excellent |
| Green | Good |
| Orange | Fair |
| Red | Poor |

VO2 max. data is provided by Firstbeat Analytics. VO2 max. analysis is provided with permission from The Cooper Institute®. For more information, see the appendix (*VO2 Max. Standard Ratings*, page 107), and go to www.CooperInstitute.org.

### Getting Your VO2 Max. Estimate for Running

This feature requires wrist-based heart rate or a compatible chest heart rate monitor. If you are using a chest heart rate monitor, you must put it on and pair it with your watch (*Pairing Your Wireless Sensors*, page 58).

For the most accurate estimate, complete the user profile setup (*Setting Up Your User Profile*, page 65), and set your maximum heart rate (*Setting Your Heart Rate Zones*, page 66). The estimate may seem inaccurate at first. The watch requires a few runs to learn about your running performance. You can disable VO2 max. recording for ultra run and trail run activities if you do not want those run types to affect your VO2 max. estimate (*Turning Off VO2 Max. Recording*, page 22).

1. Start a running activity.
2. Run for at least 10 minutes outdoors.
3. After your run, select **Save**.
4. Press **UP** or **DOWN** to scroll through the performance measurements.

### Getting Your VO2 Max. Estimate for Cycling

This feature requires a power meter and wrist-based heart rate or a compatible chest heart rate monitor. The power meter must be paired with your watch (*Pairing Your Wireless Sensors*, page 58). If you are using a chest heart rate monitor, you must put it on and pair it with your watch.

For the most accurate estimate, complete the user profile setup (*Setting Up Your User Profile*, page 65) and set your maximum heart rate (*Setting Your Heart Rate Zones*, page 66). The estimate may seem inaccurate at first. The watch requires a few rides to learn about your cycling performance.

1. Start a cycling activity.
2. Ride at a steady, high intensity for at least 20 minutes.
3. After your ride, select **Save**.
4. Press **UP** or **DOWN** to scroll through the performance measurements.

### Turning Off VO2 Max. Recording

You can disable VO2 max. recording for ultra run and trail run activities if you do not want these run types to affect your VO2 max. estimate (*About VO2 Max. Estimates*, page 21).

1. Hold **UP**.
2. Select **Activities & Apps**.
3. Select **Trail Run** or **Ultra Run**.
4. Select the activity settings.
5. Select **Record VO2 Max.** > **Off**.

### Viewing Your Predicted Race Times

For the most accurate estimate, complete the user profile setup (*Setting Up Your User Profile*, page 65), and set your maximum heart rate (*Setting Your Heart Rate Zones*, page 66).

Your watch uses the VO2 max. estimate (*About VO2 Max. Estimates*, page 21) and your training history to provide a target race time. The watch analyzes several weeks of your training data to refine the race time estimates.

**TIP:** If you have more than one Garmin device, you can specify your primary training device in the Garmin Connect app, which allows your watch to sync activities, history, and data from other devices (*Syncing Activities and Performance Measurements*, page 24).

1. From the watch face, press **UP** or **DOWN** to view the performance glance.
2. Press **START** to view glance details.
3. Press **UP** or **DOWN** to view a predicted race time.




4. Press **START** to view predictions for other distances.

   **NOTE:** The predictions may seem inaccurate at first. The watch requires a few runs to learn about your running performance.

### Heart Rate Variability Status

Your watch analyzes your wrist heart rate readings while you are sleeping to determine your heart rate variability (HRV). Training, physical activity, sleep, nutrition, and healthy habits all impact your heart rate variability. HRV values can vary widely based on gender, age, and fitness level. A balanced HRV status may indicate positive signs of health such as good training and recovery balance, greater cardiovascular fitness, and resilience to stress. An unbalanced or poor status may be a sign of fatigue, greater recovery needs, or increased stress. For best results, you should wear the watch while sleeping. The watch requires three weeks of consistent sleep data to display your heart rate variability status.




| Color Zone | Status | Description |
|---|---|---|
| Green | Balanced | Your seven-day average HRV is within your baseline range. |
| Orange | Unbalanced | Your seven-day average HRV is above or below your baseline range. |
| Red | Low | Your seven-day average HRV is well below your baseline range. |
| No color | Poor<br>No status | Your HRV values are averaging well below the normal range for your age.<br>No status means that there is insufficient data to generate a seven-day average. |

You can sync your watch with your Garmin Connect account to view your current heart rate variability status, trends, and educational feedback.

### Performance Condition

As you complete your activity, such as running or cycling, the performance condition feature analyzes your pace, heart rate, and heart rate variability to make a real-time assessment of your ability to perform compared to your average fitness level. It is approximately your real-time percentage deviation from your baseline VO2 max. estimate.

Performance condition values range from -20 to +20. After the first 6 to 20 minutes of your activity, the device displays your performance condition score. For example, a score of +5 means that you are rested, fresh, and capable of a good run or ride. You can add performance condition as a data field to one of your training screens to monitor your ability throughout the activity. Performance condition can also be an indicator of fatigue level, especially at the end of a long training run or ride.

**NOTE:** The device requires a few runs or rides with a heart rate monitor to get an accurate VO2 max. estimate and learn about your running or riding ability (*About VO2 Max. Estimates*, page 21).

### Viewing Your Performance Condition

This feature requires wrist-based heart rate or a compatible chest heart rate monitor.

1. Add **Performance Condition** to a data screen (*Customizing the Data Screens*, page 82).
2. Go for a run or ride.

   After 6 to 20 minutes, your performance condition appears.
3. Scroll to the data screen to view your performance condition throughout the run or ride.

### Lactate Threshold

Lactate threshold is the exercise intensity at which lactate (lactic acid) starts to accumulate in the bloodstream. In running, this intensity level is estimated in terms of pace, heart rate, or power. When a runner exceeds the threshold, fatigue starts to increase at an accelerating rate. For experienced runners, the threshold occurs at approximately 90% of their maximum heart rate and between 10 km and half-marathon race pace. For average runners, the lactate threshold often occurs well below 90% of maximum heart rate. Knowing your lactate threshold can help you determine how hard to train or when to push yourself during a race.

If you already know your lactate threshold heart rate value, you can enter it in your user profile settings (*Setting Your Heart Rate Zones*, page 66). You can turn on the **Auto Detection** feature to automatically record your lactate threshold during an activity.

### Performing a Guided Test to Determine Your Lactate Threshold

This feature requires a Garmin chest heart rate monitor. Before you can perform the guided test, you must put on a heart rate monitor and pair it with your device (*Pairing Your Wireless Sensors*, page 58).

The device uses your user profile information from the initial setup and your VO2 max. estimate to estimate your lactate threshold. The device will automatically detect your lactate threshold during runs at a steady, high intensity with heart rate.

**TIP:** The device requires a few runs with a chest heart rate monitor to get an accurate maximum heart rate value and VO2 max. estimate. If you are having trouble getting a lactate threshold estimate, try manually lowering your maximum heart rate value.

1. From the watch face, select **START**.
2. Select an outdoor running activity.

   GPS is required to complete the test.
3. Hold **UP**.
4. Select **Training** > **Lactate Threshold Guided Test**.
5. Start the timer, and follow the on-screen instructions.

   After you begin your run, the device displays each step duration, the target, and current heart rate data. A message appears when the test is complete.
6. After you complete the guided test, stop the timer and save the activity.

   If this is your first lactate threshold estimate, the device prompts you to update your heart rate zones based on your lactate threshold heart rate. For each additional lactate threshold estimate, the device prompts you to accept or decline the estimate.

### Syncing Activities and Performance Measurements

You can sync activities and performance measurements from other Garmin devices to your Forerunner watch using your Garmin Connect account. This allows your watch to more accurately reflect your training status and fitness. For example, you can record a ride with an Edge® bike computer, and view your activity details and overall training load on your Forerunner watch.

Sync your Forerunner watch and other Garmin devices to your Garmin Connect account.

**TIP:** You can set a primary training device and primary wearable in the Garmin Connect app (*Unified Training Status*, page 35).

Recent activities and performance measurements from your other Garmin devices appear on your Forerunner watch.

### Turning Off Performance Notifications

Some performance notifications appear upon completion of your activity. Some performance notifications appear during an activity or when you achieve a new performance measurement, such as a new VO2 max. estimate. You can turn off the performance condition feature to avoid some of these notifications.

1. Hold **UP**.
2. Select **System** > **Performance Condition**.

## Training Status

These measurements are estimates that can help you track and understand your training activities. The measurements require a few activities using wrist-based heart rate or a compatible chest heart rate monitor. Cycling performance measurements require a heart rate monitor and a power meter.

These estimates are provided and supported by Firstbeat Analytics. For more information, go to www.garmin.com/performance-data/running/.




**NOTE:** The estimates may seem inaccurate at first. The watch requires you to complete a few activities to learn about your performance.

**Training status**: Training status shows you how your training affects your fitness and performance. Your training status is based on changes to your VO2 max., acute load, and HRV status over an extended time period.

**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 (*About VO2 Max. Estimates*, page 21). Your watch displays heat and altitude corrected VO2 max. values when you are acclimating to high heat environments or high altitude.

**Acute load**: Acute load is a weighted sum of your recent exercise load scores including exercise duration and intensity. (*Acute Load*, page 26).

**Training load focus**: Your watch analyzes and distributes your training load into different categories based on the intensity and structure of each activity recorded. Training load focus includes the total load accumulated per category, and the focus of the training. Your watch displays your load distribution over the last 4 weeks (*Training Load Focus*, page 27).

**Recovery time**: The recovery time displays how much time remains before you are fully recovered and ready for the next hard workout (*Recovery Time*, page 28).

### Training Status Levels

Training status shows you how your training affects your fitness level and performance. Your training status is based on changes to your VO2 max., acute load, and HRV status over an extended time period. You can use your training status to help plan future training and continue improving your fitness level.

**No Status**: The watch needs you to record multiple activities over two weeks, with VO2 max. results from running or cycling, to determine your training status.

**Detraining**: You have a break in your training routine or you are training much less than usual for a week or more. Detraining means that you are unable to maintain your fitness level. You can try increasing your training load to see improvement.

**Recovery**: Your lighter training load is allowing your body to recover, which is essential during extended periods of hard training. You can return to a higher training load when you feel ready.

**Maintaining**: Your current training load is enough to maintain your fitness level. To see improvement, try adding more variety to your workouts or increasing your training volume.

**Productive**: Your current training load is moving your fitness level and performance in the right direction. You should plan recovery periods into your training to maintain your fitness level.

**Peaking**: You are in ideal race condition. Your recently reduced training load is allowing your body to recover and fully compensate for earlier training. You should plan ahead, since this peak state can only be maintained for a short time.

**Overreaching**: Your training load is very high and counterproductive. Your body needs a rest. You should give yourself time to recover by adding lighter training to your schedule.

**Unproductive**: Your training load is at a good level, but your fitness is decreasing. Try focusing on rest, nutrition, and stress management.

**Strained**: There is imbalance between your recovery and training load. It is a normal result after a hard training or major event. Your body may be struggling to recover, so you should pay attention to your overall health.

### Tips for Getting Your Training Status

The training status feature depends on updated assessments of your fitness level, including at least one VO2 max. measurement per week. Your VO2 max. estimate is updated after outdoor runs or rides with power during which your heart rate reached at least 70% of your maximum heart rate for several minutes. Indoor run activities do not generate a VO2 max. estimate in order to preserve the accuracy of your fitness level trend. You can disable VO2 max. recording for ultra run and trail run activities if you do not want those run types to affect your VO2 max. estimate (*Turning Off VO2 Max. Recording*, page 22).

To get the most out of the training status feature, you can try these tips.

- At least one time per week, run or ride outdoors with a power meter, and reach a heart rate higher than 70% of your maximum heart rate for at least 10 minutes.

  After using the watch for one week, your training status should be available.
- Record all of your fitness activities on your primary training device, allowing your watch to learn about your performance (*Syncing Activities and Performance Measurements*, page 24).
- Wear the watch consistently while you sleep, to continue generating an up-to-date HRV status. Having a valid HRV status can help maintain a valid training status when you do not have as many activities with VO2 max. measurements.

### Acute Load

Acute load is a weighted sum of your excess post-exercise oxygen consumption (EPOC) for the last several days. The gauge indicates whether your current load is low, optimal, high, or very high. The optimal range is based on your individual fitness level and training history. The range adjusts as your training time and intensity increase or decrease.

### Training Load Focus

In order to maximize performance and fitness gains, training should be distributed across three categories: low aerobic, high aerobic, and anaerobic. Training load focus shows you how much of your training is currently in each category and provides training targets. Training load focus requires at least 7 days of training to determine if your training load is low, optimal, or high. After 4 weeks of training history, your training load estimate will have more detailed target information to help you balance your training activities.

**Below targets**: Your training load is lower than optimal in all intensity categories. Try increasing the duration or frequency of your workouts.

**Low aerobic shortage**: Try adding more low aerobic activities to provide recovery and balance for your higher intensity activities.

**High aerobic shortage**: Try adding more high aerobic activities to help improve your lactate threshold and VO2 max. over time.

**Anaerobic shortage**: Try adding a few more intense, anaerobic activities to improve your speed and anaerobic capacity over time.

**Balanced**: Your training load is balanced and provides all-around fitness benefits as you continue training.

**Low aerobic focus**: Your training load is mostly low aerobic activity. This provides a solid foundation and prepares you for adding more intense workouts.

**High aerobic focus**: Your training load is mostly high aerobic activity. These activities help to improve lactate threshold, VO2 max., and endurance.

**Anaerobic focus**: Your training load is mostly intense activity. This leads to rapid fitness gains, but should be balanced with low aerobic activities.

**Above targets**: Your training load is higher than optimal, and you should consider scaling back the duration and frequency of your workouts.

### Load Ratio

Load ratio is the ratio of your acute (short-term) training load to your chronic (long-term) training load. It's helpful for tracking your training load changes.

| Status | Value | Description |
|---|---|---|
| No Status | None | Load ratio will be visible after 2 weeks of training. |
| **Low** | Lower than 0.8 | Your short-term training load is lower than your long-term training load. |
| **Optimal** | 0.8 to 1.4 | The short-term and long-term training loads are balanced. The optimal range is based on your individual fitness level and training history. |
| **High** | 1.5 to 1.9 | Your short-term training load is higher than your long-term training load. |
| **Very High** | 2.0 or higher | Your short-term training load is significantly higher than your long-term training load. |

## About Training Effect

Training Effect measures the impact of an activity on your aerobic and anaerobic fitness. Training Effect accumulates during the activity. As the activity progresses, the Training Effect value increases. Training Effect is determined by your user profile information and training history, and heart rate, duration, and intensity of your activity. There are seven different Training Effect labels to describe the primary benefit of your activity. Each label is color coded and corresponds to your training load focus (*Training Load Focus*, page 27). Each feedback phrase, for example, "Highly Impacting VO2 Max." has a corresponding description in your Garmin Connect activity details.

Aerobic Training Effect uses your heart rate to measure how the accumulated intensity of an exercise affects your aerobic fitness and indicates if the workout had a maintaining or improving effect on your fitness level. Your excess post-exercise oxygen consumption (EPOC) accumulated during exercise is mapped to a range of values that account for your fitness level and training habits. Steady workouts at moderate effort or workouts involving longer intervals (>180 sec) have a positive impact on your aerobic metabolism and result in an improved aerobic Training Effect.

Anaerobic Training Effect uses heart rate and speed (or power) to determine how a workout affects your ability to perform at very high intensity. You receive a value based on the anaerobic contribution to EPOC and the type of activity. Repeated high-intensity intervals of 10 to 120 seconds have a highly beneficial impact on your anaerobic capability and result in an improved anaerobic Training Effect.

You can add Aerobic Training Effect and Anaerobic Training Effect as data fields to one of your training screens to monitor your numbers throughout the activity.

| Training Effect | Aerobic Benefit | Anaerobic Benefit |
|---|---|---|
| From 0.0 to 0.9 | No benefit. | No benefit. |
| From 1.0 to 1.9 | Minor benefit. | Minor benefit. |
| From 2.0 to 2.9 | Maintains your aerobic fitness. | Maintains your anaerobic fitness. |
| From 3.0 to 3.9 | Impacts your aerobic fitness. | Impacts your anaerobic fitness. |
| From 4.0 to 4.9 | Highly impacts your aerobic fitness. | Highly impacts your anaerobic fitness. |
| 5.0 | Overreaching and potentially harmful without enough recovery time. | Overreaching and potentially harmful without enough recovery time. |

Training Effect technology is provided and supported by Firstbeat Analytics. For more information, go to www.firstbeat.com.

## Recovery Time

You can use your Garmin device with wrist-based heart rate or a compatible chest heart rate monitor to display how much time remains before you are fully recovered and ready for the next hard workout.

**NOTE:** The recovery time recommendation uses your VO2 max. estimate and may seem inaccurate at first. The device requires you to complete a few activities to learn about your performance.

The recovery time appears immediately following an activity. The time counts down until it is optimal for you to attempt another hard workout. The device updates your recovery time throughout the day based on changes in sleep, stress, relaxation, and physical activity.

## Viewing Your Recovery Time

For the most accurate estimate, complete the user profile setup (*Setting Up Your User Profile*, page 65), and set your maximum heart rate (*Setting Your Heart Rate Zones*, page 66).

1. Start a running activity.
2. After your run, select **Save**.

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

   **NOTE:** From the watch face, you can press UP or DOWN to view the training status glance, and press START to scroll through the metrics to view your recovery time.

### Recovery Heart Rate

If you are training with wrist-based heart rate or a compatible chest 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.

### Pausing and Resuming Your Training Status

If you are injured or sick, you can pause your training status. You can continue to record fitness activities, but your training status, training load focus, recovery feedback, and workout recommendations are temporarily disabled.

You can resume your training status when you are ready to start training again. For best results, you need at least one VO2 max. measurement each week (*About VO2 Max. Estimates*, page 21).

1. When you want to pause your training status, select an option:
   - From the training status glance, hold **UP**, and select **Pause Training Status**.
   - From your Garmin Connect settings, select **Performance Stats** > **Training Status** > ⋮ > **Pause Training Status**.
2. Sync your watch with your Garmin Connect account.
3. When you want to resume your training status, select an option:
   - From the training status glance, hold **UP**, and select **Resume Training Status**.
   - From your Garmin Connect settings, select **Performance Stats** > **Training Status** > ⋮ > **Resume Training Status**.
4. Sync your watch with your Garmin Connect account.

## Controls

The controls menu lets you quickly access watch features and options. You can add, reorder, and remove the options in the controls menu (*Customizing the Controls Menu*, page 32).

From any screen, hold **LIGHT**.



| Icon | Name | Description |
|---|---|---|
|  | Airplane Mode | Select to enable or disable airplane mode to turn off all wireless communications. |
|  | Alarm Clock | Select to add or edit an alarm (*Setting an Alarm*, page 78). |
|  | Altimeter | Select to open the altimeter screen. |
|  | Assistance | Select to send an assistance request (*Requesting Assistance*, page 77). |
|  | Barometer | Select to open the barometer screen. |
|  | Battery Saver | Select to enable or disable the battery saver feature. |
|  | Backlight | Select to adjust the screen brightness (*Changing the Screen Settings*, page 89). |
|  | Broadcast Heart Rate | Select to turn on heart rate broadcasting to a paired device (*Broadcasting Heart Rate Data*, page 51). |
|  | Clocks | Select to open the Clocks app to set an alarm, timer, stopwatch, or view alternate time zones (*Clocks*, page 78). |
|  | Compass | Select to open the compass screen. |
|  | Do Not Disturb | Select to enable or disable do not disturb mode to dim the screen and disable alerts and notifications. For example, you can use this mode while watching a movie. |
|  | Find My Phone | Select to play an audible alert on your paired phone, if it is within Bluetooth range. The Bluetooth signal strength appears on the Forerunner watch screen, and it increases as you move closer to your phone. |
|  | Flashlight | Select to turn on the screen to use your watch as a flashlight. |
|  | Lock Device | Select to lock the buttons to prevent inadvertent presses. |
|  | Music Controls | Select to control music playback on your watch or phone. |
|  | Phone | Select to enable or disable Bluetooth technology and your connection to your paired phone. |
|  | Power Off | Select to turn off the watch. |
|  | Save Location | Select to save your current location to navigate back to it later. |
|  | Set Time With GPS | Select to sync your watch with the time on your phone or using satellites. |
|  | Sleep Mode | Select to enable or disable Sleep Mode (*Customizing Sleep Mode*, page 37). |
|  | Stopwatch | Select to start the stopwatch (*Using the Stopwatch*, page 79). |

| Icon | Name | Description |
|---|---|---|
| | Sunrise & Sunset | Select to view sunrise, sunset, and twilight times. |
| | Sync | Select to sync your watch with your paired phone. |
| | Timer | Select to set a countdown timer (*Starting the Countdown Timer*, page 79). |
| | Wallet | Select to open your Garmin Pay wallet and pay for purchases with your watch (*Garmin Pay*, page 32). |
| | Wi-Fi | Select to enable or disable Wi-Fi communications. |

## Viewing the Controls Menu

The controls menu contains options, such as the stopwatch, locating your connected phone, and turning the watch off. You can also open the Garmin Pay wallet.

**NOTE:** You can add, reorder, and remove the options in the controls menu (*Customizing the Controls Menu*, page 32).

1 From any screen, hold **LIGHT**.




2 Press **UP** or **DOWN** to scroll through the options.

## Customizing the Controls Menu

You can add, remove, and change the order of the shortcut menu options in the controls menu (*Viewing the Controls Menu*, page 32).

1 Hold **UP**.
2 Select **Appearance** > **Controls**.
3 Select a shortcut to customize.
4 Select an option:
   - Select **Reorder** to change the location of the shortcut in the controls menu.
   - Select **Remove** to remove the shortcut from the controls menu.
5 If necessary, select **Add New** to add an additional shortcut to the controls menu.

## Garmin Pay

The Garmin Pay feature allows you to use your watch to pay for purchases in participating locations using credit or debit cards from a participating financial institution.

### Setting Up Your Garmin Pay Wallet

You can add one or more participating credit or debit cards to your Garmin Pay wallet. Go to garmin.com/garminpay/banks to find participating financial institutions.

1. From the Garmin Connect app, select ☰ or •••.
2. Select **Garmin Pay** > **Get Started**.
3. Follow the on-screen instructions.

### Paying for a Purchase Using Your Watch

Before you can use your watch to pay for purchases, you must set up at least one payment card.

You can use your watch to pay for purchases in a participating location.

1. Hold **LIGHT**.
2. Select ▬.
3. Enter your four-digit passcode.

   **NOTE:** If you enter your passcode incorrectly three times, your wallet locks, and you must reset your passcode in the Garmin Connect app.

   Your most recently used payment card appears.




4. If you have added multiple cards to your Garmin Pay wallet, select **DOWN** to change to another card (optional).
5. Within 60 seconds, hold your watch near the payment reader, with the watch facing the reader.

   The watch vibrates and displays a check mark when it is finished communicating with the reader.
6. If necessary, follow the instructions on the card reader to complete the transaction.

**TIP:** After you successfully enter your passcode, you can make payments without a passcode for 24 hours while you continue to wear your watch. If you remove the watch from your wrist or disable heart rate monitoring, you must enter the passcode again before making a payment.

### Adding a Card to Your Garmin Pay Wallet

You can add up to 10 credit or debit cards to your Garmin Pay wallet.

1. From the Garmin Connect app, select ☰ or •••.
2. Select **Garmin Pay** > ⋮ > **Add Card**.
3. Follow the on-screen instructions.

After the card is added, you can select the card on your watch when you make a payment.

### Managing Your Garmin Pay Cards

You can temporarily suspend or delete a card.

**NOTE:** In some countries, participating financial institutions may restrict the Garmin Pay features.

1. From the Garmin Connect app, select ☰ or •••.
2. Select **Garmin Pay**.
3. Select a card.
4. Select an option:
   - To temporarily suspend or unsuspend the card, select **Suspend Card**.
     The card must be active to make purchases using your Forerunner watch.
   - To delete the card, select 🗑.

### Changing Your Garmin Pay Passcode

You must know your current passcode to change it. If you forget your passcode, you must reset the Garmin Pay feature for your Forerunner watch, create a new passcode, and reenter your card information.

1. From the Forerunner device page in the Garmin Connect app, select **Garmin Pay** > **Change Passcode**.
2. Follow the on-screen instructions.

The next time you pay using your Forerunner watch, you must enter the new passcode.

## Morning Report

Your watch displays a morning report based on your normal wake time. Press DOWN, and select ✔ to view the report, which includes weather, sleep, overnight heart rate variability status, and more (*Customizing Your Morning Report*, page 34).

### Customizing Your Morning Report

**NOTE:** You can customize these settings on you watch or in your Garmin Connect account.

1. Hold **UP**.
2. Select **Appearance** > **Morning Report**.
3. Select an option:
   - Select **Show Report** to enable or disable the morning report.
   - Select **Edit Report** to customize the order and type of data that appears in your morning report.
   - Select **Your Name** to customize your display name.

# Training

## Training for a Race Event

Your watch can suggest daily workouts to help you train for a running or cycling event, if you have a VO2 max. estimate (*About VO2 Max. Estimates*, page 21).

1. On your phone or computer, go to your Garmin Connect calendar.
2. Select the day of the event, and add the race event.
   You can search for an event in your area or create your own event.
3. Add details about the event, and add the course if it's available.
4. Sync your watch with your Garmin Connect account.
5. On your watch, scroll to the primary event glance to see a countdown to your primary race event.
6. From the watch face, press **START**, and select a running or cycling activity.
   **NOTE:** If you have completed at least 1 outdoor run with heart rate data or 1 ride with heart rate and power data, daily suggested workouts appear on your watch.

### Race Calendar and Primary Race

When you add a race event to your Garmin Connect calendar, you can view the event on your watch by adding the primary race glance (*Glances*, page 14). The event date must be in the next 365 days. The watch displays a countdown to the event, your goal time or predicted finish time (running events only), and weather information.




**NOTE:** Historical weather information for the location and date is available right away. Local forecast data appears approximately 14 days before the event.

If you add more than one race event, you are prompted to choose a primary event.

Depending on the available course data for your event, you can view elevation data, the course map, and add a PacePro plan (*PacePro™ Training*, page 43).

## Unified Training Status

When you use more than one Garmin device with your Garmin Connect account, you can choose which device is the primary data source for everyday use and for training purposes.

From the Garmin Connect app menu, select Settings.

**Primary Training Device**: Sets the priority data source for training metrics like your training status and load focus.

**Primary Wearable**: Sets the priority data source for daily health metrics like steps and sleep. This should be the watch you wear most often.

**TIP:** For the most accurate results, Garmin recommends that you sync often with your Garmin Connect account.

## Health and Wellness Settings

Hold **UP**, and select **Health & Wellness**.

**Wrist Heart Rate**: Allows you to customize the wrist heart rate monitor settings (*Wrist Heart Rate Monitor Settings*, page 49).

**Pulse Oximeter**: Allows you to select a pulse oximeter mode (*Turning On All-Day Mode*, page 52).

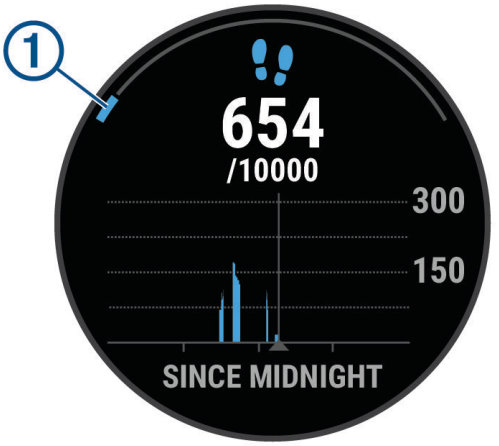
**Move Alert**: Enables or disables the Move Alert feature (*Using the Move Alert*, page 36).

**Goal Alerts**: Allows you to turn on and off goal alerts, or turn them off only during activities. Goal alerts appear for your daily steps goal, daily floors climbed goal, and weekly intensity minutes goal.

**Move IQ**: Allows you to turn on and off Garmin Move IQ™ events. When your movements match familiar exercise patterns, the Garmin Move IQ feature automatically detects the event and displays it in your timeline. The Garmin Move IQ events show activity type and duration, but they do not appear in your activities list or newsfeed. For more detail and accuracy, you can record a timed activity on your device.

## Auto Goal

Your watch creates a daily step goal automatically, based on your previous activity levels. As you move during the day, the watch 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 the Move Alert

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! appears. The device also beeps or vibrates if audible tones are turned on (*System Settings*, page 88).

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

### Turning on the Move Alert

1. Hold **UP**.
2. Select **Notifications & Alerts** > **System Alerts** > **Health & Wellness** > **Move Alert** > **On**.

## Sleep Tracking

While you are sleeping, the watch automatically detects your sleep and monitors your movement during your normal sleep hours. You can set your normal sleep hours in the user settings on your Garmin Connect account. Sleep statistics include total hours of sleep, sleep stages, sleep movement, and sleep score. You can view your sleep statistics on your Garmin Connect account.

**NOTE:** Naps are not added to your sleep statistics. You can use do not disturb mode to turn off notifications and alerts, with the exception of alarms (*Using Do Not Disturb Mode*, page 37).

### Using Automated Sleep Tracking

1. Wear your watch while sleeping.
2. Upload your sleep tracking data to the Garmin Connect site (*Manually Syncing Data with Garmin Connect*, page 75).

   You can view your sleep statistics on your Garmin Connect account.

   You can view sleep information from the previous night on your Forerunner watch (*Glances*, page 14).

### Customizing Sleep Mode

1 Hold **UP**.
2 Select **System** > **Sleep Mode**.
3 Select an option:
- Select **Watch Face** to use the sleep watch face.
- Select **Backlight** to configure the screen brightness and timeout.
- Select **Do Not Disturb** to enable or disable do not disturb mode.

### Using Do Not Disturb Mode

You can use do not disturb mode to turn off the backlight, tone alerts, and vibration alerts. 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. You can enable the During Sleep option in the system settings to automatically enter do not disturb mode during your normal sleep hours (*System Settings*, page 88).

**NOTE:** You can add options to the controls menu (*Customizing the Controls Menu*, page 32).

1 Hold **LIGHT**.
2 Select **Do Not Disturb**.

## Intensity Minutes

To improve your health, organizations such as the World Health Organization recommend at least 150 minutes per week of moderate intensity activity, such as brisk walking, or 75 minutes per week of vigorous intensity activity, such as running.

The watch monitors your activity intensity and tracks your time spent participating in moderate to vigorous intensity activities (heart rate data is required to quantify vigorous intensity). The watch adds the amount of moderate activity minutes with the amount of vigorous activity minutes. Your total vigorous intensity minutes are doubled when added.

### Earning Intensity Minutes

Your Forerunner watch calculates intensity minutes by comparing your heart rate data to your average resting heart rate. If heart rate is turned off, the watch calculates moderate intensity minutes by analyzing your steps per minute.

- Start a timed activity for the most accurate calculation of intensity minutes.
- Wear your watch all day and night for the most accurate resting heart rate.

## Garmin Move IQ

When your movements match familiar exercise patterns, the Move IQ feature automatically detects the event and displays it in your timeline. The Move IQ events show activity type and duration, but they do not appear in your activities list or newsfeed. For more detail and accuracy, you can record a timed activity on your device.

# Workouts

You can create custom workouts that include goals for each workout step and for varied distances, times, and calories. During your activity, you can view workout-specific data screens that contain workout step information, such as the workout step distance or average step pace.

**On your watch**: You can open the workouts app from the activity list to show all workouts currently loaded on your watch (*Customizing Activities and Apps*, page 12).

You can also view your workout history.

**On the app**: You can create and find more workouts, or select a training plan that has built-in workouts and transfer them to your watch*Following a Workout From Garmin Connect*, page 38.

You can schedule workouts.

You can update and edit your current workouts.

## Following a Workout From Garmin Connect

Before you can download a workout from Garmin Connect, you must have a Garmin Connect account (*Garmin Connect*, page 74).

1. Select an option:
   - Open the Garmin Connect app.
   - Go to connect.garmin.com.
2. Select **Training & Planning** > **Workouts**.
3. Find a workout, or create and save a new workout.
4. Select or **Send to Device**.
5. Follow the on-screen instructions.

## Creating a Custom Workout on Garmin Connect

Before you can create a workout on the Garmin Connect app, you must have a Garmin Connect account (*Garmin Connect*, page 74).

1. From the Garmin Connect app, select or •••.
2. Select **Training & Planning** > **Workouts** > **Create a Workout**.
3. Select an activity.
4. Create your custom workout.
5. Select **Save**.
6. Enter a name for your workout, and select **Save**.

   The new workout appears in your list of workouts.

   **NOTE:** You can send this workout to your watch (*Sending a Custom Workout to Your Watch*, page 38).

### Sending a Custom Workout to Your Watch

You can send a custom workout you created with the Garmin Connect app to your watch (*Creating a Custom Workout on Garmin Connect*, page 38).

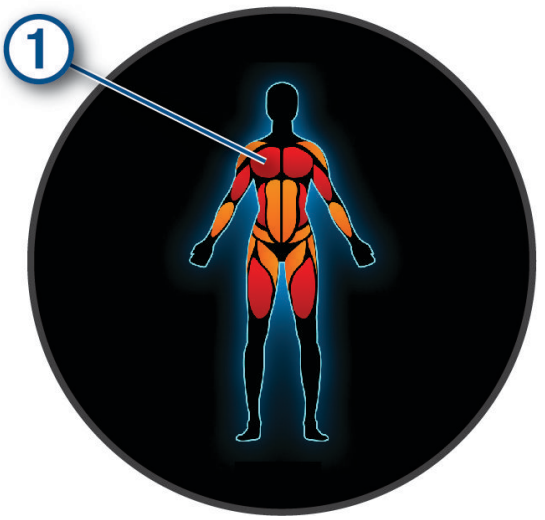
1. From the Garmin Connect app, select or •••.
2. Select **Training & Planning** > **Workouts**.
3. Select a workout from the list.
4. Select .
5. Select your compatible watch.
6. Follow the on-screen instructions.

## Starting a Workout

Your watch can guide you through multiple steps in a workout.

1. Press **START**.
2. Select an activity.
3. Select **UP** > **Training** > **Workouts**.
4. Select a workout.

   **NOTE:** Only workouts that are compatible with the selected activity appear in the list.
5. If available, tap the muscle map ① to view the targeted muscle groups.




6. Select **DOWN** to view workout steps (optional).

   **TIP:** You can press START to view an animation of the selected exercise or listen to audio notes with Bluetooth headphones (optional).
7. Select **START** > **Do Workout**.
8. Press **START** to start the activity timer.

After you begin a workout, the watch displays each step of the workout, optional step and audio notes, and the current workout data.

## Following a Daily Suggested Workout

Before the watch can suggest a daily workout, you must have a VO2 max. estimate (*About VO2 Max. Estimates*, page 21).

1. Press **START**.
2. Select **Run** or **Bike**.

   The daily suggested workout appears.
3. Press **DOWN** to view details about the workout, such as steps and estimated benefit (optional).
4. Select **START**, and select an option:
   - To do the workout, select **Do Workout**.
   - To skip the workout, select **Dismiss**.
   - To view workout suggestions for the upcoming week, select **More Suggestions**.
   - To view the workout settings, such as **Target Type**, select **Settings**.

The suggested workout updates automatically to changes in training habits, recovery time, and VO2 max.

### Turning Daily Suggested Workout Prompts On and Off

Daily suggested workouts are recommended based on your previous activities saved to your Garmin Connect account.

1. Press **START**.
2. Select **Run** or **Bike**.
3. Hold **UP**.
4. Select **Training** > **Workouts** > **Daily Suggestions** > **Settings** > **Workout Prompt**.
5. Press **START** to disable or enable prompts.

## Following a Pool Swim Workout

Your watch can guide you through multiple steps in a swim workout. Creating and sending a pool swim workout is similar to *Workouts*, page 37 and *Following a Workout From Garmin Connect*, page 38.

1. Press **START**.
2. Select **Pool Swim**.
3. Hold **UP**.
4. Select **Training**.
5. Select an option:
   - Select **Workouts** to do workouts downloaded from Garmin Connect.
   - Select **Critical Swim Speed** to record a Critical Swim Speed (CSS) test or enter a CSS value manually (*Recording a Critical Swim Speed Test*, page 40).
   - Select **Training Calendar** to do or view your scheduled workouts.
6. Follow the on-screen instructions.

### Recording a Critical Swim Speed Test

Your Critical Swim Speed (CSS) value is the result of a time-trial-based test expressed as a pace per 100 meters. Your CSS is the theoretical speed you can maintain continuously without exhaustion. You can use your CSS to guide your training pace and monitor your improvement.

1. Press **START**.
2. Select **Pool Swim**.
3. Hold **UP**.
4. Select **Training** > **Critical Swim Speed** > **Do Critical Swim Speed Test**.
5. Press **DOWN** to preview the workout steps (optional).
6. Press **START**.
7. Press **START** to start the activity timer..
8. Follow the on-screen instructions.

### Editing Your Critical Swim Speed Result

You can manually edit or enter a new time for your CSS value.

1. From the watch face, press **START**.
2. Select **Pool Swim**.
3. Hold **UP**.
4. Select **Training** > **Critical Swim Speed** > **Critical Swim Speed**.
5. Enter the minutes.
6. Enter the seconds.

## Workout Execution Score

After you complete a workout, the watch displays your workout execution score based on how accurately you completed the workout. For example, if your 60 minute workout has a target pace range, and you stay in that range for 50 minutes, your workout execution score is 83%.

| | |
|---|---|
| | Good, 67 to 100% |
| | Average, 34 to 66% |
| | Low, 0 to 33% |

## About the Training Calendar

The training calendar on your watch is an extension of the training calendar or schedule you set up in your Garmin Connect account. 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 calendar glance. When you select a day in the calendar, you can view or do the workout. The scheduled workout stays on your watch 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 74), and you must pair the Forerunner watch with a compatible phone.

1. From the Garmin Connect app, select ☰ or •••.
2. Select **Training & Planning** > **Training Plans**.
3. Select and schedule a training plan.
4. Follow the on-screen instructions.
5. Review the training plan in your calendar.

### Adaptive Training Plans

Your Garmin Connect account has an adaptive training plan and Garmin coach to fit your training goals. For example, you can answer a few questions and find a plan to help you complete a 5 km race. The plan adjusts to your current level of fitness, coaching and schedule preferences, and race date. When you start a plan, the Garmin coach glance is added to the glance loop on your Forerunner watch.

### Starting Today's Workout

After you send a Garmin Coach training plan to your watch, the Garmin Coach glance appears in your glance loop (*Customizing the Glance Loop*, page 16).

1 From the watch face, press **UP** or **DOWN** to view the Garmin Coach glance.

If a workout for this activity is scheduled for today, the watch shows the workout name and prompts you to start it.




2 Press **START**.
3 Press **DOWN** to view the workout steps (optional).
4 Press **START**, and select **Do Workout**.
5 Follow the on-screen instructions.

## Interval Workouts

Interval workouts can be open or structured. Structured repeats can be based on distance or time. The device saves your custom interval workout until you edit the workout again.

**TIP:** All interval workouts include an open-ended cool down step.

### Customizing an Interval Workout

1 Press **START**.
2 Select an activity.
3 Press **UP**.
4 Select **Training** > **Intervals** > **Structured Repeats**.

A workout appears.

5 Press **START**, and select **Edit Workout**.
6 Select one or more options:
   - To set the interval duration and type, select **Interval**.
   - To set the rest duration and type, select **Rest**.
   - To set the number of repetitions, select **Repeat**.
   - To add an open-ended warm up to your workout, select **Warm Up** > **On**.
7 Press **BACK**.

### Starting an Interval Workout

1. Press **START**.
2. Select an activity.
3. Hold **UP**.
4. Select **Training** > **Intervals**.
5. Select an option:
   - Select **Open Repeats** to mark your intervals and rest periods manually by pressing **BACK**.
   - Select **Structured Repeats** > **START** > **Do Workout** to use an interval workout based on distance or time.
6. Press **START** to start the activity timer.
7. When your interval workout has a warm up, press **BACK** to begin the first interval.
8. Follow the on-screen instructions.

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

### Stopping an Interval Workout

- At any time, press **BACK** to stop the current interval or rest period and transition to the next interval or rest period.
- After all intervals and rest periods are complete, press **BACK** to end the interval workout and transition to a timer that can be used for cool down.
- At any time, press **STOP** to stop the activity timer. You can resume the timer or end the interval workout.

## PacePro™ Training

Many runners like to wear a pace band during a race to help achieve their race goal. The PacePro feature allows you to create a custom pace band based on distance and pace or distance and time. You can also create a pace band for a known course to optimize your pace effort based on elevation changes.

You can create a PacePro plan using the Garmin Connect app. You can preview the splits and elevation plot before you run the course.

### Downloading a PacePro Plan from Garmin Connect

Before you can download a PacePro plan from Garmin Connect, you must have a Garmin Connect account (*Garmin Connect*, page 74).

1. Select an option:
   - Open the Garmin Connect app, and select ☰ or •••.
   - Go to connect.garmin.com.
2. Select **Training & Planning** > **PacePro Pacing Strategies**.
3. Follow the on-screen instructions to create and save a PacePro plan.
4. Select or **Send to Device**.

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4. Select or **Send to Device**.

# Using Virtual Partner®

Your Virtual Partner is a training tool designed to help you meet your goals. You can set a pace for the Virtual Partner and race against it.

**NOTE:** This feature is not available for all activities.

1. Hold **UP**.
2. Select **Activities & Apps**.
3. Select an activity.
4. Select the activity settings.
5. Select **Data Screens** > **Add New** > **Virtual Partner**.
6. Enter a pace or speed value.
7. Press **UP** or **DOWN** to change the location of the Virtual Partner screen (optional).
8. Start your activity (*Starting an Activity*, page 3).
9. Press **UP** or **DOWN** to scroll to the Virtual Partner screen and see who is leading.

## Setting a Training Target

The training target feature works with the Virtual Partner feature so you can train toward a set distance, distance and time, distance and pace, or distance and speed goal. During your training activity, the watch gives you real-time feedback about how close you are to achieving your training target.

1. Press **START**.
2. Select an activity.
3. Hold **UP**.
4. Select **Training** > **Set a Target**.
5. Select an option:
   - Select **Distance Only** to select a preset distance or enter a custom distance.
   - Select **Distance and Time** to select a distance and time target.
   - Select **Distance and Pace** or **Distance and Speed** to select a distance and pace or speed target.

   The training target screen appears and displays your estimated finish time. The estimated finish time is based on your current performance and the time remaining.
6. Press **START** to start the activity timer.

   **TIP:** You can hold UP, and select **Cancel Target** > ✔ to cancel the training target.

### Cancelling a Training Target

1. During an activity, hold **UP**.
2. Select **Cancel Target** > ✔.

## Racing a Previous Activity

You can race a previously recorded or downloaded activity. This feature works with the Virtual Partner feature so you can see how far ahead or behind you are during the activity.

**NOTE:** This feature is not available for all activities.

1. Press **START**.
2. Select an activity.
3. Hold **UP**.
4. Select **Training** > **Race an Activity**.
5. Select an option:
   - Select **From History** to select a previously recorded activity from your device.
   - Select **Downloaded** to select an activity you downloaded from your Garmin Connect account.
6. Select the activity.

   The Virtual Partner screen appears indicating your estimated finish time.
7. Press **START** to start the activity timer.
8. After you complete your activity, press **STOP**, and select **Save**.

## Using the Metronome

The metronome feature plays tones at a steady rhythm to help you improve your performance by training at a faster, slower, or more consistent cadence.

**NOTE:** This feature is not available for all activities.

1. Press **START**.
2. Select an activity.
3. Hold **UP**.
4. Select the activity settings.
5. Select **Metronome** > **Status** > **On**.
6. Select an option:
   - Select **Beats / Minute** to enter a value based on the cadence you want to maintain.
   - Select **Alert Frequency** to customize the frequency of the beats.
   - Select **Sound and Vibe** to customize the metronome tone and vibration.
7. If necessary, select **Preview** to listen to the metronome feature before you run.
8. Go for a run (*Going for a Run*, page 5).

   The metronome starts automatically.
9. During your run, press **UP** or **DOWN** to view the metronome screen.
10. If necessary, hold **UP** to change the metronome settings.

## Enabling Self Evaluation

When you save an activity, you can evaluate your perceived effort and how you felt during the activity. Your self evaluation information can be viewed in your Garmin Connect account.

1. Hold **UP**.
2. Select **Activities & Apps**.
3. Select an activity.
4. Select the activity settings.
5. Select **Self Evaluation**.
6. Select an option:
   - To complete self evaluation only after workouts, select **Workouts Only**.
   - To complete self evaluation after every activity, select **Always**.

## Extended Display Mode

You can use Extended Display mode to display data screens from your Forerunner watch on a compatible Edge bike computer during a ride or triathlon. See your Edge owner's manual for more information.

# History

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

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

## Using History

History contains previous activities you have saved on your watch.

The watch has a history glance for quick access to your activity data (*Glances*, page 14).

1. From the watch face, hold **UP**.
2. Select **History**.
3. Select an option:
   - To view an activity from this week, select **This Week**.
   - To view an older activity, select **Previous Weeks**, and select a week.
   - To view your personal records by sport, select **Records** (*Personal Records*, page 47).
   - To view your weekly or monthly totals, select **Totals**.
4. Select an activity.
5. Press **START**.
6. Select an option:
   - To view additional information about the activity, select **All Stats**.
   - To view the impact of the activity on your aerobic and anaerobic fitness, select **Training Effect** (*About Training Effect*, page 28).
   - To view your time in each heart rate zone, select **Heart Rate** (*Viewing Your Time in Each Heart Rate Zone*, page 48).
   - To view a summary of your running power, select **Running Power**.
   - To select an interval and view addition information about each interval, select **Intervals**.
   - To select a lap and view additional information about each lap, select **Laps**.
   - To select a ski or snowboard run and view additional information about each run, select **Runs**.
   - To select an exercise set and view additional information about each set, select **Sets**.
   - To view the activity on a map, select **Map**.
   - To view an elevation plot for the activity, select **Elevation Plot**.
   - To delete the selected activity, select **Delete**.

## Multisport History

Your device stores the overall multisport summary of the activity, including overall distance, time, calories, and optional accessory data. Your device also separates the activity data for each sport segment and transition so you can compare similar training activities and track how quickly you move through the transitions. Transition history includes distance, time, average speed, and calories.

## Personal Records

When you complete an activity, the watch displays any new personal records you achieved during that activity. Personal records include your fastest time over several typical race distances, highest strength activity weight for major movements, and longest run, ride, or swim.

**NOTE:** For cycling, personal records also include most ascent and best power (power meter required).

### Viewing Your Personal Records

1. From the watch face, hold **UP**.
2. Select **History** > **Records**.
3. Select a sport.
4. Select a record.
5. Select **View Record**.

### Restoring a Personal Record

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

1. From the watch face, hold **UP**.
2. Select **History** > **Records**.
3. Select a sport.
4. Select a record to restore.
5. Select **Previous** > ✓.

   **NOTE:** This does not delete any saved activities.

### Clearing Personal Records

1. From the watch face, hold **UP**.
2. Select **History** > **Records**.
3. Select a sport.
4. Select an option:
   - To delete one record, select a record, and select **Clear Record** > ✓.
   - To delete all records for the sport, select **Clear All Records** > ✓.

   **NOTE:** This does not delete any saved activities.

## Viewing Data Totals

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

1. From the watch face, hold **UP**.
2. Select **History** > **Totals**.
3. Select an activity.
4. Select an option to view weekly or monthly totals.

## Viewing Your Time in Each Heart Rate Zone

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

1. From the watch face, hold **UP**.
2. Select **History**.
3. Select **This Week** or **Previous Weeks**
4. Select an activity.
5. Press **START**, and select **Heart Rate**.

## Deleting History

1. From the watch face, hold **UP**.
2. Select **History** > **Options**.
3. 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.

## 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.

   **NOTE:** If you are using an Apple® computer, you must empty the Trash folder to completely remove the files.

   **NOTE:** Mac operating systems provide limited support for MTP file transfer mode. You must open the Garmin drive on a Windows operating system. You should use the Garmin Express™ application to remove music files from your device.

# Heart Rate Features

The watch has a wrist-based heart rate monitor and is also compatible with chest heart rate monitors. You can view heart rate data on the heart rate glance. If both wrist-based heart rate and chest heart rate data are available, your watch uses the chest heart rate data.

There are several heart rate-related features available in the default glance loop.

| | |
|---|---|
| | Your current heart rate in beats per minute (bpm). There is graph of your heart rate for the last four hours, highlighting your highest and lowest heart rate. |
| | Your current stress level. The watch measures your heart rate variability while you are inactive to estimate your stress level. A lower number indicates a lower stress level. |
| | Your current Body Battery energy level. The watch calculates your current energy reserves based on sleep, stress, and activity data. A higher number indicates a higher energy reserve. |
| | The current saturation of oxygen in your blood. Knowing your oxygen saturation can help you determine how your body is adapting to exercise and stress.<br>**NOTE:** The pulse oximeter sensor is located on the back of the watch. |

## Wrist-based Heart Rate

### Wrist Heart Rate Monitor Settings

Hold **UP**, and select **Health & Wellness** > **Wrist Heart Rate**.

**Status**: Enables or disables the wrist heart rate monitor. The default value is Auto, which automatically uses the wrist heart rate monitor unless you pair an external heart rate monitor.

**NOTE:** Disabling the wrist heart rate monitor also disables the wrist-based pulse oximeter sensor.

**While Swimming**: Enables or disables the wrist heart rate monitor during swimming activities.

**Abnormal Heart Rate Alerts**: Allows you to set the watch to alert you when your heart rate exceeds or drops below a target value (*Setting an Abnormal Heart Rate Alert*, page 50).

**Broadcast Heart Rate**: Allows you to begin broadcasting your heart rate data to a paired device (*Broadcasting Heart Rate Data*, page 51).

### 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 watch.
- Avoid wearing sunscreen, lotion, and insect repellent under the watch.
- Avoid scratching the heart rate sensor on the back of the watch.
- Wear the watch above your wrist bone. The watch should be snug but comfortable.
- Wait until the ♥ icon is solid before starting your activity.
- 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 watch with fresh water after each workout.

### Turning Off the Wrist-based Heart Rate Monitor

The default value for the Wrist Heart Rate setting is Auto. The watch automatically uses the wrist-based heart rate monitor unless you pair a compatible heart rate monitor with ANT+ or Bluetooth technology to the watch.

**NOTE:** Disabling the wrist-based heart rate monitor also disables the wrist-based pulse oximeter sensor.

1. From the watch face, hold ☰.
2. Select **Health & Wellness** > **Wrist Heart Rate** > **Status** > **Off**.

## Heart Rate While Swimming

***NOTICE***

The device is intended for surface swimming. Scuba diving with the device may damage the product and will void the warranty.

The watch has wrist-based heart rate enabled for swim activities. The watch is also compatible with the HRM-Pro series, HRM-Swim, and HRM-Tri accessories. If both wrist-based heart rate and chest heart rate data are available, your watch uses the chest heart rate data (*Chest Heart Rate While Swimming*, page 62).

## Setting an Abnormal Heart Rate Alert

**⚠ CAUTION**

This feature only alerts you when your heart rate exceeds or drops below a certain number of beats per minute, as selected by the user, after a period of inactivity. This feature does not notify you of any potential heart condition and is not intended to treat or diagnose any medical condition or disease. Always defer to your health care provider for any heart-related issues.

You can set the heart rate threshold value.

1. From the watch face, hold ☰.
2. Select **Health & Wellness** > **Wrist Heart Rate** > **Abnormal Heart Rate Alerts**.
3. Select **High Alert** or **Low Alert**.
4. Set the heart rate threshold value.

Each time your heart rate exceeds or drops below the threshold value, a message appears and the watch vibrates.

## Broadcasting Heart Rate Data

You can broadcast your heart rate data from your watch and view it on paired devices. Broadcasting heart rate data decreases battery life.

**TIP:** You can customize the activity settings to broadcast your heart rate data automatically when you begin an activity (*Activities and App Settings*, page 80). For example, you can broadcast your heart rate data to an Edge bike computer while cycling.

1. Select an option:
   - Hold **UP**, and select **Health & Wellness** > **Wrist Heart Rate** > **Broadcast Heart Rate**.
   - Hold **LIGHT** to open the controls menu, and select .

     **NOTE:** You can add options to the controls menu (*Customizing the Controls Menu*, page 32).
2. Press **START**.

   The watch starts broadcasting your heart rate data.
3. Pair your watch with your compatible device.

   **NOTE:** The pairing instructions differ for each Garmin compatible device. See your owner's manual.
4. Press **STOP** to stop broadcasting your heart rate data.

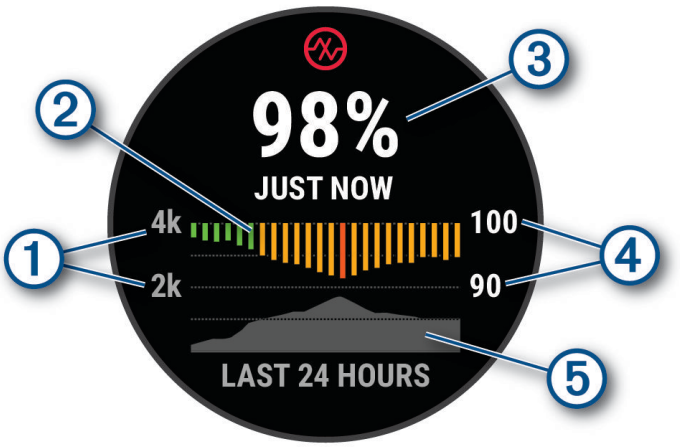
## Pulse Oximeter

Your watch has a wrist-based pulse oximeter to gauge the peripheral saturation of oxygen in your blood (SpO2). As your altitude increases, the level of oxygen in your blood can decrease.

You can manually begin a pulse oximeter reading by viewing the pulse oximeter glance (*Getting Pulse Oximeter Readings*, page 52). You can also turn on all-day readings (*Turning On All-Day Mode*, page 52). When you view the pulse oximeter glance while you are not moving, your watch analyzes your oxygen saturation and your elevation. The elevation profile helps indicate how your pulse oximeter readings are changing, relative to your to elevation.

On the watch, your pulse oximeter reading appears as an oxygen saturation percentage and color on the graph. On your Garmin Connect account, you can view additional details about your pulse oximeter readings, including trends over multiple days.

For more information about pulse oximeter accuracy, go to garmin.com/ataccuracy.



| | |
|---|---|
| ① | The elevation scale. |
| ② | A graph of your average oxygen saturation readings for the last 24 hours. |
| ③ | Your most recent oxygen saturation reading. |
| ④ | The oxygen saturation percentage scale. |
| ⑤ | A graph of your elevation readings for the last 24 hours. |

## Getting Pulse Oximeter Readings

You can manually begin a pulse oximeter reading by viewing the pulse oximeter glance. The glance displays your most recent blood oxygen saturation percentage, a graph of your hourly average readings for the last 24 hours, and a graph of your elevation for the last 24 hours.

**NOTE:** The first time you view the pulse oximeter glance, the watch must acquire satellite signals to determine your elevation. You should go outside, and wait while the watch locates satellites.

1. While you are sitting or inactive, press **UP** or **DOWN** to view the pulse oximeter glance.
2. Press **START** to view glance details.
3. Press **START**, and select **Take Reading** to begin a pulse oximeter reading.
4. Remain motionless for up to 30 seconds.

   **NOTE:** If you are too active for the watch to get a pulse oximeter reading, a message appears instead of a percentage. You can check again after several minutes of inactivity. For best results, hold the arm wearing the watch at heart level while the watch reads your blood oxygen saturation.

## Turning On Pulse Oximeter Sleep Tracking

You can set your device to continuously measure your blood oxygen saturation while you sleep.

**NOTE:** Unusual sleep positions can cause abnormally low sleep-time SpO2 readings.

1. From the pulse oximeter glance, hold **UP**.
2. Select **Pulse Ox Options** > **During Sleep**.

## Turning On All-Day Mode

1. From the pulse oximeter glance, hold **UP**.
2. Select **Pulse Ox Options** > **All Day**.

   The device automatically analyzes your oxygen saturation throughout the day, when you are not moving.

   **NOTE:** Turning on all-day mode decreases battery life.

## Tips for Erratic Pulse Oximeter Data

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

- Remain motionless while the watch reads your blood oxygen saturation.
- Wear the watch above your wrist bone. The watch should be snug but comfortable.
- Hold the arm wearing the watch at heart level while the watch reads your blood oxygen saturation.
- Use a silicone or nylon band.
- Clean and dry your arm before putting on the watch.
- Avoid wearing sunscreen, lotion, and insect repellent under the watch.
- Avoid scratching the optical sensor on the back of the watch.
- Rinse the watch with fresh water after each workout.

# Navigation

You can use the GPS navigation features on your device to view your path on a map, save locations, and find your way home.

## Courses

You can send a course from your Garmin Connect account to your device. After it is saved to your device, you can navigate the course on your device.

You can follow a saved course simply because it is a good route. For example, you can save and follow a bike friendly commute to work.

You can also follow a saved course, trying to match or exceed previously set performance goals. For example, if the original course was completed in 30 minutes, you can race against a Virtual Partner trying to complete the course in under 30 minutes.

### Following a Course on Your Device

1. From the watch face, press **START**.
2. Select an activity.
3. Hold **UP**.
4. Select **Navigation** > **Courses**.
5. Select a course.
6. Select **Do Course**.

   Navigation information appears.
7. Press **START** to begin navigation.

### Creating a Course on Garmin Connect

Before you can create a course on the Garmin Connect app, you must have a Garmin Connect account (*Garmin Connect*, page 74).

1. From the Garmin Connect app, select ☰ or •••.
2. Select **Training & Planning** > **Courses** > **Create Course**.
3. Select a course type.
4. Follow the on-screen instructions.
5. Select **Done**.

   **NOTE:** You can send this course to your device (*Sending a Course to Your Device*, page 53).

### Sending a Course to Your Device

You can send a course you created using the Garmin Connect app to your device (*Creating a Course on Garmin Connect*, page 53).

1. From the Garmin Connect app, select ☰ or •••.
2. Select **Training & Planning** > **Courses**.
3. Select a course.
4. Select ⋮ > **Send to Device**.
5. Select your compatible device.
6. Follow the on-screen instructions.

### Viewing Course Details

You can view course details before you navigate a course.

1. Press **START**.
2. Select an activity.
3. Hold **UP**.
4. Select **Navigation** > **Courses**.
5. Press **START** to select a course.
6. Select an option:
   - To begin navigation, select **Do Course**.
   - To create a custom pace band, select **PacePro**.
   - To view the course on the map and pan or zoom the map, select **Map**.
   - To begin the course in reverse, select **Do Course in Reverse**.
   - To view an elevation plot of the course, select **Elevation Plot**.
   - To change the course name, select **Name**.
   - To delete the course, select **Delete**.

## Saving Your Location

You can save your current location to navigate back to it later.

**NOTE:** You can add options to the controls menu (*Customizing the Controls Menu*, page 32).

1. Hold **LIGHT**.
2. Select **Save Location**.
3. Follow the on-screen instructions.

### Viewing and Editing Your Saved Locations

**TIP:** You can save a location from the controls menu (*Controls*, page 30).

1. Press **START**.
2. Select an activity.
3. Hold **UP**.
4. Select **Navigation** > **Saved Locations**.
5. Select a saved location.
6. Select an option to view or edit the location details.

## Navigating to a Destination

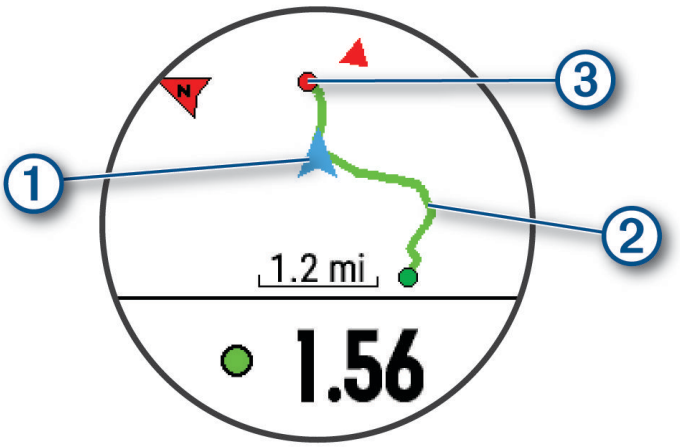
You can use your device to navigate to a destination or follow a course.

1. Press **START**.
2. Select an activity.
3. Hold **UP**.
4. Select **Navigation**.
5. Select a category.
6. Respond to the on-screen prompts to choose a destination.
7. Select **Go To**.
   Navigation information appears.
8. Press **START** to begin navigation.

## Navigating to Your Starting Point During an Activity

You can navigate back to the starting point of your current activity in a straight line or along the path you traveled. This feature is available only for activities that use GPS.

1. During an activity, press **STOP**.
2. Select **Back to Start**, and select an option:
   - To navigate back to the starting point of your activity along the path you traveled, select **TracBack**.
   - To navigate back to the starting point of your activity in a straight line, select **Straight Line**.




Your current location ①, the track to follow ②, and your destination ③ appear on the map.

## Stopping Navigation

- To stop navigation and continue your activity, hold **UP**, and select **Stop Navigation** or **Stop Course**.
- To stop navigation and save your activity, press **STOP**, and select **Save**.

## Map

▲ represents your location on the map. Location names and symbols appear on the map. When you are navigating to a destination, your route is marked with a line on the map.

- Map navigation (*Panning and Zooming the Map*, page 56)
- Map settings (*Map Settings*, page 56)

### Adding a Map to an Activity

You can add the map to the data screens loop for an activity.

1. Hold **UP**.
2. Select **Activities & Apps**.
3. Select the activity to customize.
4. Select the activity settings.
5. Select **Data Screens** > **Add New** > **Map**.

### Panning and Zooming the Map

1. While navigating, press **UP** or **DOWN** to view the map.
2. Hold **UP**.
3. Select **Pan/Zoom**.
4. Select an option:
   - To toggle between panning up and down, panning left and right, or zooming, press **START**.
   - To pan or zoom the map, press **UP** and **DOWN**.
   - To quit, press **BACK**.

### Map Settings

You can customize how the map appears in the map app and data screens.

Hold **UP**, and select **Map**.

**Orientation**: Sets the orientation of the map. The North Up option shows north at the top of the screen. The Track Up option shows your current direction of travel at the top of the screen.

**User Locations**: Shows or hides saved locations on the map.

**Auto Zoom**: Automatically selects the zoom level for optimal use of your map. When disabled, you must zoom in or out manually.

## Compass

The watch has a 3-axis compass with automatic calibration. The compass features and appearance change depending on your activity, whether GPS is enabled, and whether you are navigating to a destination. You can change the compass settings manually (*Compass Settings*, page 85).

## Altimeter and Barometer

The watch contains an internal altimeter and barometer. The watch collects elevation and pressure data continuously, even in low-power mode. The altimeter displays your approximate elevation based on pressure changes. The barometer displays environmental pressure data based on the fixed elevation where the altimeter was most recently calibrated (*Altimeter Settings*, page 86, *Barometer Settings*, page 86).

# Sensors and Accessories

The Forerunner watch has several internal sensors, and you can pair additional wireless sensors for your activities.

## Wireless Sensors

Your watch can be paired and used with wireless sensors using ANT+ or Bluetooth technology (*Pairing Your Wireless Sensors*, page 58). After the devices are paired, you can customize the optional data fields (*Customizing the Data Screens*, page 82). If your watch was packaged with a sensor, they are already paired.

For information about specific Garmin sensor compatibility, purchasing, or to view the owner's manual, go to buy.garmin.com for that sensor.

**NOTE:** Bluetooth sensors are available only with a Forerunner music watch.

| Sensor Type | Description |
|---|---|
| eBike | You can use your watch with your eBike and view bike data, such as battery and shifting information, during your rides. |
| Extended Display | You can use the Extended Display mode to display data screens from your Forerunner music watch on a compatible Edge bike computer during a ride or triathlon. |
| External HR | You can use an external heart rate monitor, such as the HRM-Pro series or HRM-Dual™, and view heart rate data during your activities. Some heart rate monitors can also store data or provide advanced running data (*Running Dynamics*, page 59) (*Running Power*, page 59). |
| Foot Pod | You can use a foot pod to record pace and distance instead of using GPS when you are training indoors or when your GPS signal is weak. |
| Headphones | You can use Bluetooth headphones to listen to music loaded onto your Forerunner music watch (*Connecting Bluetooth Headphones*, page 69). |
| Lights | You can use Varia™ smart bike lights to improve situational awareness. |
| Power | You can use a power meter, such as Rally™ and Vector™, to view your power data on your watch. You can adjust your power zones to match your goals and abilities (*Setting Your Power Zones*, page 67), or use range alerts to be notified when you reach a specified power zone (*Setting an Alert*, page 84). |
| Radar | You can use a Varia rearview bike radar to improve situational awareness and send alerts about approaching vehicles. With a Varia radar camera tail light, you can also take photos and record video during a ride (*Using the Varia Camera Controls*, page 63). |
| RD Pod | You can use a Running Dynamics Pod to record running dynamics data and view it on your watch (*Running Dynamics*, page 59). |
| Smart Trainer | You can use your watch with an indoor bike smart trainer to simulate resistance while following a course, ride, or workout (*Using an Indoor Trainer*, page 12). |
| Tempe | You can attach the tempe temperature sensor to a secure strap or loop where it is exposed to ambient air, so it provides a consistent source of accurate temperature data. |

## Pairing Your Wireless Sensors

Before you can pair, you must put on the heart rate monitor or install the sensor.

The first time you connect a wireless sensor to your watch using ANT+ or Bluetooth technology, you must pair the watch and sensor. If the sensor has both ANT+ and Bluetooth technology, Garmin recommends that you pair using ANT+ technology. After they are paired, the watch connects to the sensor automatically when you start an activity and the sensor is active and within range.

1. Bring the watch within 3 m (10 ft.) of the sensor.

   **NOTE:** Stay 10 m (33 ft.) away from other wireless sensors while pairing.
2. Hold **UP**.
3. Select **Sensors & Accessories** > **Add New**.
4. Select an option:
   - Select **Search All**.
   - Select your sensor type.

   After the sensor is paired with your watch, the sensor status changes from Searching to Connected. Sensor data appears in the data screen loop or a custom data field. You can customize the optional data fields (*Customizing the Data Screens*, page 82).

## HRM-Pro Running Pace and Distance

The HRM-Pro series accessory calculates your running pace and distance based on your user profile and the motion measured by the sensor on every stride. The heart rate monitor provides running pace and distance when GPS is not available, such as during treadmill running. You can view your running pace and distance on your compatible Forerunner watch when connected using ANT+ technology. You can also view it on compatible third-party training apps when connected using Bluetooth technology.

The pace and distance accuracy improves with calibration.

**Automatic calibration**: The default setting for your watch is **Auto Calibrate**. The HRM-Pro series accessory calibrates each time you run outside with it connected to your compatible Forerunner watch.

**NOTE:** Automatic calibration does not work for indoor, trail, or ultra run activity profiles (*Tips for Recording Running Pace and Distance*, page 58).

**Manual calibration**: You can select **Calibrate & Save** after a treadmill run with your connected HRM-Pro series accessory (*Calibrating the Treadmill Distance*, page 10).

### Tips for Recording Running Pace and Distance

- Update your Forerunner watch software (*Product Updates*, page 93).
- Complete several outdoor runs with GPS and your connected HRM-Pro series accessory. It's important that your outdoor range of paces matches your range of paces on the treadmill.
- If your run includes sand or deep snow, go to the sensor settings, and turn off **Auto Calibrate**.
- If you previously connected a compatible foot pod using ANT+ technology, set the foot pod status to **Off**, or remove it from the list of connected sensors.
- Complete a treadmill run with manual calibration (*Calibrating the Treadmill Distance*, page 10).
- If automatic and manual calibrations don't seem accurate, go to the sensor settings, and select **HRM Pace & Distance** > **Reset Calibration Data**.

  **NOTE:** You can try turning off **Auto Calibrate**, and then manually calibrate again (*Calibrating the Treadmill Distance*, page 10).

## Running Power

Garmin running power is calculated using measured running dynamics information, user mass, environmental data, and other sensor data. The power measurement estimates the amount of power a runner applies to the road surface, and it is displayed in watts. Using running power as a gauge of effort may suit some runners better than using either pace or heart rate. Running power can be more responsive than heart rate for indicating the level of effort, and it can account for the uphills, downhills, and wind, which a pace measurement does not do. For more information, go to www.garmin.com/performance-data/running/.

Running power can be measured using a compatible running dynamics accessory or the watch sensors. You can customize the running power data fields to view your power output and make adjustments to your training (*Data Fields*, page 98). You can set up power alerts to be notified when you reach a specified power zone (*Activity Alerts*, page 83).

Running power zones are similar to cycling power zones. The values for the zones are default values based on gender, weight, and average ability, and may not match your personal abilities. You can manually adjust your zones on the watch or using your Garmin Connect account (*Setting Your Power Zones*, page 67).

### Running Power Settings

Hold **UP**, select **Activities & Apps**, select a running activity, and select the activity settings.

**Status**: Enables or disables recording Garmin running power data. You can use this setting if you prefer to use third-party running power data.

**Source**: Allows you to select which device to use to record running power data. The Smart Mode option automatically detects and uses the running dynamics accessory, when available. The watch uses wrist-based running power data when an accessory is not connected.

**Account for Wind**: Enables or disables using wind data when calculating your running power. Wind data is a combination of the speed, heading, and barometer data from your watch and the available wind data from your phone.

## Running Dynamics

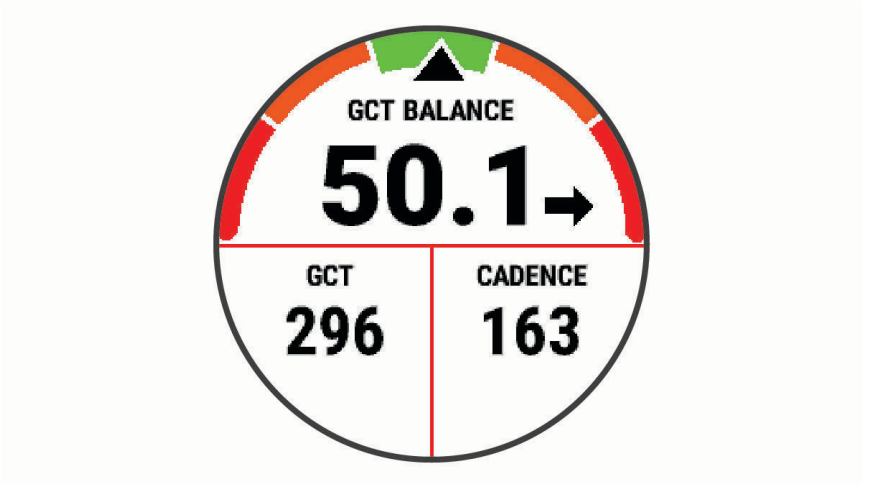
Running dynamics is real-time feedback about your running form. Your Forerunner watch has an accelerometer to calculate five running form metrics. For all six running form metrics, you must pair your Forerunner watch with the HRM-Pro series accessory or other running dynamics accessory that measures torso movement. For more information, go to www.garmin.com/performance-data/running/.

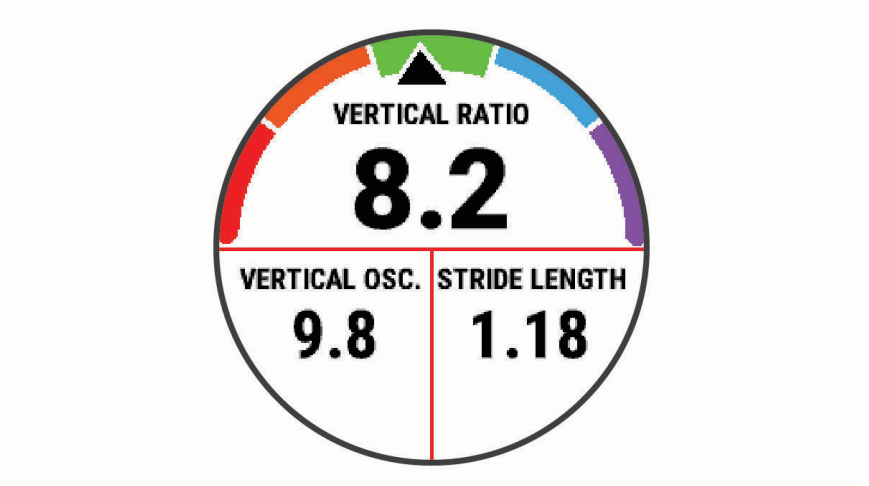
| Metric | Sensor Type | Description |
|---|---|---|
| **Cadence** | Watch or compatible accessory | Cadence is the number of steps per minute. It displays the total steps (right and left combined). |
| **Vertical oscillation** | Watch or compatible accessory | Vertical oscillation is your bounce while running. It displays the vertical motion of your torso, measured in centimeters. |
| **Ground contact time** | Watch or compatible accessory | Ground contact time is the amount of time in each step that you spend on the ground while running. It is measured in milliseconds.<br>**NOTE:** Ground contact time and balance are not available while walking. |
| **Ground contact time balance** | Compatible accessory only | Ground contact time balance displays the left/right balance of your ground contact time while running. It displays a percentage. For example, 53.2 with an arrow pointing left or right. |
| **Stride length** | Watch or compatible accessory | Stride length is the length of your stride from one footfall to the next. It is measured in meters. |
| **Vertical ratio** | Watch or compatible accessory | Vertical ratio is the ratio of vertical oscillation to stride length. It displays a percentage. A lower number typically indicates better running form. |

## Training with Running Dynamics

The watch automatically uses wrist-based running dynamics unless you pair a compatible running dynamics accessory (*Pairing Your Wireless Sensors*, page 58). You can add a running dynamics screen to any running activity (*Customizing the Data Screens*, page 82).

1. Press **START**, and select a running activity.
2. Press **START** to start the activity timer.
3. Go for a run.
4. Scroll to the running dynamics screen to view your metrics.




**REMEMBER:** Ground contact time balance is only available if you are using a compatible running dynamics accessory.

5. If necessary, hold **UP** to edit how the running dynamics data appears.

## Color Gauges and Running Dynamics Data

The running dynamics screens display a color gauge for the primary metric. You can display cadence, vertical oscillation, ground contact time, ground contact time balance, or vertical ratio as the primary metric. The color gauge shows you how your running dynamics data compare to those of other runners. The color zones are based on percentiles.

Garmin has researched many runners of all different levels. The data values in the red or orange zones are typical for less experienced or slower runners. The data values in the green, blue, or purple zones are typical for more experienced or faster runners. More experienced runners tend to exhibit shorter ground contact times, lower vertical oscillation, lower vertical ratio, and higher cadence than less experienced runners. However, taller runners typically have slightly slower cadences, longer strides, and slightly higher vertical oscillation. Vertical ratio is your vertical oscillation divided by stride length. It is not correlated with height.

Go to www.garmin.com/performance-data/running/ for more information on running dynamics. For additional theories and interpretations of running dynamics data, you can search reputable running publications and websites.

| Color Zone | Percentile in Zone | Cadence Range | Ground Contact Time Range |
|---|---|---|---|
| Purple | >95 | >183 spm | <218 ms |
| Blue | 70–95 | 174–183 spm | 218–248 ms |
| Green | 30–69 | 164–173 spm | 249–277 ms |
| Orange | 5–29 | 153–163 spm | 278–308 ms |
| Red | <5 | <153 spm | >308 ms |

## Ground Contact Time Balance Data

Ground contact time balance measures your running symmetry and appears as a percentage of your total ground contact time. For example, 51.3% with an arrow pointing left indicates the runner is spending more time on the ground when on the left foot. If your data screen displays both numbers, for example 48–52, 48% is the left foot and 52% is the right foot.

| Color Zone | Red | Orange | Green | Orange | Red |
|---|---|---|---|---|---|
| Symmetry | Poor | Fair | Good | Fair | Poor |
| Percent of Other Runners | 5% | 25% | 40% | 25% | 5% |
| Ground Contact Time Balance | >52.2% L | 50.8–52.2% L | 50.7% L–50.7% R | 50.8–52.2% R | >52.2% R |

While developing and testing running dynamics, the Garmin team found correlations between injuries and greater imbalances with certain runners. For many runners, ground contact time balance tends to deviate further from 50–50 when running up or down hills. Most running coaches agree that a symmetrical running form is good. Elite runners tend to have quick and balanced strides.

You can watch the gauge or data field during your run or view the summary on your Garmin Connect account after your run. As with the other running dynamics data, ground contact time balance is a quantitative measurement to help you learn about your running form.

### Vertical Oscillation and Vertical Ratio Data

The data ranges for vertical oscillation and vertical ratio are slightly different depending on the sensor and whether it is positioned at the chest (HRM-Pro series, HRM-Run™, or HRM-Tri accessories) or at the waist (Running Dynamics Pod accessory).

| Color Zone | Percentile in Zone | Vertical Oscillation Range at Chest | Vertical Oscillation Range at Waist | Vertical Ratio at Chest | Vertical Ratio at Waist |
|---|---|---|---|---|---|
| Purple | >95 | <6.4 cm | <6.8 cm | <6.1% | <6.5% |
| Blue | 70–95 | 6.4–8.1 cm | 6.8–8.9 cm | 6.1–7.4% | 6.5–8.3% |
| Green | 30–69 | 8.2–9.7 cm | 9.0–10.9 cm | 7.5–8.6% | 8.4–10.0% |
| Orange | 5–29 | 9.8–11.5 cm | 11.0–13.0 cm | 8.7–10.1% | 10.1–11.9% |
| Red | <5 | >11.5 cm | >13.0 cm | >10.1% | >11.9% |

### Tips for Missing Running Dynamics Data

This topic provides tips for using a compatible running dynamics accessory. If the accessory is not connected to your watch, the watch automatically switches to wrist-based running dynamics.

- Make sure you have a running dynamics accessory, such as the HRM-Pro series accessory.
  Accessories with running dynamics have on the front of the module.
- Pair the running dynamics accessory with your watch again, according to the instructions.
- If you are using the HRM-Pro series accessory, pair it with your watch using ANT+ technology, rather than Bluetooth technology.
- If the running dynamics data display shows only zeros, make sure the accessory is worn right-side up.
  **NOTE:** Ground contact time and balance appears only while running. It is not calculated while walking.
  **REMEMBER:** Ground contact time balance is not calculated with wrist-based running dynamics.

## Chest Heart Rate While Swimming

The HRM-Pro series, HRM-Swim, and HRM-Tri heart rate accessories record and store your heart rate data while you are swimming. To view your heart rate data, you can add heart rate data fields (*Customizing the Data Screens*, page 82).

**NOTE:** Chest heart rate data is not visible on compatible watches while the heart rate monitor is underwater.

You must start a timed activity on your paired watch to view stored heart rate data later. During rest intervals when out of the water, the heart rate accessory sends your heart rate data to your watch. Your watch automatically downloads stored heart rate data when you save your timed swim activity. Your heart rate accessory must be out of the water, active, and within range of the watch (3 m) while data downloads. Your heart rate data can be reviewed in the watch history and on your Garmin Connect account.

If both wrist-based heart rate and chest heart rate data are available, your watch uses the chest heart rate data.

## Using an Optional Bike Speed or Cadence Sensor

You can use a compatible bike speed or cadence sensor to send data to your watch.

- Pair the sensor with your watch (*Pairing Your Wireless Sensors*, page 58).
- Set your wheel size (*Wheel Size and Circumference*, page 108).
- Go for a ride (*Starting an Activity*, page 3).

## Training with Power Meters

- Go to buy.garmin.com for a list of power meters that are compatible with your Forerunner device (such as Rally and Vector).
- For more information, see the owner's manual for your power meter.
- Adjust your power zones to match your goals and abilities (*Setting Your Power Zones*, page 67).
- Use range alerts to be notified when you reach a specified power zone (*Setting an Alert*, page 84).
- Customize the power data fields (*Customizing the Data Screens*, page 82).

## Situational Awareness

Your Forerunner watch can be used with the Varia smart bike lights and rearview radar to improve situational awareness. See the owner's manual for your Varia device for more information.

### Using the Varia Camera Controls

**NOTICE**

Some jurisdictions may prohibit or regulate the recording of video, audio, or photographs, or may require that all parties have knowledge of the recording and provide consent. It is your responsibility to know and follow all laws, regulations, and any other restrictions in jurisdictions where you plan to use this device.

Before you can use the Varia camera controls, you must pair the accessory with your watch (*Pairing Your Wireless Sensors*, page 58).

1. Add the **RCT Camera** glance to your watch (*Glances*, page 14).
2. From the **RCT Camera** glance, select an option:
   - Select to take a photo.
   - Select ▶ to save a clip.

## tempe

Your device is compatible with the tempe temperature sensor. You can attach the sensor to a secure strap or loop where it is exposed to ambient air, so it provides a consistent source of accurate temperature data. You must pair the tempe sensor with your device to display temperature data. See the instructions for your tempe sensor for more information (www.garmin.com/manuals/tempe).

## VIRB Remote

The VIRB remote function allows you to control your VIRB action camera using your device.

### 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 your VIRB camera with your Forerunner watch (*Pairing Your Wireless Sensors*, page 58).
   The VIRB glance is automatically added to the glance loop.
3. Press **UP** or **DOWN** from the watch face to view the VIRB glance.
4. If necessary, wait while your watch connects to your camera.
5. Select an option:
   - To record video, select **Start Recording**.
     The video counter appears on the Forerunner screen.
   - To take a photo while recording video, press **DOWN**.
   - To stop recording video, press **STOP**.
   - To take a photo, select **Take Photo**.
   - To take multiple photos in burst mode, select **Take Burst**.
   - To send the camera to sleep mode, select **Sleep Camera**.
   - To wake the camera from sleep mode, select **Wake Camera**.
   - To change video and photo settings, select **Settings**.

### Controlling a VIRB Action Camera During an Activity

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 your VIRB camera with your Forerunner watch (*Pairing Your Wireless Sensors*, page 58).
   When the camera is paired, a VIRB data screen is automatically added to activities.
3. During an activity, press **UP** or **DOWN** to view the VIRB data screen.
4. If necessary, wait while your watch connects to your camera.
5. Hold **UP**.
6. Select **VIRB Remote**.
7. Select an option:
   - To control the camera using the activity timer, select **Settings** > **Recording Mode** > **Timer Start/Stop**.
     **NOTE:** Video recording automatically starts and stops when you start and stop an activity.
   - To control the camera using the menu options, select **Settings** > **Recording Mode** > **Manual**.
   - To manually record video, select **Start Recording**.
     The video counter appears on the Forerunner screen.
   - To take a photo while recording video, press **DOWN**.
   - To manually stop recording video, press **STOP**.
   - To take multiple photos in burst mode, select **Take Burst**.
   - To send the camera to sleep mode, select **Sleep Camera**.
   - To wake the camera from sleep mode, select **Wake Camera**.

## User Profile

You can update your user profile on your watch or on the Garmin Connect app.

## Setting Up Your User Profile

You can update your sex, date of birth, height, weight, wrist, heart rate zone, power zone, and Critical Swim Speed (CSS) settings (*Recording a Critical Swim Speed Test*, page 40). The watch uses this information to calculate accurate training data.

1. Hold **UP**.
2. Select **User Profile**.
3. Select an option.

### Gender Settings

When you first set up the watch, you must choose a sex. Most fitness and training algorithms are binary. For the most accurate results, Garmin recommends selecting your sex assigned at birth. After the initial setup, you can customize the profile settings in your Garmin Connect account.

**Profile & Privacy**: Enables you to customize the data on your public profile.

**User Settings**: Sets your sex. If you select Not Specified, the algorithms that require a binary input will use the sex you specified when you first set up the watch.

### Viewing Your Fitness Age

Your fitness age gives you an idea of how your fitness compares with a person of the same sex. Your watch uses information, such as your age, body mass index (BMI), resting heart rate data, and vigorous activity history to provide a fitness age. If you have a Garmin Index™ scale, your watch uses the body fat percentage metric instead of BMI to determine your fitness age. Exercise and lifestyle changes can impact your fitness age.

**NOTE:** For the most accurate fitness age, complete the user profile setup (*Setting Up Your User Profile*, page 65).

1. Hold **UP**.
2. Select **User Profile** > **Fitness Age**.

## About Heart Rate Zones

Many athletes use 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 to 5 according to increasing intensity. Generally, heart rate zones are calculated based on percentages of your maximum heart rate.

### 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.

If you know your maximum heart rate, you can use the table (*Heart Rate Zone Calculations*, page 67) to determine the best heart rate zone for your fitness objectives.

If you do not know your maximum heart rate, use one of the calculators available on the Internet. Some gyms and health centers can provide a test that measures maximum heart rate. The default maximum heart rate is 220 minus your age.

## Setting Your Heart Rate Zones

The watch uses your user profile information from the initial setup to determine your default heart rate zones. You can set separate heart rate zones for sport profiles, such as running, cycling, and swimming. For the most accurate calorie data during your activity, set your maximum heart rate. You can also set each heart rate zone and enter your resting heart rate manually. You can manually adjust your zones on the watch or using your Garmin Connect account.

1. Hold **UP**.
2. Select **User Profile** > **Heart Rate & Power Zones** > **Heart Rate**.
3. Select **Max. Heart Rate**, and enter your maximum heart rate.

   You can use the Auto Detection feature to automatically record your maximum heart rate during an activity (*Detecting Performance Measurements Automatically*, page 67).
4. Select **LTHR**, and enter your lactate threshold heart rate.

   You can perform a guided test to estimate your lactate threshold (*Lactate Threshold*, page 24). You can use the Auto Detection feature to automatically record your lactate threshold during an activity (*Detecting Performance Measurements Automatically*, page 67).
5. Select **Resting HR** > **Set Custom**, and enter your resting heart rate.

   You can use the average resting heart rate measured by your watch, or you can set a custom resting heart rate.
6. Select **Zones** > **Based On**.
7. Select an option:
   - 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).
   - Select **%LTHR** to view and edit the zones as a percentage of your lactate threshold heart rate.
8. Select a zone, and enter a value for each zone.
9. Select **Sport Heart Rate**, and select a sport profile to add separate heart rate zones (optional).
10. Repeat the steps to add sport heart rate zones (optional).

## Letting the Watch Set Your Heart Rate Zones

The default settings allow the watch 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 65).
- Run often with the wrist or chest 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.

### 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 |
| 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 |

## Setting Your Power Zones

The power zones use default values based on gender, weight, and average ability, and may not match your personal abilities. If you know your functional threshold power (FTP) or threshold power (TP) value, you can enter it and allow the software to calculate your power zones automatically. You can manually adjust your zones on the watch or using your Garmin Connect account.

1. Hold **UP**.
2. Select **User Profile** > **Heart Rate & Power Zones** > **Power**.
3. Select an activity.
4. Select **Based On**.
5. Select an option:
   - Select **Watts** to view and edit the zones in watts.
   - Select **%FTP** or **% TP** to view and edit the zones as a percentage of your threshold power.
6. Select **FTP** or **Threshold Power**, and enter your value.
7. Select a zone, and enter a value for each zone.
8. If necessary, select **Minimum**, and enter a minimum power value.

## Detecting Performance Measurements Automatically

The Auto Detection feature is turned on by default. The watch can automatically detect your maximum heart rate and lactate threshold during an activity.

1. Hold **UP**.
2. Select **User Profile** > **Heart Rate & Power Zones** > **Auto Detection**.
3. Select an option.

# Music

**NOTE:** There are three different music playback options for your Forerunner music watch.

- Third-party provider music
- Personal audio content
- Music stored on your phone

On a Forerunner music watch, you can download audio content to your watch from your computer or from a third-party provider, so you can listen when your phone is not nearby. To listen to audio content stored on your watch, you can connect Bluetooth headphones.

## Downloading Personal Audio Content

Before you can send your personal music to your watch, you must install the Garmin Express application on your computer (www.garmin.com/express).

You can load your personal audio files, such as .mp3 and .m4a files, to a Forerunner music watch from your computer. For more information, go to www.garmin.com/musicfiles.

1. Connect the watch to your computer using the included USB cable.
2. On your computer, open the Garmin Express application, select your watch, and select **Music**.

   **TIP:** For Windows computers, you can select and browse to the folder with your audio files. For Apple computers, the Garmin Express application uses your iTunes® library.
3. In the **My Music** or **iTunes Library** list, select an audio file category, such as songs or playlists.
4. Select the checkboxes for the audio files, and select **Send to Device**.
5. If necessary, in the Forerunner music list, select a category, select the checkboxes, and select **Remove From Device** to remove audio files.

## Connecting to a Third-Party Provider

Before you can download music or other audio files to your watch from a supported third-party provider, you must connect the provider to your watch.

Some third-party music provider options are already installed on your watch.

For more options, you can download the Connect IQ app on your phone (*Downloading Connect IQ Features*, page 75).

1. Press **START**.
2. Select **Connect IQ Store**.
3. Follow the on-screen instructions to install a third-party music provider.
4. Hold **DOWN** from any screen to open the music controls.
5. Select the music provider.

   **NOTE:** If you want to select another provider, hold UP, select Music Providers, and follow the on-screen instructions.

### Downloading Audio Content from a Third-Party Provider

Before you can download audio content from a third-party provider, you must connect to a Wi-Fi network (*Connecting to a Wi-Fi Network*, page 73).

1. Hold **DOWN** from any screen to open the music controls.
2. Hold **UP**.
3. Select **Music Providers**.
4. Select a connected provider.
5. Select a playlist or other item to download to the watch.
6. If necessary, press **BACK** until you are prompted to sync with the service.

**NOTE:** Downloading audio content can drain the battery. You may be required to connect the watch to an external power source if the battery is low.

### Disconnecting from a Third-Party Provider

1. From the Garmin Connect app, select or •••.
2. Select **Garmin Devices**, and select your watch.
3. Select **Music**.
4. Select an installed third-party provider, and follow the on-screen instructions to disconnect the third-party provider from your watch.

## Connecting Bluetooth Headphones

To listen to music loaded onto your Forerunner music watch, you must connect Bluetooth headphones.

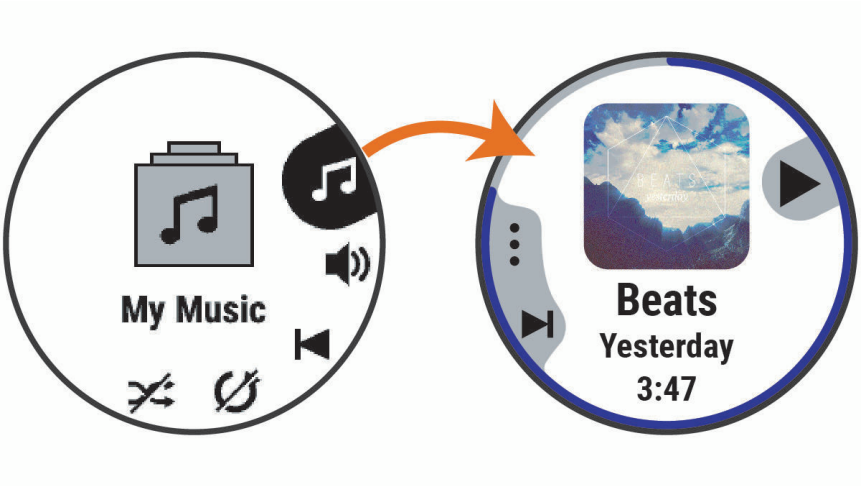
1. Bring the headphones within 2 m (6.6 ft.) of your watch.
2. Enable pairing mode on the headphones.
3. Hold **UP**.
4. Select **Music** > **Headphones** > **Add New**.
5. Select your headphones to complete the pairing process.

## Listening to Music

1. Hold **DOWN** from any screen to open the music controls.
2. If necessary, connect your Bluetooth headphones (*Connecting Bluetooth Headphones*, page 69).
3. Hold **UP**.
4. Select **Music Providers**, and select an option:
   - To listen to music downloaded to the watch from your computer, select **My Music** (*Downloading Personal Audio Content*, page 68).
   - To control music playback on your phone, select **Control Phone**.
   - To listen to music from a third-party provider, select the name of the provider, and select a playlist.
5. Select ▶.

## Music Playback Controls

**NOTE:** Some music playback controls are available on a Forerunner music device only.




| | |
|---|---|
| ⋮ | Select to open the music playback controls. |
| 🔊 | Select to adjust the volume. |
| ▶ | Select to play and pause the current audio file. |
| ⏭ | Select to skip to the next audio file in the playlist.<br>Hold to fast forward through the current audio file. |
| ⏮ | Select to restart the current audio file.<br>Select twice to skip to the previous audio file in the playlist.<br>Hold to rewind through the current audio file. |
| ↻ | Select to change the repeat mode. |
| 🔀 | Select to change the shuffle mode. |

## Controlling Music Playback on a Connected Phone

1. On your phone, start playing a song or playlist.
2. Select an option:
   - On a Forerunner music watch, hold **DOWN** from any screen to open the music controls.
   - On a Forerunner non-music watch, press **DOWN** to view the music controls glance.

     **NOTE:** You may need to add the music controls glance to your glance loop (*Customizing the Glance Loop*, page 16).
3. Select **Music Providers** > **Control Phone**.

## Changing the Audio Mode

You can change the music playback mode from stereo to mono.

1. Hold **UP**.
2. Select **Music** > **Audio**.
3. Select an option.

# Connectivity

Connectivity features are available for your watch when you pair with your compatible phone (*Pairing Your Phone*, page 71). Additional features are available when you connect your watch to a Wi-Fi network (*Connecting to a Wi-Fi Network*, page 73).

## Phone Connectivity Features

Phone connectivity features are available for your Forerunner watch when you pair it using the Garmin Connect app (*Pairing Your Phone*, page 71).

- App features from the Garmin Connect app, the Connect IQ app, and more (*Phone Apps and Computer Applications*, page 73)
- Glances (*Glances*, page 14)
- Controls menu features (*Controls*, page 30)
- Safety and tracking features (*Safety and Tracking Features*, page 76)
- Phone interactions, such as notifications (*Enabling Bluetooth Notifications*, page 71)

### Pairing Your Phone

To use the connected features on your watch, you must pair it directly through the Garmin Connect app, instead of from the Bluetooth settings on your phone.

1. During the initial setup on your watch, select ✔ when you are prompted to pair with your phone.

   **NOTE:** If you previously skipped the pairing process, you can hold **UP**, and select **Connectivity** > **Phone** > **Pair Phone**.

   **NOTE:** If you have a Forerunner non-music watch, you can hold **UP**, and select **Phone** > **Pair Phone**.
2. Scan the QR code with your phone, and follow the on-screen instructions to complete the pairing and setup process.

### Enabling Bluetooth Notifications

Before you can enable notifications, you must pair the watch with a compatible phone (*Pairing Your Phone*, page 71).

1. Hold **UP**.
2. If you have a Forerunner music watch, select **Connectivity**.
3. Select **Phone** > **Notifications** > **Status** > **On**.
4. Select **During Activity** or **General Use**.
5. Select a notification type.
6. Select status, tone, and vibration preferences.
7. Press **BACK**.
8. Select privacy and timeout preferences.
9. Press **BACK**.
10. Select **Signature** to add a signature to your text message replies.

### Viewing Notifications

1. From the watch face, press **UP** or **DOWN** to view the notifications glance.
2. Press **START**.
3. Select a notification.
4. Press **START** for more options.
5. Press **BACK** to return to the previous screen.

### Receiving an Incoming Phone Call

When you receive a phone call on your connected phone, the Forerunner watch displays the name or phone number of the caller.

- To accept the call, select **START**.

  **NOTE:** To talk to the caller, you must use your connected phone.
- To decline the call, select **DOWN**.
- To decline the call and immediately send a text message reply, select , and select a message from the list.

  **NOTE:** To send a text message reply, you must be connected to a compatible Android™ phone using Bluetooth technology.

### Replying to a Text Message

**NOTE:** This feature is available only for compatible Android phones.

When you receive a text message notification on your watch, you can send a quick reply by selecting from a list of messages. You can customize messages in the Garmin Connect app.

**NOTE:** This feature sends text messages using your phone. Regular text message limits and charges from your carrier and phone plan may apply. Contact your mobile carrier for more information about text message charges or limits.

1. From the watch face, press **UP** or **DOWN** to view the notifications glance.
2. Press **START**, and select a text message notification.
3. Press **START**.
4. Select **Reply**.
5. Select a message from the list.

   Your phone sends the selected message as an SMS text message.

### Managing Notifications

You can use your compatible phone to manage notifications that appear on your Forerunner watch.

Select an option:

- If you are using an iPhone®, go to the iOS® notifications settings to select the items to show on the watch.
- If you are using an Android phone, from the Garmin Connect app, select **Settings** > **Notifications**.

## Turning Off the Bluetooth Phone Connection

You can turn off the Bluetooth phone connection from the controls menu.

**NOTE:** You can add options to the controls menu (*Customizing the Controls Menu*, page 32).

1. Hold **LIGHT** to view the controls menu.
2. Select to turn off the Bluetooth phone connection on your Forerunner watch.

   Refer to the owner's manual for your phone to turn off Bluetooth technology on your phone.

## Turning On and Off Phone Connection Alerts

You can set the Forerunner watch to alert you when your paired phone connects and disconnects using Bluetooth technology.

**NOTE:** Phone connection alerts are turned off by default.

1. Hold **UP**.
2. Select **Connectivity** > **Phone** > **Connected Alerts**.

### Playing Audio Prompts During an Activity

You can enable your Forerunner music watch to play motivational status announcements during a run or other activity. Audio prompts play on your connected Bluetooth headphones, if available. Otherwise, audio prompts play on your phone paired through the Garmin Connect app. During an audio prompt, the watch or phone mutes the primary audio to play the announcement.

**NOTE:** This feature is not available for all activities.

1. Hold **UP**.
2. Select **Audio Prompts**.
3. Select an option:
   - To hear a prompt for each lap, select **Lap Alert**.
   - To customize prompts with your pace and speed information, select **Pace/Speed Alert**.
   - To customize prompts with your heart rate information, select **Heart Rate Alert**.
   - To customize prompts with power data, select **Power Alert**.
   - To hear prompts when you start and stop the activity timer, including the Auto Pause® feature, select **Timer Events**.
   - To hear workout alerts play as an audio prompt, select **Workout Alerts**.
   - To hear activity alerts play as an audio prompt, select **Activity Alerts** (*Activity Alerts*, page 83).
   - To hear a sound play right before an audio alert or prompt, select **Audio Tones**.
   - To change the language or the dialect of the voice prompts, select **Dialect**.

## Wi-Fi Connectivity Features

Wi-Fi is available only on the Forerunner music watch.

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

**Audio content**: Allows you to sync audio content from third-party providers.

**Software updates**: You can download and install the latest software.

**Workouts and training plans**: You can browse for and select workouts and training plans on the Garmin Connect site. The next time your watch has a Wi-Fi connection, the files are sent to your watch.

### Connecting to a Wi-Fi Network

You must connect your watch to the Garmin Connect app on your phone or to the Garmin Express application on your computer before you can connect to a Wi-Fi network.

1. Hold **UP**.
2. Select **Connectivity** > **Wi-Fi** > **My Networks** > **Add Network**.

   The watch displays a list of nearby Wi-Fi networks.
3. Select a network.
4. If necessary, enter the password for the network.

The watch connects to the network, and the network is added to the list of saved networks. The watch reconnects to this network automatically when it is within range.

## Phone Apps and Computer Applications

You can connect your watch to multiple Garmin phone apps and computer applications using the same Garmin account.

## 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, you can download the app from the app store on your phone , or go to connect.garmin.com.

**Store your activities**: After you complete and save an activity with your watch, 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, cadence, running dynamics, 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 watch and user settings on your Garmin Connect account.

### Using the Garmin Connect App

After you pair your watch with your phone (*Pairing Your Phone*, page 71), you can use the Garmin Connect app to upload all of your activity data to your Garmin Connect account.

1. Verify the Garmin Connect app is running on your phone.
2. Bring your watch within 10 m (30 ft.) of your phone.

   Your watch automatically syncs your data with the Garmin Connect app and your Garmin Connect account.

### Updating the Software Using the Garmin Connect App

Before you can update your watch software using the Garmin Connect app, you must have a Garmin Connect account, and you must pair the watch with a compatible phone (*Pairing Your Phone*, page 71).

Sync your watch with the Garmin Connect app (*Manually Syncing Data with Garmin Connect*, page 75).

When new software is available, the Garmin Connect app automatically sends the update to your watch.

### Using Garmin Connect on Your Computer

The Garmin Express application connects your watch to your Garmin Connect account using a computer. You can use the Garmin Express application to upload your activity data to your Garmin Connect account and to send data, such as workouts or training plans, from the Garmin Connect website to your watch. You can also add music to your watch (*Downloading Personal Audio Content*, page 68). You can also install software updates and manage your Connect IQ apps.

1. Connect the watch to your computer using the USB cable.
2. Go to www.garmin.com/express.
3. Download and install the Garmin Express application.
4. Open the Garmin Express application, and select **Add Device**.
5. Follow the on-screen instructions.

### Updating the Software Using Garmin Express

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.

   **NOTE:** If you have already set up your device with Wi-Fi connectivity, Garmin Connect can automatically download available software updates to your device when it connects using Wi-Fi.

### Manually Syncing Data with Garmin Connect

**NOTE:** You can add options to the controls menu (*Customizing the Controls Menu*, page 32).

1. Hold **LIGHT** to view the controls menu.
2. Select **Sync**.

## Connect IQ Features

You can add Connect IQ apps, data fields, glances, music providers, and watch faces to your watch using the Connect IQ store on your watch or phone.

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

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

**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.

**Music**: Add music providers to your Forerunner music watch.

### Downloading Connect IQ Features

Before you can download features from the Connect IQ app, you must pair your Forerunner watch with your phone (*Pairing Your Phone*, page 71).

1. From the app store on your phone, install and open the Connect IQ app.
2. If necessary, select your watch.
3. Select a Connect IQ feature.
4. Follow the on-screen instructions.

### Downloading Connect IQ Features Using Your Computer

1. Connect the watch to your computer using a USB cable.
2. Go to apps.garmin.com, and sign in.
3. Select a Connect IQ feature, and download it.
4. Follow the on-screen instructions.

# Safety and Tracking Features

**⚠ CAUTION**

The safety and tracking features are supplemental features and should not be relied on as a primary method to obtain emergency assistance. The Garmin Connect app does not contact emergency services on your behalf.

***NOTICE***

To use the safety and tracking features, the Forerunner watch must be connected to the Garmin Connect app using Bluetooth technology. Your paired phone must be equipped with a data plan and be in an area of network coverage where data is available. You can enter emergency contacts in your Garmin Connect account.

For more information about safety and tracking features, go to www.garmin.com/safety.

**Assistance**: Allows you to send a message with your name, LiveTrack link, and GPS location (if available) to your emergency contacts.

**Incident detection**: When the Forerunner watch detects an incident during certain outdoor activities, the watch sends an automated message, LiveTrack link, and GPS location (if available) to your emergency contacts.

**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 web page.

**Live Event Sharing**: Allows you to send messages to friends and family during an event, providing real-time updates.

**NOTE:** This feature is available only if your watch is connected to a compatible Android phone.

## Adding Emergency Contacts

Emergency contact phone numbers are used for the safety and tracking features.

1. From the Garmin Connect app, select ☰ or •••.
2. Select **Safety & Tracking** > **Safety Features** > **Emergency Contacts** > **Add Emergency Contacts**.
3. Follow the on-screen instructions.

Your emergency contacts receive a notification when you add them as an emergency contact, and can accept or decline your request. If a contact declines, you must choose another emergency contact.

## Adding Contacts

You can add up to 50 contacts to the Garmin Connect app. Contact emails can be used with the LiveTrack feature. Three of these contacts can be used as emergency contacts (*Adding Emergency Contacts*, page 76).

1. From the Garmin Connect app, select ☰ or •••.
2. Select **Contacts**.
3. Follow the on-screen instructions.

After you add contacts, you must sync your data to apply the changes to your Forerunner device (*Manually Syncing Data with Garmin Connect*, page 75).

## Turning Incident Detection On and Off

**⚠ CAUTION**

Incident detection is a supplemental feature available only for certain outdoor activities. Incident detection should not be relied on as a primary method to obtain emergency assistance. The Garmin Connect app does not contact emergency services on your behalf.

***NOTICE***

Before you can enable incident detection on your watch, you must set up emergency contacts in the Garmin Connect app (*Adding Emergency Contacts*, page 76). Your paired phone must be equipped with a data plan and be in an area of network coverage where data is available. Your emergency contacts must be able to receive emails or text messages (standard text messaging rates may apply).

1. From the watch face, hold **UP**.
2. Select **Safety & Tracking** > **Incident Detection**.
3. Select a GPS activity.

   **NOTE:** Incident detection is available only for certain outdoor activities.

When an incident is detected by your Forerunner watch and your phone is connected, the Garmin Connect app can send an automated text message and email with your name and GPS location (if available) to your emergency contacts. A message appears on your device and paired phone indicating your contacts will be informed after 15 seconds have elapsed. If assistance is not needed, you can cancel the automated emergency message.

## Requesting Assistance

**NOTE:** Your paired phone must be equipped with a data plan and be in an area of network coverage where data is available.

Before you can request assistance, you must set up emergency contacts (*Adding Emergency Contacts*, page 76). Your emergency contacts must be able to receive emails or text messages (standard text messaging rates may apply).

1. Hold **LIGHT**.
2. When you feel three vibrations, release the button to activate the assistance feature.

   The countdown screen appears.

   **TIP:** Before the countdown is complete, you can hold any button to cancel the message.

## Live Event Sharing

Live event sharing allows you to send messages to friends and family during an event, providing real-time updates including cumulative time and last lap time. Before the event, you can customize the list of recipients and the message content in the Garmin Connect app.

### Turning On Live Event Sharing

Before you can use live event sharing, you must set up the LiveTrack feature in the Garmin Connect app.

**NOTE:** LiveTrack features are available when your Forerunner watch is connected to the Garmin Connect app using Bluetooth technology, with a compatible Android phone.

1. In the Garmin Connect app, from the settings menu, select **Safety & Tracking** > **Live Event Sharing**.

   You can customize the message triggers and options.
2. Go outside, and select a GPS activity on your Forerunner watch.

   **NOTE:** This feature is not available for all activities.
3. Select ⋮ > **Live Event Sharing** > **Sharing**.

   Live event sharing is enabled for 24 hours.
4. Select **Recipients** to add people from your contacts.

# Clocks

## Setting an Alarm

You can set multiple alarms.

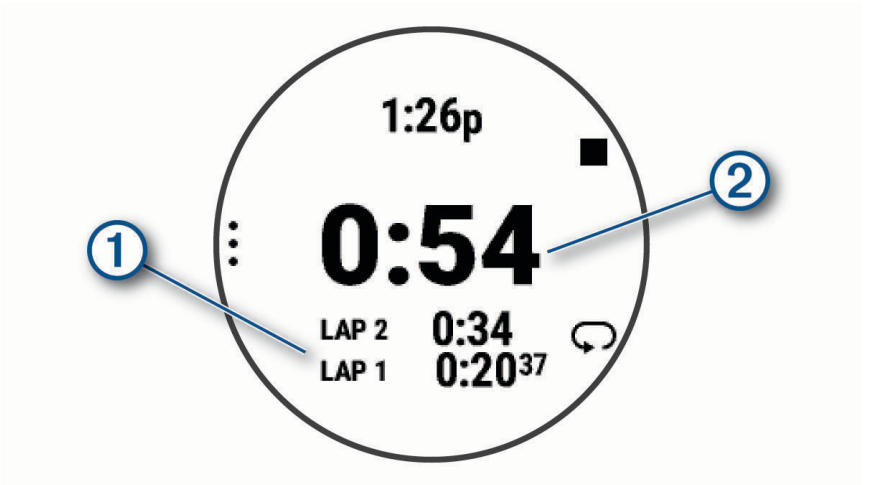
1 From the watch face, hold **UP**.
2 Select **Clocks** > **Alarms** > **Add Alarm**.
3 Enter the alarm time.

### Editing an Alarm

1 From the watch face, hold **UP**.
2 Select **Clocks** > **Alarms**.
3 Select an alarm.
4 Select an option:
- To turn the alarm on or off, select **Status**.
- To change the alarm time, select **Time**.
- To set the alarm to repeat regularly, select **Repeat**, and select when the alarm should repeat.
- To select the type of alarm notification, select **Sound and Vibe**.
- To turn the display on or off with the alarm, select **Backlight**.
- To select a description for the alarm, select **Label**.
- To delete the alarm, select **Delete**.

## Using the Stopwatch

1. From the watch face, hold **UP**.
2. Select **Clocks** > **Stopwatch**.
3. Press **START** to start the timer.
4. Press **BACK** to restart the lap timer ①.




   The total stopwatch time ② continues running.
5. Press **STOP** to stop both timers.
6. Select an option:
   - To reset both timers, press **DOWN**.
   - To save the stopwatch time as an activity, press **UP**, and select **Save Activity**.
   - To reset the timers and exit the stopwatch, press **UP**, and select **Done**.
   - To review the lap timers, press **UP**, and select **Review**.
     **NOTE:** The **Review** option only appears if there have been multiple laps.
   - To return to the watch face without resetting the timers, press **UP**, and select **Go To Watchface**.
   - To enable or disable lap recording, press **UP**, and select **Lap Key**.

## Starting the Countdown Timer

1. From the watch face, hold **UP**.
2. Select **Clocks** > **Timers**.
3. Select an option:
   - To set and save a countdown timer for the first time, enter the time, press **UP**, and select **Save Timer**.
   - To set and save additional countdown timers, select **Add Timer**, and enter the time.
   - To set a countdown timer without saving it, select **Quick Timer**, and enter the time.
4. If necessary, press **UP**, and select an option:
   - Select **Time** to change the time.
   - Select **Restart** > **On** to automatically restart the timer after it expires.
   - Select **Sound and Vibe**, and select a type of notification.
5. Press **START** to start the timer.

### Deleting a Timer

1. From the watch face, hold **UP**.
2. Select **Clocks** > **Timers**.
3. Select a timer.
4. Press **UP**, and select **Delete**.

## Syncing the Time with GPS

Each time you turn on the watch and acquire satellites, the watch automatically detects your time zones and the current time of day. You can also manually sync the time with GPS when you change time zones, and to update for daylight saving time.

1. Hold **UP**.
2. Select **System** > **Time** > **Sync With GPS**.
3. Wait while the device locates satellites (*Acquiring Satellite Signals*, page 94).

## Setting the Time Manually

1. From the watch face, hold **UP**.
2. Select **System** > **Time** > **Set Time** > **Manual**.
3. Select **Time**, and enter the time of day.

# Customizing Your Watch

## Activities and App Settings

These settings allow you to customize each preloaded activity app based on your needs. For example, you can customize data pages and enable alerts and training features. Not all settings are available for all activity types.

Hold **UP**, select **Activities & Apps**, select an activity, and select the activity settings.

**3D Distance**: Calculates your distance traveled using your elevation change and your horizontal movement over ground.

**3D Speed**: Calculates your speed using your elevation change and your horizontal movement over ground.

**Accent Color**: Sets the accent color of each activity to help identify which activity is active.

**Add Activity**: Allows you to customize a multisport activity.

**Alerts**: Sets the training or navigation alerts for the activity (*Activity Alerts*, page 83).

**Auto Climb**: Enables the watch to detect elevation changes automatically using the built-in altimeter (*Enabling Auto Climb*, page 84).

**Auto Pause**: Sets the options for the Auto Pause feature to stop recording data when you stop moving or when you drop below a specified speed. This feature is helpful if your activity includes stop lights or other places where you must stop.

**Auto Rest**: Enables the watch to automatically create a rest interval when you stop moving (*Auto Rest and Manual Rest*, page 9).

**Auto Scroll**: Sets the watch to scroll through all of the activity data screens automatically while the activity timer is running.

**Auto Set**: Enables the watch to start and stop exercise sets automatically during a strength training activity.

**Background Color**: Sets the background color of each activity to black or white.

**Broadcast Heart Rate**: Enables automatic heart rate data broadcasting when you start the activity (*Broadcasting Heart Rate Data*, page 51).

**Countdown Start**: Enables a countdown timer for pool swimming intervals.

**Data Screens**: Enables you to customize data screens and add new data screens for the activity (*Customizing the Data Screens*, page 82).

**Edit Weight**: Allows you to add the weight used for an exercise set during a strength training or cardio activity.

**GPS**: Sets the satellite system to use for the activity (*GPS Settings*, page 85).

**Lane Number**: Sets your lane number for track running.

**Lap Key**: Enables or disables the BACK button for recording a lap or rest during an activity.

**Laps**: Sets the options for the Auto Lap feature to automatically mark laps. The Auto Distance option marks laps at a specific distance. When you complete a lap, a customizable lap alert message appears. This feature is helpful for comparing your performance over different parts of an activity.

**Lock Device**: Locks the buttons during a multisport activity to prevent inadvertent button presses.

**Metronome**: Plays tones or vibrates at a steady rhythm to help you improve your performance by training at a faster, slower, or more consistent cadence. You can set the beats per minute (bpm) of the cadence you want to maintain, beat frequency, and sound settings.

**Pool Size**: Sets the pool length for pool swimming.

**Power Averaging**: Controls whether the watch includes zero values for bike power data that occur when you are not pedaling.

**Power Save Timeout**: Sets the power-save timeout length for how long your watch stays in training mode, for example, when you are waiting for a race to start. The Normal option sets the watch to enter low-power watch mode after 5 minutes of inactivity. The Extended option sets the watch to enter low-power watch mode after 25 minutes of inactivity. The extended mode can result in shorter battery life between charges.

**Record Temperature**: Records the ambient temperature around the watch during certain activities.

**Record VO2 Max.**: Enables VO2 max. recording for trail run and ultra run activities.

**Rename**: Sets the activity name.

**Rep Counting**: Enables or disables rep counting during a workout. The Workouts Only option enables rep counting during guided workouts only.

**Repeat**: Enables the Repeat option for multisport activities. For example, you can use this option for activities that include multiple transitions, such as a swimrun.

**Restore Defaults**: Allows you to reset the activity settings.

**Running Power**: Allows you to record running power data and customize the settings (*Running Power Settings*, page 59).

**Runs**: Sets the preferences for ski or snowboard runs. You can enable Auto Run to detect runs automatically using the built-in accelerometer. You can also enable the Lap Key and the Lap Alert settings.

**Self Evaluation**: Sets how often you evaluate your perceived effort for the activity (*Evaluating an Activity*, page 4).

**Stroke Detection**: Enables stroke detection for pool swimming.

**Transitions**: Enables transitions for multisport activities.

**Vibration Alerts**: Enables alerts that notify you to inhale or exhale during a breathwork activity.

**Workout Videos**: Enables instructive workout animations for a strength, cardio, yoga, or Pilates activity. Animations are available for pre-installed workouts and workouts downloaded from your Garmin Connect account.

## Customizing the Data Screens

You can show, hide, and change the layout and content of data screens for each activity.

1. Hold **UP**.
2. Select **Activities & Apps**.
3. Select the activity to customize.
4. Select the activity settings.
5. Select **Data Screens**.
6. Select a data screen to customize.
7. Select an option:
   - Select **Layout** to adjust the number of data fields on the data screen.
   - Select **Data Fields**, and select a field to change the data that appears in the field.

     **TIP:** For a list of all the available data fields, go to *Data Fields*, page 98. Not all data fields are available for all activity types.
   - Select **Reorder** to change the location of the data screen in the loop.
   - Select **Remove** to remove the data screen from the loop.
8. If necessary, select **Add New** to add a data screen to the loop.

   You can add a custom data screen, or select one of the predefined data screens.

## Adding a Map to an Activity

You can add the map to the data screens loop for an activity.

1. Hold **UP**.
2. Select **Activities & Apps**.
3. Select the activity to customize.
4. Select the activity settings.
5. Select **Data Screens** > **Add New** > **Map**.

## Activity Alerts

You can set alerts for each activity, which can help you to train toward specific goals, to increase your awareness of your environment, and to navigate to your destination. Some alerts are available only for specific activities. There are three types of alerts: event alerts, range alerts, and recurring alerts.

**Event alert**: An event alert notifies you one time. The event is a specific value. For example, you can set the watch to alert you when you burn a specified number of calories.

**Range alert**: A range alert notifies you each time the watch is above or below a specified range of values. For example, you can set the watch to alert you when your heart rate is below 60 beats per minute (bpm) and over 210 bpm.

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

| Alert Name | Alert Type | Description |
|---|---|---|
| Cadence | Range | You can set minimum and maximum cadence values. |
| Calories | Event, recurring | You can set the number of calories. |
| Custom | Event, recurring | You can select an existing message or create a custom message and select an alert type. |
| Distance | Event, recurring | You can set a distance interval. |
| Elevation | Range | You can set minimum and maximum elevation values. |
| Heart Rate | Range | You can set minimum and maximum heart rate values or select zone changes. See *About Heart Rate Zones*, page 65 and *Heart Rate Zone Calculations*, page 67. |
| Pace | Range | You can set minimum and maximum pace values. |
| Pacing | Recurring | You can set a target swim pace. |
| Power | Range | You can set the high or low power level. |
| Proximity | Event | You can set a radius from a saved location. |
| Run/Walk | Recurring | You can set timed walking breaks at regular intervals. |
| Speed | Range | You can set minimum and maximum speed values. |
| Stroke Rate | Range | You can set high or low strokes per minute. |
| Time | Event, recurring | You can set a time interval. |
| Track Timer | Recurring | You can set a track time interval in seconds. |

### Setting an Alert

1. Hold **UP**.
2. Select **Activities & Apps**.
3. Select an activity.

   **NOTE:** This feature is not available for all activities.
4. Select the activity settings.
5. Select **Alerts**.
6. Select an option:
   - Select **Add New** to add a new alert for the activity.
   - Select the alert name to edit an existing alert.
7. If necessary, select the type of alert.
8. Select a zone, enter the minimum and maximum values, or enter a custom value for the alert.
9. If necessary, turn on the alert.

For event and recurring alerts, a message appears each time you reach the alert value. For range alerts, a message appears each time you exceed or drop below the specified range (minimum and maximum values).

## Enabling Auto Climb

You can use the auto climb feature to detect elevation changes automatically. You can use it during activities such as climbing, hiking, running, or biking.

1. Hold **UP**.
2. Select **Activities & Apps**.
3. Select an activity.

   **NOTE:** This feature is not available for all activities.
4. Select the activity settings.
5. Select **Auto Climb** > **Status**.
6. Select **Always** or **When Not Navigating**.
7. Select an option:
   - Select **Run Screen** to identify which data screen appears while running.
   - Select **Climb Screen** to identify which data screen appears while climbing.
   - Select **Invert Colors** to reverse the display colors when changing modes.
   - Select **Vertical Speed** to set the rate of ascent over time.
   - Select **Mode Switch** to set how quickly the device changes modes.

   **NOTE:** The Current Screen option allows you to automatically switch to the last screen you were viewing before the auto climb transition occurred.

### GPS Settings

You can change the GPS settings to customize the satellite systems used for each activity. For more information about satellite systems, go to www.garmin.com/aboutGPS.

**TIP:** The GPS settings can impact battery life (*Battery Life Information*, page 93).

Hold **UP**, select **Activities & Apps**, select an activity, select the activity settings, and select **GPS**.

**NOTE:** These settings are not available for all activities.

**Off**: Disables satellite systems for the activity.

**GPS Only**: Enables the GPS satellite system.

**All Systems**: Enables multiple satellite systems. Using multiple satellite systems together offers increased performance in challenging environments and faster position acquisition than using GPS only.

**All + Multi-Band**: Enables multiple satellite systems on multiple frequency bands. Multi-band systems use multiple frequency bands and allow for more consistent track logs, improved positioning, improved multi-path errors, and fewer atmospheric errors when using the watch in challenging environments.

**Auto Select**: Enables the watch to use SatIQ™ technology to dynamically select the best multi-band system based on your environment. The Auto Select setting offers the best positioning accuracy while still prioritizing battery life.

**UltraTrac**: Records track points and sensor data less frequently. Enabling the UltraTrac feature increases battery life but decreases the quality of recorded activities. You should use the UltraTrac feature for activities that demand longer battery life and for which frequent sensor data updates are less important.

## Sensors Settings

### Compass Settings

Hold **UP**, and select **Sensors & Accessories** > **Compass**.

**Calibrate**: Allows you to manually calibrate the compass sensor (*Calibrating the Compass Manually*, page 85).

**Display**: Sets the directional heading on the compass to letters, degrees, or milliradians.

**North Ref.**: Sets the north reference of the compass (*Setting the North Reference*, page 86).

**Mode**: Sets the compass to use electronic-sensor data only (On), a combination of GPS and electronic-sensor data when moving (Auto), or GPS data only (Off).

#### Calibrating the Compass Manually

***NOTICE***

Calibrate the electronic compass outdoors. To improve heading accuracy, do not stand near objects that influence magnetic fields, such as vehicles, buildings, and overhead power lines.

Your watch was already calibrated at the factory, and the watch uses automatic calibration by default. If you experience irregular compass behavior, for example, after moving long distances or after extreme temperature changes, you can manually calibrate the compass.

1. Hold **UP**.
2. Select **Sensors & Accessories** > **Compass** > **Calibrate**.
3. Follow the on-screen instructions.

   **TIP:** Move your wrist in a small figure eight motion until a message appears.

### Setting the North Reference

You can set the directional reference used in calculating heading information.

1. Hold **UP**.
2. Select **Sensors & Accessories** > **Compass** > **North Ref.**.
3. Select an option:
   - To set geographic north as the heading reference, select **True**.
   - To set the magnetic declination for your location automatically, select **Magnetic**.
   - To set grid north (000º) as the heading reference, select **Grid**.
   - To set the magnetic variation value manually, select **User**, enter the magnetic variance, and select **Done**.

## Altimeter Settings

Hold **UP**, and select **Sensors & Accessories** > **Altimeter**.

**Calibrate**: Allows you to manually calibrate the altimeter sensor.

**Auto Cal.**: Allows the altimeter to self-calibrate each time you use satellite systems.

**Sensor Mode**: Sets the mode for the sensor. The Auto option uses both the altimeter and barometer according to your movement. You can use the Altimeter Only option when your activity involves changes in altitude, or the Barometer Only option when your activity does not involve changes in altitude.

**Elevation**: Sets the units of measure for elevation.

### Calibrating the Barometric Altimeter

Your watch was already calibrated at the factory, and the watch uses automatic calibration at your GPS starting point by default. You can manually calibrate the barometric altimeter if you know the correct elevation.

1. Hold **UP**.
2. Select **Sensors & Accessories** > **Altimeter**.
3. Select an option:
   - To calibrate automatically from your GPS starting point, select **Auto Cal.**.
   - To enter the current elevation manually, select **Calibrate** > **Enter Manually**.
   - To enter the current elevation from your GPS location, select **Calibrate** > **Use GPS**.

## Barometer Settings

Hold **UP**, and select **Sensors & Accessories** > **Barometer**.

**Calibrate**: Allows you to manually calibrate the barometer sensor.

**Plot**: Sets the time scale for the chart in the barometer glance.

**Storm Alert**: Sets the rate of barometric pressure change that triggers a storm alert.

**Sensor Mode**: Sets the mode for the sensor. The Auto option uses both the altimeter and barometer according to your movement. You can use the Altimeter Only option when your activity involves changes in altitude, or the Barometer Only option when your activity does not involve changes in altitude.

**Pressure**: Sets how the watch displays pressure data.

### Calibrating the Barometer

Your watch was already calibrated at the factory, and the watch uses automatic calibration at your GPS starting point by default. You can manually calibrate the barometer if you know the correct elevation or the correct sea level pressure.

1. Hold **UP**.
2. Select **Sensors & Accessories** > **Barometer** > **Calibrate**.
3. Select an option:
   - To enter the current elevation and sea level pressure (optional), select **Enter Manually**.
   - To calibrate automatically from your GPS starting point, select **Use GPS**.

## Map Settings

You can customize how the map appears in the map app and data screens.

Hold **UP**, and select **Map**.

**Orientation**: Sets the orientation of the map. The North Up option shows north at the top of the screen. The Track Up option shows your current direction of travel at the top of the screen.

**User Locations**: Shows or hides saved locations on the map.

**Auto Zoom**: Automatically selects the zoom level for optimal use of your map. When disabled, you must zoom in or out manually.

## Navigation Settings

You can customize the map features and appearance when navigating to a destination.

### Customizing Navigation Data Screens

1. Hold **UP**.
2. Select **Navigation** > **Data Screens**.
3. Select an option:
   - Select **Map** > **Status** to turn on or off the map.
   - Select **Map** > **Data Field** to turn on or off a data field that shows routing information on the map.
   - Select **Up Ahead** to turn on or off information about upcoming course points.
   - Select **Compass** to turn on or off the compass.
   - Select **Elevation Plot** to turn on or off the elevation plot.
   - Select a screen to add, remove, or customize.

### Setting Up a Heading Bug

You can set up a heading indicator to display on your data pages while navigating. The indicator points to your target heading.

1. Hold **UP**.
2. Select **Navigation** > **Heading Bug**.

### Setting Navigation Alerts

You can set alerts to help you navigate to your destination.

1. Hold **UP**.
2. Select **Navigation** > **Alerts**.
3. Select an option:
   - To set an alert for a specified distance from your final destination, select **Final Distance**.
   - To set an alert for the estimated time remaining until you reach your final destination, select **Final ETE**.
   - To set an alert when you stray from the course, select **Off Course**.
   - To enable turn-by-turn navigation prompts, select **Turn Prompts**.
4. If necessary, select **Status** to turn on the alert.
5. If necessary, enter a distance or time value, and select ✔.

## Power Manager Settings

Hold **UP**, and select Power Manager.

**Battery Saver**: Turns off certain features to maximize battery life.

**Battery Percentage**: Displays remaining battery life as a percentage.

**Battery Estimates**: Displays remaining battery life as an estimated number of days or hours.

## System Settings

Hold **UP**, and select **System**.

**Language**: Sets the language displayed on the watch.

**Time**: Adjusts the time settings (*Time Settings*, page 88).

**Backlight**: Adjusts the screen settings (*Changing the Screen Settings*, page 89).

**Sound and Vibe**: Sets the watch sounds, such as button tones, alerts, and vibrations.

**Sleep Mode**: Allows you to set your sleep hours and sleep mode preferences (*Customizing Sleep Mode*, page 37).

**Do Not Disturb**: Allows you to enable the Do Not Disturb mode. You can edit your preferences for the screen, notifications, alerts, and wrist gestures.

**Auto Lock**: Allows you to lock the buttons automatically to prevent accidental button presses. Use the During Activity option to lock the buttons during a timed activity. Use the Not During Activity option to lock the buttons when you are not recording a timed activity.

**Format**: Sets general format preferences, such as the units of measure, pace and speed shown during activities, the start of the week, and geographical position format and datum options (*Changing the Units of Measure*, page 89).

**Performance Condition**: Enables the performance condition feature during an activity (*Performance Condition*, page 23).

**Data Recording**: Sets how the watch records activity data. The Smart recording option (default) allows for longer activity recordings. The Every Second recording option provides more detailed activity recordings, but may not record entire activities that last for longer periods of time.

**USB Mode**: Sets the watch to use MTP (media transfer protocol) or Garmin mode when connected to a computer.

Sets the watch to use mass storage mode or Garmin mode when connected to a computer.

**Reset**: Allows you to reset user data and settings (*Resetting All Default Settings*, page 95).

**Software Update**: Allows you to install downloaded software updates, enable automatic updates, or manually check for updates (*Product Updates*, page 93).

**About**: Displays device, software, license, and regulatory information.

### Time Settings

Hold **UP**, and select **System** > **Time**.

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

**Set Time**: Sets the time zone for the watch. The Auto option sets the time zone automatically based on your GPS position.

**Time**: Allows you to adjust the time if it is set to the Manual option.

**Alerts**: Allows you to set hourly alerts, as well as sunrise and sunset alerts that sound a specific number of minutes or hours before the actual sunrise or sunset occurs (*Setting Time Alerts*, page 88).

**Sync With GPS**: Allows you to manually sync the time when you change time zones, and to update for daylight saving time (*Syncing the Time with GPS*, page 80).

#### Setting Time Alerts

1. Hold **UP**.
2. Select **System** > **Time** > **Alerts**.
3. Select an option:
   - To set an alert to sound a specific number of minutes or hours before the actual sunset occurs, select **Til Sunset** > **Status** > **On**, select **Time**, and enter the time.
   - To set an alert to sound a specific number of minutes or hours before the actual sunrise occurs, select **Til Sunrise** > **Status** > **On**, select **Time**, and enter the time.
   - To set an alert to sound every hour, select **Hourly** > **On**.

### Changing the Screen Settings

1. Hold **UP**.
2. Select **System** > **Backlight**.
3. Select an option:
   - Select **During Activity**.
   - Select **General Use**.
   - Select **During Sleep**.
4. Select an option:
   - Select **Brightness** to set the brightness level of the screen.
   - Select **Keys** to turn on the screen for button presses.
   - Select **Alerts** to turn on the screen for alerts.
   - Select **Gesture** to turn on the screen by raising and turning your arm to look at your wrist.
   - Select **Timeout** to set the length of time before the screen turns off.

### Changing the Units of Measure

You can customize units of measure for distance, pace and speed, elevation, and more.

1. Hold **UP**.
2. Select **System** > **Format** > **Units**.
3. Select a measurement type.
4. Select a unit of measure.

# Device Information

## Viewing Device Information

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

1. Hold **UP**.
2. Select **System** > **About**.

### Viewing E-label Regulatory and Compliance Information

The label for this device is provided electronically. The e-label may provide regulatory information, such as identification numbers provided by the FCC or regional compliance markings, as well as applicable product and licensing information.

1. Hold **UP**.
2. From the system menu, select **About**.

## Charging the Watch

**⚠ 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 (*Device Care*, page 91).

1 Plug the cable (▲ end) into the charging port on your watch.



2 Plug the other end of the cable into a USB charging port.

The watch displays the current battery charge level.

### Tips for Charging the Watch

1 Connect the charger securely to the watch to charge it using the USB cable (*Charging the Watch*, page 90).

You can charge the watch by plugging the USB cable into a Garmin approved AC adapter with a standard wall outlet or a USB port on your computer. Charging a fully depleted battery takes up to two hours.

2 Remove the charger from the watch after the battery charge level reaches 100%.

## Wearing the Watch

**⚠ CAUTION**

Some users may experience skin irritation after prolonged use of the watch, especially if the user has sensitive skin or allergies. If you notice any skin irritation, remove the watch and give your skin time to heal. To help prevent skin irritation, ensure the watch is clean and dry, and do not overtighten the watch on your wrist. For more information, go to garmin.com/fitandcare.

- Wear the watch above your wrist bone.

  **NOTE:** The watch should be snug but comfortable. For more accurate heart rate readings, the watch should not shift while running or exercising. For pulse oximeter readings, you should remain motionless.



  **NOTE:** The optical sensor is located on the back of the watch.
- See *Tips for Erratic Heart Rate Data*, page 50 for more information about wrist-based heart rate.
- See *Tips for Erratic Pulse Oximeter Data*, page 52 for more information about the pulse oximeter sensor.
- For more information about accuracy, go to garmin.com/ataccuracy.
- For more information about watch wear and care, go to www.garmin.com/fitandcare.

## Device Care

***NOTICE***

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

Avoid pressing the buttons 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 Watch

**⚠ CAUTION**

Some users may experience skin irritation after prolonged use of the watch, especially if the user has sensitive skin or allergies. If you notice any skin irritation, remove the watch and give your skin time to heal. To help prevent skin irritation, ensure the watch is clean and dry, and do not overtighten the watch on your wrist.

**TIP:** For more information, go to www.garmin.com/fitandcare.

1. Rinse with water, or use a damp lint-free cloth.
2. Allow the watch to dry completely.

## Changing the Bands

The watch is compatible with standard quick-release bands. Forerunner 255S series has 18 mm wide bands, and Forerunner 255 series has 22 mm wide bands.

1 Slide the quick-release pin on the spring bar to remove the band.



2 Insert one side of the spring bar for the new band into the watch.
3 Slide the quick-release pin, and align the spring bar with the opposite side of the watch.
4 Repeat steps 1 through 3 to change the other band.

## Specifications

| | |
|---|---|
| Battery type | Rechargeable, built-in lithium-ion battery |
| Water rating | Swim, 5 ATM[1] |
| Forerunner music media storage | Up to 4 GB (approximately 500 songs) |
| 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) |
| Forerunner non-music radio frequency/protocol | 2.4 GHz @ 3.06 dBm maximum |
| Forerunner 255 Music | 2.4 GHz @ 18.64 dBm maximum |
| Forerunner 255S Music radio frequency/protocol | 2.4 GHz @ 17.67 dBm maximum |
| EU SAR, Forerunner 255 Music | 0.48 W/kg torso, 0.47 W/kg limb |
| EU SAR, Forerunner 255S Music | 1.57 W/kg torso, 1.03 W/kg limb |

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

### Battery Life Information

The actual battery life depends on the features enabled on your watch, such as activity tracking, wrist-based heart rate, phone notifications, GPS, and connected sensors.

| Mode | Forerunner 255S series Battery Life | Forerunner 255 series Battery Life |
|---|---|---|
| Activity mode with GPS Only mode and wrist-based heart rate | Up to 26 hr. | Up to 30 hr. |
| Activity mode with All Systems mode and wrist-based heart rate | Up to 20 hr. | Up to 25 hr. |
| Activity mode with All Systems mode, wrist-based heart rate, and music playback | Up to 5.5 hr. | Up to 6.5 hr. |
| Activity mode with All + Multi-Band mode and wrist-based heart rate | Up to 13 hr. | Up to 16 hr. |
| Smartwatch mode with activity tracking, phone notifications, and wrist-based heart rate | Up to 12 days | Up to 14 days |

# Troubleshooting

## Product Updates

Your device automatically checks for updates when connected to Bluetooth or Wi-Fi. You can manually check for updates from the system settings (*System Settings*, page 88). On your computer, install Garmin Express (www.garmin.com/express). On your phone, install the Garmin Connect app.

This provides easy access to these services for Garmin devices:

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

### Setting Up Garmin Express

1. Connect the device to your computer using a USB cable.
2. Go to www.garmin.com/express.
3. Follow the on-screen instructions.

## Getting More Information

- Go to support.garmin.com for additional manuals, articles, and software updates.
- Go to buy.garmin.com, or contact your Garmin dealer for information about optional accessories and replacement parts.
- Go to www.garmin.com/ataccuracy.

  This is not a medical device. The pulse oximeter feature is not available in all countries.

## Activity Tracking

For more information about activity tracking accuracy, go to garmin.com/ataccuracy.

### 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.

### My step count does not seem accurate

If your step count does not seem accurate, you can try these tips.

- Wear the watch on your non-dominant wrist.
- Carry the watch in your pocket when pushing a stroller or lawn mower.
- Carry the watch in your pocket when actively using your hands or arms only.

  **NOTE:** The watch may interpret some repetitive motions, such as washing dishes, folding laundry, or clapping your hands, as steps.

### The step counts on my watch and my Garmin Connect account don't match

The step count on your Garmin Connect account updates when you sync your watch.

1. Select an option:
   - Sync your step count with the Garmin Express application (*Using Garmin Connect on Your Computer*, page 75).
   - Sync your step count with the Garmin Connect app (*Manually Syncing Data with Garmin Connect*, page 75).
2. Wait while your data syncs.

   Syncing can take several minutes.

   **NOTE:** Refreshing the Garmin Connect app or the Garmin Express application does not sync your data or update your step count.

### The floors climbed amount does not seem accurate

Your watch uses an internal barometer to measure elevation changes as you climb floors. A floor climbed is equal to 3 m (10 ft.).

- Avoid holding handrails or skipping steps while climbing stairs.
- In windy environments, cover the watch with your sleeve or jacket as strong gusts can cause erratic readings.

### My intensity minutes are flashing

When you exercise at an intensity level that qualifies toward your intensity minutes goal, the intensity minutes flash.

## 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.

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

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 watch to your Garmin account:
  - Connect your watch to a computer using the USB cable and the Garmin Express application.
  - Sync your watch to the Garmin Connect app using your Bluetooth enabled phone.
  - Connect your watch to your Garmin account using a Wi-Fi wireless network.

  While connected to your Garmin account, the watch downloads several days of satellite data, allowing it to quickly locate satellite signals.
- Take your watch outside to an open area away from tall buildings and trees.
- Remain stationary for a few minutes.

## Restarting the Watch

If the watch stops responding, you may need to restart it.

**NOTE:** Restarting the watch may erase your data or settings.

1. Hold **LIGHT** for 15 seconds.
   The watch turns off.
2. Hold **LIGHT** for one second to turn on the watch.

## Resetting All Default Settings

Before you reset all default settings, you should sync the watch with the Garmin Connect app to upload your activity data.

You can reset all of the watch settings to the factory default values.

1. From the watch face, hold **UP**.
2. Select **System** > **Reset**.
3. Select an option:
   - To reset all of the watch settings to the factory default values and save all user-entered information and activity history, select **Reset Default Settings**.
   - To delete all activities from the history, select **Delete All Activities**.
   - To reset all distance and time totals, select **Reset Totals**.
   - To reset all of the watch settings to the factory default values and delete all user-entered information and activity history, select **Delete Data and Reset Settings**.
     **NOTE:** If you have set up a Garmin Pay wallet, this option deletes the wallet from your watch. If you have music stored on your watch, this option deletes your stored music.

## Maximizing Battery Life

You can do several things to extend the life of the battery.

- Turn off music.
- Reduce the display brightness, and disable the screen setting (*Changing the Screen Settings*, page 89).
- Set up the battery saver preferences in the power manager.
- Turn off Bluetooth technology when you are not using connected features (*Phone Connectivity Features*, page 71).
- Reduce the display timeout (*Changing the Screen Settings*, page 89).
- Stop broadcasting heart rate data to paired Garmin devices (*Broadcasting Heart Rate Data*, page 51).
- Turn off wrist-based heart rate monitoring (*Turning Off the Wrist-based Heart Rate Monitor*, page 50).
  **NOTE:** Wrist-based heart rate monitoring is used to calculate vigorous intensity minutes and calories burned.
- Limit the phone notifications the watch displays (*Managing Notifications*, page 72).
- Turn off the pulse oximeter feature (*Turning Off the Wrist-based Heart Rate Monitor*, page 50).
- When pausing your activity for a longer period of time, use the **Resume Later** option (*Stopping an Activity*, page 3).
- Select the **Smart** recording interval (*System Settings*, page 88).
- Use UltraTrac GPS mode for your activity (*GPS Settings*, page 85).
- Use a watch face that is not updated every second.
  For example, use a watch face without a second hand (*Customizing the Watch Face*, page 14).

## My Device is in the Wrong Language

1. Hold **UP**.
2. Scroll down to the last item in the list, and select it.
3. Select the first item in the list.
4. Use **UP** and **DOWN** to select your language.

## Is my phone compatible with my watch?

The Forerunner watch is compatible with phones using Bluetooth technology.

Go to www.garmin.com/ble for Bluetooth compatibility information.

## My phone will not connect to the watch

If your phone will not connect to the watch, you can try these tips.

- Turn off your phone and your watch, and turn them back on again.
- Enable Bluetooth technology on your phone.
- Update the Garmin Connect app to the latest version.
- Remove your watch from the Garmin Connect app and the Bluetooth settings on your phone to retry the pairing process.
- If you bought a new phone, remove your watch from the Garmin Connect app on the phone you intend to stop using.
- Bring your phone within 10 m (33 ft.) of the watch.
- On your phone, open the Garmin Connect app, select ☰ or •••, and select **Garmin Devices** > **Add Device** to enter pairing mode.
- From the watch face, hold **UP**, and select **Phone** > **Pair Phone**.

## The activity temperature reading is not accurate

Your body temperature affects the temperature reading for the internal temperature sensor. To get the most accurate temperature reading, you should remove the watch from your wrist and wait 20 to 30 minutes.

You can also use an optional tempe external temperature sensor to view accurate ambient temperature readings while wearing the watch.

## How can I manually pair sensors?

The first time you connect a wireless sensor to your watch using ANT+ or Bluetooth technology, you must pair the watch and sensor. If the sensor has both ANT+ and Bluetooth technology, Garmin recommends that you pair using ANT+ technology. After they are paired, the watch connects to the sensor automatically when you start an activity and the sensor is active and within range.

1. Bring the watch within 3 m (10 ft.) of the sensor.

   **NOTE:** Stay 10 m (33 ft.) away from other wireless sensors while pairing.
2. If you are pairing a heart rate monitor, put on the heart rate monitor.

   The heart rate monitor does not send or receive data until you put it on.
3. Hold **UP**.
4. Select **Sensors & Accessories** > **Add New**.
5. Select an option:
   - Select **Search All**.
   - Select your sensor type.

   After the sensor is paired with your watch, the sensor status changes from Searching to Connected. Sensor data appears in the data screen loop or a custom data field.

## Can I use my Bluetooth sensor with my watch?

The watch is compatible with some Bluetooth sensors. The first time you connect a sensor to your Garmin watch, you must pair the watch and sensor. After they are paired, the watch connects to the sensor automatically when you start an activity and the sensor is active and within range.

1. Hold **UP**.
2. Select **Sensors & Accessories** > **Add New**.
3. Select an option:
   - Select **Search All**.
   - Select your sensor type.

   You can customize the optional data fields (*Customizing the Data Screens*, page 82).

## My headphones will not connect to the watch

If your Bluetooth headphones were previously connected to your phone, they may connect to your phone automatically instead of connecting to your watch. You can try these tips.

- Turn off Bluetooth technology on your phone.

  Refer to the owner's manual for your phone for more information.
- Stay 10 m (33 ft.) away from your phone while connecting your headphones to your watch.
- Pair your headphones with your watch (*Connecting Bluetooth Headphones*, page 69).

## My music cuts out or my headphones won’t stay connected

When using a Forerunner music watch connected to Bluetooth headphones, the signal is strongest when there is a direct line of sight between the watch and the antenna on the headphones.

- If the signal passes through your body, you may experience signal loss or your headphones may become disconnected.
- If you wear your Forerunner music watch on your left wrist, you should make sure the headphone's Bluetooth antenna is on your left ear.
- Since headphones vary by model, you can try wearing the watch on your other wrist.
- If you are using metal or leather watch bands, you can switch to silicone watch bands to improve signal strength.

# Appendix

## Data Fields

**NOTE:** Not all data fields are available for all activity types. Some data fields require compatible accessories to display data. Some data fields appear in more than one category on the watch.

**TIP:** You can also customize the data fields from the watch settings in the Garmin Connect app.

### Cadence Fields

| Name | Description |
|---|---|
| Average Cadence | Cycling. The average cadence for the current activity. |
| Average Cadence | Running. The average cadence 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). |
| Lap Cadence | Cycling. The average cadence for the current lap. |
| Lap Cadence | Running. The average cadence 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. |

### Charts

| Name | Description |
|---|---|
| Barometer Chart | A chart showing the barometric pressure over time. |
| Elevation Chart | A chart showing the elevation over time. |
| Heart Rate Chart | A chart showing your heart rate throughout the activity. |
| Pace Chart | A chart showing your pace throughout the activity. |
| Power Chart | A chart showing your power throughout the activity. |
| Speed Chart | A chart showing your speed throughout the activity. |

### Compass Fields

| Name | Description |
|---|---|
| Compass Heading | The direction you are moving based on the compass. |
| GPS Heading | The direction you are moving based on GPS. |
| Heading | The direction you are moving. |

#### Distance Fields

| Name | Description |
|---|---|
| Distance | The distance traveled for the current track or activity. |
| Interval Distance | The distance traveled for the current interval. |
| Lap Distance | The distance traveled for the current lap. |
| Last Lap Distance | The distance traveled for the last completed lap. |
| Nautical Distance | The distance traveled in nautical meters or nautical feet. |

#### Elevation Fields

| Name | Description |
|---|---|
| Average Ascent | The average vertical distance of ascent since the last reset. |
| Average Descent | The average vertical distance of descent since the last reset. |
| Elevation | The altitude of your current location above or below sea level. |
| Glide Ratio | The ratio of horizontal distance traveled to the change in vertical distance. |
| GPS Elevation | The altitude of your current location using GPS. |
| Grade | The calculation of rise (elevation) over run (distance). For example, if for every 3 m (10 ft.) you climb you travel 60 m (200 ft.), the grade is 5%. |
| Lap Ascent | The vertical distance of ascent for the current lap. |
| Lap Descent | The vertical distance of descent for the current lap. |
| Last Lap Ascent | The vertical distance of ascent for the last completed lap. |
| Last Lap Descent | The vertical distance of descent for the last completed lap. |
| Maximum Ascent | The maximum rate of ascent in feet per minute or meters per minute since the last reset. |
| Maximum Descent | The maximum rate of descent in meters per minute or feet per minute since the last reset. |
| Maximum Elevation | The highest elevation reached since the last reset. |
| Minimum Elevation | The lowest elevation reached since the last reset. |
| Total Ascent | The total elevation distance ascended since the last reset. |
| Total Descent | The total elevation distance descended since the last reset. |

#### Floors Fields

| Name | Description |
|---|---|
| Floors Climbed | The total number of floors climbed up for the day. |
| Floors Descended | The total number of floors climbed down for the day. |
| Floors per Minute | The number of floors climbed up per minute. |

### Graphical

| Name | Description |
|---|---|
| Cadence Gauge | Running. A color gauge showing your current cadence range. |
| GCT Balance Gauge | A color gauge showing the left/right balance of ground contact time while running. |
| Ground Contact Time Gauge | A color gauge showing the amount of time in each step that you spend on the ground while running, measured in milliseconds. |
| Heart Rate Gauge | A color gauge showing your current heart rate zone. |
| PacePro Gauge | Running. Your current split pace and your target split pace. |
| Power Gauge | A color gauge showing your current power zone. |
| Total Ascent/Descent Gauge | The total elevation distances ascended and descended during the activity or since the last reset. |
| Training Effect Gauge | The impact of the current activity on your aerobic and anaerobic fitness levels. |
| Vertical Oscillation Gauge | A color gauge showing the amount of bounce while you are running. |
| Vertical Ratio Gauge | A color gauge showing the ratio of vertical oscillation to stride length. |

### Heart Rate Fields

| Name | Description |
|---|---|
| % Heart Rate Reserve | The percentage of heart rate reserve (maximum heart rate minus resting heart rate). |
| Aerobic Training Effect | The impact of the current activity on your aerobic fitness level. |
| Anaerobic Training Effect | The impact of the current activity on your anaerobic fitness level. |
| Average % Heart Rate Reserve | The average percentage of heart rate reserve (maximum heart rate minus resting heart rate) for the current activity. |
| Average Heart Rate | The average heart rate for the current activity. |
| Average Heart Rate %Max. | The average percentage of maximum heart rate for the current activity. |
| Heart Rate | Your heart rate in beats per minute (bpm). Your device must have wrist-based heart rate or be connected to a compatible heart rate monitor. |
| Heart Rate %Max. | The percentage of maximum heart rate. |
| Heart Rate 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). |
| Interval Average %HRR | The average percentage of heart rate reserve (maximum heart rate minus resting heart rate) for the current swim interval. |
| Interval Average %Max. | The average percentage of maximum heart rate for the current swim interval. |
| Interval Average Heart Rate | The average heart rate for the current swim interval. |
| Interval Maximum %HRR | The maximum percentage of heart rate reserve (maximum heart rate minus resting heart rate) for the current swim interval. |
| Interval Maximum %Max. | The maximum percentage of maximum heart rate for the current swim interval. |

| Name | Description |
| --- | --- |
| Interval Maximum Heart Rate | The maximum heart rate for the current swim interval. |
| Lap % Heart Rate Reserve | The average percentage of heart rate reserve (maximum heart rate minus resting heart rate) for the current lap. |
| Lap Heart Rate | The average heart rate for the current lap. |
| Lap Heart Rate %Max. | The average percentage of maximum heart rate for the current lap. |
| Last Lap %HRR | The average percentage of heart rate reserve (maximum heart rate minus resting heart rate) for the last completed lap. |
| Last Lap Heart Rate | The average heart rate for the last completed lap. |
| Last Lap Heart Rate %Max. | The average percentage of maximum heart rate for the last completed lap. |
| Time in Zone | The time elapsed in each heart rate zone. |

**Lengths Fields**

| Name | Description |
| --- | --- |
| Interval Lengths | The number of pool lengths completed during the current interval. |
| Lengths | The number of pool lengths completed during the current activity. |

**Other Fields**

| Name | Description |
| --- | --- |
| Active Calories | The calories burned during the activity. |
| Ambient Pressure | The uncalibrated environmental pressure. |
| Barometric Pressure | The current calibrated environmental pressure. |
| Battery Level | The remaining battery power. |
| eBike Battery | The remaining battery power of an ebike. |
| eBike Range | The estimated remaining distance the ebike can provide assistance. |
| GPS | The strength of the GPS satellite signal. |
| Laps | The number of laps completed for the current activity. |
| Load | The training load for the current activity. Training load is the amount of excess post-exercise oxygen consumption (EPOC), which indicates the strenuousness of your workout. |
| Performance Condition | The performance condition score is a real-time assessment of your ability to perform. |
| Reps | During a strength training activity, the number of repetitions in a workout set. |
| Respiration Rate | Your respiration rate in breaths per minute (brpm). |
| Runs | The number of runs for the activity. |
| Steps | The number of steps taken during the current activity. |
| Stress | Your current stress level. |

| Name | Description |
| --- | --- |
| Sunrise | The time of sunrise based on your GPS position. |
| Sunset | The time of sunset based on your GPS position. |
| Time of Day | The time of day based on your current location and time settings (format, time zone, daylight saving time). |
| Time of Day (Seconds) | The time of day including seconds. |
| Total Calories | The amount of total calories burned for the day. |

**Pace Fields**

| Name | Description |
| --- | --- |
| 500m Pace | The current rowing pace per 500 meters. |
| Average 500m Pace | The average rowing pace per 500 meters for the current activity. |
| Average Pace | The average pace for the current activity. |
| Grade Adjusted Pace | The average pace adjusted by the steepness of the terrain. |
| Interval Pace | The average pace for the current interval. |
| Lap 500m Pace | The average rowing pace per 500 meters for the current lap. |
| Lap Pace | The average pace for the current lap. |
| Last Lap 500m Pace | The average rowing pace per 500 meters for the last lap. |
| Last Lap Pace | The average pace for the last completed lap. |
| Last Length Pace | The average pace for your last completed pool length. |
| Pace | The current pace. |

**PacePro Fields**

| Name | Description |
| --- | --- |
| Next Split Distance | Running. The total distance of the next split. |
| Next Split Target Pace | Running. The target pace for the next split. |
| Split Distance | Running. The total distance of the current split. |
| Split Distance Remaining | Running. The remaining distance of the current split. |
| Split Pace | Running. The pace for the current split. |
| Split Target Pace | Running. The target pace for the current split. |

**Power Fields**

| Name | Description |
|---|---|
| 3s Power | The 3-second moving average of power output. |
| 30s Power | The 30-second moving average of power output. |
| Average Power | The average power output for the current activity. |
| Lap Power | The average power output for the current lap. |
| Last Lap Power | The average power output for the last completed lap. |
| Maximum Power | The top power output for the current activity. |
| Power | The current power output in watts. |
| Power Zone | The current range of power output based on your FTP or custom settings. |
| Work | The accumulated work performed (power output) in kilojoules. |

**Rest Fields**

| Name | Description |
|---|---|
| Repeat On | The timer for the last interval plus the current rest (pool swimming). |
| Rest Timer | The timer for the current rest (pool swimming). |

**Run Dynamics**

| Name | Description |
|---|---|
| Average GCT Balance | The average ground contact time balance for the current session. |
| Average Ground Contact Time | The average amount of ground contact time for the current activity. |
| Average Stride Length | The average stride length for the current session. |
| Average Vertical Oscillation | The average amount of vertical oscillation for the current activity. |
| Average Vertical Ratio | The average ratio of vertical oscillation to stride length for the current session. |
| GCT Balance | The left/right balance of ground contact time while running. |
| Ground Contact Time | The amount of time in each step that you spend on the ground while running, measured in milliseconds. Ground contact time is not calculated while walking. |
| Lap GCT Balance | The average ground contact time balance for the current lap. |
| Lap Ground Contact Time | The average amount of ground contact time for the current lap. |
| Lap Stride Length | The average stride length for the current lap. |
| Lap Vertical Oscillation | The average amount of vertical oscillation for the current lap. |
| Lap Vertical Ratio | The average ratio of vertical oscillation to stride length for the current lap. |
| Stride Length | The length of your stride from one footfall to the next, measured in meters. |
| Vertical Oscillation | The amount of bounce while you are running. The vertical motion of your torso, measured in centimeters for each step. |

| Name | Description |
| --- | --- |
| Vertical Ratio | The ratio of vertical oscillation to stride length. |

**Speed Fields**

| Name | Description |
| --- | --- |
| Average Moving Speed | The average speed when moving for the current activity. |
| Average Overall Speed | The average speed for the current activity, including both moving and stopped speeds. |
| Average Speed | The average speed for the current activity. |
| Average Nautical Speed | The average speed in knots for the current activity. |
| Lap Speed | The average speed for the current lap. |
| Last Lap Speed | The average speed for the last completed lap. |
| Maximum Speed | The top speed for the current activity. |
| Maximum Nautical Speed | The maximum speed in knots for the current activity. |
| Nautical Speed | The current speed in knots. |
| Speed | The current rate of travel. |
| Speed Chart | A chart showing your current speed. |
| Vertical Speed | The rate of ascent or descent over time. |

**Stroke Fields**

| Name | Description |
| --- | --- |
| Average Distance Per Stroke | Swimming. The average distance traveled per stroke during the current activity. |
| Average Distance Per Stroke | Paddle sports. The average distance traveled per stroke during the current activity. |
| Average Stroke Rate | The average number of strokes per minute (spm) during the current activity. |
| Average Strokes Per Length | The average number of strokes per pool length during the current activity. |
| Distance Per Stroke | Paddle sports. The distance traveled per stroke. |
| Interval Stroke Rate | The average number of strokes per minute (spm) during the current interval. |
| Interval Strokes Per Length | The average number of strokes per pool length during the current interval. |
| Interval Stroke Type | The current stroke type for the interval. |
| Lap Distance Per Stroke | Swimming. The average distance traveled per stroke during the current lap. |
| Lap Distance Per Stroke | Paddle sports. The average distance traveled per stroke during the current lap. |
| Lap Stroke Rate | Swimming. The average number of strokes per minute (spm) during the current lap. |
| Lap Stroke Rate | Paddle sports. The average number of strokes per minute (spm) during the current lap. |
| Lap Strokes | Swimming. The total number of strokes for the current lap. |
| Lap Strokes | Paddle sports. The total number of strokes for the current lap. |
| Last Lap Distance Per Stroke | Swimming. The average distance traveled per stroke during the last completed lap. |
| Last Lap Distance Per Stroke | Paddle sports. The average distance traveled per stroke during the last completed lap. |
| Last Lap Stroke Rate | Swimming. The average number of strokes per minute (spm) during the last completed lap. |
| Last Lap Stroke Rate | Paddle sports. The average number of strokes per minute (spm) during the last completed lap. |
| Last Lap Strokes | Swimming. The total number of strokes for the last completed lap. |
| Last Lap Strokes | Paddle sports. The total number of strokes for the last completed lap. |
| Last Length Stroke Rate | The average number strokes per minute (spm) during the last completed pool length. |
| Last Length Strokes | The total number of strokes for the last completed pool length. |
| Last Length Stroke Type | The stroke type used during the last completed pool length. |
| Stroke Rate | Swimming. The number of strokes per minute (spm). |
| Stroke Rate | Paddle sports. The number of strokes per minute (spm). |
| Strokes | Swimming. The total number of strokes for the current activity. |
| Strokes | Paddle sports. The total number of strokes for the current activity. |

### Swolf Fields

| Name | Description |
| --- | --- |
| Average Swolf | The average swolf score for the current activity. Your swolf score is the sum of the time for one length plus the number of strokes for that length (*Swim Terminology*, page 9). In open water swimming, 25 meters is used to calculate your swolf score. |
| Interval Swolf | The average swolf score for the current interval. |
| Lap Swolf | The swolf score for the current lap. |
| Last Lap Swolf | The swolf score for the last completed lap. |
| Last Length Swolf | The swolf score for the last completed pool length. |

### Temperature Fields

| Name | Description |
| --- | --- |
| 24-Hour Maximum | The maximum temperature recorded in the last 24 hours from a compatible temperature sensor. |
| 24-Hour Minimum | The minimum temperature recorded in the last 24 hours from a compatible temperature sensor. |
| Temperature | The temperature of the air. Your body temperature affects the temperature sensor. You can pair a tempe sensor with your device to provide a consistent source of accurate temperature data. |

### Timer Fields

| Name | Description |
| --- | --- |
| Average Lap Time | The average lap time for the current activity. |
| Elapsed Time | The total time recorded. For example, if you start the activity 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. |
| Interval Time | The stopwatch time for the current interval. |
| Lap Time | The stopwatch time for the current lap. |
| Last Lap Time | The stopwatch time for the last completed lap. |
| Moving Time | The total time moving for the current activity. |
| Multisport Time | The total time for all sports in a multisport activity, including transitions. |
| Overall Ahead/Behind | The overall time ahead or behind of the target pace. |
| Set Timer | During a strength training activity, the amount of time spent in the current workout set. |
| Stopped Time | The total time stopped for the current activity. |
| Swim Time | The swimming time for the current activity, not including rest time. |
| Timer | The current time of the countdown timer. |

**Workout Fields**

| Name | Description |
|---|---|
| Reps to Go | During a workout, the remaining repetitions. |
| Step Duration | The time or distance remaining for the workout step. |
| Step Pace | The current pace during the workout step. |
| Step Speed | The current speed during the workout step. |
| Step Time | The time elapsed for the workout step. |

## VO2 Max. Standard Ratings

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

| 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 |

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## FTP Ratings

These tables include classifications for functional threshold power (FTP) estimates by sex.

| Males | Watts per Kilogram (W/kg) |
|---|---|
| Superior | 5.05 and greater |
| Excellent | From 3.93 to 5.04 |
| Good | From 2.79 to 3.92 |
| Fair | From 2.23 to 2.78 |
| Untrained | Less than 2.23 |

| Females | Watts per Kilogram (W/kg) |
|---|---|
| Superior | 4.30 and greater |
| Excellent | From 3.33 to 4.29 |
| Good | From 2.36 to 3.32 |
| Fair | From 1.90 to 2.35 |
| Untrained | Less than 1.90 |

FTP ratings are based on research by Hunter Allen and Andrew Coggan, PhD, *Training and Racing with a Power Meter* (Boulder, CO: VeloPress, 2010).

## Wheel Size and Circumference

Your speed sensor automatically detects your wheel size. If necessary, you can manually enter your wheel circumference in the speed sensor settings.

The tire size is marked on both sides of the tire. You can measure the circumference of your wheel or use one of the calculators available on the internet.