

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.

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 56](#)). 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 firstbeat.com.

Training Readiness

Your training readiness is a score and a short message that helps you determine how ready you are for training each day. The score is continuously calculated and updated throughout the day using these factors:

- Sleep score (last night)
- Recovery time
- HRV status
- Acute load
- Sleep history (last 3 nights)
- Stress history (last 3 days)

Color Zone	Score	Description
 Purple	95 to 100	Prime Best possible
 Blue	75 to 94	High Ready for challenges
 Green	50 to 74	Moderate Good to go
 Orange	25 to 49	Low Time to slow down
 Red	1 to 24	Poor Let your body recover



To see your training readiness trends over time, go to your Garmin Connect account.

Viewing Cycling Ability

Before you can view your cycling ability, you must have a 7-day training history, VO2 max. data recorded in your user profile ([About VO2 Max. Estimates, page 47](#)), and power curve data from a paired power meter ([Viewing Your Power Curve, page 53](#)).

Cycling ability is a measurement of your performance across three categories: aerobic endurance, aerobic capacity, and anaerobic capacity. Cycling ability includes your current rider type, such as climber. Information you enter in your user profile, such as body weight, also helps determine your rider type ([Setting Up Your User Profile, page 87](#)).

- 1 Press **UP** or **DOWN** to view the cycling ability glance.

NOTE: You may need to add the glance to your glance loop ([Customizing the Glance Loop, page 45](#)).

- 2 Press **START** to view your current rider type.
- 3 Press **START** to view a detailed analysis of your cycling ability (optional).

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.

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 47](#)).

- 1 When you want to pause your training status, select an option:
 - From the training status glance, hold **MENU**, and select **Options > 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 **MENU**, and select **Options > 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.

Adding a Stock

Before you can customize the stocks list, you must add the stocks glance to the glance loop ([Customizing the Glance Loop, page 45](#)).

- 1 From the watch face, press **UP** or **DOWN** to view the stocks glance.
- 2 Press **START**.
- 3 Select **Add Stock**.
- 4 Enter the company name or stock symbol for the stock you want to add, and select **✓**.
The watch displays search results.
- 5 Select the stock you want to add.
- 6 Select the stock to view more information.

TIP: To display the stock on the glance loop, you can press **START**, and select Set as Favorite.

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 62](#)).

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 2).
	Altimeter	Select to open the altimeter screen.
	Alt. Time Zones	Select to view the current time of day in additional time zones (Adding Alternate Time Zones, page 4).
	Assistance	Select to send an assistance request (Requesting Assistance, page 91).
	Barometer	Select to open the barometer screen.
	Battery Saver	Select to enable or disable the battery saver feature (Customizing the Battery Saver Feature, page 101).
	Brightness	Select to adjust the screen brightness (Changing the Screen Settings, page 103).
	Broadcast Heart Rate	Select to turn on heart rate broadcasting to a paired device (Broadcasting Heart Rate Data, page 65).
	Clocks	Select to open the Clocks app to set an alarm, timer, stopwatch, or view alternate time zones (Clocks, page 2).
	Compass	Select to open the compass screen.
	Display	Turns off the screen for alerts, gestures, and Always On Display mode (Changing the Screen Settings, page 103).
	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 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 and the touchscreen to prevent inadvertent presses and swipes.
	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.
	Reference Point	Select to set a reference point for navigation (Setting a Reference Point, page 94).

Icon	Name	Description
	Save Location	Select to save your current location to navigate back to it later.
	Sleep Mode	Select to enable or disable Sleep Mode (Customizing Sleep Mode, page 103).
	Stopwatch	Select to start the stopwatch (Using the Stopwatch, page 4).
	Sunrise & Sunset	Select to view sunrise, sunset, and twilight times.
	Sync	Select to sync your watch with your paired phone.
	Time Sync	Select to sync your watch with the time on your phone or using satellites.
	Timers	Select to set a countdown timer (Starting the Countdown Timer, page 3).
	Touch	Select to enable or disable touchscreen controls.
	Wallet	Select to open your Garmin Pay™ wallet and pay for purchases with your watch (Garmin Pay, page 62).
	Wi-Fi	Select to enable or disable Wi-Fi® communications.

Customizing the Controls Menu

You can add, remove, and change the order of the shortcut menu options in the controls menu ([Controls, page 60](#)).

- 1 Hold **MENU**.
- 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.

Using the Flashlight Screen

Using the flashlight can reduce battery life. You can reduce the brightness to extend the life of the battery.

- 1 Hold **LIGHT**.
- 2 Select .
- 3 Press **UP** or **DOWN** to adjust the brightness and color.

TIP: You can quickly press LIGHT twice to turn on the flashlight at this setting in the future.

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, swipe to change to another card (optional).
- 5 If you have added multiple cards to your Garmin Pay wallet, select **DOWN** to change to another card (optional).
- 6 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.
- 7 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 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 watch, create a new passcode, and reenter your card information.

- 1 From the 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 watch, you must enter the new passcode.

Sensors and Accessories

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

Wrist Heart Rate

Your watch has a wrist-based heart rate monitor, and you can view your heart rate data on the heart rate glance ([Viewing the Glance Loop, page 45](#)).

The watch is also compatible with chest heart rate monitors. If both wrist-based heart rate and chest heart rate data are available when you start an activity, your watch uses the chest heart rate data.

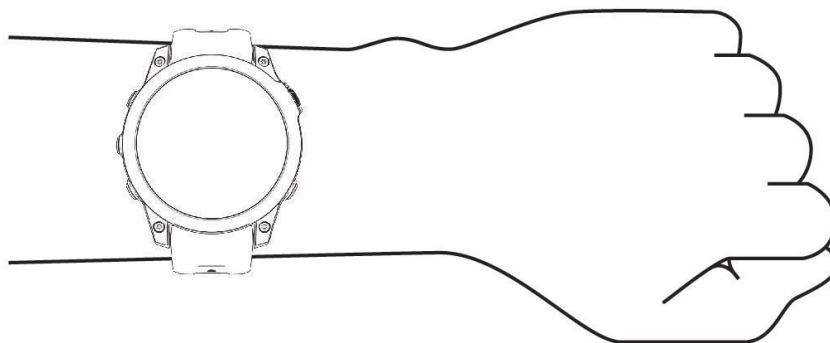
Wearing the Watch

⚠ 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 64](#) for more information about wrist-based heart rate.
- See [Tips for Erratic Pulse Oximeter Data, page 67](#) 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 garmin.com/fitandcare.

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.

Wrist Heart Rate Monitor Settings

Hold **MENU**, and select **Sensors & Accessories > 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. You can perform a manual reading from the pulse oximeter glance.

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 65](#)).

Broadcast Heart Rate: Allows you to begin broadcasting your heart rate data to a paired device ([Broadcasting Heart Rate Data, page 65](#)).

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 Hold **MENU**.
- 2 Select **Sensors & Accessories > 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 25](#)). For example, you can broadcast your heart rate data to an Edge® device while cycling.

- 1 Select an option:
 - Hold **MENU**, and select **Sensors & Accessories > 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 62](#)).

- 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.

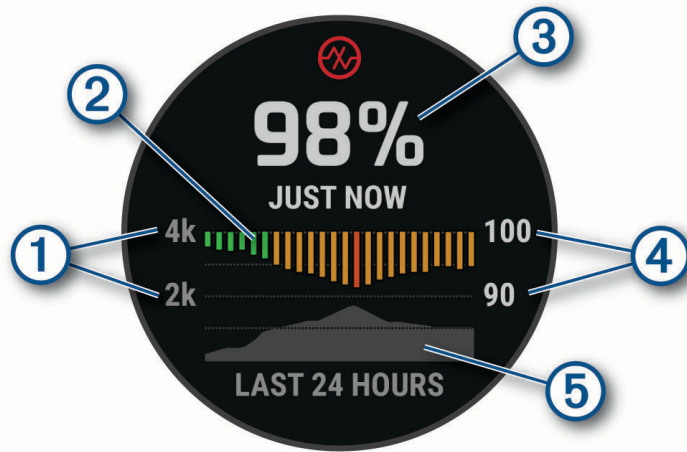
Pulse Oximeter

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. Knowing your oxygen saturation can help you determine how your body is acclimating to high altitudes for alpine sport and expedition.

You can manually begin a pulse oximeter reading by viewing the pulse oximeter glance ([Getting Pulse Oximeter Readings, page 67](#)). You can also turn on all-day readings ([Setting the Pulse Oximeter Mode, page 67](#)). 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 and begin a pulse oximeter reading.
- 3 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.

- 4 Press **DOWN** to view a graph of your pulse oximeter readings for the last seven days.

Setting the Pulse Oximeter Mode

- 1 Hold **MENU**.
- 2 Select **Sensors & Accessories > Pulse Oximeter > Pulse Ox Mode**.
- 3 Select an option:
 - To turn off automatic measurements, select **Manual Check**.
 - To turn on continuous measurements while you sleep, select **During Sleep**.
NOTE: Unusual sleep positions can cause abnormally low sleep-time SpO2 readings.
 - To turn on measurements while you are inactive during the day, select **All Day**.
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.

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 68](#)).

Setting the Compass Heading

- 1 From the compass glance, press **START**.
- 2 Select **Lock Heading**.
- 3 Point the top of the watch toward your heading, and press **START**.

When you deviate from the heading, the compass displays the direction from the heading and degree of deviation.

Compass Settings

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

Calibrate: Allows you to manually calibrate the compass sensor ([Calibrating the Compass Manually, page 68](#)).

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 68](#)).

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 **MENU**.
 - 2 Select **Sensors & Accessories > Compass > Calibrate > Start**.
 - 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 **MENU**.
- 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 (000°) as the heading reference, select **Grid**.
 - To set the magnetic variation value manually, select **User > Mag. Variation**, enter the magnetic variation, and select **Done**.

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 68](#)).

Altimeter Settings

Hold **MENU**, 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 **MENU**.
- 2 Select **Sensors & Accessories > Altimeter > Calibrate**.
- 3 Select an option:
 - To calibrate automatically from your GPS starting point, select **Auto Cal.**, and select an option.
 - To enter the current elevation manually, select **Calibrate**.
 - To enter the current elevation from the digital elevation model, select **Calibrate > Use DEM**.
 - To enter the current elevation from your GPS starting point, select **Calibrate > Use GPS**.

Barometer Settings

Hold **MENU**, 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 **MENU**.
- 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 the digital elevation model, select **Use DEM**.
 - To calibrate automatically from your GPS starting point, select **Use GPS**.

Wireless Sensors

Your watch can be paired and used with wireless ANT+ or Bluetooth sensors (*[Pairing Your Wireless Sensors, page 72](#)*). After the devices are paired, you can customize the optional data fields (*[Customizing the Data Screens, page 24](#)*). 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.

Sensor Type	Description
Club Sensors	You can use Approach CT10 golf club sensors to automatically track your golf shots, including location, distance, and club type.
DogTrack	Allows you to receive data from a compatible handheld dog tracking device.
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 watch on a compatible Edge device during a ride or triathlon.
External Heart Rate	You can use an external heart rate monitor, such as the HRM-Pro or HRM-Dual™, and view heart rate data during your activities. Some heart rate monitors can also store data or provide running dynamics information (Running Dynamics, page 73).
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 watch (Connecting Bluetooth Headphones, page 81).
inReach	The inReach remote function allows you to control your inReach device using your watch (Using the inReach Remote, page 74).
Lights	You can use Varia™ smart bike lights to improve situational awareness.
Muscle O2	You can use a muscle oxygen sensor to view hemoglobin and muscle oxygen saturation data while you train.
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 89), or use range alerts to be notified when you reach a specified power zone (Setting an Alert, page 28).
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 74).
RD Pod	You can use a Running Dynamics Pod to record running dynamics data and view it on your watch (Running Dynamics, page 73).
Shifting	You can use electronic shifters to display shifting information during a ride. The watch displays current adjustment values when the sensor is in adjustment mode.
Shimano Di2	You can use Shimano® Di2™ electronic shifters to display shifting information during a ride. The watch displays current adjustment values when the sensor is in adjustment mode.
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 ANT+® Indoor Trainer, page 12).
Speed/Cadence	You can attach speed or cadence sensors to your bike and view the data during your ride. If necessary, you can manually enter your wheel circumference (Wheel Size and Circumference, page 129).
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.
VIRB	The VIRB remote function allows you to control your VIRB action camera using your watch (VIRB Remote, page 74).

Sensor Type	Description
XERO Laser Locations	You can view and share laser location information from a Xero device (Xero Laser Location Settings, page 76).

Pairing Your Wireless 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 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.

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

NOTE: Stay 10 m (33 ft.) away from other wireless sensors while pairing.

- 3 Hold **MENU**.

- 4 Select **Sensors & Accessories > Add New**.

- 5 Select an option:

- Select **Search All Sensors**.
- 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 24](#)).

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 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 watch.

NOTE: Automatic calibration does not work for indoor, trail, or ultra run activity profiles ([Tips for Recording Running Pace and Distance, page 72](#)).

Manual calibration: You can select **Calibrate & Save** after a treadmill run with your connected HRM-Pro series accessory ([Calibrating the Treadmill Distance, page 7](#)).

Tips for Recording Running Pace and Distance

- Update your watch software ([Product Updates, page 108](#)).
- 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 an ANT+ foot pod, 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 7](#)).
- 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 7](#)).

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 uphill, downhill, and wind, which a pace measurement does not do.

You can customize the running power data fields to view your power output and make adjustments to your training ([Data Fields, page 113](#)). You can set up power alerts to be notified when you reach a specified power zone ([Activity Alerts, page 27](#)).

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 89](#)).

Running Dynamics

You can use your compatible device paired with the HRM-Pro accessory or other running dynamics accessory to provide real-time feedback about your running form.

The running dynamics accessory has an accelerometer that measures torso movement in order to calculate six running metrics.

Cadence: Cadence is the number of steps per minute. It displays the total steps (right and left combined).

Vertical oscillation: Vertical oscillation is your bounce while running. It displays the vertical motion of your torso, measured in centimeters.

Ground contact time: Ground contact time is the amount of time in each step that you spend on the ground while running. It is measured in milliseconds.

NOTE: Ground contact time and balance are not available while walking.

Ground contact time balance: 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: Stride length is the length of your stride from one footfall to the next. It is measured in meters.

Vertical ratio: 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

Before you can view running dynamics, you must put on a running dynamics accessory, such as the HRM-Pro accessory, and pair it with your device ([Pairing Your Wireless Sensors, page 72](#)).

- 1 Hold **MENU**.
- 2 Select **Activities & Apps**.
- 3 Select an activity.
- 4 Select the activity settings.
- 5 Select **Data Screens > Add New**.
- 6 Select a running dynamics data screen.

NOTE: The running dynamics screens are not available for all activities.
- 7 Go for a run ([Starting an Activity, page 5](#)).
- 8 Select **UP** or **DOWN** to open a running dynamics screen to view your metrics.

Tips for Missing Running Dynamics Data

If running dynamics data does not appear, you can try these tips.

- Make sure you have a running dynamics accessory, such as the HRM-Pro 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 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.

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 72](#)).

- 1 Add the **RCT Camera** glance to your watch ([Glances, page 42](#)).
- 2 From the **RCT Camera** glance, select an option:
 - Select  to view the camera settings.
 - Select  to take a photo.
 - Select  to save a clip.

inReach Remote

The inReach remote function allows you to control your inReach device using your device. Go to buy.garmin.com to purchase a compatible inReach device.

Using the inReach Remote

Before you can use the inReach remote function, you must add the inReach glance to the glance loop ([Customizing the Glance Loop, page 45](#)).

- 1 Turn on the inReach device.
- 2 On your watch, press **UP** or **DOWN** from the watch face to view the inReach glance.
- 3 Press **START** to search for your inReach device.
- 4 Press **START** to pair your inReach device.
- 5 Press **START**, and select an option:
 - To send an SOS message, select **Initiate SOS**.
NOTE: You should only use the SOS function in a real emergency situation.
 - To send a text message, select **Messages > New Message**, select the message contacts, and enter the message text or select a quick text option.
 - To send a preset message, select **Send Preset**, and select a message from the list.
 - To view the timer and distance traveled during an activity, select **Tracking**.

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 watch ([Pairing Your Wireless Sensors, page 72](#)).
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 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 watch ([Pairing Your Wireless Sensors, page 72](#)).
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 **MENU**.
- 6 Select **VIRB**.
- 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 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**.

Xero Laser Location Settings

Before you can customize laser location settings, you must pair a compatible Xero device ([Pairing Your Wireless Sensors, page 72](#)).

Hold **MENU**, and select **Sensors & Accessories > XERO Laser Locations > Laser Locations**.

During Activity: Enables the display of laser location information from a compatible, paired Xero device during an activity.

Share Mode: Allows you to share laser location information publicly or broadcast it privately.

Map

Your watch can display several types of Garmin map data, including topographical contours, nearby points of interest, ski resort maps, and golf courses. You can use the Map Manager to download additional maps or manage map storage.

To purchase additional map data and view compatibility information, go to garmin.com/maps.

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

Viewing the Map

- 1 Select an option to open the map:
 - Press **START**, and select **Map** to view the map without starting an activity.
 - Go outside, start a GPS activity ([Starting an Activity, page 5](#)), and press **UP** or **DOWN** to scroll to the map screen.
- 2 If necessary, wait while the watch locates satellites.
- 3 Select an option to pan and zoom the map:
 - To use the touchscreen, tap the map, tap and drag to position the crosshairs, and press **UP** or **DOWN** to zoom in or out.
 - To use the buttons, hold **MENU**, select **Pan/Zoom**, and press **UP** or **DOWN** to zoom in or out.

NOTE: You can press **START** to toggle between panning up and down, panning left and right, or zooming.
- 4 Hold **START** to select the point indicated by the crosshairs.

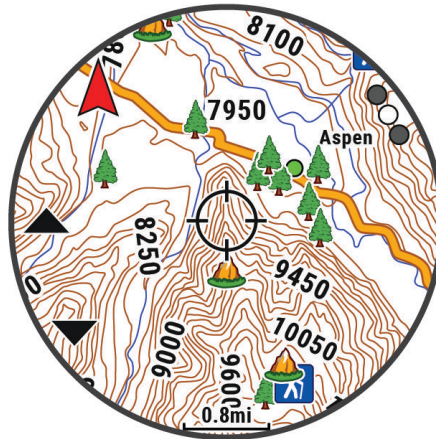
Saving or Navigating to a Location on the Map

You can select any location on the map. You can save the location or start navigating to it.

1 From the map, select an option:

- To use the touchscreen, tap the map, tap and drag to position the crosshairs, and press **UP** or **DOWN** to zoom in or out.
- To use the buttons, hold **MENU**, select **Pan/Zoom**, and press **UP** or **DOWN** to zoom in or out.

NOTE: You can press **START** to toggle between panning up and down, panning left and right, or zooming.



2 Pan and zoom the map to center the location in the crosshairs.

3 Hold **START** to select the point indicated by the crosshairs.

4 If necessary, select a nearby point of interest.

5 Select an option:

- To start navigating to the location, select **Go**.
- To save the location, select **Save Location**.
- To view information about the location, select **Review**.

Navigating with the Around Me Feature

You can use the around me feature to navigate to nearby points of interest and waypoints.

NOTE: The map data installed on your watch must include points of interest to navigate to them.

1 From the map, hold **MENU**.

2 Select **Around Me**.

Icons indicating points of interest and waypoints appear on the map.

3 Press **UP** or **DOWN** to highlight a section of the map.

4 Press **START**.

A list of points of interest and waypoints in the highlighted map section appear.

5 Select a location.

6 Select an option:

- To start navigating to the location, select **Go**.
- To view the location on the map, select **Map**.
- To save the location, select **Save Location**.
- To view information about the location, select **Review**.

Map Settings

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

NOTE: If necessary, you can customize the map settings for specific activities instead of using the system settings ([Activity Map Settings, page 28](#)).

Hold **MENU**, and select **Map**.

Map Manager: Shows the downloaded map versions and allows you to download additional maps ([Managing Maps, page 78](#)).

Map Theme: Sets the map to display data optimized for your activity type ([Map Themes, page 78](#)).

Color Mode: Sets the map colors to either a white or black background for daytime or nighttime visibility. The Auto option adjusts the map colors based on the time of day.

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.

Segments: Shows or hides segments, as a colored line on the map.

Contours: Shows or hides contour lines on the map.

Track Log: Shows or hides the track log, or the path you have traveled, as a colored line on the map.

Track Color: Changes the track log color.

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

Lock on Road: Locks the position icon, which represents your position on the map, onto the nearest road.

Detail: Sets the amount of detail shown on the map. Showing more detail may cause the map to redraw more slowly.

Marine: Sets the map to display data in marine mode ([Marine Map Settings, page 79](#)).

Restore Theme: Allows you to restore default map theme settings or themes that have been deleted from the watch.

Managing Maps

When you connect your watch to a Wi-Fi network, you can download maps for additional regions. You can also remove maps to increase the available device storage.

1 Hold **MENU**.

2 Select **Map > Map Manager**.

3 Select a map category.

4 Select an option:

- To download a map, select **Add Map**, select a map, press **START**, and select **Download**.

NOTE: To prevent battery drain, the watch queues the map download for later, and the download starts when you connect the watch to an external power source.

- To remove a map, select a map, press **START**, and select **Remove**.

Map Themes

You can change the map theme to display data optimized for your activity type.

Hold **MENU**, and select **Map > Map Theme**.

None: Uses the preferences from the system map settings, with no additional theme applied.

Marine: Sets the map to display data in marine mode.

High Contrast: Sets the map to display data with higher contrast, for better visibility in challenging environments.

Dark: Sets the map to display data with a dark background, for better visibility at night.

Popularity: Highlights the most popular roads or trails on the map.

Resort Ski: Sets the map to display the most relevant ski data at a glance.

Marine Map Settings

You can customize how the map appears in marine mode.

Hold **MENU**, and select **Map > Marine**.

Spot Soundings: Enables depth measurements on the chart.

Light Sectors: Shows and configures the appearance of light sectors on the chart.

Symbol Set: Sets the chart symbols in marine mode. The NOAA option displays the National Oceanic and Atmospheric Administration chart symbols. The International option displays the International Association of Lighthouse Authorities chart symbols.

Showing and Hiding Map Data

If you have multiple maps installed on your device, you can choose the map data to show on the map.

- 1 From the watch face, press **START**.
- 2 Select **Map**.
- 3 Hold **MENU**.
- 4 Select the map settings.
- 5 Select **Map > Configure Maps**.
- 6 Select a map to activate the toggle switch, which shows or hides the map data.

Music

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

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

On a 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.

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 86](#)).

- 1 From the watch face, 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 **MENU**, 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 84](#)).

- 1 Hold **DOWN** from any screen to open the music controls.
- 2 Hold **MENU**.
- 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.

Downloading Personal Audio Content

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

You can load your personal audio files, such as .mp3 and .m4a files, to a watch from your computer. For more information, go to 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 list, select a category, select the checkboxes, and select **Remove From Device** to remove audio files.

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 81](#)).
- 3 Hold **MENU**.
- 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 80](#)).
 - 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: Music playback controls may look different, depending on the selected music source.

	Select to view more music playback controls.
	Select to browse the audio files and playlists for the selected source.
	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. Hold to fast forward through the current audio file.
	Select to restart the current audio file. Select twice to skip to the previous audio file in the playlist. Hold to rewind through the current audio file.
	Select to change the repeat mode.
	Select to change the shuffle mode.

Connecting Bluetooth Headphones

To listen to music loaded onto your 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 **MENU**.
- 4 Select **Music > Headphones > Add New**.
- 5 Select your headphones to complete the pairing process.

Changing the Audio Mode

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

- 1 Hold **MENU**.
- 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 82](#)). Additional features are available when you connect your watch to a Wi-Fi network ([Connecting to a Wi-Fi Network, page 84](#)).

Phone Connectivity Features

Phone connectivity features are available for your watch when you pair it using the Garmin Connect app ([Pairing Your Phone, page 82](#)).

- App features from the Garmin Connect app, the Connect IQ app, and more ([Phone Apps and Computer Applications, page 84](#))
- Glances ([Glances, page 42](#))
- Controls menu features ([Controls, page 60](#))
- Safety and tracking features ([Safety and Tracking Features, page 90](#))
- Phone interactions, such as notifications ([Enabling Bluetooth Notifications, page 82](#))

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 From the app store on your phone, install and open the Garmin Connect app.
- 2 Select an option to enable pairing mode on your watch:
 - During the initial setup, select **Yes** when you are prompted to pair with your phone.
 - If you previously skipped the pairing process, hold **MENU**, and select **Connectivity > Pair Phone**.
- 3 Select an option to add your watch to your account:
 - If this is the first time you are pairing a device with the Garmin Connect app, follow the on-screen instructions.
 - If you already paired another device with the Garmin Connect app, from the  or **•••** menu, select **Garmin Devices > Add Device**, and follow the on-screen instructions.

Enabling Bluetooth Notifications

Before you can enable notifications, you must pair the watch with a compatible phone ([Pairing Your Phone, page 82](#)).

- 1 Hold **MENU**.
- 2 Select **Connectivity > Phone > Smart Notifications > Status > On**.
- 3 Select **General Use** or **During Activity**.
- 4 Select a notification type.
- 5 Select status, tone, and vibration preferences.
- 6 Press **BACK**.
- 7 Select privacy and timeout preferences.
- 8 Press **BACK**.
- 9 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 watch displays the name or phone number of the caller.

- To accept the call, select .

NOTE: To talk to the caller, you must use your connected phone.

- To decline the call, select .
- To decline the call and immediately send a text message reply, select **Reply**, 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 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 62](#)).

- 1 Hold **LIGHT** to view the controls menu.
- 2 Select  to turn off the Bluetooth phone connection on your 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 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 **MENU**.
- 2 Select **Connectivity > Phone > Alerts**.

Playing Audio Prompts During an Activity

You can enable your 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 **MENU**.
- 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 27).
 - 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

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 **MENU**.
- 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 (garmin.com/connectapp), 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 82](#)), 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 82](#)).

Sync your watch with the Garmin Connect app ([Using the Garmin Connect App, page 85](#)).

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 80](#)). 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 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 62](#)).

- 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 (garmin.com/connectiqapp).

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 watch.

Downloading Connect IQ Features

Before you can download features from the Connect IQ app, you must pair your watch with your phone ([Pairing Your Phone, page 82](#)).

- 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.

Garmin Explore™

The Garmin Explore website and mobile app allow you to plan trips and use cloud storage for your waypoints, routes, and tracks. They offer advanced planning both online and offline, allowing you to share and sync data with your compatible Garmin device. You can use the mobile app to download maps for offline access, and then navigate anywhere without using your cellular service.

You can download the Garmin Explore app from the app store on your phone (garmin.com/exploreapp), or you can go to explore.garmin.com.

Garmin Golf App

The Garmin Golf app allows you to upload scorecards from your compatible Garmin device to view detailed statistics and shot analyses. Golfers can compete with each other at different courses using the Garmin Golf app. More than 42,000 courses have leaderboards that anyone can join. You can set up a tournament event and invite players to compete. With a Garmin Golf membership, you can view green contour data on your phone and compatible Garmin device.

The Garmin Golf app syncs your data with your Garmin Connect account. You can download the Garmin Golf app from the app store on your phone (garmin.com/golfapp).

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 gender, date of birth, height, weight, wrist, heart rate zone, power zone, and Critical Swim Speed (CSS) settings (*Recording a Critical Swim Speed Test, page 33*). The watch uses this information to calculate accurate training data.

- 1 Hold **MENU**.
- 2 Select **User Profile**.
- 3 Select an option.

Viewing Your Fitness Age

Your fitness age gives you an idea of how your fitness compares with a person of the same gender. 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 87*).

- 1 Hold **MENU**.
- 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 89](#)) 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 **MENU**.
- 2 Select **User Profile > Heart Rate & Power Zones > Heart Rate**.
- 3 Select **Max. HR**, 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 89](#)).
- 4 Select **LTHR**, and enter your lactate threshold heart rate.
You can perform a guided test to estimate your lactate threshold ([Lactate Threshold, page 52](#)). You can use the Auto Detection feature to automatically record your lactate threshold during an activity ([Detecting Performance Measurements Automatically, page 89](#)).
- 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 **BPM** to view and edit the zones in beats per minute.
 - Select **%Max. HR** to view and edit the zones as a percentage of your maximum heart rate.
 - Select **%HRR** to view and edit the zones as a percentage of your heart rate reserve (maximum heart rate minus resting heart rate).
 - 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 87](#)).
- 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 **MENU**.
- 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.

You can use the Auto Detection feature to automatically record your threshold power during an activity ([Detecting Performance Measurements Automatically, page 89](#)).
- 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. When paired with a compatible power meter, the watch can automatically detect your functional threshold power (FTP) during an activity.

NOTE: The watch detects a maximum heart rate only when your heart rate is higher than the value set in your user profile ([Setting Up Your User Profile, page 87](#)).

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

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 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 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 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.

GroupTrack: Allows you to keep track of your connections using LiveTrack directly on screen and in real time.

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 90](#)).

- 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 device ([Using the Garmin Connect App, page 85](#)).

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 90](#)). 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 **MENU**.
- 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 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

CAUTION

Assistance is a supplemental feature and should not be relied upon as a primary method to obtain emergency assistance. The Garmin Connect app does not contact emergency services on your behalf.

NOTICE

Before you can request assistance, you must set up emergency contacts in the Garmin Connect app ([Adding Emergency Contacts, page 90](#)). 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 Hold **LIGHT**.
- 2 When you feel three vibrations, release the button to activate the assistance feature.
The countdown screen appears.
TIP: You can select **Cancel** before the countdown is complete to cancel the message.

Starting a GroupTrack Session

Before you can start a GroupTrack session, you must pair the watch with a compatible phone ([Pairing Your Phone, page 82](#)).

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

These instructions are for starting a GroupTrack session with a watch. If your connections have other compatible devices, you can see them on the map. The other devices may not be able to display GroupTrack riders on the map.

- 1 On the watch, hold **MENU**, and select **Safety & Tracking > GroupTrack > Show on Map** to enable viewing connections on the map screen.
- 2 In the Garmin Connect app, from the settings menu, select **Safety & Tracking > LiveTrack > ⋮ > Settings > GroupTrack**.
- 3 Select **All Connections** or **Invite Only** and select your connections.
- 4 Select **Start LiveTrack**.
- 5 On the watch, start an outdoor activity.
- 6 Scroll to the map to view your connections.

TIP: From the map, you can hold **MENU** and select **Nearby Connections** to view distance, direction, and pace or speed information for other connections in the GroupTrack session.

Tips for GroupTrack Sessions

The GroupTrack feature allows you to keep track of other connections in your group using LiveTrack directly on the screen. All members of the group must be your connections in your Garmin Connect account.

- Start your activity outside using GPS.
- Pair your device with your smartphone using Bluetooth technology.
- In the Garmin Connect app, from the settings menu, select **Connections** to update the list of connections for your GroupTrack session.
- Make sure all of your connections pair to their smartphones and start a LiveTrack session in the Garmin Connect app.
- Make sure all your connections are in range (40 km or 25 mi.).
- During a GroupTrack session, scroll to the map to view your connections ([Adding a Map to an Activity, page 24](#)).

GroupTrack Settings

Hold **MENU**, and select **Safety & Tracking > GroupTrack**.

Show on Map: Enables you to view connections on the map screen during a GroupTrack session.

Activity Types: Allows you to select which activity types appear on the map screen during a GroupTrack session.

Health and Wellness Settings

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

Heart Rate: Allows you to customize the wrist heart rate monitor settings ([Wrist Heart Rate Monitor Settings, page 65](#)).

Pulse Ox Mode: Allows you to select a pulse oximeter mode ([Setting the Pulse Oximeter Mode, page 67](#)).

Move Alert: Enables or disables the Move Alert feature ([Using the Move Alert, page 93](#)).

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

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! and the move bar appear. Additional segments appear after every 15 minutes of inactivity. The device also beeps or vibrates if audible tones are turned on ([System Settings, page 102](#)).

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

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 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.

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 ([Controls, page 60](#)).

Using Automated Sleep Tracking

- 1 Wear your device while sleeping.
- 2 Upload your sleep tracking data to the Garmin Connect site ([Using the Garmin Connect App, page 85](#)).
You can view your sleep statistics on your Garmin Connect account.
You can view sleep information from the previous night on your device ([Glances, page 42](#)).

Navigation

Viewing and Editing Your Saved Locations

TIP: You can save a location from the controls menu ([Controls, page 60](#)).

- 1 From the watch face, press **START**.
- 2 Select **Navigate > Saved Locations**.
- 3 Select a saved location.
- 4 Select an option to view or edit the location details.

Saving a Dual Grid Location

You can save your current location using dual grid coordinates to navigate back to the same location later.

- 1 Customize a button or button combination for the **Dual Grid** feature ([Customizing the Hot Keys, page 104](#)).
- 2 Hold the button or button combination you customized to save a dual grid location.
- 3 Wait while the watch locates satellites.
- 4 Press **START** to save the location.
- 5 If necessary, press **DOWN** to edit the location details.

Setting a Reference Point

You can set a reference point to provide the heading and distance to a location or bearing.

- 1 Select an option:
 - Hold **LIGHT**.
TIP: You can set a reference point while you are recording an activity.
 - From the watch face, press **START**.
- 2 Select **Reference Point**.
- 3 Wait while the watch locates satellites.
- 4 Press **START**, and select **Add Point**.
- 5 Select a location or bearing to use as a reference point for navigation.
The compass arrow and distance to your destination appear.
- 6 Point the top of the watch toward your heading.
When you deviate from the heading, the compass displays the direction from the heading and degree of deviation.
- 7 If necessary, press **START**, and select **Change Point** to set a different reference point.

Navigating to a Destination

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

- 1 From the watch face, press **START**.
- 2 Select an activity.
- 3 Hold **MENU**.
- 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 a Point of Interest

If the map data installed on your watch includes points of interest, you can navigate to them.

- 1 From the watch face, press **START**.
- 2 Select an activity.
- 3 Hold **MENU**.
- 4 Select **Navigation > Points of Interest**, and select a category.
A list of points of interest near your current location appears.
- 5 If necessary, select an option:
 - To search near a different location, select **Search Near**, and select a location.
 - To search for a point of interest by name, select **Spell Search**, and enter a name.
 - To search for nearby points of interest, select **Around Me** ([Navigating with the Around Me Feature, page 77](#)).
- 6 Select a point of interest from the search results.
- 7 Select **Go**.
Navigation information appears.
- 8 Press **START** to begin navigation.

Navigating to the Starting Point of a Saved Activity

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

- 1 From the watch face, press **START**.
- 2 Select an activity.
- 3 Hold **MENU**.
- 4 Select **Navigation > Activities**.
- 5 Select an activity.
- 6 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**.
 - If you do not have a supported map or are using direct routing, select **Route** to navigate back to the starting point of your activity in a straight line.
 - If you are not using direct routing, select **Route** to navigate back to the starting point of your activity using turn-by-turn directions.

Turn-by-turn directions help you navigate to the starting point of your last saved activity if you have a supported map or are using direct routing. A line appears on the map from your current location to the starting point of the last saved activity if you are not using direct routing.

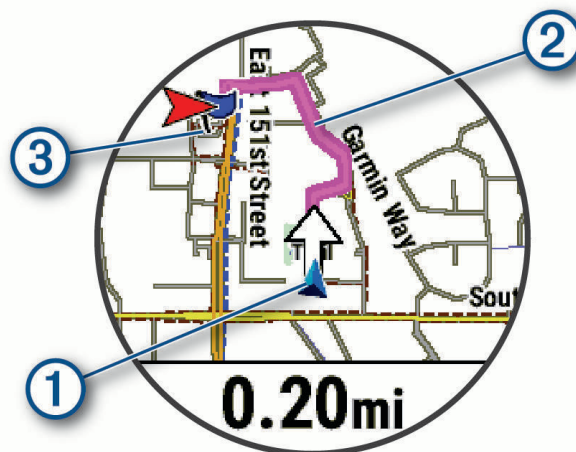
NOTE: You can start the timer to prevent the device from timing out to watch mode.

- 7 Press **DOWN** to view the compass (optional).
The arrow points toward your starting point.

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**.
 - If you do not have a supported map or are using direct routing, select **Route** to navigate back to the starting point of your activity in a straight line.
 - If you are not using direct routing, select **Route** to navigate back to the starting point of your activity using turn-by-turn directions.



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

Viewing Route Directions

You can view a list of turn-by-turn directions for your route.

- 1 While navigating a route, hold **MENU**.
- 2 Select **Turn By Turn**.
A list of turn-by-turn directions appears.
- 3 Press **DOWN** to view additional directions.

Navigating with Sight 'N Go

You can point the device at an object in the distance, such as a water tower, lock in the direction, and then navigate to the object.

- 1 From the watch face, press **START**.
- 2 Select an activity.
- 3 Hold **MENU**.
- 4 Select **Navigation > Sight 'N Go**.
- 5 Point the top of the watch at an object, and press **START**.
Navigation information appears.
- 6 Press **START** to begin navigation.

Marking and Starting Navigation to a Man Overboard Location

You can save a man overboard (MOB) location, and automatically start navigation back to it.

TIP: You can customize the hold function of the keys to access the MOB function ([Customizing the Hot Keys, page 104](#)).

- 1 From the watch face, press **START**.
- 2 Select an activity.
- 3 Hold **MENU**.
- 4 Select **Navigation > Last MOB**.
Navigation information appears.

Stopping Navigation

- 1 During an activity, hold **MENU**.
- 2 Select **Stop Navigation**.

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.

Creating and Following a Course on Your Device

- 1 From the watch face, press **START**.
- 2 Select an activity.
- 3 Hold **MENU**.
- 4 Select **Navigation > Courses > Create New**.
- 5 Enter a name for the course, and select .
- 6 Select **Add Location**.
- 7 Select an option.
- 8 If necessary, repeat steps 6 and 7.
- 9 Select **Done > Do Course**.
Navigation information appears.
- 10 Press **START** to begin navigation.

Creating a Round-Trip Course

The device can create a round-trip course based on a specified distance and direction of navigation.

- 1 From the watch face, press **START**.
- 2 Select **Run** or **Bike**.
- 3 Hold **MENU**.
- 4 Select **Navigation > Round-Trip Course**.
- 5 Enter the total distance for the course.
- 6 Select a direction heading.
The device creates up to three courses. You can press **DOWN** to view the courses.
- 7 Press **START** to select a course.
- 8 Select an option:
 - To begin navigation, select **Go**.
 - To view the course on the map and pan or zoom the map, select **Map**.
 - To view a list of turns in the course, select **Turn By Turn**.
 - To view an elevation plot of the course, select **Elevation Plot**.
 - To save the course, select **Save**.
 - To view a list of ascents in the course, select **View Climbs**.

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 85).

- 1 From the Garmin Connect app, select  or .
- 2 Select **Training > 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 99).

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 98](#)).

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

Viewing or Editing Course Details

You can view or edit course details before you navigate a course.

- 1 From the watch face, press **START**.
- 2 Select an activity.
- 3 Hold **MENU**.
- 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 create or view an analysis of your effort for the course, select **Power Guide**.
 - 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 edit the course path, select **Edit**.
 - To view a list of ascents in the course, select **View Climbs**.
 - To delete the course, select **Delete**.

Projecting a Waypoint

You can create a new location by projecting the distance and bearing from your current location to a new location.

NOTE: You may need to add the Project Wpt. app to the activities and apps list.

- 1 From the watch face, press **START**.
- 2 Select **Project Wpt.**.
- 3 Press **UP** or **DOWN** to set the heading.
- 4 Press **START**.
- 5 Press **DOWN** to select a unit of measure.
- 6 Press **UP** to enter the distance.
- 7 Press **START** to save.

The projected waypoint is saved with a default name.

Navigation Settings

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

Customizing Navigation Data Screens

- 1 Hold **MENU**.
- 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 **Guide** to turn on or off the guide screen that displays the compass bearing or course to follow while navigating.
 - 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 **MENU**.
- 2 Select **Navigation > Heading Bug**.

Setting Navigation Alerts

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

- 1 Hold **MENU**.
- 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 **MENU**, and select **Power Manager**.

Battery Saver: Allows you to customize system settings to extend battery life in watch mode (*Customizing the Battery Saver Feature, page 101*).

Power Modes: Allows you to customize system settings, activity settings, and GPS settings to extend battery life during an activity (*Customizing Power Modes, page 101*).

Battery Percentage: Displays remaining battery life as a percentage.

Battery Estimates: Displays remaining battery life as an estimated number of days or hours.

Customizing the Battery Saver Feature

The battery saver feature allows you to quickly adjust system settings to extend battery life in watch mode. You can turn on the battery saver feature from the controls menu ([Controls](#), page 60).

- 1 Hold **MENU**.
- 2 Select **Power Manager > Battery Saver**.
- 3 Select **Status** to turn on the battery saver feature.
- 4 Select **Edit**, and select an option:
 - Select **Watch Face** to enable a low-power watch face that updates once per minute.
 - Select **Music** to disable listening to music from your watch.
 - Select **Phone** to disconnect your paired phone.
 - Select **Wi-Fi** to disconnect from a Wi-Fi network.
 - Select **Wrist Heart Rate** to turn off the wrist heart rate monitor.
 - Select **Pulse Oximeter** to turn off the pulse oximeter sensor.
 - Select **Always On Display** to turn off the screen when not in use.
 - Select **Brightness** to reduce the screen brightness.

The watch displays the hours of battery life gained with each setting change.

- 5 Select **Low Battery Alert** to receive an alert when the battery power is low.

Changing the Power Mode

You can change the power mode to extend battery life during an activity.

- 1 During an activity, hold **MENU**.
- 2 Select **Power Mode**.
- 3 Select an option.

The watch displays the hours of battery life available with the selected power mode.

Customizing Power Modes

Your device comes preloaded with several power modes, allowing you to quickly adjust system settings, activity settings, and GPS settings to extend battery life during an activity. You can customize existing power modes and create new custom power modes.

- 1 Hold **MENU**.
- 2 Select **Power Manager > Power Modes**.
- 3 Select an option:
 - Select a power mode to customize.
 - Select **Add New** to create a custom power mode.
- 4 If necessary, enter a custom name.
- 5 Select an option to customize specific power mode settings.

For example, you can change the GPS setting or disconnect your paired phone.

The watch displays the hours of battery life gained with each setting change.
- 6 If necessary, select **Done** to save and use the custom power mode.

Restoring a Power Mode

You can reset a preloaded power mode to the factory default settings.

- 1 Hold **MENU**.
- 2 Select **Power Manager > Power Modes**.
- 3 Select a preloaded power mode.
- 4 Select **Restore > Yes**.

System Settings

Hold **MENU**, and select **System**.

Language: Sets the language displayed on the watch.

Time: Adjusts the time settings ([Time Settings, page 102](#)).

Display: Adjusts the screen settings ([Changing the Screen Settings, page 103](#)).

Touch: Allows you to enable or disable the touchscreen during general use, activities, or sleep.

Satellites: Sets the default satellite system to use for activities. If necessary, you can customize the satellite setting for each activity ([Satellite Settings, page 30](#)).

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 103](#)).

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.

Hot Keys: Allows you to assign shortcuts to buttons ([Customizing the Hot Keys, page 104](#)).

Auto Lock: Allows you to lock the buttons and touchscreen automatically to prevent accidental button presses and touchscreen swipes. Use the During Activity option to lock the buttons and touchscreen during a timed activity. Use the Not During Activity option to lock the buttons and touchscreen 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 104](#)).

Physio TrueUp: Enables syncing of activities and performance measurements from your other Garmin devices ([Syncing Activities and Performance Measurements, page 104](#)).

Perf. Condition: Enables the performance condition feature during an activity ([Performance Condition, page 50](#)).

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.

Reset: Allows you to reset user data and settings ([Resetting All Default Settings, page 110](#)).

Software Update: Allows you to install downloaded software updates, enable automatic updates, or manually check for updates ([Product Updates, page 108](#)). You can select What's New to view a list of new features from the last software update you installed.

About: Displays device, software, license, and regulatory information.

Time Settings

Hold **MENU**, and select **System > Time**.

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

Date Format: Sets the display order for the day, month, and year for dates.

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 the Set Time option is set to Manual.

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 103](#)).

Time Sync: Allows you to manually sync the time when you change time zones, and to update for daylight saving time ([Syncing the Time, page 103](#)).

Setting Time Alerts

- 1 Hold **MENU**.
- 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**.

Syncing the Time

Each time you turn on the device and acquire satellites or open the Garmin Connect app on your paired phone, the device automatically detects your time zones and the current time of day. You can also manually sync the time when you change time zones, and to update for daylight saving time.

- 1 Hold **MENU**.
 - 2 Select **System > Time > Time Sync**.
 - 3 Wait while the device connects to your paired phone or locates satellites ([Acquiring Satellite Signals, page 111](#)).
- TIP:** You can press DOWN to switch the source.

Changing the Screen Settings

- 1 Hold **MENU**.
- 2 Select **System > Display**.
- 3 Select an option:
 - Select **During Activity**.
 - Select **General Use**.
 - Select **During Sleep**.
- 4 Select an option:
 - Select **Always On Display** to keep the watch face data visible and turn down the background. This option impacts the battery and display life ([About the AMOLED Display, page 104](#)).
 - Select **Brightness** to set the brightness level of the screen.
 - Select **Alerts** to turn on the screen for alerts.
 - Select **Wrist 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.

Customizing Sleep Mode

- 1 Hold **MENU**.
- 2 Select **System > Sleep Mode**.
- 3 Select an option:
 - Select **Schedule**, select a day, and enter your normal sleep hours.
 - Select **Watch Face** to use the sleep watch face.
 - Select **Display** to configure the screen brightness and timeout.
 - Select **Touch** to turn the touchscreen on or off.
 - Select **Do Not Disturb** to enable or disable do not disturb mode.
 - Select **Battery Saver** to enable or disable battery saver mode ([Customizing the Battery Saver Feature, page 101](#)).

Customizing the Hot Keys

You can customize the hold function of individual buttons and combinations of buttons.

- 1 Hold **MENU**.
- 2 Select **System > Hot Keys**.
- 3 Select a button or combination of buttons to customize.
- 4 Select a function.

Changing the Units of Measure

You can customize units of measure for distance, pace and speed, elevation, and more.

- 1 Hold **MENU**.
- 2 Select **System > Format > Units**.
- 3 Select a measurement type.
- 4 Select a unit of measure.

Syncing Activities and Performance Measurements

You can sync activities and performance measurements from other Garmin devices to your 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 device, and view your activity details and overall training load on your watch.

- 1 Hold **MENU**.
- 2 Select **System > Physio TrueUp**.

When you sync your watch with your phone, recent activities and performance measurements from your other Garmin devices appear on your watch.

Viewing Device Information

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

- 1 Hold **MENU**.
- 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 **MENU**.
- 2 From the system menu, select **About**.

Device Information

About the AMOLED Display

By default, the watch settings are optimized for battery life and performance ([Tips for Maximizing the Battery Life, page 111](#)).

Image persistence, or pixel "burn-in," is normal behavior for AMOLED devices. To extend the display life, you should avoid displaying static images at high brightness levels for long time periods. To minimize burn-in, the display dims after the selected timeout ([Changing the Screen Settings, page 103](#)). You can turn your wrist toward your body, tap the touchscreen, or press a button to wake the watch.

Charging the Device

⚠ WARNING

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

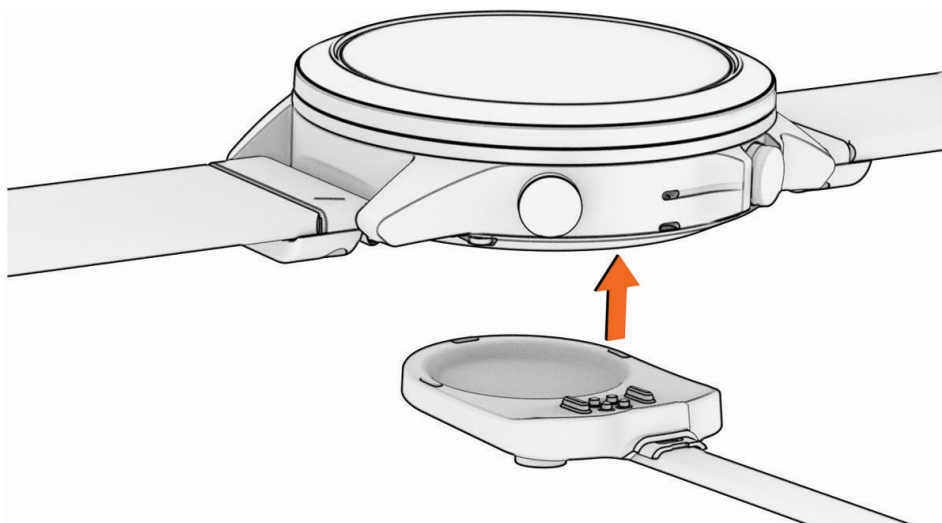
Both the device and its charger contain magnets. Under certain circumstances, magnets may cause interference with some medical devices, including pacemakers and insulin pumps. Devices and chargers that contain magnets should be kept away from such medical devices.

NOTICE

Both the device and its charger contain magnets. Under certain circumstances, magnets may cause damage to some electronic devices, including hard drives in laptop computers. Use caution when devices and chargers that contain magnets are near electronic devices.

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 107](#)).

- 1 Align the charger with the back of the device, and press the charger into place.



- 2 Plug the USB cable into a USB charging port.
The watch displays the current battery charge level.

Specifications

Battery type	Rechargeable, built-in lithium-ion battery
Water rating	10 ATM ¹
Operating and storage temperature range	From -20° to 45°C (from -4° to 113°F)
USB charging temperature range	From 0° to 45°C (from 32° to 113°F)
European Union (EU) wireless frequencies (power)	2.4 GHz @ 15.78 dBm maximum
EU SAR values	0.58 W/kg torso, 0.03 W/kg limb

¹ The device withstands pressure equivalent to a depth of 100 m. For more information, go to www.garmin.com/waterrating.

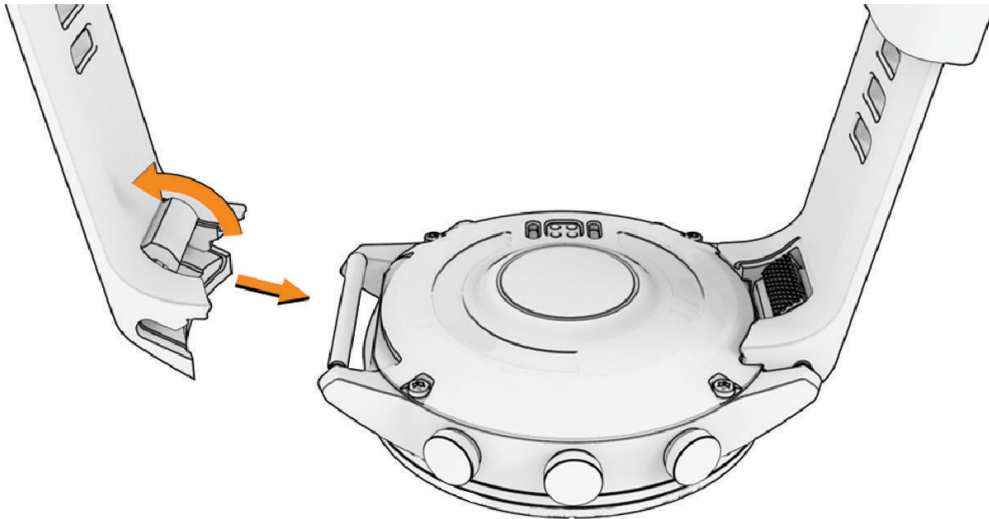
Battery Information

The actual battery life depends on the features enabled on your watch, such as wrist-based heart rate, smartphone notifications, GPS, internal sensors, and connected sensors.

Mode	Battery Life with Always On Display	Battery Life with Wrist Gesture
Smartwatch mode	Up to 6 days	Up to 16 days
Battery saver watch mode	Not applicable	Up to 21 days
GPS only mode	Up to 30 hr.	Up to 42 hr.
All satellite systems mode	Up to 24 hr.	Up to 32 hr.
All satellite systems plus multi-band mode	Up to 22 hr.	Up to 28 hr.
All satellite systems with music mode	Up to 9 hr.	Up to 10 hr.
Max. battery GPS mode	Not applicable	Up to 75 hr.
Expedition GPS mode	Not applicable	Up to 14 days

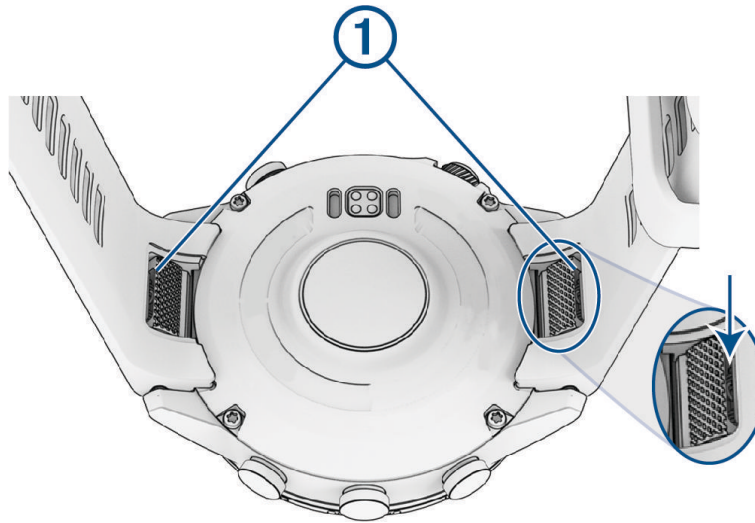
Changing Integrated QuickFit® Accessories

- 1 Pull to open the latch, and remove the integrated QuickFit strap or bracelet from the watch.



- 2 Pull to open the latch on the integrated strap or bracelet, and align it with the watch.
- 3 Close the latch over the watch pin.

NOTE: Make sure the strap or bracelet is secure. There should be a small gap ① between the latch and the strap or bracelet.



Device Care

NOTICE

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.

Avoid pressing the buttons under water.

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

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.

NOTICE

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

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

After cleaning, allow the watch to dry completely.

TIP: For more information, go to garmin.com/fitandcare.

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: 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.

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 102](#)). 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
- Map updates
- Course updates
- Data uploads to Garmin Connect
- Product registration

Getting More Information

You can find more information about this product on the Garmin website.

- 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 for information about feature accuracy.
- This is not a medical device.

My device is in the wrong language

You can change the device language selection if you have accidentally selected the wrong language on the device.

- 1 Hold **MENU**.
- 2 Scroll down to the last item in the list, and press **START**.
- 3 Press **START**.
- 4 Select your language.

Is my phone compatible with my watch?

The watch is compatible with phones using Bluetooth technology.

Go to 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 **MENU**, and select **Connectivity > Phone > Pair Phone**.

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 **MENU**.
- 2 Select **Sensors & Accessories > Add New**.
- 3 Select an option:
 - Select **Search All Sensors**.
 - Select your sensor type.

You can customize the optional data fields ([Customizing the Data Screens, page 24](#)).

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 81](#)).

My music cuts out or my headphones won't stay connected

When using a 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 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.

Restarting Your Watch

- 1 Hold **LIGHT** until the watch turns off.
- 2 Hold **LIGHT** 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 **MENU**.
- 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.

Tips for Maximizing the Battery Life

To extend the life of the battery, you can try these tips.

- Change the power mode during an activity ([Changing the Power Mode, page 101](#)).
 - Turn on the battery saver feature from the controls menu ([Controls, page 60](#)).
 - Reduce the screen timeout ([Changing the Screen Settings, page 103](#)).
 - Stop using the **Always On Display** screen timeout option, and select a shorter timeout ([Changing the Screen Settings, page 103](#)).
 - Reduce the screen brightness ([Changing the Screen Settings, page 103](#)).
 - Use UltraTrac satellite mode for your activity ([Satellite Settings, page 30](#)).
 - Turn off Bluetooth technology when you are not using connected features ([Controls, page 60](#)).
 - When pausing your activity for a longer period of time, use the **Resume Later** option ([Stopping an Activity, page 6](#)).
 - 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 42](#)).
 - Limit the phone notifications the watch displays ([Managing Notifications, page 83](#)).
 - Stop broadcasting heart rate data to paired devices ([Broadcasting Heart Rate Data, page 65](#)).
 - Turn off wrist-based heart rate monitoring ([Wrist Heart Rate Monitor Settings, page 65](#)).
- NOTE:** Wrist-based heart rate monitoring is used to calculate vigorous intensity minutes and calories burned.
- Turn on manual pulse oximeter readings ([Setting the Pulse Oximeter Mode, page 67](#)).

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 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.

The 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 temperature external temperature sensor to view accurate ambient temperature readings while wearing the watch.

Activity Tracking

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

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 device and my Garmin Connect account don't match

The step count on your Garmin Connect account updates when you sync your device.

1 Select an option:

- Sync your step count with the Garmin Express application ([Using Garmin Connect on Your Computer, page 86](#)).
- Sync your step count with the Garmin Connect app ([Using the Garmin Connect App, page 85](#)).

2 Wait while the device syncs your data.

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.

Appendix

Data Fields

NOTE: Not all data fields are available for all activity types. Some data fields require ANT+ or Bluetooth 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.
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.

Gears

Name	Description
Di2 Battery	The remaining battery power of a Di2 sensor.
eBike Battery	The remaining battery power of an ebike.
eBike Range	The estimated remaining distance the ebike can provide assistance.
Front	The front bike gear from a gear position sensor.
Gear Battery	The battery status of a gear position sensor.
Gear Combo	The current gear combination from a gear position sensor.
Gears	The front and rear bike gears from a gear position sensor.
Gear Ratio	The number of teeth on the front and rear bike gears, as detected by a gear position sensor.
Rear	The rear bike gear from a gear position sensor.

Graphical

Name	Description
Cadence Gauge	Running. A color gauge showing your current cadence range.
Compass Gauge	The direction you are moving based on the compass.
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.
Heart Rate Zones Ratio	A color gauge showing the ratio of time spent in each 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.
Stamina Gauge (Dist.)	A gauge showing your current stamina distance remaining.
Stamina Gauge (Time)	A gauge showing your current stamina time remaining.
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.
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.

Muscle Oxygen Fields

Name	Description
Muscle O2 Saturation %	The estimated muscle oxygen saturation percentage for the current activity.
Total Hemoglobin	The estimated total hemoglobin concentration in the muscle.

Navigation Fields

Name	Description
Bearing	The direction from your current location to a destination. You must be navigating for this data to appear.
Course	The direction from your starting location to a destination. Course can be viewed as a planned or set route. You must be navigating for this data to appear.
Destination Location	The position of your final destination.
Destination Waypoint	The last point on the route to the destination. You must be navigating for this data to appear.
Distance Remaining	The remaining distance to the final destination. You must be navigating for this data to appear.
Distance To Next	The remaining distance to the next waypoint on the route. You must be navigating for this data to appear.
Estimated Total Distance	The estimated distance from the start to the final destination. You must be navigating for this data to appear.
ETA	The estimated time of day when you will reach the final destination (adjusted to the local time of the destination). You must be navigating for this data to appear.
ETA at Next	The estimated time of day when you will reach the next waypoint on the route (adjusted to the local time of the waypoint). You must be navigating for this data to appear.
ETE	The estimated time remaining until you reach the final destination. You must be navigating for this data to appear.
Glide Ratio to Destination	The glide ratio required to descend from your current position to the destination elevation. You must be navigating for this data to appear.
Lat/Lon	The current position in latitude and longitude regardless of the selected position format setting.
Location	The current position using the selected position format setting.
Next Waypoint	The next point on the route. You must be navigating for this data to appear.
Off Course	The distance to the left or right by which you have strayed from the original path of travel. You must be navigating for this data to appear.
Time to Next	The estimated time remaining before you reach the next waypoint in the route. You must be navigating for this data to appear.
Velocity Made Good	The speed at which you are closing on a destination along a route. You must be navigating for this data to appear.
Vertical Dist. to Dest.	The elevation distance between your current position and the final destination. You must be navigating for this data to appear.

Name	Description
Vertical Speed to Target	The rate of ascent or descent to a predetermined altitude. You must be navigating for this data to appear.

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 Hours	The number of hours remaining before the battery power is depleted.
Battery Percentage	The percentage of the battery power remaining.
COG	The actual direction of travel, regardless of the course steered and temporary variations in heading.
Flow	The measurement of how consistently you maintain speed and smoothness through turns in the current activity.
GPS	The strength of the GPS satellite signal.
Grit	The measurement of difficulty for the current activity based on elevation, gradient, and rapid changes in direction.
Lap Flow	The overall flow score for the current lap.
Lap Grit	The overall grit score for the current lap.
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.
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.
Overall Ahead/Behind	Running. The overall time ahead or behind of the target pace.
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
% Functional Threshold Power	The current power output as a percentage of functional threshold power.
3s Balance	The 3-second moving average of the left/right power balance.
3s Power	The 3-second moving average of power output.
10s Balance	The 10-second moving average of the left/right power balance.
10s Power	The 10-second moving average of power output.
30s Balance	The 30-second moving average of the left/right power balance.
30s Power	The 30-second moving average of power output.
Average Balance	The average left/right power balance for the current activity.
Average Left Power Phase	The average power phase angle for the left leg for the current activity.
Average Power	The average power output for the current activity.
Average Right Power Phase	The average power phase angle for the right leg for the current activity.
Avg. Left Peak Power Phase	The average power phase peak angle for the left leg for the current activity.
Avg. Platform Center Offset	The average platform center offset for the current activity.
Avg. Right Peak Power Phase	The average power phase peak angle for the right leg for the current activity.
Balance	The current left/right power balance.
Intensity Factor	The Intensity Factor™ for the current activity.
Lap Balance	The average left/right power balance for the current lap.
Lap Left Peak Power Phase	The average power phase peak angle for the left leg for the current lap.
Lap Left Power Phase	The average power phase angle for the left leg for the current lap.
Lap Normalized Power	The average Normalized Power™ for the current lap.
Lap Platform Center Offset	The average platform center offset for the current lap.
Lap Power	The average power output for the current lap.
Lap Right Peak Power Phase	The average power phase peak angle for the right leg for the current lap.
Lap Right Power Phase	The average power phase angle for the right leg for the current lap.
Last Lap Max. Power	The top power output for the last completed lap.
Last Lap Normalized Power	The average Normalized Power for the last completed lap.
Last Lap Power	The average power output for the last completed lap.
Left Peak Power Phase	The current power phase peak angle for the left leg. Power phase peak is the angle range over which the rider produces the peak portion of the driving force.
Left Power Phase	The current power phase angle for the left leg. Power phase is the pedal stroke region where positive power is produced.

Name	Description
Maximum Lap Power	The top power output for the current lap.
Maximum Power	The top power output for the current activity.
Normalized Power	The Normalized Power for the current activity.
Pedal Smoothness	The measurement of how evenly a rider is applying force to the pedals throughout each pedal stroke.
Platform Center Offset	The platform center offset. Platform center offset is the location on the pedal platform where force is applied.
Power	Cycling. The current power output in watts.
Power	Skiing. The current power output in watts. Your device must be connected to a compatible heart rate monitor.
Power to Weight	The current power measured in watts per kilogram.
Power Zone	The current range of power output (1 to 7) based on your FTP or custom settings.
Right Peak Power Phase	The current power phase peak angle for the right leg. Power phase peak is the angle range over which the rider produces the peak portion of the driving force.
Right Power Phase	The current power phase angle for the right leg. Power phase is the pedal stroke region where positive power is produced.
Time in Zone	The time elapsed in each power zone.
Time Seated	The time spent seated while pedaling for the current activity.
Time Seated Lap	The time spent seated while pedaling for the current lap.
Time Standing	The time spent standing while pedaling for the current activity.
Time Standing Lap	The time spent standing while pedaling for the current lap.
Training Stress Score	The Training Stress Score™ for the current activity.
Torque Efficiency	The measurement of how efficiently a rider is pedaling.
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.
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.
Avg. Nautical SOG	The average speed of travel in knots for the current activity, regardless of the course steered and temporary variations in heading.
Average Nautical Speed	The average speed in knots for the current activity.
Avg. SOG	The average speed of travel for the current activity, regardless of the course steered and temporary variations in heading.
Lap SOG	The average speed of travel for the current lap, regardless of the course steered and temporary variations in heading.
Lap Speed	The average speed for the current lap.
Last Lap SOG	The average speed of travel for the last completed lap, regardless of the course steered and temporary variations in heading.
Last Lap Speed	The average speed for the last completed lap.
Maximum SOG	The maximum speed of travel for the current activity, regardless of the course steered and temporary variations in heading.
Maximum Speed	The top speed for the current activity.
Max. Nautical SOG	The maximum speed of travel in knots for the current activity, regardless of the course steered and temporary variations in heading.
Maximum Nautical Speed	The maximum speed in knots for the current activity.
Nautical SOG	The actual speed of travel in knots, regardless of the course steered and temporary variations in heading.
Nautical Speed	The current speed in knots.
Speed	The current rate of travel.
Speed Over Ground	The actual speed of travel, regardless of the course steered and temporary variations in heading.
Vertical Speed	The rate of ascent or descent over time.

Stamina Fields

Name	Description
Current	The current remaining stamina.
Distance Remaining	The current stamina distance remaining at the current effort.
Potential	The remaining potential stamina.
Time Remaining	The current stamina time remaining at the current effort.

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	Paddle sports. 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.

Name	Description
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 8). 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 temperature 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.
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
Repetition	The number of repetitions remaining for the workout.
Step Distance	The current distance traveled during 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.

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 garmin.com/runningdynamics 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, 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%

V02 Max. Standard Ratings

These tables include standardized classifications for V02 max. estimates by age and gender.

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

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

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FTP Ratings

These tables include classifications for functional threshold power (FTP) estimates by gender.

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. This is not a comprehensive list. You can also measure the circumference of your wheel or use one of the calculators available on the internet.

Tire Size	Wheel Circumference (mm)
20 × 1.75	1515
20 × 1-3/8	1615
22 × 1-3/8	1770
22 × 1-1/2	1785
24 × 1	1753
24 × 3/4 Tubular	1785
24 × 1-1/8	1795
24 × 1.75	1890
24 × 1-1/4	1905
24 × 2.00	1925
24 × 2.125	1965
26 × 7/8	1920
26 × 1-1.0	1913
26 × 1	1952
26 × 1.25	1953
26 × 1-1/8	1970
26 × 1.40	2005
26 × 1.50	2010
26 × 1.75	2023
26 × 1.95	2050
26 × 2.00	2055
26 × 1-3/8	2068
26 × 2.10	2068
26 × 2.125	2070
26 × 2.35	2083
26 × 1-1/2	2100
26 × 3.00	2170
27 × 1	2145
27 × 1-1/8	2155
27 × 1-1/4	2161
27 × 1-3/8	2169
29 × 2.1	2288

Tire Size	Wheel Circumference (mm)
29 x 2.2	2298
29 x 2.3	2326
650 x 20C	1938
650 x 23C	1944
650 x 35A	2090
650 x 38B	2105
650 x 38A	2125
700 x 18C	2070
700 x 19C	2080
700 x 20C	2086
700 x 23C	2096
700 x 25C	2105
700C Tubular	2130
700 x 28C	2136
700 x 30C	2146
700 x 32C	2155
700 x 35C	2168
700 x 38C	2180
700 x 40C	2200
700 x 44C	2235
700 x 45C	2242
700 x 47C	2268

Symbol Definitions

These symbols may appear on the device or accessory labels.



WEEE disposal and recycling symbol. The WEEE symbol is attached to the product in compliance with the EU directive 2012/19/EU on Waste Electrical and Electronic Equipment (WEEE). It is intended to deter the improper disposal of this product and to promote reuse and recycling.

