

SUUNTO SPARTAN ULTRA 1.12

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1. SAFETY

Types of safety precautions

 **WARNING:** - is used in connection with a procedure or situation that may result in serious injury or death.

 **CAUTION:** - is used in connection with a procedure or situation that will result in damage to the product.

 **NOTE:** - is used to emphasize important information.

 **TIP:** - is used for extra tips on how to utilize the features and functions of the device.

Safety precautions

 **WARNING:** Keep the USB cable away from medical devices such as pacemakers, as well as key cards, credit cards and similar items. The USB cable device connector includes a strong magnet which may interfere with the operation of medical or other electronic devices and items with magnetically stored data.

 **WARNING:** Allergic reactions or skin irritations may occur when the product is in contact with skin, even though our products comply with industry standards. In such event, stop use immediately and consult a doctor.

 **WARNING:** Always consult your doctor before beginning an exercise program. Overexertion may cause serious injury.

 **WARNING:** Only for recreational use.

 **WARNING:** Do not entirely rely on the GPS or battery lifetime of the product. Always use maps and other backup material to ensure your safety.

 **CAUTION:** Do not apply solvent of any kind to the product, as it may damage the surface.

 **CAUTION:** Do not apply insect repellent on the product, as it may damage the surface.

 **CAUTION:** Do not throw the product away, but treat it as electronic waste to preserve the environment.

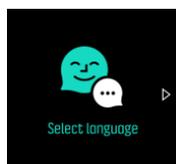
 **CAUTION:** Do not knock or drop the product, as it may get damaged.

 **NOTE:** *At Suunto we use advanced sensors and algorithms to generate metrics that can help you in your activities and adventures. We strive to be as accurate as possible. However, none of the data our products and services collect is perfectly reliable, nor are the metrics they generate absolutely precise. Calories, heart rate, location, movement detection, shot recognition, physical stress indicators and other measurements may not match the real world. Suunto products and services are intended for recreational use only and are not meant for medical purposes of any kind.*

2. Getting started

Starting your Suunto Spartan Ultra for the first time is quick and simple.

1. Keep the upper button pressed to wake up the watch.
2. Tap the screen to begin the setup wizard.



3. Select your language by swiping up or down and tapping on the language.



4. Follow the wizard to complete initial settings. Swipe up or down to select values. Tap the screen or press the middle button to accept a value and go to the next step.

After completing the wizard, charge the watch with the supplied USB cable until the battery is fully charged.

You need to download and install SuuntoLink on your PC or Mac to get software updates for your watch. We strongly recommend updating your watch when a new software release is available.

Visit www.movescount.com/connect for further information.

2.1. SuuntoLink

Download and install SuuntoLink on your PC or Mac to sync your watch with Movescount, keep your GPS optimized, and update your watch software.

We strongly recommend updating your watch when a new software release is available.

Visit www.movescount.com/connect for further information.

2.2. Software updates

Software updates for your watch bring new features and important improvements. We strongly recommend updating your watch as soon as an update is available.

If an update is available, you are notified via SuuntoLink as well as the Suunto Movescount App.

To update your watch software:

1. Plug your watch into the computer with the supplied USB cable.
2. Start SuuntoLink if it is not already running.
3. Click the update button in SuuntoLink.

2.3. Suunto Movescount App

With the Suunto Movescount App, you can further enrich your Suunto Spartan Ultra experience. Pair your watch with the mobile app to get notifications on your watch, change settings on the go, take pictures with data from your Move, and much more.

 **TIP:** With any Move that is stored in Movescount, you can add pictures as well as create a Suunto Movie using the Suunto Movescount App.

 **NOTE:** You cannot pair anything if airplane mode is on. Turn off airplane mode before pairing.

To pair your watch with Suunto Movescount App:

1. Ensure your watch Bluetooth is on. Under the settings menu, go to **Connectivity » Discovery** and enable it if it is not already.
2. Download and install Suunto Movescount App on your compatible mobile device from the iTunes App Store, Google Play in addition to several popular app stores in China.
3. Start Suunto Movescount App and turn on Bluetooth if it is not on already.
4. Tap the settings icon in the upper-right of the app screen and then tap the “+” icon to pair your watch.

 **NOTE:** Some features require an internet connection over Wi-Fi or mobile network. Carrier data connection fees may apply.

2.4. Movescount

Suunto Movescount is a growing sports community where you can create your own sports diary to collect and share your activities as well as customize your watch.

If you haven't already, go to www.movescount.com and register. Once you have a user account, you can connect your watch with your account two ways:

- Computer: via USB cable using SuuntoLink
- Mobile device: over Bluetooth using Suunto Movescount App

2.5. Touch screen and buttons

Suunto Spartan Ultra has a touch screen and three buttons you can use to navigate through displays and features.

Swipe and tap

- swipe up or down to move in displays and menus
- swipe right and left to backwards and forwards in displays
- swipe left or right to see additional displays and details
- tap to select an item
- tap the display to view alternate information
- tap and hold to open in-context options menu
- double-tap to return to time display from other displays (excluding launcher and settings)

Upper button

- press to move up in views and menus

Middle button

- press to select an item or view alternate information
- keep pressed to get back in settings menu
- keep pressed to open in-context options menu

Lower button

- press to move down in views and menus

While recording an exercise:

Upper button

- press to pause or resume recording
- keep pressed to change activity

Middle button

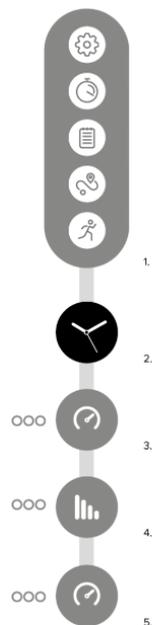
- press to change displays
- keep pressed to open in-context options menu

Lower button

- press to mark a lap
- keep pressed to lock and unlock buttons

2.6. Displays

Displays are customizable and subject to change with software updates. The basic arrangement remains, however, the same, as illustrated below.



1. Launcher
2. Watch face
3. Activity
4. Training

5. Recovery

2.7. Icons

Suunto Spartan Ultra uses the following icons:

	airplane mode
	altitude
	altitude difference
	ascent
	ascent time
	back; go back in menu
	breathing rate
	button lock
	cadence
	calibrate (compass)
	calories
	current location (navigation)
	charging
	descent
	descent time
	distance
	duration
	EPOC
	estimated VO2
	exercise
	failure

	flat time
	GPS acquired
	heading (navigation)
	heart rate
	HR sensor signal acquired
	highest point
	incoming call
	logbook
	low battery
	lowest point
	message/notification
	missed call
	navigation
	no ascents
	no descents
	off route
	pace
	planned Move
	POD signal acquired
	Power POD signal acquired
	Peak Training Effect
	recovery time
	software update available
	steps

	stopwatch
	stroke rate (swimming)
	success
	SWOLF
	syncing
	settings
	training
	temperature
	storm alarm
	barometer

2.8. Adjusting settings

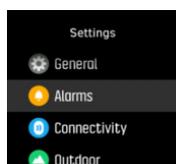
You can adjust all watch settings directly in the watch or through Suunto Movescount.

To adjust a setting:

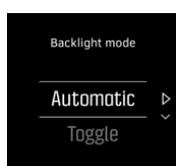
1. Swipe down until you see the settings icon and tap the icon.



2. Scroll through the settings menu by swiping up or down or by pressing the upper or lower buttons.



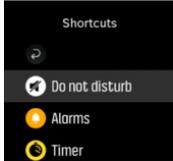
3. Select a setting by tapping the setting name or pressing the middle button when the setting is highlighted. Go back in the menu by swiping right or selecting **Back**.
4. For settings with a value range, change the value by swiping up or down or by pressing the upper or lower button.



5. For settings with just two values, such as on or off, change the value by tapping the setting or pressing the middle button.



 **TIP:** You can also access general settings from the watch face by tapping and holding your finger on the screen to open the in-context menu.



3. Features

3.1. Activity monitoring

Your watch keeps track of your overall level of activity throughout the day. This is an important factor whether you just aim to be fit and healthy or you are training for an upcoming competition.

It is good to be active, but when training hard, you need to have proper rest days with low activity.

The activity counter automatically resets at midnight every day. At the end of the week (Sunday), the watch provides a summary of your activity showing your average for the week and daily totals.

From the watch face display, swipe up or press the lower button to see your total steps for the day.



Your watch counts steps using an accelerometer. The total step count accumulates 24/7, also while recording training sessions and other activities. However, with some specific sports, such as swimming and cycling, steps are not counted.

In addition to steps, you can tap on the display to see estimated calories for the day.



The large number in the center of the display is the estimated amount of active calories you have burned so far. Below this you see the total calories burned. The total includes both active calories and your Basal Metabolic Rate (see below).

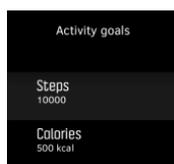
The ring in both displays indicates how close you are to your daily activity goals. These targets can be adjusted to your personal preferences (see below)

You can also check your activity over the last seven days with a swipe to the right. Tap the screen or press the middle button to switch between steps and calories.



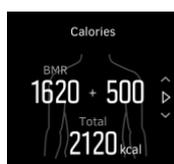
Activity goals

You can adjust your daily goals for both steps and calories. While in the activity display, tap and hold your finger on the screen or keep the middle button pressed to open the activity goal settings.



When setting your steps goal, you define the total number of steps for the day.

The total calories you burn per day is based on two factors: your Basal Metabolic Rate (BMR) and your physical activity.

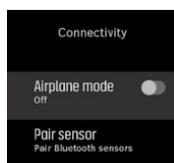


Your BMR is the amount of calories your body burns while at rest. These are the calories your body needs to stay warm and perform basic function like blink your eyes or beat your heart. This number is based on your personal profile, including factors such as age and gender.

When you set a calorie goal, you define how many calories you want to burn in addition to your BMR. These are your so-called active calories. The ring around the activity display advances according to how many active calories you burn during the day compared to your goal.

3.2. Airplane mode

Activate airplane mode when needed to turn off wireless transmissions. You can activate or deactivate airplane mode from the settings under **Connectivity**.

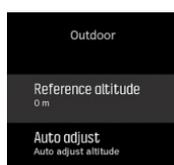


 **NOTE:** To pair anything with your device, you need to first turn off airplane mode if you have it on.

3.3. Altimeter

Suunto Spartan Ultra uses barometric pressure to measure altitude. To get accurate readings, you need to define an altitude reference point. This can be your current elevation if you know the exact value. Alternatively, you can use FusedAlti (see 3.3.1. *FusedAlti*) to set your reference point automatically.

Set your reference point from the settings under **Outdoor**.



3.3.1. FusedAlti

FusedAlti™ provides an altitude reading that is a combination of GPS and barometric altitude. It minimizes the effect of temporary and offset errors in the final altitude reading.

 **NOTE:** By default, altitude is measured with FusedAlti during exercises that use GPS and during navigation. When GPS is switched off, altitude is measured with the barometric sensor.

3.4. Autopause

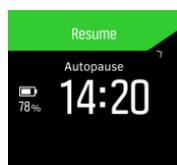
Autopause pauses the recording of your exercise when your speed is less than 2 km/h (1.2 mph). When your speed increases to more than 3 km/h (1.9 mph), the recording continues automatically.

You can turn autopause on/off for each sport mode in Suunto Movescount. You can also turn on or off autopause from the sport mode settings in the watch before you start your exercise recording.

If autopause is on during a recording, a pop-up notifies you when the recording is paused automatically.



Tap the resume pop-up to check the current time and battery level.



You can let the recording resume automatically when you start moving again, or manually resume from the pop-up screen by pressing the upper button.

3.5. Backlight

The backlight has two modes: automatic and toggle. In automatic mode, the backlight comes on with any screen touch or button press.

In toggle mode, you turn the backlight on with a two-finger tap. The backlight stays on until you tap with two fingers again.

By default, the backlight is in automatic mode. You can change the backlight mode as well as the backlight brightness from the settings under **General » Backlight**.

 **NOTE:** Backlight brightness affects battery life. The brighter the backlight is, the quicker the battery drains.

Standby backlight

When you are not actively using the watch by touching the screen or pressing buttons, the watch goes into a standby mode after one minute. The display is on, but in some low-light conditions, the screen might not be easily readable.

To improve readability in low-light conditions, you can use the standby backlight. This is a low-brightness backlight that is on all the time.

You can toggle the standby backlight on or off from the settings under **General » Backlight » Standby**.

Even though the standby backlight brightness is quite low, it decreases overall battery life because it is on all the time.

3.6. Button and screen lock

While recording an exercise you can lock both the buttons and screen by keeping the lower right button pressed. Once locked, you cannot change the display views, but you can turn on the backlight with any button press if the backlight is in automatic mode.

To unlock everything, keep the lower right button pressed again.

When you are not recording an exercise, the screen locks and dims after one minute of inactivity. To activate the screen, press any button.

The screen also goes to sleep (blank) after a period of inactivity. Any movement turns the screen on again.

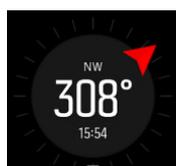
3.7. Compass

Suunto Spartan Ultra has a digital compass that allows you to orient yourself in relation to magnetic north. The tilt-compensated compass gives you accurate readings even if the compass is not horizontally level.

You can access the compass from the launcher under **Navigation » Compass**.

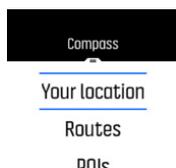
The compass display includes the following information:

- Arrow pointing to magnetic north
- Heading cardinal
- Heading in degrees
- Time of day (local time) or battery level; tap on screen to change views



To exit the compass, swipe right or keep the middle button pressed.

While you are in the compass display, you can swipe up from the bottom of the screen or press the lower button to open a list of shortcuts. The shortcuts give you quick access to navigation actions such as checking the coordinates of your current location or selecting a route to navigate.



Swipe down or press the upper button to exit the list of shortcuts.

3.7.1. Calibrating compass

If the compass is not calibrated, you are prompted to calibrate the compass when you enter the compass display.



If you want to re-calibrate the compass, you can start the calibration again from the settings under **Navigation » Calibrate compass**.

3.7.2. Setting declination

To ensure correct compass readings, set an accurate declination value.

Paper maps point to true north. Compasses, however, point to magnetic north – a region above the Earth where the Earth’s magnetic fields pull. Because magnetic North and true North are not at the same location, you must set the declination on your compass. The angle in between magnetic and true north is your declination.

The declination value appears on most maps. The location of magnetic north changes yearly, so the most accurate and up-to-date declination value can be found from websites such as www.magnetic-declination.com).

Orienteering maps, however, are drawn in relation to magnetic north. If you are using an orienteering map, you need to turn the declination correction off by setting the declination value to 0 degrees.

You can set your declination value from the settings under **Navigation » Declination**.

3.8. Device info

You can check details of your watch software and hardware from the settings under **General » About**.

3.9. Display theme

To increase the readability of your watch screen while exercising or navigating, you can change between light and dark themes.

With the light theme, the display background is light and the numbers dark.

With the dark theme, the contrast is reverse, with the background dark and the numbers light.

The theme is a global setting that you can change in your watch from any of your sport mode options.

To change display theme in sport mode options:

1. Go to any sport mode and swipe up or press the lower button to open the sport mode options.
2. Scroll down to **Theme** and press the middle button.
3. Switch between Light and Dark by swiping up or down or by pressing the upper and lower buttons, and accept with the middle button.
4. Scroll back up to exit the sport mode options, and start (or exit) the sport mode.

3.10. Do Not Disturb mode

The Do Not Disturb mode is a setting that mutes all sounds and vibrations, making it a very useful option when wearing the watch in, for example, a theater or any environment where you want the watch to operate as usual, but silently.

The Do Not Disturb mode also prevents the watch from going into hibernation after a period of inactivity

To turn on the Do Not Disturb mode:

1. From the watch face, keep the middle button pressed to open the shortcuts menu. You will find the Do Not Disturb option on top of the list and pre-selected.
2. Tap the screen or press the middle button to confirm the selection.

While in this mode, press any button to activate the exit option. Then press the upper right button to turn off the Do Not Disturb mode.

If you have an alarm set, it sounds as normal and disables Do Not Disturb mode unless you snooze the alarm.

3.11. Feeling

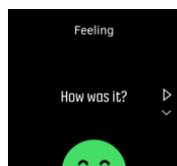
If you are training regularly, following how you feel after each session is an important indicator of your overall physical condition. A coach or personal trainer can also use your feeling trend to track your progress over time.

There are five degrees of feeling to choose from:

- **Poor**
- **Average**
- **Good**
- **Very good**
- **Excellent**

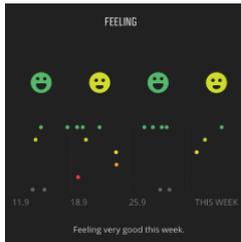
What these options mean exactly are up to you (and your coach) to decide. The important thing is that you use them consistently.

For each training session, you can record how you felt in the watch directly after stopping the recording by answering the '**How was it?**' question.

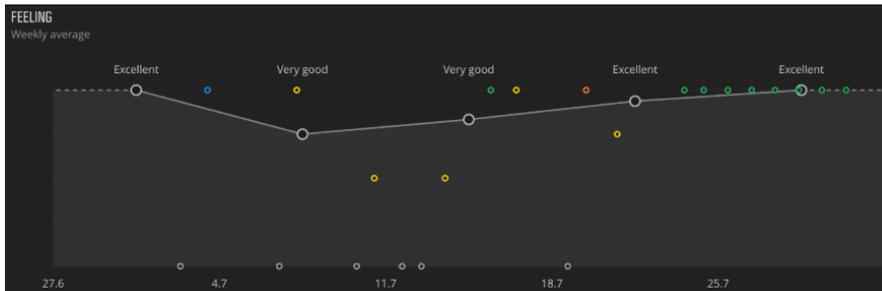


You can skip answering the question by pressing the middle button and instead add how you felt later by editing the Move in Suunto Movescount.

Once you start regularly using the feeling metric, you can quickly check your 7-day and 30-day trend from you timeline overview in Movescount.



For longer-term trend analysis, go to your Moves page. Select the time period you want to see from the calendar and scroll down to the Rest & Recovery section to see the feeling trend graph.

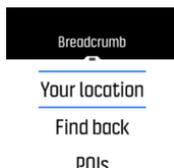


3.12. Find back

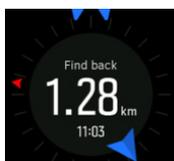
If you are using GPS when recording an activity, Suunto Spartan Ultra automatically saves the starting point of your exercise. With Find back, Suunto Spartan Ultra can guide you directly back to your starting point.

To start Find back:

1. Start an exercise with GPS.
2. Swipe left or press the middle button until you have reached the navigation display.
3. Swipe up or press the lower button to open the shortcut menu.
4. Scroll to Find back and tap the screen or press the middle button to select.

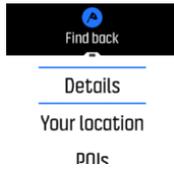


The navigation guidance is shown as the last display on the selected sport mode.

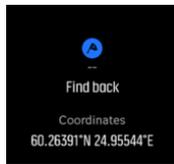


To view additional details about your current position:

1. From the Find back view, swipe up or press the lower button to open the shortcut menu.
2. Select **Details**.



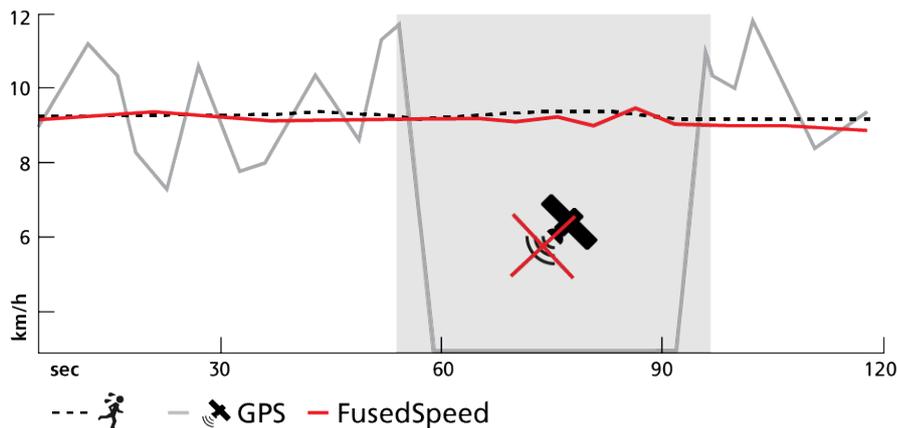
3. Swipe up or press the lower button to scroll through the list.



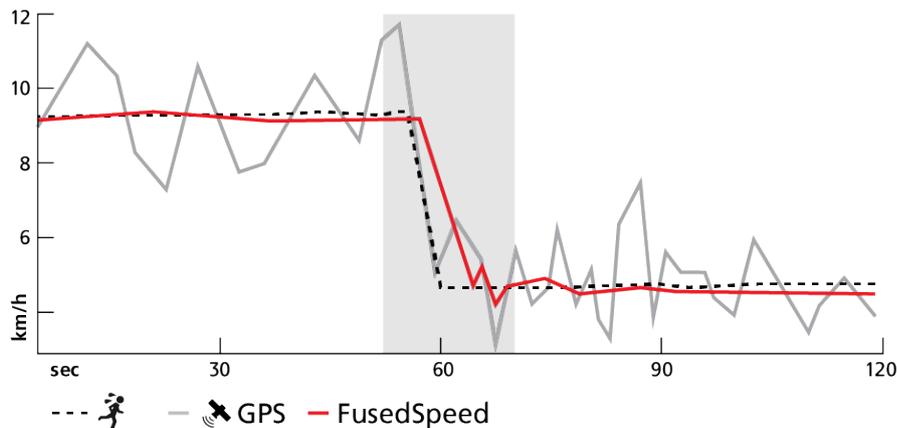
Swipe right or press the middle button to exit the details view.

3.13. FusedSpeed

FusedSpeed™ is a unique combination of GPS and wrist acceleration sensor readings for measuring your running speed more accurately. The GPS signal is adaptively filtered based on wrist acceleration, giving more accurate readings at steady running speeds and a quicker responses to changes in speed.



FusedSpeed benefits you the most when you need highly reactive speed readings during training, for example, when running on uneven terrain or during interval training. If you temporarily lose the GPS signal, for example, Suunto Spartan Ultra is able to continue showing accurate speed readings with the help of the GPS calibrated accelerometer.



 **TIP:** To get the most accurate readings with FusedSpeed, only glance shortly at the watch when needed. Holding the watch in front of you without moving it reduces the accuracy.

FusedSpeed is automatically enabled for running and other similar types of activities, such as orienteering, floor ball and football (soccer).

3.14. GLONASS

GLONASS (Global Navigation Satellite System) is an alternative positioning system to GPS. With GLONASS enabled, your watch may record a more accurate track in certain conditions. Particularly in urban areas with tall buildings, GLONASS can improve track accuracy. In other areas, it is typically best to leave GLONASS disabled. With GLONASS enabled, your watch consumes more battery life.

To toggle GLONASS on/off:

1. Select a sport mode that uses GPS.
2. Open the options menu and scroll down until you reach GLONASS.
3. Press the middle button to toggle the setting on or off.

 **NOTE:** The GLONASS setting is a global setting. When you enable it, GLONASS is activated for all sport modes with GPS.

3.15. GPS accuracy and power saving

The GPS fix rate determines the accuracy of your track - the shorter the interval is between fixes, the better the track accuracy is. Each GPS fix is recorded in your log when recording an exercise.

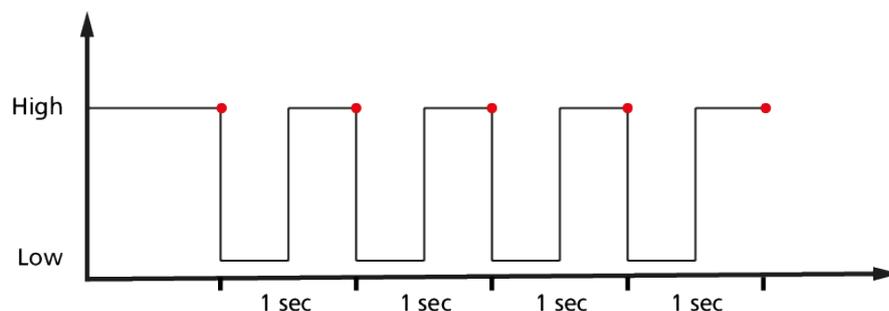
The GPS fix rate also directly affects battery life. By reducing GPS accuracy, you can extend the battery life of your watch.

The GPS accuracy options are:

- **Best:** ~ 1 sec fix rate with full power
- **Good:** ~ 1 sec fix rate with low power
- **OK:** ~ 60 sec fix rate with full power

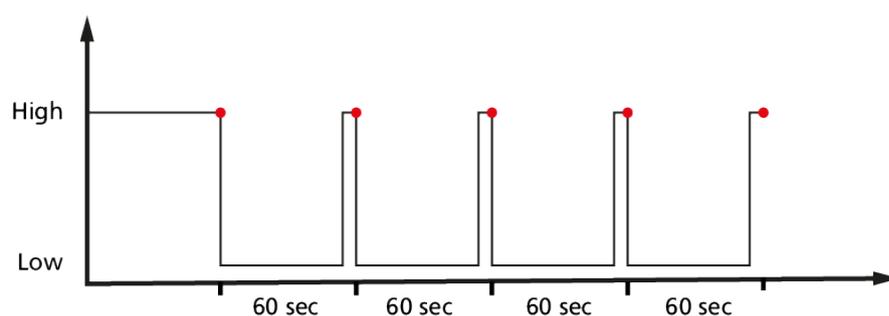
When set to **Best**, your watch is using GPS at full power all the time. In full power mode, the GPS is able to filter out interference and get the best fix. This results in the best track accuracy, but also use the battery the most.

By using **Good**, you can still get GPS fix every second, but the accuracy is reduced because the GPS is not in full power mode all the time. Between fixes, the GPS goes into a low power mode for a short time, as illustrated below.



This extends battery life, but it means the GPS has less time to find a good fix and filter out interference. So the resulting track is not as accurate as with **Best**.

With OK, the GPS fix rate is reduced to once every minute. This significantly increases battery life, but results in a less accurate track.



Whenever you navigate a route or a POI, the GPS accuracy is automatically set to **Best**.

3.16. Heart rate sensor

You can use a Bluetooth® Smart compatible heart rate sensor, such as the Suunto Smart Sensor, with your Suunto Spartan Ultra to get accurate information about your exercise intensity.

If you use the Suunto Smart Sensor, you also have the added advantage of heart rate memory. The sensor memory function buffers data if the connection to your watch is interrupted, for example, when swimming (no transmission under water).

It also means you can even leave your watch behind after starting a recording. For more information, please refer to the Suunto Smart Sensor User Guide.

Without a heart rate sensor, your Suunto Spartan Ultra provides calorie consumption and recovery time for running and cycling activities where speed is used to estimate intensity. However, we recommend using a heart rate sensor to get accurate intensity readings.

Refer to the user guide for Suunto Smart Sensor or other Bluetooth® Smart compatible heart rate sensor for additional information.

See 3.24. *Pairing PODs and sensors* for instructions on how to pair an HR sensor with your watch.

3.17. Intensity zones

Using intensity zones for exercising helps guide your fitness development. Each intensity zone stresses your body in different ways, leading to different effects on your physical fitness.

There are five different zones, numbered 1 (lowest) to 5 (highest), defined as percentage ranges based on your maximum heart rate (max HR), pace or power.

It is important to train with intensity in mind and understand how that intensity should feel. And don't forget, regardless of your planned training, that you should always take time to warm up before an exercise.

The five different intensity zones used in Suunto Spartan Ultra are:

Zone 1: Easy

Exercising in zone 1 is relatively easy on your body. When it comes to fitness training, intensity this low is significant mainly in restorative training and improving your basic fitness when you are just beginning to exercise, or after a long break. Everyday exercise – walking, climbing stairs, cycling to work, etc. – is usually performed within this intensity zone.

Zone 2: Moderate

Exercising at zone 2 improves your basic fitness level effectively. Exercising at this intensity feels easy, but workouts with a long duration can have a very high training effect. The majority of cardiovascular conditioning training should be performed within this zone. Improving basic fitness builds a foundation for other exercise and prepares your system for more energetic activity. Long duration workouts at this zone consume a lot of energy, especially from your body's stored fat.

Zone 3: Hard

Exercising at zone 3 begins to be quite energetic and feels like pretty hard going. It will improve your ability to move quickly and economically. In this zone, lactic acid begins to form in your system, but your body is still able to completely flush it out. You should train at this intensity at most a couple of times per week, as it puts your body under a lot of stress.

Zone 4: Very hard

Exercising at zone 4 will prepare your system for competition type events and high speeds. Workouts in this zone can be performed either at constant speed or as interval training (combinations of shorter training phases with intermittent breaks). High-intensity training develops your fitness level quickly and effectively, but done too often or at too high intensity may lead to overtraining, which may force you to take a long break from your training program.

Zone 5: Maximal

When your heart rate during a workout reaches zone 5, the training will feel extremely hard. Lactic acid will build up in your system much faster than it can be removed, and you will be forced to stop after a few dozen minutes at most. Athletes include these maximum-intensity workouts in their training program in a very controlled manner, fitness enthusiasts do not require them at all.

3.17.1. 3.18.1. Heart rate zones

Heart rate zones are defined as percentage ranges based on your maximum heart rate (max HR).

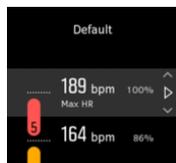
By default, your max HR is calculated using the standard equation: $220 - \text{your age}$. If you know your exact max HR, you should adjust the default value accordingly.

Suunto Spartan Ultra has default and activity-specific HR zones. The default zones can be used for all activities, but for more advanced training, you can use specific HR zones for running and cycling activities.

Set max HR

Set your maximum HR from the settings under **Training » Intensity zones » Default zones**

1. Tap the max HR (highest value, bpm) or press the middle button.
2. Select your new max HR by swiping up or down or by pressing the upper right or lower right buttons.



3. Tap your selection or press the middle button.
4. To exit the HR zones view, swipe right or keep the middle button pressed.

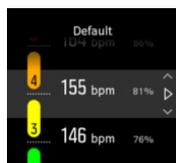


NOTE: You can also set your maximum HR from the settings under **General » Personal**.

Set default HR zones

Set your default HR zones from the settings under **Training » Intensity zones » Default zones**

1. Scroll up/down and tap or press the middle button when the HR zone you want to change is highlighted.
2. Select your new HR zone by swiping up or down or by pressing the upper right or lower right buttons.



3. Tap your selection or press the middle button.
4. To exit the HR zones view, swipe right or keep the middle button pressed.

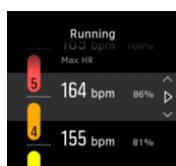


NOTE: Selecting **Reset** in the HR zones view will reset the HR zones to the default value.

Set activity specific HR zones

Set your activity specific HR zones from the settings under **Training » Intensity zones » Advanced zones**

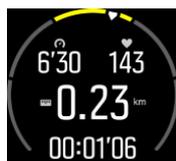
1. Tap the activity (running or cycling) that you want to edit or press the middle button when the activity is highlighted.
2. Press the middle button to toggle the HR zones on.
3. Scroll up/down and tap or press the middle button when the HR zone you want to change is highlighted.
4. Select your new HR zone by swiping up or down or by pressing the upper right or lower right buttons.



3. Tap your selection or press the middle button.
4. To exit the HR zones view, swipe right or keep the middle button pressed.

Using HR zones when exercising

When you record an exercise (see 3.27. *Recording an exercise*), an HR zone gauge, divided into five sections, is shown around the outer edge of the sport mode display (for all sport modes that support HR). The gauge indicates in which HR zone you are currently training by lighting up the corresponding section. The small arrow in the gauge indicates where you are within the zone range.



In addition, there is a dedicated display for HR zones in the sport mode default display. The zone display shows your current HR zone in the middle field, how long you have been in that zone, and how far away you are in beats per minute to the next zones up and down. The background color of the bar also indicates which HR zone you are training in.



In the exercise summary, you get a breakdown of how much time you spent in each zone.

3.18. Interval training

Interval workouts are a common form of training consisting of repetitive sets of high and low intensity efforts. With Suunto Spartan Ultra, you can define in the watch your own interval training for each sport mode.

When defining your intervals, you have four items to set:

- Intervals: on/off toggle that enables interval training. When you toggle this on, an interval training display is added to your sport mode.
- Repetitions: the number of interval + recovery sets you want to do.
- Interval: the length of your high intensity interval, based on distance or duration.
- Recovery: the length of your rest period between intervals, based on distance or duration.

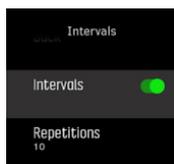
Keep in mind that if you use distance to define your intervals, you need to be in a sport mode that measures distance. The measurement can be based on GPS, or from a foot or bike POD, for example.



NOTE: *If you are using intervals, you cannot activate navigation.*

To train with intervals:

1. Before you start an exercise recording, swipe up or press the lower button to open the sport mode options.
2. Scroll down to **Intervals** and tap the setting or press the middle button.
3. Toggle intervals on and adjust the settings described above.



4. Scroll back up to the start view and start your exercise as normal.
5. Swipe left or press the middle button until you reach the intervals display and press the upper button when you are ready to start your interval training.



6. If you want to stop the interval training before you have completed all your repetitions, keep the middle button pressed to open the sport mode options and toggle off **Intervals**.

 **NOTE:** While you are in the intervals display, buttons work as normal, for example, pressing the upper button pauses the exercise recording, not just the interval training.

After you have stopped your exercise recording, interval training is automatically toggled off for that sport mode. The other settings, however, are maintained so you can easily start the same workout the next time you use the sport mode.

3.17.1. 3.18.1. Heart rate zones

Heart rate zones are defined as percentage ranges based on your maximum heart rate (max HR).

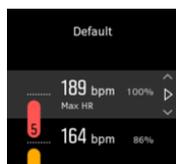
By default, your max HR is calculated using the standard equation: 220 - your age. If you know your exact max HR, you should adjust the default value accordingly.

Suunto Spartan Ultra has default and activity-specific HR zones. The default zones can be used for all activities, but for more advanced training, you can use specific HR zones for running and cycling activities.

Set max HR

Set your maximum HR from the settings under **Training » Intensity zones » Default zones**

1. Tap the max HR (highest value, bpm) or press the middle button.
2. Select your new max HR by swiping up or down or by pressing the upper right or lower right buttons.



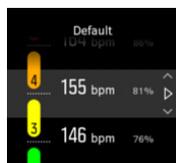
3. Tap your selection or press the middle button.
4. To exit the HR zones view, swipe right or keep the middle button pressed.

 **NOTE:** You can also set your maximum HR from the settings under **General » Personal**.

Set default HR zones

Set your default HR zones from the settings under **Training » Intensity zones » Default zones**

1. Scroll up/down and tap or press the middle button when the HR zone you want to change is highlighted.
2. Select your new HR zone by swiping up or down or by pressing the upper right or lower right buttons.



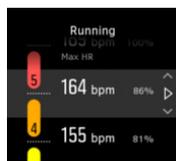
3. Tap your selection or press the middle button.
4. To exit the HR zones view, swipe right or keep the middle button pressed.

 **NOTE:** Selecting **Reset** in the HR zones view will reset the HR zones to the default value.

Set activity specific HR zones

Set your activity specific HR zones from the settings under **Training » Intensity zones » Advanced zones**

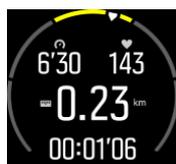
1. Tap the activity (running or cycling) that you want to edit or press the middle button when the activity is highlighted.
2. Press the middle button to toggle the HR zones on.
3. Scroll up/down and tap or press the middle button when the HR zone you want to change is highlighted.
4. Select your new HR zone by swiping up or down or by pressing the upper right or lower right buttons.



3. Tap your selection or press the middle button.
4. To exit the HR zones view, swipe right or keep the middle button pressed.

Using HR zones when exercising

When you record an exercise (see 3.27. *Recording an exercise*), an HR zone gauge, divided into five sections, is shown around the outer edge of the sport mode display (for all sport modes that support HR). The gauge indicates in which HR zone you are currently training by lighting up the corresponding section. The small arrow in the gauge indicates where you are within the zone range.



In addition, there is a dedicated display for HR zones in the sport mode default display. The zone display shows your current HR zone in the middle field, how long you have been in that

zone, and how far away you are in beats per minute to the next zones up and down. The background color of the bar also indicates which HR zone you are training in.



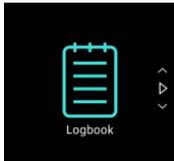
In the exercise summary, you get a breakdown of how much time you spent in each zone.

3.19. Language and unit system

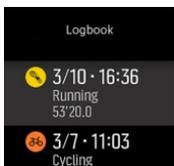
You can change your watch language and unit system from the settings under **General » Language**.

3.20. Logbook

You can access the logbook from the launcher or by swiping right when in the training insight display.

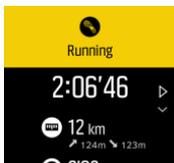


Tap on the log entry you want to view and scroll through log by swiping up or down or by pressing the upper right or lower right buttons.



 **NOTE:** The log icon remains gray until the Move has been synced with Suunto Movescount.

To exit the log, swipe right or keep the middle button pressed. You can also just double-tap on the screen to return to the watch face.



3.21. Moon phases

In addition to sunrise and sunset times, your watch can track moon phases. The moon phase is based on date you have set in your watch.

The moon phase is available as a view in the outdoor style watch face. Tap on the screen to change the lower row until you see the moon icon and percentage.



The phases are presented as an icon with percentage as follows:

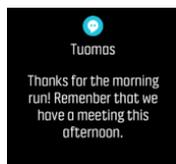


3.22. Notifications

If you have paired your watch with the Suunto Movescount App, you can get notifications such as in-coming calls and text messages on your watch.

When you pair your watch with the app, notifications are on by default. You can turn them off from the settings under Notifications.

When a notification arrives, a pop-up appears on the watch face.



If the message doesn't fit on the screen, swipe up to scroll through the full text.

3.23. Outdoor insight

Suunto Spartan Ultra constantly measures absolute air pressure using the built-in pressure sensor. Based on this measurement and your altitude reference value, it calculates altitude or air pressure.

⚠ CAUTION: *Keep the area around the air pressure sensor holes on the left-side of your watch free of dirt and sand. Never insert any objects into the holes as this may damage the sensor.*

Swipe up or press the lower button to view the trend graphs for altitude and barometric pressure.



Tap on the display or press the middle button to switch between altimeter and barometer views.



Be sure to have your altitude reference value set correctly (see 3.3. *Altimeter*). The altitude of your current location can be found from most topographic maps or major on-line map services such as Google Maps.

Changes in local weather conditions affect altitude readings. If local weather changes often, you should reset the altitude reference value regularly, preferably before starting your next journey.

 **TIP:** While in the altimeter or barometer graph view, keep the middle button pressed for quick access to the outdoor settings where you can adjust the reference value.

Automatic alti-baro profile

Weather and altitude changes both cause a change in air pressure. To handle this, Suunto Spartan Ultra automatically switches between interpreting changes in air pressure as altitude or weather changes based on your movement.

If your watch senses vertical movement, it switches to measuring altitude. When you are viewing the altitude graph, it is updated with a maximum delay of 10 seconds.

If you are at a constant altitude (less than 5 meters of vertical movement within 12 minutes), your watch interprets air pressure changes as weather changes and adjusts the barometer graph accordingly.

 **NOTE:** Sport modes have their own alti-baro profile setting. You can change this setting in Movescount. The options are automatic, barometer only, or altimeter only.

3.24. Pairing PODs and sensors

Pair your watch with Bluetooth Smart PODs and sensors to collect additional information, such as cycling power, when recording an exercise.

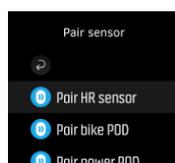
Suunto Spartan Ultra supports the following types of PODs and sensors:

- Heart rate
- Bike
- Power
- Foot

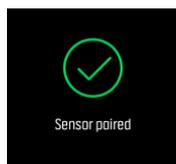
 **NOTE:** You cannot pair anything if airplane mode is on. Turn off airplane mode before pairing. See 3.2. *Airplane mode*.

To pair a POD or sensor:

1. Go to your watch settings and select **Connectivity**.
2. Select **Pair sensor** to get the list of sensor types.
3. Swipe down to see the whole list and tap on the sensor type you want to pair.



4. Follow the instructions in the watch to complete pairing (refer to sensor or POD manual if needed), pressing the middle button to advance to the next step.



If the POD has required settings, such as crank length for a power POD, you are prompted to enter a value during the pairing process.

Once the POD or sensor is paired, your watch searches for it as soon as you select a sport mode that uses that sensor type.

You can see the full list of paired devices in your watch from the settings under **Connectivity » Paired devices**.

From this list, you can remove (unpair) the device if needed. Select the device you want to remove, and tap **Forget**.

3.24.1. Calibrating foot POD

When you pair a foot POD, your watch automatically calibrates the POD using GPS. We recommend using the automatic calibration, but you can disable it if needed from the POD settings under **Connectivity » Paired devices**.

For the first calibration with GPS, you should select a sport mode where the foot POD is used and the GPS accuracy is set to **Best**. Start the recording and run at a steady pace on a level surface, if possible, for at least 15 minutes.

Run at your normal average pace for the initial calibration, and then stop the exercise recording. The next time you use the foot POD, the calibration is ready.

Your watch automatically re-calibrates the foot POD as needed whenever GPS speed is available.

3.24.2. Calibrating power POD

For power PODs (power meters), you need to initiate the calibration from the sport mode options in your watch.

To calibrate a power POD:

1. Pair a power POD with your watch if you have not done so already.
2. Select a sport mode that uses a power POD and then open the mode options.
3. Select **Calibrate power POD** and follow the instructions in the watch.

You should re-calibrate the power POD from time to time.

3.25. Points of interest

A point of interest, or POI, is a special location, such as camping spot or vista along a trail, you can save and navigate to later. You can create POIs in Suunto Movescount or in your watch by saving your current location.

Each POI is defined by:

- POI name
- POI type
- Date and time created
- Latitude

- Longitude
- Elevation

You can store up to 250 POIs in your watch.

3.25.1. Adding and deleting POIs

You can add a POI to your watch either with Suunto Movescount or by saving your current location in the watch.

To add a POI with Suunto Movescount:

1. Go to your watch settings on the Suunto Movescount website.
2. Expand the **NAVIGATION** section and then **POIS (POINTS OF INTEREST)**.
3. Click **Create new point of interest** and fill in your POI details. Use the map to enter latitude and longitude.
4. Save the POI and then add it to your watch by selecting **Use in watch**.
5. Sync your watch with Movescount using SuuntoLink (USB cable) or Suunto Movescount App (Bluetooth).

If you are outside with your watch and come across a spot you want to save as a POI, you can add the location directly in your watch. The POI is added to your list of POIs in the watch and will be added to your POI list in Movescount the next time you sync.

To add a POI with your watch:

1. Swipe down or press the upper button to open the launcher.
2. Scroll to **Navigation** and tap on the icon or press the middle button.
3. Swipe up or press the lower button to scroll down to **Your location** and press the middle button.
4. Wait for the watch to activate GPS and find your location.
5. When the watch displays your latitude and longitude, press the upper button to save your location as a POI and select the POI type.
6. By default the POI name is the same as the POI type (with a running number after it). You can edit the name later in Movescount.

Deleting POIs

You can remove a POI from your watch either by deactivating the **Use in watch** setting for the POI in Movescount or by deleting the POI from the POI list in the watch.

To delete a POI in your watch:

1. Swipe down or press the upper button to open the launcher.
2. Scroll to **Navigation** and tap on the icon or press the middle button.
3. Swipe up or press the lower button to scroll down to **POIs** and press the middle button.
4. Scroll to the POI you want to remove from the watch and press the middle button.
5. Scroll to the end of the details and select **Delete**.

When you delete a POI from your watch, the POI is not permanently deleted. The next time you sync your watch with Movescount, the POI you deleted is deactivated.

To permanently delete a POI, you need to delete the POI in Movescount.

To permanently delete a POI:

1. Go to your watch settings in Movescount.

2. Expand the **NAVIGATION** section and then **POIS (POINTS OF INTEREST)**.
3. Scroll to the POI you want to delete and click on the trash bin icon.
4. Sync your watch with Movescount using SuuntoLink (USB cable) or Suunto Movescount App (Bluetooth) to also remove the POI from your watch POI list.

3.25.2. Navigating to a POI

You can navigate to any POI that is in your watch POI list.

 **NOTE:** When navigating to a POI, your watch uses full power GPS.

To navigate to a POI:

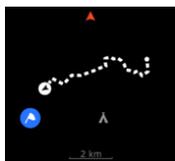
1. Swipe down or press the upper button to open the launcher.
2. Scroll to **Navigation** and tap on the icon or press the middle button.
3. Scroll to POIs and press the middle button to open your list of POIs.
4. Scroll to the POI you want to navigate to and press the middle button.
5. Press the upper button to start navigating.
6. Press the upper button again at any time to stop navigating.

The POI navigation has two views:

- POI view with direction indicator and distance to the POI



- map view showing your current location relative to the POI and your breadcrumb trail (the track you have traveled)



Swipe left or right, or press the middle button, to switch between views.

 **TIP:** While in the POI view, tap on the screen to see additional information in the lower row such as altitude difference between current position and POI and estimated time of arrival (ETA) or en route (ETE).

In the map view, other POIs nearby are shown in gray. Tap on the screen to switch between the overview map and a more detailed view. In the detailed view, you adjust the zoom level by pressing the middle button and then zooming in and out with the upper and lower buttons.

While navigating, you can swipe up from the bottom of the screen or press the lower button to open a list of shortcuts. The shortcuts give you quick access to POI details and actions such as saving your current location or selecting another POI to navigate to, as well as ending navigation.

3.25.3. POI types

The following POI types are available in Suunto Spartan Ultra:

	generic point of interest
	Bedding (animal, for hunting)
	Begin (start of a route or trail)
	Big game (animal, for hunting)
	Bird (animal, for hunting)
	Building, home
	Cafe, food, restaurant
	Camp, camping
	Car, parking
	Cave
	Cliff, hill, mountain, valley
	Coast, lake, river, water
	Crossroad
	Emergency
	End (end of a route or trail)
	Fish, fishing spot
	Forest
	Geocache
	Hostel, hotel, lodging
	Info
	Meadow
	Peak
	Prints (animal tracks, for hunting)
	Road

	Rock
	Rub (animal marking, for hunting)
	Scrape (animal marking, for hunting)
	Shot (for hunting)
	Sight
	Small game (animal, for hunting)
	Stand (for hunting)
	Trail
	Trail cam (for hunting)
	Waterfall

3.26. Position formats

The position format is the way your GPS position is displayed on the watch. All the formats relate to the same location, they only express it in a different way.

You can change the position format in the watch settings under **Navigation » Position format**.

Latitude/longitude is the most commonly used grid and has three different formats:

- WGS84 Hd.d°
- WGS84 Hd°m.m'
- WGS84 Hd°m's.s

Other common position formats available include:

- UTM (Universal Transverse Mercator) gives a two-dimensional horizontal position presentation.
- MGRS (Military Grid Reference System) is an extension of UTM and consists of a grid zone designator, 100,000-meter square identifier and a numerical location.

Suunto Spartan Ultra also supports the following local position formats:

- BNG (British)
- ETRS-TM35FIN (Finnish)
- KKJ (Finnish)
- IG (Irish)
- RT90 (Swedish)
- SWEREF 99 TM (Swedish)
- CH1903 (Swiss)
- UTM NAD27 (Alaska)
- UTM NAD27 Conus

- UTM NAD83
- NZTM2000 (New Zealand)

 **NOTE:** Some position formats cannot be used in the areas north of 84° and south of 80°, or outside the countries that they are intended for. If you are outside the allowed area, your location coordinates cannot be displayed on the watch.

3.27. Recording an exercise

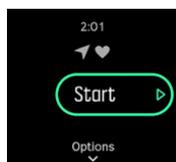
In addition to 24/7 activity monitoring, you can use your watch to record your training sessions or other activities to get detailed feedback and follow your progress.

To record an exercise:

1. Put on heart rate sensor (optional).
2. Swipe down or press the upper button to open the launcher.
3. Tap the exercise icon or press the middle button.



4. Swipe up or down to scroll through the sport modes and tap on the one you want to use. Alternatively, scroll with the upper and lower buttons and select with the middle button.
5. Above the start indicator, a set of icons appear, depending on what you are using with the sport mode (such as heart rate, GPS and foot POD). These flash gray while searching and turn green once a signal is found. You can wait for each icon to turn green or start the recording as soon as you like by pressing the middle button.



6. While recording, you can switch between displays with the middle button or by using the touch screen if it is enabled.
7. Press the upper button to pause the recording. Stop and save with the lower button or continue with the upper button.



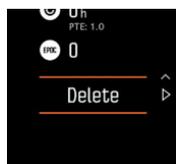
If the sport mode you selected has options, such as setting a duration target, you can adjust them before starting the recording by swiping up or pressing the lower button. You can also adjust sport mode options while recording by keeping the middle button pressed.

 **TIP:** During the recording, you can tap on the screen to get a pop-up that shows current time and battery level.

If you are using a multisport mode, switch sports by keeping the upper button pressed.

After you stop the recording, you are asked how you felt. You can answer or skip the question. (See 3.11. *Feeling*) Then you get a summary of the activity that you can browse through with the touch screen or buttons.

If you made a recording you don't want to keep, you can delete the log by scrolling to the bottom of the summary and tapping the delete button. You can also delete logs in the same way from the logbook.



3.27.1. Navigating during exercise

You can navigate a route or to a POI while you are recording an exercise.

The sport mode you are using needs to have GPS enabled to be able to access the navigation options. If the sport mode GPS accuracy is OK or Good, when you select a route or POI, the GPS accuracy is changed to Best.

To navigate during exercise:

1. Create a route or POI in Suunto Movescount and sync your watch if you haven't done so already.
2. Select a sport mode that uses GPS and then swipe up or press the lower button to open the options. Alternatively, start your recording first, and then keep the middle button pressed to open the sport mode options.
3. Scroll to **Navigation** and tap the setting or press the middle button.
4. Swipe up and down or press the upper and lower buttons to select a navigation option and press the middle button.
5. Select the route or POI you want to navigate and press the middle button. Then press the upper button to start navigating.

If you have not started the exercise recording yet, the last step takes you back to the sport mode options. Scroll up to the start view and start your recording as normal.

While exercising, swipe right or press the middle button to scroll to the navigation display where you will see the route or POI that you selected. For more information on the navigation display, see 3.25.2. *Navigating to a POI* and 3.29. *Routes*.

While in this display you can swipe up or press the lower button to open your navigation options. From the navigation options, you can, for example, select a different route or POI, check your current location coordinates, as well as end navigation by selecting **Breadcrumb**.

3.27.2. Sport mode power saving options

To extend battery life while using sport modes with GPS, your biggest gains come from adjusting GPS accuracy (see 3.15. *GPS accuracy and power saving*). To extend battery life further, you can adjust use the following power saving options:

- Display color: by default, the display uses the full range of colors available. When you enable the Low color option, the display uses fewer colors which reduces the amount of battery power needed.

- Display timeout: normally, the display is always on during your exercise. When you turn on the display timeout, the display turns off after 10 seconds to save battery power. Press any button to turn the display back on.

To activate power saving options:

1. Before you start an exercise recording, swipe up or press the lower button to open the sport mode options.
2. Scroll down to **Power saving** and tap the setting or press the middle button.
3. Adjust the power saving options as you want and then swipe right or keep the middle button pressed to exit the power saving options.
4. Scroll back up to the start view and start your exercise as normal.

 **NOTE:** If the display timeout is on, you can still get mobile notifications as well as sound and vibration alerts. Other visual aids such as the autopause pop-up are not shown.

3.28. Recovery time

Recovery time is an estimate in hours of how long your body needs to recuperate after training. The time is based on the duration and intensity of the training session, as well as your overall fatigue.

Recovery time accumulates from all types of exercise. In other words, you accumulate recovery time on long, low intensity training session as well as at high intensity.

The time is cumulative across training sessions, so if you train again before the time has expired, the newly accumulated time is added to the remainder from your previous training session.

To view your recovery time, swipe until you see the recovery display.



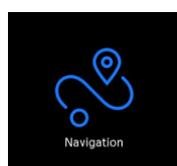
Because recovery time is an estimation only, the accumulated hours count down steadily regardless of your fitness level or other individual factors. If you are very fit, you may recover faster than estimated. On the other hand, if you have the flu, for example, your recovery may be slower than estimated.

3.29. Routes

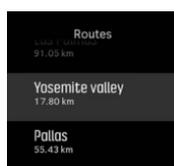
You can use your Suunto Spartan Ultra to navigate routes. Plan your route in Suunto Movescount and transfer it to your watch with the next sync.

To navigate on a route:

1. Swipe down or press the upper button to open the launcher.
2. Scroll to **Navigation** and tap on the icon or press the middle button.



3. Scroll to **Routes** and press the middle button to open your list of routes.

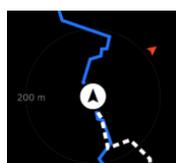


4. Scroll to the route you want to navigate to and press the middle button.
5. Press the upper button to start navigating.
6. Press the upper button again at any time to stop navigating.

Tap the screen to switch between the overview map and a more detailed view.



In the detailed view, zoom in and out by tapping the screen or keeping the middle button pressed. Adjust the zoom level with the upper and lower buttons.



While you are in the navigation display, you can swipe up from the bottom of the screen or press the lower button to open a list of shortcuts. The shortcuts give you quick access to navigation actions such as saving your current location or selecting another route to navigate.

All sport modes with GPS also have a route selection option. See [3.27.1. Navigating during exercise](#).

Navigation guidance

As you navigate a route, your watch helps you stay on the correct path by giving you additional notifications as you progress along the route.

For example, if you go more than 100 m (330 ft) off route, the watch notifies you that you are not on the right track, as well as lets you know when you are back on route.

Once you reach a waypoint or POI on the route, you get an informative popup showing you the distance and estimated time en route (ETE) to the next waypoint or POI.

 **NOTE:** If you are navigating a route that crosses itself, such as a figure-8, and you make a wrong turn at the crossing, your watch assumes you are intentionally going in a different direction on the route. The watch shows the next waypoint based on the current, new direction of travel. So, keep an eye on your breadcrumb trail to ensure you are going the right way when you are navigating a complicated route.

3.29.1. Altitude navigation

If you are navigating a route that has altitude information, you can also navigate based on ascent and descent using the altitude profile display. While in the main navigation display

(where you see your route), swipe left or press the middle button to switch to the altitude profile display.

The altitude profile display shows you the following information:

- top: your current altitude
- center: altitude profile showing your current position
- bottom: remaining ascent or descent (tap screen to change views)



If you stray too far off from the route while using altitude navigation, your watch will give you an **Off route** message in the altitude profile display. If you see this message, scroll to the route navigation display to get back on track before continuing with altitude navigation.

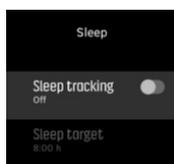
3.30. Sleep tracking

A good night's sleep is important for a healthy mind and body. You can use your watch to track your sleep and follow how much sleep you are getting on average.

When you wear your watch to bed, Suunto Spartan Ultra tracks your sleep based on accelerometer data. You can leave the watch next to your bed when going to sleep, but we recommend leaving it on so that you can get more accurate sleep feedback.

To track sleep:

1. Go to your watch settings, scroll down to **SLEEP** and press the middle button.
2. Toggle on **SLEEP TRACKING**.



3. Set the times for going to bed and waking up according to your normal sleep schedule.

The last step defines your bedtime. Your watch uses that period to determine when you are sleeping (during your bedtime) and reporting all sleep as one session. If you get up for a drink of water during the night, for example, your watch still counts any sleep after that as the same session.

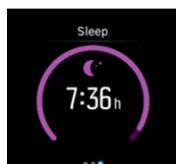
 **NOTE:** *If you go to bed before your bedtime and also wake up after your bedtime, your watch does not count that as a sleep session. You should set your bedtime according to the earliest you may go to bed and the latest you may wake up.*

Once you have enabled sleep tracking, you can also set your sleep target. A typical adult needs between 7 and 9 hours of sleep per day, though your ideal amount of sleep may vary from the norms.

Sleep trends

When you wake up, you are greeted with a summary of your sleep. The summary includes, for example, the total duration of your sleep, as well as the estimated time you were awake (moving around) and the time you were in deep sleep (no movement).

In addition to the sleep summary, you can follow your overall sleep trend with the sleep insight. From the watch face, press the lower right button until you see the **SLEEP** display. The first view shows your last sleep compared to your sleep target.



While in the sleep display, you can swipe right to see your average sleep over the last seven days.

From the **SLEEP** display, you can keep the middle button pressed to access sleep tracking settings and the latest sleep summary.



NOTE: All sleep measurements are based on movement only, so they are estimates that may not reflect your actual sleep habits.

Automatic Do Not Disturb mode

You can use the auto Do Not Disturb setting to automatically enable Do Not Disturb mode while you sleep.

3.31. Sport modes

Your watch comes with a wide range of pre-defined sport modes. The modes are designed for specific activities and purposes, from a casual walk outside to a triathlon race.

When you record an exercise (see 3.27. *Recording an exercise*), you can swipe up and down to see the short list of sport modes. Tap the icon at the end of the short list to view the complete list and see all sport modes.



Each sport mode has a unique set of displays and views. You can read more about each mode in Suunto Movescount under your watch settings. You can also shorten the list of modes in your watch through Movescount.

3.31.1. Swimming

You can use your Suunto Spartan Ultra for swimming in pools or openwater.

When you use a pool swimming sport mode, the watch relies on the pool length to determine distance. You can change the pool length as needed under the sport mode options before you start swimming.

Openwater swimming relies on GPS to calculate distance. Because GPS signals do not travel under water, the watch needs to come out of the water periodically, such as with the freestyle stroke, to get a GPS fix.

These are challenging conditions for GPS, so it is important that you have a strong GPS signal before you jump in the water. To ensure good GPS, you should:

- Sync your watch with Movescount before you go swimming to optimize your GPS with the latest satellite orbit data.
- After you select an openwater swimming sport mode and a GPS signal is acquired, wait at least three minutes before starting your swim. This gives the GPS time to establish strong positioning.

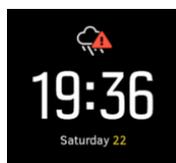
3.32. Storm alarm

A significant drop in barometric pressure typically means a storm is coming and you should take cover. When the storm alarm is active, Suunto Spartan Ultra sounds an alarm and displays a storm symbol when the pressure drops 4 hPa (0.12 inHg) or more during a 3-hour period.

To activate the storm alarm:

1. Press the middle button to open the shortcut menu.
2. Scroll down to **ALARMS** and enter by pressing the middle button.
3. Scroll to **STORM ALARM** and toggle on/off by pressing the middle button.

When a storm alarm sounds, pressing any button ends the alarm. If no button is pressed, the alarm notification lasts for one minute. The storm symbol remains on the display until the weather conditions stabilize (pressure drop slows down).



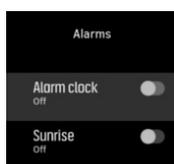
3.33. Sunrise and sunset alarms

The sunrise/sunset alarms in your Suunto Spartan Ultra are adaptive alarms based on your location. Instead of setting a fixed time, you set the alarm for how much in advance you want to be alerted before the actual sunrise or sunset.

The sunrise and sunset times are determined via GPS, so your watch relies on the GPS data from the last time you used GPS.

To set sunset/sunrise alarms:

1. Press the middle button to open the shortcut menu.
2. Scroll down to **ALARMS** and enter by pressing the middle button.
3. Scroll to the alarm that you want to set and select by pressing the middle button.



4. Set the desired hours prior to sunrise/sunset by scrolling up/down with the upper and lower buttons and confirming with the middle button.
5. Set minutes in the same way.



6. Press the middle button to confirm and exit.

 **TIP:** A watch face is also available that shows sunrise and sunset times.



 **NOTE:** Sunrise and sunset times and alarms require a GPS fix. The times are blank until GPS data is available.

3.34. Time and date

You set time and date during the initial startup of your watch. After this, your watch uses GPS time to correct any offset.

You can manually adjust time and date from the settings under **GENERAL » Time/date** where you can also change time and date formats.

In addition to the main time, you can use dual time to follow the time at a different location, for example, when you are traveling. Under **General » Time/date**, tap **Dual time** to set the time zone by selecting a location.

3.34.1. Alarm clock

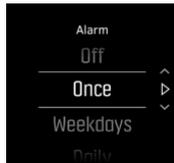
Your watch has an alarm clock that can sound once or repeat on specific days. Activate the alarm from the settings under **Alarm » Alarm clock**.

Besides standard fixed alarms, you will also find an adaptive alarm type based on data for sunrise and sunset. See 3.33. *Sunrise and sunset alarms*.

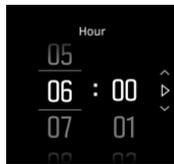
To set a fixed alarm time:

1. From the watch face, press the middle button to open the shortcuts menu and scroll to **Alarms**.
2. First select how often you want the alarm to sound. The options are:

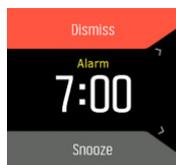
Once: alarm sounds once in the next 24 hours at the set time **Weekdays:** alarm sounds at the same time Monday thru Friday **Daily:** alarm sounds at the same time every day of the week



3. Set the hour and minutes and then exit the settings.



When the alarm sounds, you can dismiss it to end the alarm, or you can select the snooze option. The snooze time is 10 minutes and can be repeated up to 10 times.



If you let the alarm continue to sound, it will automatically snooze after 30 seconds.

3.35. Timers

Your watch includes a stopwatch and countdown timer for basic time measurement. From the watch face, open the launcher and scroll up until you see the timer icon. Tap the icon or press the middle button to open the timer display.

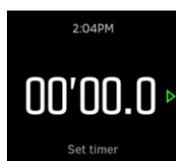


When you first enter the display, it shows the stopwatch. After that, it remembers whatever you used last, stopwatch or countdown timer.

Swipe up or press the lower button to open the **SET TIMER** shortcuts menu where you can change the timer settings.

Stopwatch

Start the stopwatch by pressing the middle button.



Stop the stopwatch by pressing the middle button. You can resume by pressing the middle button again. Reset by pressing the lower button.



Exit the timer by swiping right or keeping the middle button pressed.

Countdown timer

In the timer display, swipe up or press the lower button to open the shortcuts menu. From there you can select a pre-defined countdown time or create custom countdown time.



Stop and reset as needed with the middle and lower buttons.

Exit the timer by swiping right or keeping the middle button pressed.

3.36. Tones and vibration

Tones and vibration alerts are used for notifications, alarms and other key events and actions. Both can be adjusted from the settings under **General » Tones**.

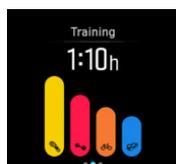
For each, you can select from the following options:

- **All on:** all events trigger an alert
- **All off:** no events trigger alerts
- **Buttons off:** all events other than pushing buttons trigger alerts

3.37. Training insight

Your watch provides an overview of your training activity over the last 30 days.

Swipe up or press the lower button to see your training totals.



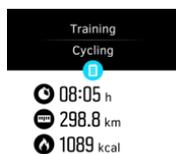
Tap on the screen to switch between total time and total distance.



From the totals view you can swipe right to see summaries of your top four sports. The summary includes total time, distance and calories for each sport.



Swipe right again to see the next sport summary.



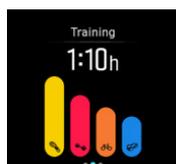
3.37.1. Training plans

In Suunto Movescount, you can make training programs for yourself by creating a totally new program or using an existing program made by other members.

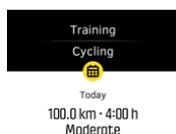
When you have planned Moves, your watch will show what's coming next after you have synced with Movescount.

To see your next planned training sessions:

1. Swipe up or press the lower button to scroll to the training insight view.



2. Then swipe left to view your next planned training session.



3. Swipe left again to see additional planned sessions.



4. Exit the planned training views and return to the time display by double-tapping the screen.

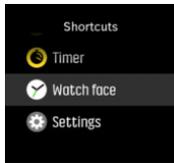
If you have a planned Move scheduled for the current day, that Move appears as the first option in the sport mode list when you enter the launcher to start an exercise recording. Start the planned Move as you would a normal sport mode recording.

3.38. Watch faces

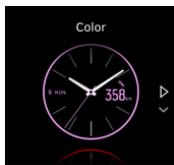
Suunto Spartan Ultra comes with several watch faces to choose from, both digital and analog styles.

To change the watch face:

1. From your current watch face view, keep the middle button pressed to open the shortcuts menu.
2. Scroll to **Watch face** and tap or press the middle button to enter.



2. Swipe up and down to scroll through the watch face previews and tap on the one you want to use.
3. Swipe up and down to scroll through the color options and tap on the one you want to use.



Each watch face has additional information, such as date or dual time. Tap the display to switch between views.

4. Care and support

4.1. Handling guidelines

Handle the unit with care – do not knock or drop it.

Under normal circumstances, the watch does not require servicing. On a regular basis, rinse it with fresh water, mild soap, and carefully clean the housing with a moist, soft cloth or chamois.

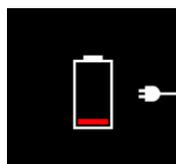
Use only original Suunto accessories - damage caused by non-original accessories is not covered by warranty.

4.2. Battery

The duration on a single charge depends on how you use your watch and in what conditions. Low temperatures, for example, reduce the duration of a single charge. In general, the capacity of rechargeable batteries decreases over time.

 **NOTE:** *In case of abnormal capacity decrease due to defective battery, Suunto covers battery replacement for one year or maximum 300 charging times, whichever comes first.*

When the battery charge level is less than 10%, your watch displays a low battery icon. If the charge level gets very low, your watch goes into a low power mode and display a charge icon.



Use the supplied USB cable to charge your watch. Once the battery level is high enough, the watch wakes up from lower power mode.

4.3. Disposal

Please dispose of the device in accordance with local regulations for electronic waste. Do not throw it in the garbage. If you wish, you may return the device to your nearest Suunto dealer.



5. Reference

5.1. Technical specifications

General

- Operating temperature: -20° C to +60° C/-5° F to +140° F
- Battery charging temperature: 0° C to +35° C/+32° F to +95° F
- Storage temperature: -30° C to +60° C/-22° F to +140° F
- Water resistance: 100 m/328 ft (according to ISO 6425)
- Battery type: rechargeable lithium-ion battery
- Battery life: 18-140 hours with GPS, depending on conditions and settings

Radio transceiver

- Bluetooth® Smart compatible
- Communication frequency: 2402-2480 MHz
- Maximum transmission power: <4 dBm
- Range: ~3 m/9.8 ft

Altimeter

- Display range: -500 m to 9999 m/-1640 ft to 32805 ft
- Resolution: 1 m/3 ft

Compass

- Resolution: 1 degree/18 mils

GPS

- Technology: SiRF star V
- Resolution: 1 m/3 ft
- Frequency band: 1575.42 MHz

Manufacturer

Suunto Oy

Tammiston kauppatie 7 A

FI-01510 Vantaa

FINLAND

5.2. Compliance

5.2.1. CE

Hereby, Suunto Oy, declares that the radio equipment type OW161 is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: www.suunto.com/EUconformity.

5.2.2. FCC compliance

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation. This product has been tested to comply with FCC standards and is intended for home or office use.

Changes or modifications not expressly approved by Suunto could void your authority to operate this device under FCC regulations.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

5.2.3. IC

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

5.2.4. NOM-121-SCT1-2009

The operation of this equipment is subject to the following two conditions: (1) it is possible that this equipment or device may not cause harmful interference, and (2) this equipment or device must accept any interference, including interference that may cause undesired operation of the equipment or device.

5.3. Trademark

Suunto Spartan Ultra, its logos, and other Suunto brand trademarks and made names are registered or unregistered trademarks of Suunto Oy. All rights are reserved.

5.4. Patent notice

This product is protected by pending patent applications and their corresponding national rights: FI 20155573, US 7,324,002, US 7,271,774, US 13/744,493, US 13/794,468, US 13/833,755, US 13/827,418, US 14/195,670, US 14/331,268, US 14/839,928, US 14/882,487.

Additional patent applications have been filed.

5.5. International Limited Warranty

Suunto warrants that during the Warranty Period Suunto or a Suunto Authorized Service Center (hereinafter Service Center) will, at its sole discretion, remedy defects in materials or workmanship free of charge either by a) repairing, or b) replacing, or c) refunding, subject to the terms and conditions of this International Limited Warranty. This International Limited Warranty is valid and enforceable regardless of the country of purchase. The International Limited Warranty does not affect your legal rights, granted under mandatory national law applicable to the sale of consumer goods.

Warranty Period

The International Limited Warranty Period starts at the date of original retail purchase.

The Warranty Period is two (2) years for Products and Dive wireless transmitters unless otherwise specified.

The Warranty Period is one (1) year for accessories including but not limited to wireless sensors and transmitters, chargers, cables, rechargeable batteries, straps, bracelets and hoses.

Exclusions and Limitations

This International Limited Warranty does not cover:

1. a. normal wear and tear such as scratches, abrasions, or alteration of the color and/or material of non-metallic straps, b) defects caused by rough handling, or c) defects or damage resulting from use contrary to intended or recommended use, improper care, negligence, and accidents such as dropping or crushing;
2. printed materials and packaging;
3. defects or alleged defects caused by use with any product, accessory, software and/or service not manufactured or supplied by Suunto;
4. non-rechargeable batteries.

Suunto does not warrant that the operation of the Product or accessory will be uninterrupted or error free, or that the Product or accessory will work with any hardware or software provided by a third party.

This International Limited Warranty is not enforceable if the Product or accessory:

1. has been opened beyond intended use;

2. has been repaired using unauthorized spare parts; modified or repaired by unauthorized Service Center;
3. serial number has been removed, altered or made illegible in any way, as determined at the sole discretion of Suunto; or
4. has been exposed to chemicals including but not limited to sunscreen and mosquito repellents.

Access to Suunto warranty service

You must provide proof of purchase to access Suunto warranty service. You must also register your product online at www.suunto.com/mysuunto to receive international warranty services globally. For instructions how to obtain warranty service, visit www.suunto.com/warranty, contact your local authorized Suunto retailer, or call Suunto Contact Center.

Limitation of Liability

To the maximum extent permitted by applicable mandatory laws, this International Limited Warranty is your sole and exclusive remedy and is in lieu of all other warranties, expressed or implied. Suunto shall not be liable for special, incidental, punitive or consequential damages, including but not limited to loss of anticipated benefits, loss of data, loss of use, cost of capital, cost of any substitute equipment or facilities, claims of third parties, damage to property resulting from the purchase or use of the item or arising from breach of the warranty, breach of contract, negligence, strict tort, or any legal or equitable theory, even if Suunto knew of the likelihood of such damages. Suunto shall not be liable for delay in rendering warranty service.

5.6. Copyright

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1. www.suunto.com/support
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