Suunto Ambit
User Guide

1 WELCOME

It's in our nature to explore. Whether you're hiking, running a trail or skiing a mountain, the new Suunto Ambit has all the functions you need for your expeditions. Full-featured GPS, unique 3D Compass and in-built Baro / Alti sensor keep you informed of your location, accurate altitude and weather conditions. Patented HiAccGPS^{TM} accelometer fused GPS gives you accurate and highly responsive pace, speed and distance. All packed into a robust BuiltToLast^{TM} casing.

2 DISPLAY ICONS AND SEGMENTS

KUVA: ICONS AND SEGMENTS!

For a complete list of icons in Suunto Ambit, see *Chapter 13 Icons on page 49*.

3 USING BUTTONS

Suunto Ambit has five buttons that allow you to access various features.

KUVA: BUTTONS!

[Start Stop]:

- access the start menu
- pause or resume an exercise
- keep pressed to stop and save an exercice
- increase a value or move up in the settings

[Next]:

- change between the displays
- keep pressed to access/exit the settings
- keep pressed to access/exit the additional exercise options in the exercise modes
- accept a setting

[Light Lock]:

- activate the backlight
- keep pressed to lock/unlock the buttons
- decrease a value or move down in the settings

[View]:

- change views in **TIME** mode and during exercise
- keep pressed to invert the display colours

[Back Lap]:

- return to the previous step
- add a lap during exercise

≣ *TIP: When ~~scrolling the options in a menu~~, keep the [Start Stop] or [Light Lock]
button pressed to increase the ~~speed of scrolling~~.*

3.1 Using backlight and button lock

Press [Light Lock] to activate the backlight. The backlight stays on for five
seconds. For information on the backlight settings, see *Chapter 11 Adjusting
settings on page 43*.
Keep [Light Lock] pressed to lock or unlock the buttons. When the buttons are
locked, ⌂ is shown on the display.

≣ *TIP: Lock the buttons to avoid accidentally starting or stopping your stopwatch.
When the buttons are locked, you can still activate the backlight by pressing [Light
Lock], change between the displays by pressing [Next] and views by pressing [View].*

4 GETTING STARTED

Start by charging the battery. The device wakes up automatically when you attach it to your computer with a USB cable, or start charging it with ~~a USB-compatible~~ wall charger. The USB cable is included in the device package, whereas the charger is available as a separate accessory.

Charging the battery takes about 2 hours. During charging the buttons are locked.

*NOTE: Do not remove the cable until the battery has been fully charged. **Battery full** notification is shown on the display when the charging is complete.*

5 CUSTOMIZING SUUNTO AMBIT

5.1 Connecting to web

Movescount.com is an online sports community that offers you a rich set of tools to manage your daily activities and create engaging stories about your experiences. It also allows you to customize your Suunto Ambit to best meet your training needs.

Transfer your recorded logs ~~with Suunto Movestick Mini~~ to Movescount.com. Download settings and customized plans from Movescount.com to your Suunto Ambit.

⚠ *CAUTION: Do not plug in ~~Movestick Mini~~ before installing Moveslink!*

To install Moveslink:

1. Go to www.movescount.com/moveslink.
2. Download, install, and activate Moveslink.

www.movecount.com/moveslink
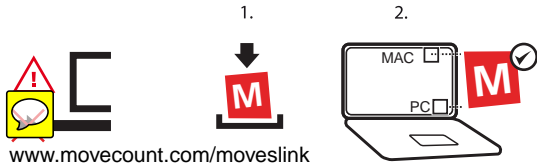
📝 *NOTE: A Moveslink icon is visible on your computer's display when Moveslink is active.*

📝 **NOTE:** *Moveslink is compatible with PC (Windows XP, Windows Vista, Windows 7) and MAC (Intel-based, running OS X version 10.5 or later).*

To register to Movescount:

1. Go to www.movescount.com.
2. Create your account.

       1.   2.

📝 **NOTE:** *The first time Suunto Ambit is connected to Movescount.com, all information (including the device settings) is transferred from Suunto Ambit to Movescount. The next time you connect Suunto Ambit to Movescount.com, the changes in settings and exercise modes you made in Movescount.com and in the device will be synchronized.*

5.2 Updating Suunto Ambit

You can update your Suunto Ambit automatically in Movescount.

To get your device updated:

1. Install the Moveslink application in Movescount.
2. Connect Suunto Ambit to your computer with a USB cable. The Moveslink application will automatically check for updates. If an update is available, your device will be updated.

☑ **NOTE:** *You can use the Moveslink application without registering to Movescount. However, Movescount extends the usability, personalization and settings options of Suunto Ambit. It also visualizes the recorded tracks and other data of your activities, and therefore joining Movescount is needed to utilize the full potential of the device.*

5.3 Custom modes

In addition to the default exercise modes stored in the device (see *Section 10.1 Exercise modes on page 33*), you can create and edit custom exercise modes in Movescount. A custom mode can contain 1 to 8 different exercise mode displays. You can select the variables to be shown on each display.

You can transfer up to eight different custom modes created in Movescount to your device. Only one custom mode can be active during the exercise.

ADD USE EXAMPLE!

5.4 Vertical speed

To be added.

5.5 Inverting display

You can invert the display colour of your Suunto Ambit from light to dark or vice versa by keeping [View] pressed. You can also invert the display in the settings.

To invert the display from the settings:

1. Keep [Next] pressed to enter the settings.
2. Press [Next] to enter the **GENERAL** settings.
3. Press [Next] to enter **Tones/display**.
4. Scroll to **Invert display** with [Start Stop] and accept with [Next].

6 USING TIME MODE

TIME mode includes time measurement functions.

Press [View] to scroll through the following views:

- Time and date: current date, time and weekday
- Seconds: seconds as numbers
- Dual time: time in another time zone
- Stopwatch: sport timer
- Countdown timer: alarm goes off after a set duration

6.1 Changing time settings

To access the time settings:

1. Keep [Next] pressed to enter the settings.
2. In the settings, press [Next] to enter **GENERAL**.
3. Scroll to **Time/date** using [Start Stop] and enter with [Next].

Setting time

The current time is shown in the middle of the the **TIME** mode display.

To set the time:

1. In the settings, go to **GENERAL**, then to **Time/date** and **Time**.
2. Change the hour, minute and second values with [Start Stop] and [Light Lock] and accept with [Next].
3. Go back to the settings with [Back Lap], or keep [Next] pressed to exit the settings.

Setting date

The current date is shown on the top row of the display.

To set the date:

1. In the settings, go to **GENERAL**, then to **Time/date** and **Date**.
2. Change the year, month and day values with [Start Stop] and [Light Lock] and accept with [Next].
3. Go back to the settings with [Back Lap], or keep [Next] pressed to exit the settings.

Setting dual time

Dual time allows you to keep track of the current time in a second time zone, for example, when traveling. Dual time is displayed on the third row on the **TIME** mode display.

To set the dual time:

1. In the settings, go to **GENERAL**, then to **Time/date** and **Dual time**.
2. Change the hour and minute values with [Start Stop] and [Light Lock] and accept with [Next].
3. Go back to the settings with [Back Lap], or keep [Next] pressed to exit the settings.

Setting alarm

You can use Suunto Ambit as an alarm clock.

To access the alarm clock and set the alarm:

1. In the settings, go to **GENERAL**, then to **Time/date** and **Alarm**.
2. Set the alarm on or off with [Start Stop] and [Light Lock] and accept with [Next].

3. Set the hours and minutes with [Start Stop] and [Light Lock] and accept with [Next].
4. Go back to the settings with [Back Lap], or keep [Next] pressed to exit the settings.

When the alarm is switched on, the alarm symbol is shown on the display.

When the alarm sounds, you can:

● Select **Snooze** by pressing [Light Lock]. The alarm stops and restarts every 5 minutes until you stop it. You can snooze up to 12 times for a total of 1 hour.
● Select **Stop** by pressing [Start Stop]. The alarm stops and restarts the same time the following day.

7 NAVIGATION

7.1 Using GPS

Suunto Ambit uses Global Positioning System (GPS) in determining your current position. GPS incorporates a set of satellites that orbit the Earth at the altitude of 20,000 km at the speed of 4 km/s.

The built-in GPS receiver in Suunto Ambit is extremely sensitive and can pick up even the faintest signals. It is optimized for a wrist unit use and receives data from a very wide angle.

7.1.1 Getting GPS signal

Suunto Ambit activates the GPS automatically when you select an exercise mode, determine your location, or start navigating to a waypoint.

📝 *NOTE: When you activate the GPS for the first time, it will take longer than usual since the GPS has no reference to its current location. This may also happen if the GPS has not been used for a long time. Subsequent GPS starts will take less time.*

📄 *TIP: To minimize the GPS initiation time, hold the unit steady in one position with the display facing up and make sure you are located in an open area so that the unit has a clear view to the sky.*

Troubleshooting: No GPS signal

● For an optimal signal, point the upper part of the device upwards. The best signal can be received in an open area with a clear view to the sky.
● The GPS receiver usually works well inside tents and other thin covers. However, objects, buildings, dense vegetation or cloudy weather can cause problems to the GPS signal reception.
● GPS signal does not penetrate any solid constructions or water. Therefore do not try to activate the GPS for example inside buildings, caves or under water.
● To recover from GPS failures, put the device into sleep mode (see *Section 11.1 Sleep mode on page 45*). When the device is in the sleep mode, wait for 5 minutes and then wake up the device by pressing any button. This restarts the GPS and clears all GPS data.

⚠ *CAUTION: Do not use the GPS RESET function, as it will make the device inoperable.*

7.1.2 GPS datum and location formats

Location format is the way the GPS receiver's position is displayed on the device. All the formats relate to the same location, they only express it in a different way. To help you decide which format to use, check your map datum and use the same location format.

You can select from the following location formats:

● latitude/longitude (WGS84) is the most commonly used coordinate format and consists of degrees that can be further broken into minutes and seconds:
  ○ Hddd.ddddd°: degrees and decimal degrees

- ○ Hddd°mm.mmm': degrees, minutes and decimal minutes
- ○ Hddd°mm'ss.s": degrees, minutes, seconds and decimal seconds
- 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.

7.1.3 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 response to changes in speed. Fused speed is suitable for measuring running and walking speed.

FusedSpeed will benefit 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, due to buildings blocking the signal, Suunto Ambit is able to continue showing accurate speed with the help of the GPS calibrated accelometer.

📝 **NOTE:** *Fused speed is meant for exercises that mainly contain walking or running.*

FusedSpeed is used as default in the following exercise modes:

- trail running
- triathlon
- running

- soccer
- orienteering
- multisport
- floorball
- football

The rest of the exercise modes use the basic GPS speed.

📝 **NOTE:** When you change from running to biking, the FusedSpeed system notices that the wrist acceleration is not giving valid speed readings. The device deactivates FusedSpeed and only uses the GPS speed in biking. When you change to running after biking, the system notices it and activates FusedSpeed again.

7.2 Checking your location

Suunto Ambit shows your current location in multiple coordinate systems, including military grids (see Section 7.1.2 GPS datum and location formats on page 19). For information on changing the coordinate format, see Chapter 11 Adjusting settings on page 43.

To check your location:

1. Press [Start Stop] to enter the start menu.
2. Scroll to **NAVIGATION** using [Start Stop] and enter with [Next].
3. Enter **Location** with [Next].
4. The device starts searching for a GPS signal and shows the message **GPS found** on the display, once the signal has been found. After that your current coordinates are shown on the display.

7.3 Adding waypoints

You can save your location as a waypoint. Suunto Ambit allows you to store up to 100 waypoints. You can select the waypoint type from a pre-defined list, or create new waypoint names in Movescount. The pre-defined icons are listed in *Chapter 13 Icons on page 49*.

To save a location as a waypoint:

1. Press [Start Stop] to enter the start menu.
2. Scroll to **NAVIGATION** using [Start Stop] and enter with [Next].
3. Enter **Location** with [Next].
4. The device starts searching for a GPS signal and shows the message **GPS found** on the display, once the signal has been found. After that your current coordinates are shown on the display.
5. Press [Start Stop] to save your location as a waypoint.
6. Scroll the waypoint types with [Start Stop] or [Light Lock] and select a suitable waypoint type with [Next].
7. Click [Start Stop] to save the waypoint.

$\equiv$ *TIP: You can create waypoints in Movescount by selecting them on a digital map or inserting the coordinates. Waypoints in the device and in Movescount are always synchronized when you connect your Suunto Ambit to Movescount.*

7.4 Navigating to a waypoint

Suunto Ambit includes GPS navigation with a Find back functionality that allows you to navigate to a pre-defined destination, a waypoint.

To navigate to a waypoint:

1. Press [Start Stop] to enter the start menu.

2. Scroll to **NAVIGATION** using [Start Stop] and enter with [Next].
3. Scroll to **Waypoints** with [Light Lock] and enter with [Next]. The number of saved waypoints and free space available for new waypoints is shown on the display.
4. Scroll to the waypoint to which you want to navigate with [Start Stop] or [Light Lock] and select with [Next].
5. Select **Navigate** with [Next]. The device starts searching for a GPS signal and shows the message **GPS found** on the display, once the signal has been found.
6. Start navigating to the waypoint. Suunto Ambit shows you the following information:
   ● arrow pointing to the the direction of your destination (turn left/right indicator)
   ● your distance from the destination
   ● your deviation from the heading in degrees (0° is the correct heading), or alternatively your current heading in cardinal and half-cardinal points
7. About 50 meters before the waypoint location the device informs you that you are arriving at your destination.

8 USING ALTI & BARO MODE

In **ALTI & BARO** mode you can view the current altitude or barometric pressure. It offers three profiles: **Automatic**, **Barometer** and **Altimeter**. For information on setting profiles, see *Section 8.2.1 Setting profiles on page 26*.

You can access different views depending on which profile is activated when you are in the **ALTI & BARO** mode.

8.1 How Alti & Baro works

To get correct readings with **ALTI & BARO** mode, it is important to understand how Suunto Ambit calculates altitude and sea level air pressure. Suunto Ambit constantly measures absolute air pressure. Based on this measurement and reference values, it calculates altitude or sea level air pressure.

⚠ **CAUTION:** *Keep the area around the sensor free of dirt and sand. Never insert any objects into the sensor openings.*

8.1.1 Getting correct readings

If you are engaged in an outdoor activity that requires you to know the air pressure, you need to enter the altitude reference value for your location. This is found on most topographic maps. Your Suunto Ambit will now give you the correct readings.

To get the correct altitude readings, you need to enter the sea level air pressure reference value. The sea level air pressure reference value relevant to your location can be found in the weather section of the local newspaper or on the websites of national weather services.

Absolute air pressure is measured constantly

Absolute air pressure + altitude reference = Sea level air pressure

Absolute air pressure + sea level air pressure reference = Altitude

Changes in local weather conditions will affect altitude readings. If local weather changes often, it is advisable to reset the current altitude reference value frequently, preferably before starting your journey when the reference values are available. If local weather is stable, you do not need to set reference values.

8.1.2 Getting incorrect readings

ALTIMETER profile + standing still + weather change

If your **Altimeter** profile is on for an extended period of time with the device in a fixed location while the local weather changes, the device will give incorrect altitude readings.

ALTIMETER profile + altitude moving + weather change

If your **Altimeter** profile is on and the weather changes frequently while you climb in altitude or go down in altitude, the device will give you incorrect readings.

BAROMETER profile + altitude moving

If the **Barometer** profile is on for an extended period of time as you climb in altitude or go down in altitude, the device assumes that you are standing still and interprets your changes in altitude as changes in sea level air pressure. It will therefore give you incorrect sea level air pressure readings.

Possible real life situation: Setting the altitude reference value

*You're on the second day of your two-day hike. You realize that you forgot to switch from the **Barometer** profile to the **Altimeter** profile when you started moving in the morning. You know that the current altitude readings given by your Suunto Ambit are wrong. So, you hike to the nearest location shown on your topographic map for which an altitude reference value is provided. You correct your Suunto Ambit altitude reference value accordingly. Your altitude readings are correct again.*

8.2 Matching profile to activity

The **Altimeter** profile should be selected when your outdoor activity involves changes in altitude (e.g. hiking in hilly terrain). The **Barometer** profile should be selected when your outdoor activity does not involve changes in altitude (e.g. soccer, floorball). To get correct readings, you need to match the profile to your activity. You can either let Suunto Ambit decide a suitable profile for the activity, or choose a profile yourself.

8.2.1 Setting profiles

To set the **ALTI & BARO** profile:

1. Keep [Next] pressed to enter the settings.
2. In the settings, scroll to **ALTI-BARO** using [Light Lock] and enter with [Next].
3. Select **Profile** with [Next].
4. Scroll the profile options (**Automatic**, **Altimeter**, **Barometer**) with [Start Stop] and select a profile with [Next].

8.2.2 Setting reference values

To set the seal level pressure and altitude reference values:

1. Keep [Next] pressed to enter the settings.
2. In the settings, scroll to **ALTI-BARO** using [Light Lock] and enter with [Next].
3. Go to **Altitude** or **Sea level** with [Light Lock] and enter the setting with [Next].
4. Set the known reference value using [Start Stop] and [Light Lock].

8.3 Using Altimeter profile

The **Altimeter** profile calculates altitude based on the reference values. The reference value can either be sea level air pressure value or altitude reference value. When the **Altimeter** profile is activated, the altimeter icon is shown on the display. For information on setting the profile, see *Section 8.2.1 Setting profiles on page 26*.

When the **Altimeter** profile is activated, you can access the following views with [View]:

● your current altitude
● altitude information on a 12-hour timeline in graph form
● current time, or alternatively the temperature

8.3.1 Recording altitude

The log recorder stores all your movements in altitude between the start and stop times. If you are engaged in an activity in which your altitude changes, you can record the altitude changes and view the stored information later. You can also set altitude marks (laps), allowing you to view the duration and

ascent/descent height between your previous mark and current mark. Your marks are stored in the device memory and you can access them later.

To record altitude:

1. Make sure that the **Altimeter** (or **Automatic**?) profile is activated.
2. Press [Start Stop] to enter the start menu.
3. Scroll to **EXCERCISE** with [Start Stop] or [Light Lock] and enter with [Next].
4. Scroll the exercise options with [Start Stop] or [Light Lock] and select a suitable option with [Next].
5. Wait for the device to notify that the HR and/or GPS signal have been found and press [Start Stop] to start recording the log.
   To start recording the log without HR and/or GPS signal, press [Start Stop] while the device is searching for the signal. Press [Start Stop] again to start recording the log.

8.4 Using Barometer profile

The **Barometer** profile shows the current sea level air pressure. This is based on the reference values added in the settings and the constantly measured absolute air pressure. For information on setting the reference values, see *Section 8.2.2 Setting reference values on page 27*.

Changes in the sea level air pressure are presented graphically in the middle of the display. The display shows the recording of the last 27 hours with a recording interval of 1 hour.

When the **Barometer** profile is activated, the barometer icon is shown on the display. For information on setting the **ALTI & BARO** profile, see *Section 8.2.1 Setting profiles on page 26*.

When the **Barometer** profile has been activated, Suunto Ambit shows you the following barometric information:

● the current sea level air pressure
● a graph showing the changes in the sea level pressure during the last 27 h (1 h recording interval) in **EXERCISE** or **TIME** mode
● the current temperature, or alternatively the altitude reference value

8.5 Using Automatic profile

The **Automatic** profile switches between the **Altimeter** and **Barometer** profiles according to your movements. When the **Automatic** profile is active, the device will automatically switch between interpreting changes in air pressure as changes in altitude or changes in weather.

Depending on which profile is active, you can access the **Altimeter** or **Barometer** profile views with [View].

9 USING COMPASS

Suunto Ambit includes a compass that allows you to orient yourself in relation to the magnetic North. The tilt-compensated compass gives you accurate readings even if the compass is tilted.

COMPASS mode includes the following information:

- icon indicator showing the bearing?
- compass heading in degrees
- alternatively the current heading in cardinal and half-cardinal points, or the current time

The compass will switch itself to power saving mode after a minute. Reactivate it with [Start Stop].

9.1 Calibrating compass

You can start the compass calibration in **COMPASS** mode, if the compass has not been calibrated. If you have already calibrated the compass and want to re-calibrate it, you can start the calibration in the settings.

📝 **NOTE:** *The compass calibration includes two sequences. The sequences follow each other automatically, so read all the instructions before starting the calibration.*

To access the compass calibration settings:

1. Keep [Next] pressed to enter the settings.
2. In the settings, go to **GENERAL** using [Light Lock] and enter with [Next].
3. Go to **Compass** using [Start Stop] or [Light Lock] and enter with [Next].
4. Press [Next] to select **Calibration**.

To calibrate the compass:

1. Keep the device level and rotate the compass until the outer rim segments of the display are filled and you hear a sound confirming the calibration was successful. The text **Level** is blinking on the display when the device is not leveled.
2. The tilt calibration starts automatically after a successful level calibration. Keep the device tilted 90º until you hear the confirmation sound. The text **Calibration successful** is shown on the display.
   If the calibration does not succeed, the text **Calibration failed** is shown on the display. To retry the calibration, press [Start Stop].

⊜ **TIP:** *To ensure that the device is level, place it on a table, or against a wall to ensure it is tilted 90º.*

9.2 Setting declination value

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 obtained from the internet (for example the National Geophysical Data Center for the USA).

Orienteering maps, however, are drawn in relation to magnetic North. This means that when you are using orienteering maps you need to turn the declination correction off by setting the declination value to 0 degrees.

To set the declination value:

1. Keep [Next] pressed to enter the settings.
2. In the settings, go to **GENERAL** using [Light Lock] and enter with [Next].
3. Go to **Compass** using [Start Stop] or [Light Lock] and enter with [Next].
4. Press [Next] to select **Declination**.
5. Turn the declination off or choose **W** (west) or **E** (east).
6. Set the declination value with [Start Stop] or [Light Lock].
7. Press [Next] to accept the setting.

10 USING EXERCISE MODES

Use the exercise modes to record exercise logs and view various information during your exercise.

You can access the exercise modes by pressing [Start Stop] in the **TIME** or **ALTI & BARO** mode, or in the **COMPASS** mode after the compass has been calibrated.

10.1 Exercise modes

You can select a suitable exercise mode from predefined custom modes **Mountain biking**, **Mountaineering**, **Trail running** and **Trekking**. Depending on the sport, different information is shown on the display during exercise. In addition, you can create more custom exercise modes in Movescount and download them to your device.

Mountain biking

The following information is displayed during exercise with the **Mountain biking** exercise mode:

● log timer
● your current heart rate
● altitude, or alternatively average heart rate

ADD USE EXAMPLE!

Mountaineering

The following information is displayed during exercise with the **Mountaineering** exercise mode:

● current time

33

- altitude
- log timer, or alternatively temperature

ADD USE EXAMPLE!

Trail running

The following information is displayed during exercise with the **Trail running** exercise mode:

- distance
- pace
- altitude, or alternatively average pace

ADD USE EXAMPLE!

Trekking

The following information is displayed during exercise with the **Trekking** exercise mode:

- time
- distance
- log timer, or alternatively average speed

ADD USE EXAMPLE!

10.2 Additional options in exercise modes

While in the exercise mode, keep [Next] pressed to access additional functionalities to be used during your exercise.

- Select **HR LIMITS** to set the HR limits on or off. To specify the HR limits, go to Movescount.

- Select **NAVIGATION** to check your location, add a waypoint or navigate to a waypoint. For more information about navigation, see *Chapter 7 Navigation on page 18*.
- Select **ALTI-BARO** to set the altitude or sea level pressure value, or set the **ALTI-BARO** profile. For more information, see *Chapter 8 Using Alti & Baro mode on page 24*.

10.3 Using HR belt

The HR belt can be used during exercise. When you use an HR belt, Suunto Ambit gives you more information about your activities.

With HR belt you will get the following information during exercise:

- heart rate in real time
- average heart rate in real time
- heart rate in graph form
- calories consumed during exercise
- (guidance to exercise within defined hear rate limits)
- (Peak Training Effect)

With HR belt you will get the following information after exercise:

- calories burned during exercise
- average heart rate
- peak heart rate
- (recovery time)

Troubleshooting: No HR signal

If you lose the HR signal, try the following:

- Check that you are wearing the HR belt correctly.

- Check that the electrode areas of the HR belt are moist.
- Replace the battery of the HR belt, if problems persist.

10.4 Putting on HR belt

📝 *NOTE: Suunto Ambit is compatible only with Suunto Dual Comfort Belt.*

Adjust the strap length so that the HR belt is tight but still comfortable. Moisten the contact areas with water or gel and put on the HR belt. Ensure the HR belt is centered on your chest and the red arrow is pointing up.

⚠ *WARNING: People who have a pacemaker, defibrillator, or other implanted electronic device use the HR belt at their own risk. Before starting the initial use of the HR belt, we recommend an exercise test under a doctor's supervision. This ensures the safety and reliability of the pacemaker and HR belt when being used simultaneously. Exercise may include some risk, especially for those who have been inactive. We strongly advise you to consult your doctor prior to beginning a regular exercise program.*

📝 **NOTE:** *HR belts with ANT icon (🔋) are compatible with ANT compatible Suunto wristop computers and with Suunto ANT Fitness Solution, while HR belts with IND icon (📶) are compatible with most exercise equipment with inductive heart rate reception. Your Suunto Dual Comfort Belt is both IND and ANT compatible.*

📝 **NOTE:** *Suunto Ambit cannot receive the HR belt signal under water.*

💡 **TIP:** *Machine-wash the heart rate belt regularly after use to avoid unpleasant odor.*

10.5 Setting exercise parameters

Setting HR limits

Go to Movescount to specify your upper and lower HR limits. Transfer the settings to your device.

Peak Training Effect

Peak Training Effect is a parameter that indicates the impact of an exercise on your maximal aerobic performance (VO_2max).

Go to Movescount to select it to be displayed during your exercise. After you have selected Peak Training Effect to be displayed, you can see the estimated effect of the session on your peak performance on a scale of 1 to 5, from minor to overreaching, during exercise.

📝 **NOTE:** *Peak Training Effect works best in medium to high intensity training at a constant intensity level. It is not ideal for quantifying low intensity workouts. Base*

endurance training, regardless of how long and tiring the session is, will have a low Peak Training Effect.

EPOC

EPOC (Excess Post-exercise Oxygen Consumption) indicates the amount of extra oxygen that your body needs to recover after exercise. Your body consumes more oxygen after exercise than during rest. The higher the EPOC, the more strenuous the exercise. EPOC is most useful in measuring the exercise load in endurance sports, such as running and cycling.

To view the EPOC value of your exercise, go to Movescount after the exercise.

10.6 Starting exercise

To start exercising:

1. Moisten the contact areas and put on the HR belt (optional).
2. Press [Start Stop] to enter the exercise menu.
3. Press [Next] to enter **EXERCISE**.
4. Scroll the exercise mode options with [Start Stop] or [Light Lock] and select a suitable mode with [Next]. (For more information about the exercise mode options, see *Section 10.1 Exercise modes on page 33*.)
5. The device automatically starts searching for an HR belt signal. Wait for the device to notify that the signal has been found, or press [Start Stop] to exercise without an HR belt.

After the HR signal the device automatically starts searching for a GPS signal. Wait for the device to notify that the GPS signal has been found, or press [Start Stop] to exercise without GPS.

6. Press [Start Stop] to start recording your exercise. To access additional exercise options, keep [Next] pressed (see *Section 10.2 Additional options in exercise modes on page 34*).

10.6.1 Recording track logs

You can record a track log by using a GPS signal during your exercise. Depending on the exercise mode you have selected, Suunto Ambit shows you different information during the exercise. When you are recording a track log, the recording icon and the GPS icon are shown on the upper part of the display.

Viewing saved tracks logs

To view a saved track log, press [View] after the exercise to view the summary.

To view the summary of your previous track log later:

1. Press [Start Stop] to enter the start menu.
2. Scroll to **PREVIOUS EXERCISE** with [Light Lock] and enter with [Next].
3. Scroll the summary views with [View].

📝 *NOTE: The content of the summary depends on the custom mode in use and whether PODs or an HR belt have been used during the exercise.*

Add use example!

10.7 During exercise

Suunto Ambit gives you additional information during your exercise. You can define what information you want to see on the display. For information about customizing the displays, see *Chapter 5 Customizing Suunto Ambit on page 11*.

Here are some ideas on how to use the device during exercise:

- Press [Next] to see additional information in real time.
- Press [View] to see additional views during exercise.
- To avoid accidentally stopping your stopwatch, lock the buttons by keeping [Light Lock] pressed.
- Press [Start Stop] to pause recording. To resume recording, press [Start Stop] again.

The additional information varies depending on the exercise type you have selected, see *Section 10.1 Exercise modes on page 33*. You will also get more information, if you use an HR belt and a GPS during the exercise.

10.7.1 Making laps

During your exercise, you can make laps either manually, or automatically by setting the autolap interval in Movescount. When you are making laps automatically, Suunto Ambit records the laps based on the distance you have specified in Movescount.

To make laps manually, press [Back Lap] during the exercise. Suunto Ambit shows you the split time in the first row, the lap number in the second row and the lap time in the third row of the display.

📝 **NOTE:** *The exercise summary always shows at least one lap, your exercise from start to finish. The laps you have made during the exercise are shown as additional laps.*

Add use example!

10.8 After exercise

To stop recording and view the summary information:

1. Keep [Start Stop] pressed to stop and save the exercise.
   Alternatively, you can press [Start Stop] to pause the recording and press [Back Lap] to stop the log recorder. Press [Start Stop] to save the exercise log. If you do not want to save the log, press [Light Lock].
2. Press [View] to view the exercise summary.

To view the summary of your previous exercise later:

1. Press [Start Stop] to enter the start menu.
2. Scroll to **PREVIOUS EXERCISE** with [Light Lock] and enter with [Next].
3. Scroll the summary views with [View].

10.8.1 After exercise with HR belt

When you use an HR belt during the exercise, the summary includes the following information:

- start time and date of the log
- duration
- number of laps
- average heart rate
- maximum heart rate

- heart rate graph
- calories burned
- recovery time
- Peak Training Effect

10.8.2 After exercise without HR belt

When you exercise without an HR belt, the summary includes the following information:

- start time and date of the log
- duration
- number of laps
- distance (exercise with GPS)
- average speed (exercise with GPS)
- ascent
- descent

10.8.3 After exercise with GPS

When you use a GPS during the exercise, the summary includes the following information:

- start time and date of the log
- duration
- number of laps
- distance
- average speed

11 ADJUSTING SETTINGS

To access and adjust the settings:

1. Keep [Next] pressed to enter the settings menu.
2. Scroll the settings menu with [Start Stop] and [Light Lock].
3. Press [Next] to enter a setting.
4. Press [Start Stop] and [Light Lock] to adjust the setting values.
5. Press [Back Lap] to return to the previous view in the settings, or keep [Next] pressed to exit the settings.

You can adjust the following settings:

PERSONAL settings

- **Weight**
- **Max HR**

GENERAL settings

Formats:

- **Unit system**: metric, imperial, advanced
- **Time format**: 12 h or 24 h
- **Date format**: dd.mm.yy, mm/dd/yy

Time/date:

- **Dual time**: hours and minutes
- **Alarm**: on/off, hours and minutes
- **Time**: hours and minutes
- **Date**: year, month, day

Tones/display:

- **Invert display**: inverts the display colours

- **Tones**:
  - **All tones on**: button tones and system tones are activated
  - **Button tones off**: only system tones are activated
  - **All tones off**: all tones are off
- **Backlight**:
  - **Mode**: normal, night, off
  - **Brightness**: adjust backlight brightness (in percentages)

Compass:
- **Calibration**: start compass calibration
- **Declination**: set the compass declination value

Location format:
- Hddd.ddddd°
- Hddd°mm.mmm'
- Hddd°mm'ss.s"
- UTM
- MGRS

ALTI-BARO settings
- **Profile**: Altimeter, Barometer, Automatic
- **Reference**: altitude, sea level

PAIR settings
- **Bike POD**: pair a Bike POD
- **HR belt**: pair a HR belt
- **Cadence POD**: pair a Cadence POD

11.1 Sleep mode

To put the device into sleep mode:

1. Keep [Start Stop] and [Light Lock] pressed simultaneously untill the device enters the service menu.
2. Scroll to **ACTION** with [Light Lock] and enter with [Next].
3. Press [Next] to select **Sleep mode**.
4. Press [Start Stop] to confirm.
5. Press any button to activate the device again.

11.2 Changing language

The default language in Suunto Ambit is English. To change the language, connect the device to your computer and download additional language packs from Movescount. The available languages are French, Spanish and German.

12 PAIRING POD/HR BELT

Pair Suunto Ambit with optional Suunto PODs (Suunto Bike POD, HR belt or Cadence POD) to receive additional speed and distance information during training. Suunto Ambit is compatible with Suunto Dual Comfort Belt.

The HR belt and/or POD included in your Suunto Ambit package are already paired. Pairing is required only if you want to use a new HR belt or a speed POD with the device.

You can pair up to three Suunto speed and distance PODs with Suunto Ambit. If you pair more than three PODs, only the latest three will be paired.

To pair a POD/HR belt:

1. Keep [Next] pressed to enter the settings.
2. Scroll to **PAIR** with [Light Lock] and enter with [Next].
3. Scroll the accessory options **Bike POD**, **HR belt** and **Cadence POD** with [Start Stop] and [Light Lock].
4. Press [Next] to select the POD or HR belt and start pairing.
5. Turn on your POD or HR belt (see the instructions below). See the POD manual for more information. Hold the POD/HR belt close to the device and wait for the device to notify that the POD/HR belt has been paired. If the pairing fails, press [Start Stop] to retry, or [Light Lock] to return to the pairing setting.

Example: Pairing Suunto Dual Comfort Belt

1. Remove the HR belt battery.
2. Reset the HR belt by inserting the battery positive side down.
3. In your Suunto Ambit, follow the steps 1-4 from the instructions above.

4. Re-insert the belt battery positive side up and close the belt cover. Wait for the device to notify that the POD/HR belt has been paired.
5. If the pairing fails, press [Start Stop] to retry, or [Light Lock] to return to the pairing setting.

Troubleshooting

If the HR belt pairing fails, try the following:

1. Remove the battery from the belt.
2. Re-insert the battery upside down to reset the HR belt and remove the battery again.
3. Scroll to the device's pairing option.
4. Insert the battery in the HR belt the right side up.

12.1 Calibrating POD

Calibrate Suunto Foot POD Mini or Suunto Bike POD with Suunto Ambit for accurate speed and distance measurement. Perform the calibration on an accurately measured distance, for instance, on a 400 m running track.

To calibrate Suunto Foot POD Mini with Suunto Ambit:

1. Attach Suunto Foot POD Mini to your shoe. For more information, see Suunto Foot POD Mini Quick Guide.
2. Select an exercise mode to connect Suunto Ambit with Suunto Foot POD Mini.
3. Start running at your usual pace. When you cross the starting line, press [Start Stop] to start recording.
4. Run a distance of 800–1000 meters (about 0.500–0.700 miles) at your usual pace (for example two laps on a 400 m track).
5. Keep [Start Stop] pressed when you reach the finish line.

6. Scroll with [Next] through the summary views, until you reach the distance summary. Adjust the distance shown on the display to the actual distance you ran with [Start Stop] and [Light Lock]. Confirm with [Next].
7. Confirm the POD calibration by pressing [Start Stop]. Your Foot POD Mini has now been calibrated. You can also calibrate your Suunto Bike POD in a similar way.

To calibrate Suunto Bike POD in Movescount, set the bike tire circumference in Movescount. Movescount calculates a calibration factor. The default calibration factor is 1.0, which stands for a 26" cross-country bike tire.

13 ICONS

Icons

The following icons are displayed in Suunto Ambit:

- Barometer
- altimeter
- chronograph
- settings
- signal strength
- pairing
- heart rate
- excercise mode
- alarm
- button lock
- battery
- current screen
- button indicators
- up/increase
- next/confirm
- down/decrease

Waypoint icons

The following waypoint icons are available in Suunto Ambit:

- building/home
- car/parking
- camp/camping
- food/restaurant/cafe

- lodging/hostel/hotel
- water/river/lake/coast
- mountain/hill/valley/cliff
- forest
- crossroad
- sight
- begin
- end
- geocache
- waypoint
- road/trail
- rock
- meadow
- cave

14 TERMINOLOGY

Autolap	With **AUTOLAP**, you can define laps in distance instead of time (interval training).
Datum	A datum is a mathematically defined reference surface that approximates the shape of the earth, and enables calculations such as position and area to be carried out in a consistent and accurate manner. Every map has a datum or metric grid. You have to set your Suunto Ambit to the correct datum/grid for it to function properly with the map.
Format	The way in which the GPS receiver's position will be displayed on the wrist unit. Commonly displayed as latitude/longitude in degrees and minutes, with options for degrees, minutes and seconds, degrees only, or one of several grid formats.
FusedSpeed	FusedSpeed is a unique combination of GPS and acceleration sensor readings for more accurate running speed. The GPS signal is adaptively filtered based on acceleration, giving a more accurate reading at steady running speeds and a quicker response to changes in speed. FusedSpeed is meant for running and walking, not for other types of sports.
Grid	A grid system is a set of lines that cross each other at right angles on a map. Grid systems allow you to locate or report on a specific point on the map.
Interval timer	Interval timer enables you to set and follow different timed intervals.

Peak Training Effect	Peak Training Effect is a parameter that indicates the impact of a training session on your maximal aerobic performance (VO_2max).
Navigation	Traveling between two locations on a route with knowledge of the current position in relation to the route.
Position	Exact map coordinates of a given position.
Route	Route consists of a set of waypoints and can be created in Movescount and transferred to the wrist unit.
Split time	Overall time at any given point during the activity.
Track	Track is the path traversed by the user.
Waypoint	Position coordinates on a course stored in Suunto Ambit memory.

15 CARE AND MAINTENANCE

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

Under normal circumstances the device will not require servicing. After use, rinse it with fresh water, mild soap, and carefully clean the housing with a moist soft cloth or chamois.

Do not try to repair the unit yourself. Contact an authorized Suunto service, distributor or retailer for any repair. Use only original Suunto accessories - damage caused by non-original accessories is not covered by warranty.

15.1 Water resistance

Suunto Ambit is water resistant. Its water resistance is tested to 100m/330ft according to ISO 2281 standard (www.iso.ch). This means that you can use Suunto Ambit for swimming or other water sports activities but it should not be used for scuba diving or freediving.

📝 **NOTE:** *Never push the buttons while swimming or in contact with water. Pressing the buttons while the unit is submerged could cause the unit to malfunction.*

15.2 Charging the battery

Battery lifetime depends on how Suunto Ambit is used. Battery lifetime ranges from 15 to 50 hours or more. With basic watch the battery lifetime can be up to 30 days. For more information on battery life, see *Chapter 16 Technical specifications on page 56*.

$\stackrel{\textstyle \equiv}{\textstyle \Box}$ **TIP:** *If the device is taking GPS fix each second, the battery lasts at least 15 hours. If the device is taking GPS fix only every 60 seconds, the battery duration is 50 hours.*

The battery icon indicates the charge level of the battery. When the battery level is less than 10 %, the battery icon blinks for 30 seconds. When the battery level is less than 2 %, the battery icon blinks continuously.

KUVA: CHARGE LEVEL INDICATOR?

Charge the battery by attaching it to your computer with a USB cable, or charge with a USB-compatible wall charger or solar panel charger. It takes approximately 2 hours to charge an empty battery.

$\stackrel{\textstyle \equiv}{\textstyle \Box}$ **TIP:** *Go to Movescount to activate the power save function in GPS mode to save battery life.*

15.3 Replacing HR belt battery

Replace the battery as illustrated here:
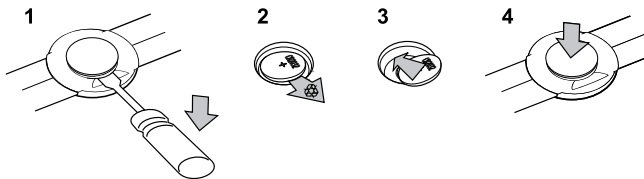
⊟ **NOTE:** *Suunto recommends that the battery cover and the O ring are changed simultaneously with the battery to ensure that the HR belt remains clean and water resistant. Replacement covers are available with replacement batteries from your authorized Suunto dealer or web shop.*

16 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
- weight: 76 g/2.68 oz
- water resistance (device): 100 m/328 ft (ISO 2281)
- water resistance (HR belt): 20 m/66 ft (ISO 2281)
- lens: Mineral crystal glass
- power: Rechargeable lithium-ion battery
- battery life
  - ~ 4.5 years (1 hour per day)
  - ~ 4 weeks (training without GPS)
  - ~ 1 week (45min training per day with GPS)
  - ~ 8 hours (constant training with GPS)

Memory
- routes: 50 routes (50 waypoints per route)
- waypoints: max. 500
- tracks: 25 tracks (max. 26000 track points)
- log time: max. 20 h

~~Transmission~~
- ~~comfort belt: 2,465 GHz~~ Suunto ANT compatible
- range: ~2 m/6 ft

Barometer

- display range: 300 to 1100 hPa/8.90 to 32.40 inHg
- resolution: 1 hPa/0.05 inHg

Altimeter

- display range: -500 m to 9000 m/-1500 ft to 29500 ft
- resolution: 1 m/3 ft

Thermometer

- display range: -20° C to +60° C /-4° F to +140° F
- resolution: 1° C/1° F

Chronograph

- resolution: 0.1 seconds accuracy

Compass

- resolution: 1 degree/18 mils

GPS

- technology: SiRF star IV
- resolution: 1 m/3 ft
- channels: 12

16.1 Trademark

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

16.2 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. ~~Repairs should be made by authorized Suunto service personnel. Unauthorized repairs will void warranty. This product has been tested to comply with FCC standards and is intended for home or office use.~~

16.3 CE

~~The CE mark is used to mark conformity with the European Union EMC directives 89/336/EEC and 99/5/EEC.~~

16.4 ~~ICES~~

This Class [B] digital apparatus complies with Canadian ICES-003.

16.5 Copyright

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16.6 Patent notice

This product is protected by pending patent applications and their corresponding national rights: US 11/432,380, US 11/169,712, US 12/145,766, US 7,526,840, US 11/808,391, USD 603,521, USD 29/313,029. Additional patent applications have been filed.

16.7 Warranty

SUUNTO 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 Limited Warranty. This Limited Warranty is only valid and enforceable in the country of purchase, unless local law stipulates otherwise.

Warranty Period

The Limited Warranty Period starts at the date of original retail purchase. The Warranty Period is two (2) years for display devices. The Warranty Period is one (1) year for accessories including but not limited to PODs and heart rate transmitters, as well as for all consumable parts.

Exclusions and Limitations

This Limited Warranty does not cover:

1. a) normal wear and tear, b) defects caused by rough handling, or c) defects or damage caused by misuse contrary to intended or recommended use;
2. user manuals or any third-party items;
3. defects or alleged defects caused by the use with any product, accessory, software and/or service not manufactured or supplied by Suunto;
4. replaceable batteries.

This Limited Warranty is not enforceable if item:

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;
4. has been exposed to chemicals including but not limited to mosquito repellents.

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

Access to Suunto warranty service

You must have proof of purchase to access Suunto warranty service. For instructions how to obtain warranty service, visit www.suunto.com/warranty, contact your local authorized Suunto retailer, or call Suunto Help Desk +358 2 2841160 (national or premium rates may apply).

Limitation of Liability

To the maximum extent permitted by applicable mandatory laws, this 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.

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