SUUNTO OCEAN

USER GUIDE

2025-02-25

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.*

⚠ ***WARNING:*** *ENSURE THE WATER RESISTANCE OF THE DEVICE! Moisture inside the device may seriously damage the unit. Only an authorized Suunto Service Center should do service activities.*

⚠ ***WARNING:*** *Do not use Suunto USB Cable in areas where flammable gases are present. Doing so may cause an explosion.*

⚠ ***WARNING:*** *Do not disassemble or remodel Suunto USB Cable in any way. Doing so may cause an electric shock or fire.*

⚠ ***WARNING:*** *Do not use Suunto USB cable if cable or parts are damaged.*

⚠ ***WARNING:*** *You must only charge your device using USB adapters that comply with the IEC 62368-1 standard and have a maximum output of 5 V. Non-compliant adapters are a fire hazard and a risk to personal injury and might damage your Suunto device.*

⚠ ***CAUTION:*** *DO NOT allow the connector pins of the USB cable to touch any conductive surface. This may short circuit the cable, making it unusable.*

⚠ ***CAUTION:*** *Only use the provided charging cable when charging your Suunto Ocean.*

⚠ ***CAUTION:*** *DO NOT use the USB cable when Suunto Ocean is wet. This may cause an electrical failure. Ensure the cable connector and the connector pin area on the device are dry.*

⚠ ***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.*

⚠ ***CAUTION:*** *Colored textile straps might bleed onto other fabrics or skin when new or wet.*

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 Ocean 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. Carefully read the warning that pops up and confirm you understand it by tapping on OK.
5. 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.

⚠ ***CAUTION:*** *Only use the provided charging cable when charging your Suunto Ocean.*

2.1. Touch screen and buttons

Suunto Ocean 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 move backwards and forwards in displays
- tap to select an item

Upper button

- from watch face, press to open the list of the most recently used sport modes
- from watch face, long press to define and open shortcuts

Middle button

- press to select an item
- from watch face, press to open the pinned widget
- from watch face, long press to open settings menu
- keep pressed to go back in settings menu

Lower button

- press to move down in views and menus
- from watch face, press to open the list of the widgets
- from watch face, long press to define and open shortcuts

While recording an exercise:

Upper button

- press to pause the activity
- long press to change activity

Middle button

- press to change displays
- long press to go back to the previous display

Lower button

- press to mark a lap
- long press to open the control panel where you find the exercise options
- when the activity is paused, press to end or discard the activity

While freediving and scuba diving:

Upper button

- press to open the options menu (freediving)
- press to access the list of available gases (Multigas mode only)
- long press to change brightness

Middle button

- press to change displays (freediving)
- press to change arch (scuba diving)

Lower button

- press to change the switch window item
- long press to lock and unlock buttons

NOTE: *The touch screen is inactive when it is in contact with water. This means that underwater you have to use the buttons to navigate through displays.*

2.2. Adjusting settings

You can adjust all watch settings directly in the watch.

To adjust a setting:

1. From watch face, long press the middle button.
2. Scroll through the settings menu by swiping up/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/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 by pressing the middle button.

NOTE: *The settings listed above are general watch settings. For dive settings, see 5.3. Dive settings.*

2.3. Software updates

Software updates add important improvements and new features to your watch. Suunto Ocean is updated automatically, if it is connected to Suunto app.

When an update is available and your watch is connected with Suunto app, the software update will be downloaded to the watch automatically. The status of this download can be viewed in Suunto app.

Once the software is downloaded to your watch, the watch will update itself during the night as long as the battery level is at least 20% and no exercise is being recorded simultaneously.

If you want to install the update manually before it happens automatically during the night, navigate to **Settings** » **General** and select **Software update**.

NOTE: *When the update is complete, the release notes will be visible in Suunto app.*

2.4. Suunto app

With the Suunto app, you can further enrich your Suunto Ocean experience. Pair your watch with the mobile app to sync your activities, create workouts, get mobile notifications, insights and more.

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

To pair your watch with Suunto 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 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 app and turn on Bluetooth if it is not on already.
4. Tap the watch icon in the upper-left of the app screen and then tap “PAIR” to pair your watch.

5. Verify the pairing by typing the code that is displayed on your watch in the app.

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

2.5. Optical heart rate

Optical heart rate measurement from the wrist is an easy and convenient way to track your heart rate. Best results for heart rate measurement may be affected by the following factors:

- The watch must be worn directly against your skin. No clothing, however thin, can be between the sensor and your skin.
- The watch may need to be higher on your arm than where watches are normally worn. The sensor reads blood flow through tissue. The more tissue it can read, the better.
- Arm movements and flexing muscles, such as gripping a tennis racket, can change the accuracy of the sensor readings.
- When your heart rate is low, the sensor may not be able to provide stable readings. A short warm up of a few minutes before you start the recording helps.
- Skin pigmentation and tattoos block light and prevent reliable readings from the optical sensor.
- The optical sensor may not provide accurate heart rate readings for swimming and diving activities.
- For higher accuracy and quicker responses to changes in your heart rate, we recommend using a compatible chest heart rate sensor such as Suunto Smart Sensor.

⚠ ***WARNING:*** *The optical heart rate feature may not be accurate for every user during every activity. Optical heart rate may also be affected by an individual's unique anatomy and skin pigmentation. Your actual heart rate may be higher or lower than the optical sensor reading.*

⚠ ***WARNING:*** *Only for recreational use; the optical heart rate feature is not for medical use.*

⚠ ***WARNING:*** *Always consult a doctor before beginning a training program. Overexertion may cause serious injury.*

3. Settings

From the watch face, swipe up or long press the lower button to get access to all of the watch settings via the **Control panel**.

TIP: *The settings menu can be accessed directly if you long press the middle button while you are in the watch face view.*

If you want quick access to a certain setting or feature, you can customize the top button logic (from watch face view) and create a shortcut to your most useful setting or feature.

To define a shortcut for the upper button, open the Control panel and select **Customize** followed by **Top shortcut** and select what setting or feature the top button will have when long pressed.

3.1. Button and screen lock

While recording an exercise you can lock the buttons by keeping the lower button pressed and then select **Button lock**. Once locked, you cannot perform any action that requires button interaction (create laps, pause/end exercise etc.), but it is possible to scroll the display views.

NOTE: *During scuba diving, you can use the buttons to acknowledge alarms and gas switch even when they are locked, but you cannot change the display view and the switch window content.*

To unlock everything, keep the lower button pressed again and toggle Button lock off.

TIP: *You can customize a lower button shortcut for locking the buttons and the screen with one button press when you are not recording an exercise. Select* ***Button lock*** *under Customize > Bottom shortcut. Then you can lock and unlock the buttons and the screen from the watch face by long pressing the lower button.*

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.

3.2. Automatic display brightness

The display has three features that you can adjust: the level of brightness (**Brightness**), whether the inactive display shows any information (**Always-on display**), and whether the display activates when you raise and turn your wrist (**Raise to wake**).

The display features can be adjusted from the settings under **General** > **Display**.

- The Brightness setting determines the overall intensity of display brightness; Low, Medium or High.
- The Always-on display setting determines if the inactive display is blank or shows information, for example, the time. Always-on display can be toggled to on or off:
    - **On**: The display shows certain information all the time.
    - **Off**: When the display is inactive, the screen is blank.

- The Raise to wake feature activates the display when raising your wrist to look at the watch. The three options for Raise to wake are:
  - **Off**: Raising your wrist does nothing.
  - **Display only**: Raising your wrist only activates the display. A button press is required to use the watch.
  - **Full wake mode**: Raising your wrist activates the watch, making it ready to use.

⚠ ***CAUTION:*** *Prolonged use of the high brightness display reduces battery life and may cause screen burn-in. Avoid using high brightness for extended period to lengthen display lifetime.*

NOTE: *For dive display brightness information, see 5.3. Dive settings.*

3.3. Tones and vibration

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

Under **Tones**, 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.

By toggling **Vibration**, you can switch vibrations on and off.

Under **Alarm**, you can select from the following options:

- **Vibration**: vibration alert
- **Tones**: sound alert
- **Both**: both vibration and sound alerts.

NOTE: *These tone and vibration settings do not affect scuba and freediving activities. See 5.4. Dive alarms for dive alarm settings.*

3.4. Bluetooth connectivity

Suunto Ocean uses Bluetooth technology to send and receive information from your mobile device when you have paired your watch with the Suunto app. Same technology is also used when pairing PODs and sensors.

However, if you do not want your watch to be visible for Bluetooth scanners, you can activate or deactivate the discovery setting from the settings under **Connectivity** » **Discovery**.

The Bluetooth can also be completely turned off by activating airplane mode, see *3.5. Airplane mode*.

3.5. Airplane mode

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

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

3.6. Do Not Disturb mode

The Do Not Disturb mode is a setting that mutes all sounds and vibrations and dims the screen, 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.

To turn on/off the Do Not Disturb mode:

1. From the watch face, swipe up or press the lower button to open **Control panel**.
2. Scroll down to **Do Not Disturb**.
3. Tap on the function name or press the middle button to activate 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.

NOTE: *Do Not Disturb mode is always disabled in diving mode.*

3.7. Stand up reminder

Regular movement is very beneficial for you. With Suunto Ocean, you can activate a stand up reminder that reminds you to move around a bit if you have been sitting too long.

From the settings, select **Activity** and toggle on **Stand up reminder**.

If you have been inactive during 2 consecutive hours, your watch will notify you and remind you to stand up and move around a bit.

3.8. Find my phone

You can use the Find my phone feature to find your phone when you do not remember where you left it. Your Suunto Ocean can ring your phone if they are connected. As Suunto Ocean uses Bluetooth to connect to your phone, the phone needs to be in Bluetooth range so that the watch can ring it.

To activate the find my phone feature:

1. From the watch face, press the lower button and open **Control panel** from the list of widgets.
2. Scroll down to **Find my phone**.
3. Start ringing your phone by tapping on the function name or pressing the middle button.
4. Press the lower button to stop ringing.

3.9. Time and date

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

Once you have paired with Suunto app, your watch gets updated time, date, time zone and daylight-saving time from mobile devices.
In the **Settings**, under **General** » **Time/date**, tap **Auto time update** to toggle the feature on and off.

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.

3.9.1. 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 clock**.

To set a fixed alarm time:

1. From the watch face, long press the lower button to access the **Control panel**.
2. Select **Alarm clock**.
3. Select **New alarm**.

   NOTE: *Older alarms can be deleted or edited if selected in the list below New alarm.*
4. 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

5. 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.

3.10. Language and unit system

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

3.11. Watch faces

Suunto Ocean comes with one watch face by default. You can install several other watch faces, both digital and analog styles, from the SuuntoPlus™ Store in Suunto app.

To change the watch face:

1. Open SuuntoPlus™ Store and install your favorite watch faces on your watch.
2. Sync the watch with the app.
3. Open **Customize** from the watch settings or in the Control panel.
4. Scroll to **Watch face** and tap or press the middle button to enter.
5. Swipe up and down to scroll through the watch face previews and tap on the one you want to use.

6. Scroll down and open **Accent color** to select the color you want to use on the watch face.
7. Scroll down and open **Complications** to customize the information you want to see on the watch face. See *3.11.1. Complications*.

3.11.1. Complications

Each watch face has additional information, such as date, dual time, outdoor or activity data. You can customize the information you want to see on the watch face.

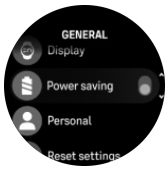
1. Select **Customize** from the **Settings** or in the **Control panel**.
2. Scroll down and open **Complications**.
3. Select the complication you want to change by tapping on it.

4. Swipe up and down or press the lower button to scroll through the list of complications and select one by tapping on it or pressing the middle button.
5. After updating all complications, swipe up or press the lower button and select **Done**.

3.12. Power saving

Your watch includes a power saving option that turns off all vibration, daily HR and Bluetooth notifications to extend battery life during normal daily use. For power saving options while recording activities, see *4.4. Battery power management*.

Enable/disable power saving from the settings under **General** » **Power saving** or in the **Control panel**.



NOTE: *Power saving is automatically enabled when the battery level reaches 10%.*

3.13. 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 Ocean supports the following types of dive and other sports pods and sensors:

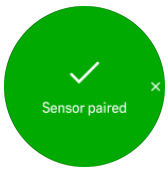
- Tank pressure (Tank POD) (see *5.6.1. How to install and link a Suunto Tank POD*)
- Heart rate
- Bike
- Power
- Foot

NOTE: *You cannot pair anything if airplane mode is on. Turn off airplane mode before pairing. See 3.5. Airplane mode.*

To pair a sports 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), press 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**.

For information on how to pair your Suunto Ocean with the Suunto Tank POD, see *5.6.1. How to install and link a Suunto Tank POD*.

3.13.1. Calibrating bike pod

For bike pods, you need to set the wheel circumference in your watch. The circumference shall be in millimeters and it is done as a step in the calibration. If you change the wheels (with new circumference) of your bike, the wheel circumference setting in the watch must also be changed.

To change the wheel circumference:

1. In settings, go to **Connectivity** » **Paired devices**.
2. Select **Bike POD**.
3. Select the new wheel circumference.

3.13.2. 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.

3.13.3. 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.

3.14. Flashlight

Your Suunto Ocean has an extra bright backlight that you can use as a flashlight.

To activate the flashlight, swipe up from watch face or press the lower button and select **Control panel**. Scroll to **Flashlight** and turn it on by tapping on it or by pressing the middle button.

To turn off the flashlight, press the middle button or swipe right.

3.15. Alarms

In the **Alarms** menu of your watch, under **Settings** you can set different adaptive alarm types.

You can set an alarm for sunrise and sunset and also for storm alarm.

For dive alarm settings, see *5.4. Dive alarms* and *6.4. Freedive alarms*.

3.15.1. Sunrise and sunset alarms

The sunrise/sunset alarms in your Suunto Ocean 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. From watch face, long press the middle button and scroll down to and select **Alarms**.
2. Scroll to the alarm that you want to set and select by pressing the middle button.

3. Set the desired hours and minutes prior to sunrise/sunset by scrolling up/down with the upper and lower buttons and confirming with the middle button.

4. 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.*

3.15.2. 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 Ocean 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:

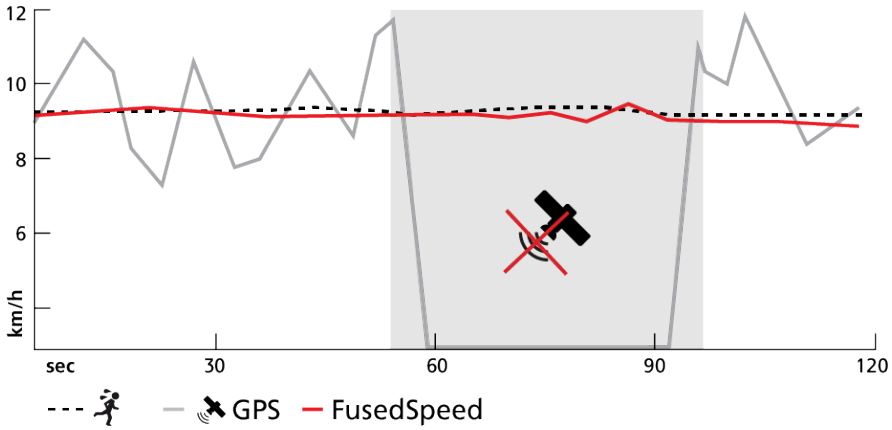
1. From watch face, keep the middle button pressed to enter **Settings**.

2. Scroll to **Alarms** and enter the menu by tapping on its name or pressing the middle button.
3. Scroll to **Storm alarm** and toggle it on/off by tapping on its name or pressing the middle button.

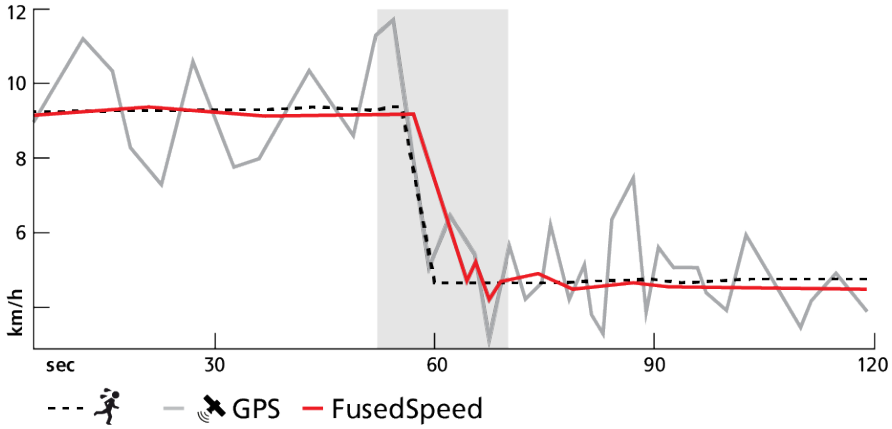
When a storm alarm sounds, pressing any button ends the alarm. If no button is pressed, the alarm notification lasts for one minute. The storm symbol remains on the display until the weather conditions stabilize (pressure drop slows down).

3.16. 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 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 Ocean 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).

3.17. FusedAlti

FusedAltiTM 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.*

3.18. Altimeter

Suunto Ocean 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 *3.17. FusedAlti*) to set your reference point automatically.

Set your reference point from the settings under **Alti & baro**.

3.18.1. Altitude diving

When diving at altitudes greater than 300 m (980 ft), the altitude setting must be **manually selected** in order for the computer to calculate the correct decompression status. Failure to select the correct altitude setting or diving above the maximum altitude limit will result in erroneous dive and planning data.

See *5.7.4. Altitude setting* for altitude setting.

NOTE: *Suunto Ocean is not intended for use at altitudes greater than 3000 m (9800 ft).*

3.19. 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 Ocean 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.*

3.20. Device info

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

3.21. Resetting your watch

All Suunto watches have two types of reset available to address different issues:

- the first one, the soft reset, also known as the restart.
- the second one, the hard reset, also known as the factory reset.

Soft reset (restart):

Performing a restart on your watch might help with the following situations:

- the device is not responding to any button presses, taps, or swipes (the touch screen is not working).
- the display is either frozen or blank.
- there is no vibration, e.g., during button presses.
- the watch functionalities are not working as expected, e.g., the watch does not record your heart rate (optical heart rate LEDs are not blinking), the compass is not finalizing the calibration process, etc.
- the step counter is not counting your daily steps at all (please note, recorded steps may be shown with a delay in the app).

NOTE: *The restart will end and save any active exercise. Under normal circumstances, the exercise data or dive data will not be lost. On rare occasions, a soft reset may cause memory corruption issues.*

Press and hold all three buttons for 12 seconds and release them to perform a soft reset.

WARNING: *Never reset your watch during diving.*

There are specific circumstances under which the soft reset might not solve the issue and the second type of reset may be performed. If the above has not helped with the issue you were aiming to solve; the hard reset might help.

The hard reset (factory reset):

The factory reset will restore your watch to the default values. It will erase all data from your watch, including exercise data, personal data and settings that have not been synced to Suunto app. After a hard reset, you must go through the initial setup of your Suunto watch.

Performing a factory reset on your watch may be performed in the following situations:

- a Suunto Customer Support representative has asked you to do so as part of the troubleshooting procedure.
- the soft reset did not solve the issue.
- the battery life of your device is significantly reducing.
- the device is not connecting to GPS and other troubleshooting has not helped.
- the device has connectivity issues with Bluetooth devices (e.g., Smart Sensor or mobile app) and other troubleshooting has not helped.

The factory reset of your watch is done via the **Settings** on your watch. Select **General** and scroll down to **Reset settings**. All data on your watch will be deleted during the reset. Initiate the reset by selecting **Reset**.

NOTE: *The factory reset deletes the previous pairing information your watch might have had. To start the pairing process with the Suunto app again, we recommend you delete the previous pairing from the Suunto app and your phone's Bluetooth - under Paired devices.*

NOTE: *Both presented scenarios are to be performed only for emergencies. You should not perform them regularly. If any issue persists, we recommend you either contact our Customer Support or send your watch to one of your authorized service centers.*

4. 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.

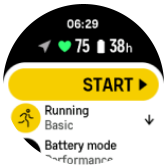
To record an exercise:

1. Put on a heart rate sensor (optional).
2. Swipe down from watch face or press the upper button.
3. Select the sport mode you want to use by scrolling up and select by pressing the middle button.
4. Different sport modes have different options, swipe up or press the lower button to scroll through them and adjust them by pressing 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 and connected GPS):
   - The arrow icon (connected GPS) flashes gray while searching and turns green once a signal is found.
   - The heart icon (heart rate) flashes gray while searching and once a signal is found, it turns into a colored heart attached to a belt if you are using a heart rate sensor or a colored heart without the belt if you are using the optical heart rate sensor.
   - The icon to the left is only visible if you have a POD paired and it turns green when the POD signal is found.

   There is also a battery estimation visible, that tells you how many hours you can exercise before the battery runs out.

   If you are using a heart rate sensor but the icon turns to green only (meaning that the optical heart rate sensor is active), check that the heart rate sensor is paired, see *3.13. Pairing pods and sensors*, and try again.

   You can wait for each icon to turn green (recommended for more accurate data) or start the recording as soon as you like by selecting **Start**.

   Once the recording is started, the selected heart rate source is locked and cannot be changed during the ongoing training session.
6. While recording, you can switch between displays with the middle button.
7. Press the upper button to pause the recording. A timer starts blinking at the bottom of the screen showing how long the recording has been paused.

8. Press the lower button to open the list of options.
9. Stop and save by selecting **End**.

NOTE:** It is also possible to delete your exercise log by selecting **Discard.

After you stop the recording, you are asked how you felt. You can answer or skip the question (see *4.10. Feeling*). The next screen shows a summary of the activity that you can browse through with the touch screen or buttons.

If you made a recording you do not want to keep, you can delete the log entry 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.

4.1. 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.

Before you record an exercise (see *4. Recording an exercise*), you can view and select from the complete list of sport modes.

Each sport mode has a unique set of displays that show different data depending on the selected sport mode. You can edit and customize the data shown on the watch display during your exercise with Suunto app.

Learn how to customize sport modes in *Suunto app (Android)* or *Suunto app (iOS).*

4.2. 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 app and sync your watch if you haven't done so already.
2. Select a sport mode that uses GPS.
3. Scroll down and select **Navigation**.
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.
6. Scroll up to the start view and start your recording as normal.

While exercising, 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 *8.5.2. Navigating to a POI* and *8.4. Routes*.

While in this display, 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**.

4.2.1. Find back

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

To start Find back:

1. Start an exercise with GPS.
2. Press the middle button until you reach the navigation display.
3. 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 in the navigation display.

4.2.2. Snap to route

In urban surroundings the GPS can struggle to follow you correctly. If you select one of your predefined routes and follow that route, the watch GPS is used purely to locate where you are on the predefined route, not actually creating a track from the run. The recorded track will be identical to the route used for the run.

To use Snap to route during exercise:

1. Create a route in Suunto app and sync your watch if you haven't done so already.
2. Select a sport mode that uses GPS.
3. Scroll down and select **Navigation**.
4. Select **Snap to route** and press the middle button.
5. Select the route you want to use and press the middle button.

Start your exercise as normal and follow the selected route.

4.3. Using targets when exercising

It is possible to set different targets with your Suunto Ocean when exercising.

If the sport mode you selected has targets as an option, you can adjust them before starting the recording by swiping up or pressing the lower button.

To exercise with general target:

1. Before you start an exercise recording, swipe up or press the lower button and select **Target**.
2. Select **Duration** or **Distance**.
3. Select your target.
4. Scroll up and start your exercise.

When you have general targets activated, a target gauge is visible on every data display showing your progress.

You will also receive a notification when you have reached 50% of your target and when your selected target is fulfilled.

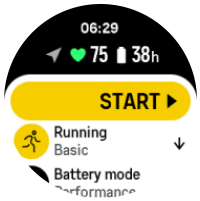
To exercise with intensity target:

1. Before you start an exercise recording, swipe up or press the lower button and select **Intensity zones**.
2. Select **HR zones**, **Pace zones** or **Power zones**.
   (The options depend on selected sport mode and if you have a power pod paired with the watch.)
3. Select your target zone.
4. Scroll up and start your exercise.

4.4. Battery power management

Your Suunto Ocean has a battery power management system that uses intelligent battery technology to help ensure your watch does not run out of power when you need it most.

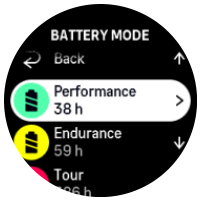
Before you start recording an exercise (see *4. Recording an exercise*) you see an estimate of how much battery life you have left in the current battery mode.



There are four predefined battery modes; **Performance** (default), **Endurance**, **Ultra** and **Tour**. Changing between these modes will change the lifetime of the battery but also changes the performance of the watch.

NOTE: *By default, Tour mode disables all HR tracking (both wrist and chest).*

While in the start display, scroll down and select **Battery mode** to change battery modes and see how each mode affects the performance of the watch.



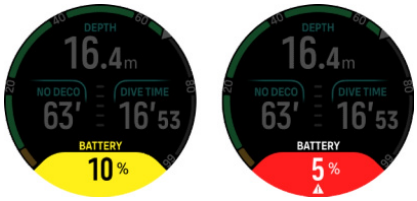
NOTE: *Battery saving settings do not affect dive activities.*

Battery notifications

In addition to the battery modes, your watch uses smart reminders to help you ensure you have enough battery life for your next adventure. Some reminders are preemptive based on, for example, your activity history. You also get notified, for example, when the watch notices you are running low on battery while recording an activity. It will automatically suggest changing to a different battery mode.

Your watch will alert you once when the battery is at 20% and again at 10%.

While diving, your watch will alert you once when the battery is at 10% and again at 5%.



WARNING: *Suunto recommends you do not dive with a battery lower than 10%.*

CAUTION: *Only use the provided charging cable when charging your Suunto Ocean.*

4.5. Multisport exercise

Your Suunto Ocean has predefined Triathlon sport modes that you can use to track your Triathlon exercises and races but if you need to track another sort of multisport activity, you can easily do so directly from the watch.

To use multisport exercises:

1. Select the sport mode you want to use for the first leg of your multisport exercise.
2. Start recording an exercise as normal.
3. Press and hold the upper button for two seconds to enter multisport menu.
4. Select the next sport mode you want to use and press the middle button.
5. The recording with the new sport mode will start immediately.

TIP: *You can change sport mode as many times you need during one single recording, including a sport mode you used previously.*

4.6. Swimming

You can use your Suunto Ocean 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 your online account 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.

4.7. Interval training

Interval workouts are a common form of training consisting of repetitive sets of high and low intensity efforts. With Suunto Ocean, 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 scroll down to **Intervals** and tap the setting or press the middle button.

2. Toggle **Intervals** on and adjust the settings described above.
3. Scroll back up to the start view and start your exercise as normal.
4. 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.

5. 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.

4.8. 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 the start exercise view in the watch before you start your exercise recording.

If you turn this function on and the recording is paused automatically, a timer starts blinking at the bottom of the screen showing how long the recording has been paused.

You can let the recording resume automatically when you start moving again, or resume it manually by pressing the upper button.

4.9. Voice feedback

You can get voice feedback with valuable information during your exercise. The feedback can help you to keep track on your progress and give you useful indicators, depending on what feedback options you have selected. The voice feedback comes from your phone so your watch must be paired with Suunto app.

To activate voice feedback before an exercise:

1. Before starting an exercise, scroll down and select **Voice feedback**.
2. Toggle **Voice feedback from app** on.
3. Scroll down and select which voice feedback you want activated by turning the toggles on/off.
4. Go back and start your exercise as you normally do.

Your phone will now bring you various voice feedback during your exercise, depending on which voice feedback you have activated.

To activate voice feedback during an exercise:

1. Press the upper button to pause the exercise.
2. Select **Options**.
3. Scroll down and select **Voice feedback**.
4. Toggle **Voice feedback from app** on.
5. Scroll down and select which voice feedback you want activated by turning the toggles on/off.
6. Go back and resume your exercise.

4.10. 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.

4.11. 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 Ocean 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 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.

4.11.1. 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 Ocean 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 HR zones for all sports**.

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 or lower 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 HR zones for all sports**.

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 or lower 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 or lower buttons.

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

4.11.2. Pace zones

Pace zones work just like HR zones but the intensity of your training is based on your pace instead of your heart rate. The pace zones are shown either as metric or imperial value depending on your settings.

Suunto Ocean has five default pace zones that you can use or you can define your own.

Pace zones are available for running and cycling.

Set pace zones

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

1. Tap **Running** or **Cycling** or press the middle button.
2. Swipe or press the lower button and select pace zones.
3. Swipe up/down or press the upper or lower buttons and press the middle button when the pace zone you want to change is highlighted.
4. Select your new pace zone by swiping up/down or by pressing the upper or lower buttons.

5. Press the middle button to select the new pace zone value.
6. Swipe right or press and hold the middle button to exit the pace zones view.

4.11.3. Power zones

Power meter measures the amount of physical effort needed to perform a certain activity. The effort is measured in watts. The main advantage gained with a power meter is precision. The power meter reveals exactly how hard you really work and how much power you produce. It is also easy to see your progress when analyzing the watts.

Power zones can help you train with the correct power output.

Suunto Ocean has five default power zones that you can use or you can define your own.

Power zones are available in all default sport modes for cycling, indoor cycling and mountain biking. For running and trail running, you need to use the specific “Power” sport modes to get power zones. If you are using custom sport modes, make sure your mode uses a power POD so that you also get power zones.

Set activity specific power zones

Set your activity specific power 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. Swipe up or press the lower button and select power zones.
3. Swipe up/down or press the upper or lower buttons and select the power zone you want to edit.
4. Select your new power zone by swiping up/down or by pressing the upper or lower buttons.

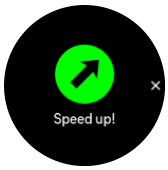
5. Press the middle button to select the new power value.
6. Swipe right or press and hold the middle button to exit the power zones view.

4.11.4. Using HR, pace or power zones when exercising

NOTE: *You need to have a power pod paired with your watch to be able to use power zones when exercising, see 3.13. Pairing pods and sensors.*

When you record an exercise (see *4. Recording an exercise*), and have selected HR, pace or power as an intensity target (see *4.3. Using targets when exercising*) a zone gauge, divided into five sections, is viewed. These five sections are shown around the outer edge of the sport mode display. The gauge indicates the zone you have chosen as an intensity target by lighting up the corresponding section. The small arrow in the gauge indicates where you are within the zone range.

Your watch alerts you when you hit your selected target zone. During your exercise the watch will prompt you to speed up or slow down, if your current HR, pace or power is outside the selected target zone.



In addition, a dedicated display for intensity zones can be added if you customize the current sport mode you are using. The zone display shows your current zone in the middle field, how long you have been in that zone, and how far away you are to the next zones up or down. The middle bar also lights up, indicating that you are training in the correct zone.

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

5. Scuba diving

Besides being a device capable of 24/7 activity monitoring and sports tracking, Suunto Ocean is a dive computer designed to be used for recreational scuba diving and freediving.

⚠ ***WARNING:*** *Make sure that you fully understand the use, displays and limitations of your dive computer, because diving involves risks and ultimately you are responsible for your own safety.*

5.1. Dive safety

Suunto Ocean is a dive computer designed to be used for recreational scuba diving and freediving. The device displays essential information before, during and after the dive to enable safe decision making. Suunto Ocean can be used as a standalone product or in combination with the Suunto Tank POD, which measures the tank pressure and transmits the pressure reading information to the dive computer. The combination of Suunto Ocean and the Suunto Tank POD is categorized as Personal Protective Equipment under the EU Regulation 2016/425 and protects against risks listed under PPE Risk Category III (a): substances and mixtures which are hazardous to health.

Suunto strongly recommends that you do not engage in any diving activity type without proper training and a complete understanding and acceptance of the risks. Always follow the rules of your training agency.

Make sure you fully understand how to use your dive instrument and what its limitations are by reading all the printed documentation and the online user manual. Always remember that you are responsible for your own safety.

⚠ ***WARNING:*** *All computers experience failures. It is possible that this device may suddenly fail to provide accurate information during your dive. Always use a backup dive device and only dive with a buddy.*

⚠ ***WARNING:*** *Because any decompression model is purely theoretical and does not monitor the actual body of a diver, there is always a risk of decompression illness (DCI) for any dive. An individual's physiological makeup can vary from day to day. The dive computer cannot account for these variations. You are strongly advised to remain well within the exposure limits provided by the dive computer to minimize the risk of DCI.*

⚠ ***WARNING:*** *If you suspect risk factors that tend to increase the possibility of DCI exist, Suunto recommends that you use the personal setting to make calculations more conservative and consult a physician with experience in diving medicine before you dive.*

⚠ ***WARNING:*** *When diving at altitudes greater than 300 m (980 ft), the altitude setting must be correctly selected for the computer to calculate the decompression status. Failure to select the correct altitude setting or diving above the maximum altitude limit will result in erroneous dive and planning data. It is recommended that you acclimatize to the new altitude before diving. Always use the same personal and altitude adjustment settings for the actual dive and for the planning.*

⚠ ***WARNING:*** *Suunto strongly recommends that the device not be used for any commercial or professional diving activities. The demands of commercial or professional diving may expose the diver to depths and conditions that tend to increase the risk of DCI.*

⚠ ***WARNING:*** *Before diving, always check that your dive computer is functioning properly, the display is working, the battery level is OK, tank pressure is correct, and your settings are correct.*

⚠ ***WARNING:*** *Check your dive computer regularly during a dive. If you believe or conclude that there is a problem with any computer function, abort the dive immediately and safely return to the surface. Contact Suunto customer support and return your computer to an authorized Suunto Service Center for inspection.*

⚠ ***WARNING:*** *The dive computer should never be traded or shared between users while in use. Its information will not apply to someone who has not been wearing it throughout a dive, or sequence of repetitive dives. Its dive profiles must match that of the user. No dive computer can take into account dives made without the computer. Thus, any diving activity up to four days prior to initial use of the computer may cause misleading information and must be avoided.*

⚠ ***WARNING:*** *For safety reasons, you should never dive alone. Dive with a designated buddy. You should also stay with others for an extended time after a dive as the onset of possible DCS may be delayed or triggered by surface activities.*

⚠ ***WARNING:*** *ONLY TRAINED DIVERS SHOULD USE A DIVE COMPUTER! Insufficient training for any kind of diving, including freediving, may cause a diver to commit errors, such as incorrect use of gas mixtures or improper decompression, that may lead to serious injury or death.*

⚠ ***WARNING:*** *Do not participate in freediving and scuba diving activities on the same day.*

⚠ ***WARNING:*** *This device is recommended for use with compressed air. The compressed air supply must comply with the quality of compressed air specified in the EU standard EN 12021:2014 (requirements for compressed gases for breathing apparatus). This device can also be used with enriched air (nitrox) breathing gases.*

⚠ ***WARNING:*** *Diving with mixed gases has dangers that are not familiar to divers diving with air. Appropriate training courses for diving with enriched air is essential prior to the use of this kind of equipment with oxygen content greater than 21%.*

⚠ ***WARNING:*** *In nitrox use, the maximum operating depth and no decompression time are dependent on the oxygen content of the gas. When the oxygen limit fraction indicates that the maximum limit is reached, you must immediately take action to reduce oxygen exposure. Failure to take action to reduce oxygen exposure after a CNS%/OTU warning is given can rapidly increase the risk of oxygen toxicity, injury, or death.*

⚠ ***WARNING:*** *Do not dive with gas if you have not personally verified its content and entered the analyzed value into your dive computer. Failure to verify tank contents and enter the appropriate gas values where applicable into your dive computer will result in incorrect dive planning information.*

⚠ ***WARNING:*** *YOU ARE ADVISED TO AVOID FLYING ANY TIME THE COMPUTER COUNTS DOWN THE NO-FLY TIME. ALWAYS ACTIVATE THE COMPUTER TO CHECK THE REMAINING NO-FLY TIME PRIOR TO FLYING! Flying or traveling to a higher altitude within the no-fly time can greatly increase the risk of DCS. Review the recommendations given by Divers Alert Network (DAN). There can never be a flying-after-diving rule that is guaranteed to completely prevent decompression sickness!*

⚠ ***WARNING:*** *If you have a pacemaker, we recommend you do not scuba dive. Scuba diving creates physical stresses on the body which may not be suitable for pacemakers.*

⚠ ***WARNING:*** *You must read the printed quick guide and online user guide of your dive computer. Failure to do so may lead to improper use, serious injury or death.*

NOTE: *Make sure your Suunto dive computer always has the latest software with updates and improvements. Check before every dive trip from www.suunto.com/support, if Suunto has released a new software update for your device. When a new software update is available, you must install it before diving. Updates are made available to improve your user experience and are part of Suunto's philosophy of continuous product development and improvement.*

5.2. Dive setup

Suunto Ocean has two dive modes for Scuba diving: Single gas and Multigas and one freedive mode: Freediving (depth). You can find all dive modes under the main menu by swiping down from the watch face or pressing the upper button and select the mode by pressing the middle button.

5.2.1. Automatic dive start

Suunto Ocean has an automatic start functionality that recognizes pressure increase and water contact. The device enters dive state from the pre-dive screen or from any other watch screen:

- When in contact with water and the absolute pressure equals to your set dive start depth (the default start depth is 1.2 m / 4 ft).
- Or if no water contact is recognizable but the absolute pressure equals to your set dive start depth (the default start depth is 1.2 m / 4 ft) + 1.8 m (5.9 ft).

Scuba dives automatically end after the set Dive end time (the default time is 5 min) and when:

- When in contact with water and the absolute pressure equals to or is less than your set dive start depth (the default start depth is 1.2 m / 4 ft).
- Or if no water contact is recognizable but the absolute pressure equals to or is less than your set dive start depth (the default start depth is 1.2 m / 4 ft) + 1.8 m (5.9 ft).

If submerged from any non-diving watch screen, Suunto Ocean automatically enters the dive mode you have last configured.

NOTE: *The Dive start depth can be defined under Dive settings in scuba modes and under Dive options in freedive mode.*

NOTE: *Suunto Ocean does not enter dive state if you are already in another exercise view.*

WARNING: *The automatic dive start is a precaution feature. We recommend that you always start the dive by entering the selected dive mode to confirm your gas and dive settings.*

5.2.2. Dive modes

Suunto Ocean has two scuba dive modes and a freedive mode that come with pre-defined settings to prepare for certain type of diving.

Single gas:

This dive mode is best suited for no-decompression recreational diving with only one gas, Air or Nitrox.

- One active gas, up to five disabled gases
- Air or Nitrox mixes
- Tank POD pairing to active gas

Multigas:

This dive mode is best suited for technical diving with multiple gases.

- Up to five enabled and disabled gases
- Air or Nitrox mixes, up to NX99
- Time to surface (TTS), ppO2 always on dive screen
- Tank POD pairing to multiple gases

Freedive:

This dive mode is designed for recreational freediving.

- Separate underwater and surface views
- Ascent and descent speed
- Multiple dive time and depth alarm options

5.2.3. Button functions during scuba diving

Your Suunto Ocean has three buttons that have different functionalities when short pressing or long pressing them during the dive.

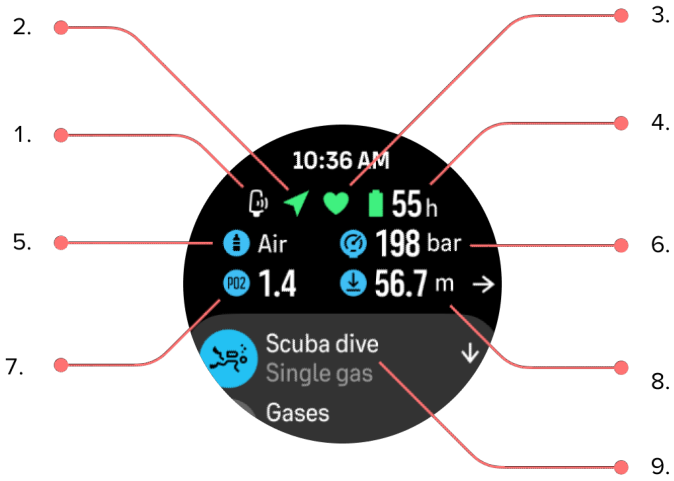
- Upper button short press: Access gas switch menu (only in Multigas mode)
- Upper button long press: Adjust brightness level (Low/Medium/High)
- Middle button short press: Change arch

- Lower button short press: Change switch window item
- Lower button long press: Lock buttons
  See *3.1. Button and screen lock*.

5.2.4. Pre-dive screen and dive options

The pre-dive screen is the same for all dive modes, but each mode has several dive mode specific options that can be adjusted to your diving needs.

A set of icons appears on the pre-dive screen, depending on what you are using with the dive mode, such as heart rate, Tank POD and GPS. The following elements can be seen on the display:



1. Tank POD icon if linked and active
2. GPS signal if enabled
3. Heart rate if enabled
4. Remaining battery time in hours
5. Active gas mix
6. Tank pressure if linked to Tank POD and active
7. The set maximum partial pressure limit (ppO2) for the active gas
8. The maximum operating depth (MOD) for the active gas
9. Active dive mode

GPS signal: The arrow icon (connected GPS) flashes gray while searching and turns green once a signal is found. We recommend to wait for the GPS icon to turn green before jumping into the water for accurate GPS location.

Heart rate: The heart icon (heart rate) flashes gray while searching and once a signal is found, it turns into a colored heart attached to a belt if you are using a heart rate sensor or a colored heart without the belt if you are using the optical heart rate sensor. See *3.13. Pairing pods and sensors* for pairing a heart rate sensor.

Tank POD: The tank icon on the left is only visible if you have a Tank POD paired to your gas and it is active.

Battery: The battery icon tells you how many hours you can dive before the battery runs out.

When scrolling up from the pre-dive screen, you can access the following settings:

Changing dive mode:

You can change the dive mode to another dive mode or any other exercise mode by tapping on the dive mode name.

Gases:

You can modify the oxygen percentage and ppO2 settings for your dive gases under Gases. See *5.5. Gases*.

Algorithm:

The algorithm settings provides you options for modifying your decompression algorithm for the specific dive mode. See *5.7. Algorithm settings*.

Alarms:

You can set alarms for reaching a certain depth, dive time or tank pressure. See *5.4. Dive alarms* for more information on dive related alarms.

Tank POD:

The Tank POD menu is for linking and unlinking available Tank PODs to your gas. See *5.6.1. How to install and link a Suunto Tank POD*.

Sensors:

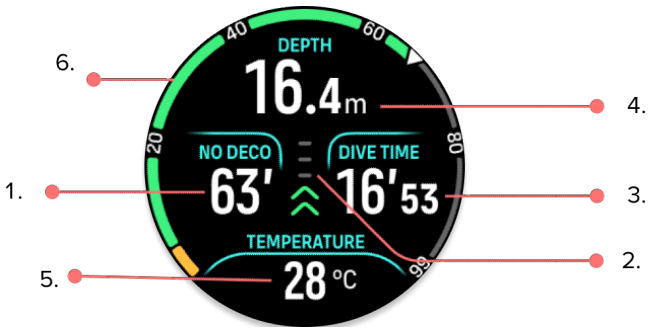
Pair your heart rate sensor to record your diving. See *3.13. Pairing pods and sensors*.

Dive settings:

You can find various additional settings for your dive modes under Dive settings. See *5.3. Dive settings* for the available options.

5.2.5. Main dive view

While on the pre-dive screen, you can scroll through the different dive views by pressing the middle button. On a default dive display, you see the following information:



1. Decompression information
2. Ascent speed with color coding
3. Dive time
4. Depth
5. Switch window with changeable information
6. Arch illustrating key information: no deco limit, tank pressure, time to surface, stop time

5.2.6. Key information during diving

During diving, your watch displays the following information:

Decompression information:

The decompression area on the screen is fixed and shows the following data in the following situations:

Surface time: When surfacing, the decompression area is replaced with a surface timer. It shows the elapsed time between surfacing from a dive and beginning a descent for the subsequent dive. It shows the time in minutes and seconds up to one hour. Above one hour, the time is displayed in hours and minutes up to 24 hours, and after that, hours up to seven days and then only in days.

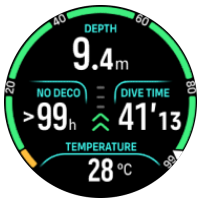
No Decompression Limit (NDL): Once a dive has started, the surface timer is replaced with the NDL time. It shows the time remaining in minutes at the current depth until mandatory decompression stops are required. If NDL time is above 99 minutes, it is displayed as >99. When the NDL time is 5 minutes or less, a mandatory alarm is triggered and the display area is highlighted until resolved or replaced with decompression information. Read more about the mandatory alarms in *5.4.1. Mandatory dive alarms*.

Deco time: If exceeding the NDL time, an alarm is triggered and the NDL time is replaced with the optimum ascent time in minutes (TTS). A Deco badge appears, the NDL arch turns to orange indicating the same TTS time, and the ceiling value appears in the switch window. The ceiling value indicates the decompression stop depth. An alarm is also triggered that can be confirmed by pressing any button. Read more about decompression diving in *5.8.2. Decompression dives*.

Stop time: If a safety stop or deco stop is required during the dive, the NDL or decompression information is replaced with a stop timer counting down the required stop time in minutes and seconds. The stop depth range will be indicated in the depth area. Once the stop is completed, Stop done is displayed in the switch window. You can adjust the safety stop time to be 3, 4 or 5 minutes (the default length is 3 minutes) in the Algorithm settings.

Ascent rate:

During a dive, the bar in the middle of the screen indicates how fast you are ascending. One bar step corresponds to 2 m (6.6 ft) per minute.



The bar is color coded to show the following:

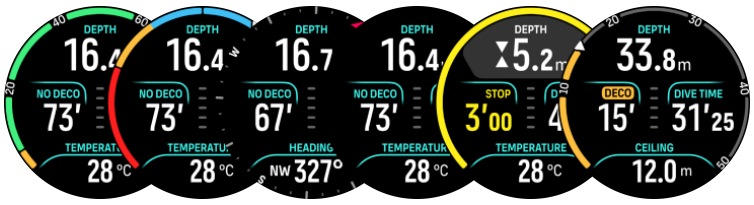
- **Gray** indicates ascent rate is less than 2 m (6.6 ft) per minute
- **Green** indicates ascent rate is between 4 m (13 ft) per minute and 8 m (26 ft) per minute
- **Yellow** indicates ascent rate is over 8 m (26 ft) per minute

- **Red** indicates ascent rate is 10 m (33 ft) per minute
- **Highlighted red** indicates ascent rate is over 10 m (33 ft) per minute for 5 sec or longer

⚠ ***WARNING:*** *DO NOT EXCEED THE MAXIMUM ASCENT RATE! Rapid ascents increase the risk of injury. You should always make the mandatory and recommended safety stops after you have exceeded the maximum recommended ascent rate.*

Arch illustrating key information

Suunto Ocean comes with different arches for both Single gas and Multigas modes.



No deco: The arch shows the no deco time in a fixed range from 0 – 99. The arch is green for the range 5 – 99, and orange for the range 0 – 5. If the value is higher than 99, the indicator is stopped at the end.

Tank pressure: The arch shows the tank pressure if the watch is paired with a Suunto Tank POD. The range is determined by the Tank POD pressure reading value at the start of a dive and it can be 250 bar or 350 bar. The bars on the arch always represent 50 bar or 500 psi depending on unit settings. The colors represent certain parts of the range and they are always fixed to:

- **Red** : 50 bar / 750 psi or less
- **Orange**: 51 bar – 80 bar / 750 psi – 1000 psi

If no Tank POD is paired or the signal is lost, the arch is gray. See *5.6.1. How to install and link a Suunto Tank POD* on how to link your Tank POD.

Compass: The arch shows the magnetic north (marked with a red arrow) and the four cardinal directions. See *5.8.4. Compass use during diving*.

Empty: Dive view without the arch.

In addition, there are two dynamic arches:

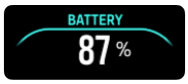
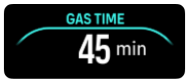
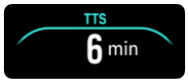
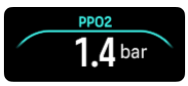
Stop timer: If a stop is required, the arch shows the value corresponding to the dive view window.

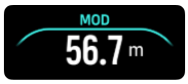
TTS: If exceeding the NDL time, the arch turns orange and shows the Time to surface (TTS). The TTS arch range is fixed to 0 – 50 min. If the value is higher than 50, the indicator is stopped at the end.

Press the middle button to scroll between the arches.

5.2.7. Switch window for scuba diving

The switch window at the bottom of the dive screen can contain different types of information that can be changed by short pressing the lower button.

Switch window	Switch window content	Explanation
	**Temperature**	The current temperature in degrees Celsius or Fahrenheit, depending on unit settings.
	**Max depth**	The maximum depth reached during the current dive.
	**Clock**	The time in a 12- or 24-hour format, based on the time format you set under Time/date settings.
	**Battery**	The remaining battery level as percentage. See *5.4.1. Mandatory dive alarms* for battery alarms.
	**Tank pressure**	The tank pressure in the set unit (bar or PSI) for your active gas if linked to a Tank POD.
	**Gas consumption** (L/min or cu ft/min)	Gas consumption refers to your real-time consumption rate of gas during a dive. The actual gas consumption rate is measured in liters per minute (cubic feet per minute) and calculated for the current depth. See *5.6.3. Gas consumption* for more information.
	**Gas time**	Gas time refers to the time you can stay at the current depth. See *5.6.4. Gas time* for more information.
	**Safety stop**	A three (3) minute safety stop is always recommended for every dive over 10 meters (33 ft). Once exceeding 10 m (33 ft), the 3 m (9.8 ft) minimum depth of the safety stop is displayed in the switch window. Safety stops can be set to three (3), four (4), or five (5) minutes in the *5.7. Algorithm settings*.
	**Time to surface (TTS)**	The time to surface refers to the ascent time in minutes to ascend to the surface with given gases including all required decompression stops.
	**Actual ppO2**	The current partial pressure of the active gas. Partial pressure is the fraction of oxygen in the gas at the current depth. The value is always in absolute atmospheres (ATA) of pressure. (1 ATA = 1.013 bar)

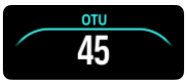
Switch window	Switch window content	Explanation
		If the ppO2 exceeds the preset limit for the gas, the switch window turns yellow and triggers an alarm. If the ppO2 exceeds the maximum partial pressure limit of 1.6, the switch window turns red until you ascend shallower than the MOD depth.
	**MOD**	Maximum Operating Depth. MOD is the depth at which the partial pressure of oxygen (ppO2) of the gas mix exceeds a safe limit.
	**Average depth**	The average depth of the current dive is calculated from the moment the start depth is exceeded until the dive ends.
	**Sunset ETA**	The estimated time until sunset expressed in hours and minutes. Sunset time is determined via GPS, so your watch relies on the GPS data from the last time you used GPS.
	**Gradient factors**	The Gradient Factor value you have defined in the Algorithm settings. See *5.7. Algorithm settings* and *5.7.2. Gradient Factors* for more information about the dive algorithm and Gradient Factors.
	**Heading**	The compass feature shows heading in degrees and the cardinal and inter cardinal direction. The compass calibrates itself when in use, but if a recalibration is needed, a prompt will pop up. To calibrate the compass, turn and tilt the watch in a figure-8.

Dynamic values

Some values are visible in the switch window by default. The values appear in the window only if they are triggered by an alarm or event.

OTU

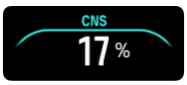
Oxygen tolerance unit. It is used to measure the whole-body toxicity, caused by prolonged exposure to high oxygen partial pressures. Suunto Ocean alarms you when the daily recommended limit reaches 250 (caution) and 300 (warning).



CNS

Central nervous system toxicity. The CNS value is a measure of how long you have been exposed to elevated partial pressures of oxygen (ppO2), displayed as a percentage of a

maximum allowable exposure. Suunto Ocean alarms you when CNS% reaches 80% (caution) and when the 100% limit (warning) is exceeded.



The oxygen exposure calculations are based on currently accepted exposure time limit tables and principles. The limits are based on the *NOAA Diving Manual*. The CNS percentage is calculated continuously when in diving mode, even when on the surface.

In addition to this, the dive computer uses several methods to conservatively estimate the oxygen exposure. For example:

- The displayed oxygen exposure calculations are raised to the next higher percentage value.
- The CNS% limits up to 1.6 bar (23.2 psi).
- The OTU monitoring is based on the long-term daily tolerance level and the recovery rate is reduced.

At the surface and after the dive has ended, the CNS decreases with a half time of 90 min. For example, if the CNS is 100 after the dive, 90 min later it will be decreased to 50 and then after another 90 min to 25.

⚠ ***WARNING:*** *WHEN THE OXYGEN LIMIT FRACTION INDICATES THAT THE MAXIMUM LIMIT IS REACHED, YOU MUST IMMEDIATELY TAKE ACTION TO REDUCE OXYGEN EXPOSURE. Failure to take action to reduce oxygen exposure after a CNS%/OTU warning is given can rapidly increase the risk of oxygen toxicity, injury, or death.*

Ceiling

When mandatory decompression stops are required, a ceiling value appears in the switch window. Suunto Ocean shows the ceiling value always from the deepest stop. You must not ascend above the ceiling during your ascent. Read more about decompression diving in *5.8.2. Decompression dives*.

5.3. Dive settings

For **Dive settings**, scroll down from the pre-dive screen.

Heart rate

Turn heart rate measurement on or off for your dive. See more about heart rate in the *9.4. Heart rate*, *2.5. Optical heart rate* and *4.11.1. Heart rate zones* topics.

GPS

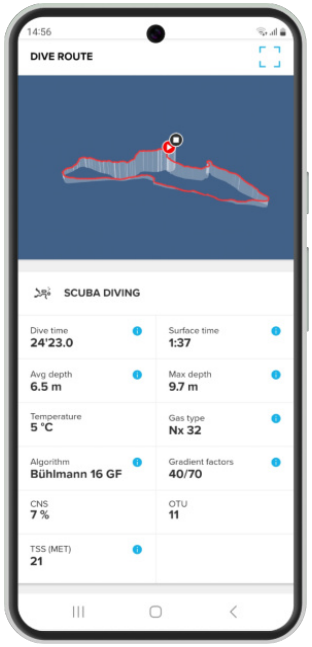
To track the start and end point of your dive and to get a more accurate dive route, you need to enable GPS in the Dive settings. Make sure the GPS arrow icon turns green in the pre-dive screen before starting your dive to get an accurate location. Suunto recommends you always start your dive from the pre-dive screen.

NOTE: *If you start your dive from any other screen utilizing the automatic start function, the GPS signal won't be found.*

Dive route

You can track your dive route with Suunto Ocean. The underwater route tracking is based on GPS, accelerometer, gyroscope, magnetometer and pressure sensor. The algorithm has been developed by using large amount of data from real dives, data analytics and machine learning.

To track your underwater route while diving, you need to enable both the GPS and the Dive route settings. The dive route is not visible in your dive computer. It will be synced to your dive log in Suunto app when connected to your mobile phone.



Note that the dive route signal can be compromised in the following situations: overhead environments like caves or wrecks, indoor pools or with poor on nonexistent GPS signal.

NOTE: *To track your dive route, you need to start your dive from the pre-dive screen and ensure your GPS signal is green. See 5.2.4. Pre-dive screen and dive options.*

NOTE: *Syncing your dive route to Suunto app might take some time due to the large amount of data.*

Dive start depth

Sets the depth threshold for starting and ending a dive. The default depth is 1.2 m (4 ft) and the maximum is 3.0 m (9.8 ft).

Dive end time

Once you are shallower than the set start depth for the dive, Suunto Ocean will start calculating the elapsed time at the surface. You can set your desired time under Dive end time. Once this time has elapsed, your dive ends automatically. If you continue diving before the set end time, the dive continues. You can define the time between 1 and 10 min. The default setting is 5 min.

TIP: *Adjust the end time to longer if you are, for example, an instructor and need to communicate at the surface within the dive. Adjust it to shorter to see the dive summary more quickly.*

NOTE: *If you surface and then dive again within the set end time, Suunto Ocean counts it as one dive.*

Brightness

The brightness setting determines the overall intensity of display brightness during dive activities: Low, Medium (default) or High (default). The brightness setting is specific to the dive mode, and does not affect other dive modes, outdoor modes or the general brightness setting.

To save battery life during dive activities, the display brightness will lower after a period of inactivity. Any wrist movement, button press, or alarm trigger the full brightness mode. You can also adjust the brightness during dive by long pressing the upper button.

CAUTION: *Prolonged use of the high brightness display reduces battery life and may cause screen burn-in. Avoid using high brightness for extended period to lengthen display lifetime.*

Feeling

See *4.10. Feeling*.

5.4. Dive alarms

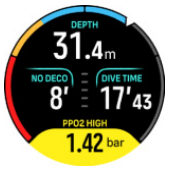
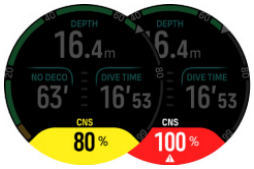
Suunto Ocean has color-coded mandatory warnings. They are shown prominently on the display with an audible and vibration alarm. Warnings are always red and they are critical events that always require immediate action. You can dismiss the audio and vibration but the warning will stay red until the situation has been resolved.

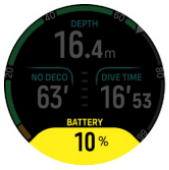
With Suunto Ocean, you can also define your own alarms and set the preferred audio, vibration and appearance.

5.4.1. Mandatory dive alarms

The following table shows all the mandatory warnings you may see during a dive. You can find the reason for the alarm and the solution of the issue in the table.

If multiple alarms occur simultaneously, the error with the highest priority will be displayed. Acknowledge the first alarm by pressing any button and the next one will appear.

Alarm	Explanation	How to resolve the alarm?
	Ascent speed exceeds safe speed of 10 m (33 ft) per minute for five seconds or more.	Stay within the green ascent rate indicators. Monitor for symptoms of DCS. Use extra conservatism for future dives.
	Decompression ceiling broken by more than 0.6 m (2 ft) on a decompression dive.	Descend deeper than the displayed ceiling value.
	Partial pressure of oxygen exceeds the maximum level (>1.6).	Immediately ascend or change to a gas with lower oxygen percentage.
	Partial pressure of oxygen exceeds the set level for the gas.	Immediately ascend or change to a gas with lower oxygen percentage.
	Central Nervous System (CNS) Oxygen Toxicity level at 80% or 100% limit.	Switch to a gas with a lower ppO2 or ascend shallower (within decompression ceiling).
	80% or 100% of recommended daily limit for OTU reached.	Switch to a gas with a lower ppO2 or ascend shallower (within decompression ceiling).

Alarm	Explanation	How to resolve the alarm?
	Tank pressure is below 50 bar (725 psi).	Change gas to a higher tank pressure or ascend to safety stop depth and terminate dive.
	Depth exceeds the maximum depth (60 m) your watch should be used at. If diving beyond 60 m, the dive computer will not show accurate depth value or algorithm info.	Ascend to a shallower depth and follow computer for ascend profile. Monitor for symptoms of DCS. Use extra conservatism for future dives.
	Not inside the safety stop window.	Stay within the safety stop window 3 m – 6 m.
	NDL is less than 5 minutes.	Ascend shallower to avoid mandatory decompression stops.
 	The decompression ceiling is broken for more than 3 min and your decompression stop is missed.	Descend to the ceiling depth indicated in the switch window.
 	Your NDL reaches 0 min, and decompression stops are mandatory.	Perform decompression stops as directed and always stay deeper than the ceiling value.
 	Battery is low (<10%) or critical (<5%).	Recharge the device.

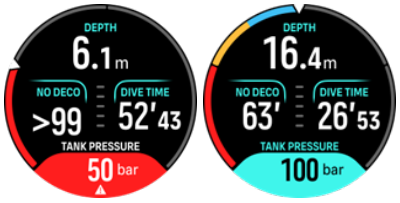
5.4.2. User configurable dive alarms

In addition to the mandatory alarms, there are additional user configurable tank pressure, depth, dive time and NDL alarms. For each alarm, you can customize the audio tone to short or long or you can have all tones off. In addition to the audio option, you can also choose to have a vibration alert or if you prefer to have all tones silent, you can have only vibration on.

In addition to the audible and vibration options, you can choose between two different appearance options: Notify (cyan) or Caution (yellow). You can define a maximum of five alarms for each configurable alarm and once an alarm appears, you can clear it by pressing any button.

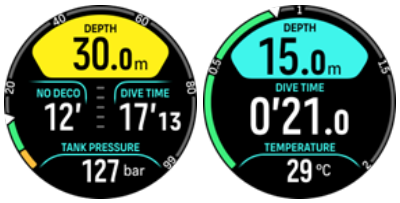
Tank pressure

You can set the tank pressure alarm to any value between 51–360 bar (725–5221 psi). A mandatory 50 bar (725 psi) alarm is present and it cannot be modified. Tank pressure alarms are useful to notify you when reaching your turn pressure.



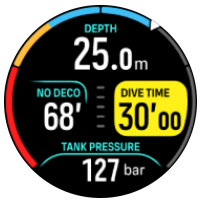
Depth

You can define a depth alarm between 3.0 m and 59.0 m. Depth alarms are convenient to have especially when freediving to notify you of different phases of the freedive. You can also set a depth alarm to notify you when reaching your personal depth limit during diving.



Dive time

Dive time alarms can be defined in minutes and seconds to a maximum of 99 min.



NDL

No decompression limit (NDL) alarms can be defined to alert you of a certain NDL or when you are low on NDL time.

5.4.3. System errors

All computers experience failures. It is possible that this device may suddenly fail to provide accurate information during your dive. Always have a plan on how to handle failures, use a backup dive device and only dive with a buddy. In the unlikely event that the dive computer malfunctions during a dive, follow the emergency procedures provided by your certified dive training agency to immediately and safely ascend. Contact Suunto customer support if you experience a system error.

5.5. Gases

In both Single gas and Multigas modes, the default active gas is Air. In the **Gases** menu you can edit your active gas or create a new gas.

You cannot delete your active gas. If you want to change your active gas you need to either modify the existing gas or create a new gas and set the gas state to active. If you change the active gas, the previous gas will be disabled (Single gas mode) or enabled (Multigas mode).

In Single gas mode, you can have only one active gas. When creating a new gas, you can choose to make it your active gas or save your most used gas mixture (e.g., NX32) for easy enabling once you need it.

5.5.1. Edit gas

When diving with nitrox gas mixture, both the percentage of oxygen in your tank and the oxygen partial pressure limit must be entered into Suunto Ocean. This ensures correct nitrogen and oxygen calculations and the correct maximum operating depth (MOD), which is based on your entered values. The default oxygen percentage (O2%) setting is 21% (air) and the oxygen partial pressure (ppO2) setting is 1.4 bar.

You can modify the oxygen percentage and the partial pressure of the active gas in the **Edit gas** view by selecting the mixture.

The oxygen fraction can be modified between 21% and 100%.

The ppO2 setting limits the maximum operating depth (MOD) to which the gas mixture can be safely used. You can set the ppO2 value to 1.0, 1.1, 1.2, 1.3, 1.4, 1.5 or 1.6.

NOTE: *Do not change these values unless you fully understand the effect.*

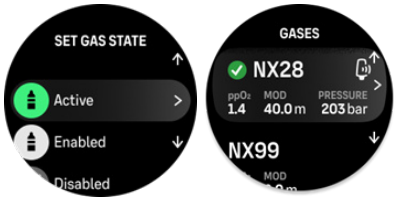
In the Edit gas menu you can also set your tank size. The default value is 12 liters / 80 cu ft. Make sure you set your correct tank size to ensure correct gas consumption calculations when diving with Suunto Tank POD.

From the Edit gas menu you can also pair your Suunto Tank POD. See *5.6.1. How to install and link a Suunto Tank POD* for information about the wireless tank pressure pairing.

5.5.2. Diving with multiple gases

When diving with **Multigas** mode, Suunto Ocean allows gas changes between the enabled gases in the **Gases** menu. You can have maximum five gases in the gas list, enabled or disabled.

NOTE: *The decompression algorithm assumes all the enabled gases are planned to use for the dive and will calculate any decompression stops, decompression time and time to surface according to the available gases. Make sure to disable any gases you are not carrying with you.*



When ascending, you are always notified to change gas when a better gas is available.

For example, you may have the following gases when diving to 40 m (131.2 ft):

- Nitrox 26% (1.4 ppO_2) (for bottom)
- Nitrox 50% (1.6 ppO_2) (decompression gas)
- Nitrox 99% (1.6 ppO_2) (decompression gas)

While ascending, you are notified to change gas at 22 m (72 ft) and 6 m (20 ft) according to the maximum operating depth (MOD) of the gas. Gas switch notification will be in the switch window and pressing any button will open a gas list with the recommended gas first. Confirm the new gas by pressing the middle button. If you don't want to perform the suggested gas switch, you can dismiss the gas switch recommendation. This will ignore the suggested gas until the next possible MOD of an enabled gas. Once the dive has ended, the gas with the lowest O_2 value will be your active gas for the next dive.

5.6. Wireless tank pressure support

Suunto Ocean can be used together with Suunto Tank POD for wireless transmission of tank pressure and gas consumption to the dive computer. Suunto Ocean is only compatible with Suunto Tank POD transmitters. Suunto Tank POD transmits data using 123 kHz band. The communication from the Tank POD to the dive computer is one-way, meaning the dive computer does not send anything to the Tank POD.

Enabled features when Suunto Ocean is paired to Suunto Tank POD:

- Tank pressure from up to 5 gas cylinders
- Actual gas consumption for the active gas (L/min or cu ft/min)
- Remaining gas time for the active gas
- Configurable tank pressure alarms
- Logging of start, end and the used pressure
- Logging of average gas consumption for every gas with Tank POD
- Units in bar or PSI

5.6.1. How to install and link a Suunto Tank POD

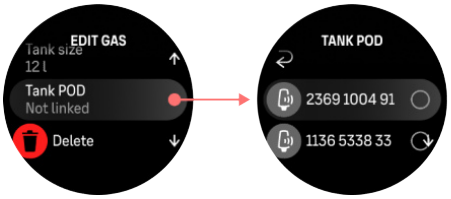
To install and link a Suunto Tank POD:

1. Install the Tank POD as described in the *Tank POD quick guide* or in the *Tank POD user guide*.

   NOTE: *To ensure the most accurate tank pressure readings, Suunto recommends that you install Suunto Tank POD so it is on the same side as you wear your Suunto Ocean.*
2. After installing the Tank POD and opening the valve, wait for the green LED on the Tank POD to flash.
3. Go to the **Tank POD** menu under **Dive options**. If your Tank POD is active and in range you see the Tank POD serial number listed.
4. Select the correct Tank POD and check its battery status and the tank pressure.
5. Select the correct gas from the list to link with your Suunto Tank POD (if diving with multiple gases).
6. Make sure the tank size is correct to enable correct gas consumption metering.
7. Go Back to the main menu and you will see your Tank POD serial number listed under the Tank POD menu.

Alternatively, you can link the Suunto Tank POD(s) from the Gases menu:

1. In the **Gases** menu, select the gas you want your Tank POD to link with.
2. Go to the **Edit gas** view and scroll to the Tank POD setting.
3. Make sure the Tank POD has been activated and that it is within range. Select your Tank POD serial number from the list.



If you have linked the same Tank POD to several gases, remember to check before your dive that you have the right active gas and that you have your Tank POD linked. In the dive main views, only one tank pressure is shown and corresponds to the active gas.

⚠ ***WARNING:*** *If there are several divers using Tank PODs, always check before you dive that the POD number of your selected gas corresponds to the serial number on your POD.*

NOTE: *You can find the serial number on the metal base and also on the cover of the Tank POD.*

Repeat the procedure above for additional Tank PODs and select different gases for each POD.

To unlink and remove your Tank POD from a specific gas:

1. Select the gas you want to remove the Tank POD from in the **Gases** menu.
2. De-select the Tank POD you want to remove (check the serial number).
3. Your Tank POD is removed from the selected gas list.

You can also unlink the Tank POD from the **Tank POD** menu.

NOTE: *You can only unlink your Tank POD once it is active and transmitting.*

NOTE: *Always use a backup analog submersible pressure gauge as a redundant source of gas pressure information.*

NOTE: *For Suunto Tank POD related information, please see the instructions provided with the product.*

5.6.2. Tank pressure

Once your Suunto Ocean is linked to a Suunto Tank POD, you can follow the tank pressure both in the switch window and on the arch in the tank pressure view. See *5.2.6. Key information during diving* on how tank pressure is shown on the arch.

The following examples show different tank pressures:

Tank pressure is 125 bar:

Tank pressure is 50 bar:

An extra tank pressure alarm is set to 100 bar:

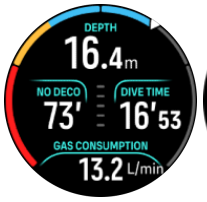
NOTE: *If you have not paired a Suunto Tank POD, the switch window tank pressure will read No Tank Pod. If A Tank POD is paired but no data is being received, the field shows - -. This may be because the POD is not in range, the tank is closed, or the POD battery is low.*

NOTE: *LED lights may interfere with the Tank pressure signal.*

5.6.3. Gas consumption

You can follow your actual gas pressure during your dive from the switch window on the watch screen. You can also see the average gas consumption from the dive in the dive summary in the device and in Suunto app.

The **Gas consumption** data on the screen refers to your real-time consumption rate of gas during a dive at the depth you are at. To calculate your personal breathing rate, Suunto Ocean uses respiratory minute volume (RMV) which is the volume of gas your lungs experience per minute, measured in L/min or cu ft/min. For accurate gas consumption, you need to define the correct tank size for the gas in the **Edit gas** menu. See *5.5.1. Edit gas*. The default tank size is always 12 L (80 cu ft) .



The RMV formula used in Suunto Ocean to calculate the gas consumption during the dive is the following:

The calculation is based on actual depth and the average used gas volume (in atmospheric pressure) calculated within in a varying 50 – 170-second window.

$$RMV_{liters/minute} = -\frac{V_{T2} - V_{T1}}{(1+(0.1 \times D_{average}))}$$

$V_{gas\ (liters)}$	Gas volume in atmospheric pressure
$RMV_{liters/minute}$	Depth compensated SAC
T_1	Time at the beginning of the window
T_2	Time at the end of the window
Depth (T)	Depth
V_{T1}	$V_{gas\ (liters)}$ at the beginning of the window
V_{T2}	$V_{gas\ (liters)}$ at the end of the window
$D_{average}$	Average depth in time window

To calculate gas volume, Suunto Ocean uses the following formula:

$$\boldsymbol{V_{gas\ (liters)} = \frac{V_{Tank\ size\ (liters)} \times P_{Tank\ (bar)}}{P_{surface\ pressure\ (bar)}} \times Z_{compressibility\ factor} \times T_{temperature\ correction}}$$

$$\boldsymbol{Z_{compressibility\ factor} = \int\left(P_{Tank(bar)},\ T_{ambient(C°)},\ P_{O_2}, P_{He_2}\right)}$$

$$\boldsymbol{T_{temperature\ correction} = \frac{293.15}{273.15+T_{ambient}}}$$

You can see your average gas consumption after the dive in the dive summary. The value shows the average gas consumption value, calculated from all the gas consumption values during the dive.

NOTE: *Since the real-time consumption values are based on data collected within a time window, the gas consumption value might not be populated immediately at the beginning of the dive. The values might also be higher due to using low pressure hose to control buoyancy in BCD or exposure suit.*

NOTE: *The gas calculations also take into consideration the gas compressibility and temperature variations to provide more accurate values.*

5.6.4. Gas time

The **Gas time** value in the switch window indicates the maximum time (in minutes) you can stay at the current depth and ascend to the surface (at an ascent rate of 10 m/min) with and end pressure of 35 bar (508 psi). The time is based on the tank pressure value, tank size and your current breathing rate and depth.

Gas time is calculated using the following formula:

$$T_{gas\ time} = \frac{V_{gas\ (liters)} - V_{gas\ reserve\ (liters)}}{SAC_{liters/minute}}$$

NOTE: *Safety stops and decompression stops are not included in the Gas time calculations.*

5.7. Algorithm settings

Suunto's decompression model development originates from the 1980s when Suunto implemented Bühlmann's model based on M-values in Suunto SME. Since then, research and development has been ongoing with the help of both external and internal experts.

5.7.1. Bühlmann 16 GF algorithm

The Bühlmann decompression algorithm was developed by Swiss physician Dr. Albert A. Bühlmann, who researched into decompression theory starting from 1959. The Bühlmann decompression algorithm is a theoretical mathematical model describing the way in which inert gases enter and leave the human body as the ambient pressure changes. Several versions of the Bühlmann algorithm have been developed over the years and adopted by many dive computer manufacturers. Suunto Ocean is using Suunto's Bühlmann 16 GF dive algorithm that is based on the Bühlmann ZHL-16C model that we have implemented our own code for. The algorithm can be modified by using gradient factors to set the level of conservatism.

NOTE: *Because any decompression model is purely theoretical and does not monitor the actual body of a diver, no decompression model can guarantee the absence of DCS. Always take your personal factors, the planned dive, and your dive training into consideration when choosing the appropriate gradient factors for your dive.*

5.7.2. Gradient Factors

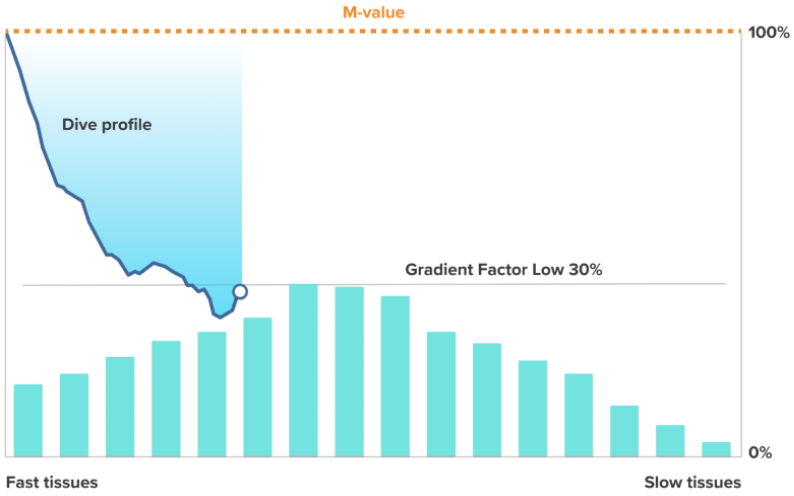
Gradient Factor (GF) is a parameter to create various levels of conservatism. GFs are divided into two separate parameters, Gradient Factor Low and Gradient Factor High.

By using GF with the Bühlmann algorithm, you can set your safety margin for the dive by adding conservatism to control when different tissue compartments reach their acceptable M-value. A Gradient Factor is defined as percentage of the M-value Gradient and defined from 0% to 100%.

A commonly used combination is GF Low 30% and GF High 70%. (Also written as GF 30/70.) This setting means that the first stop would take place once the leading tissue reaches 30% of its M-value. The lower the first number is, the less supersaturation is allowed. As a result, the

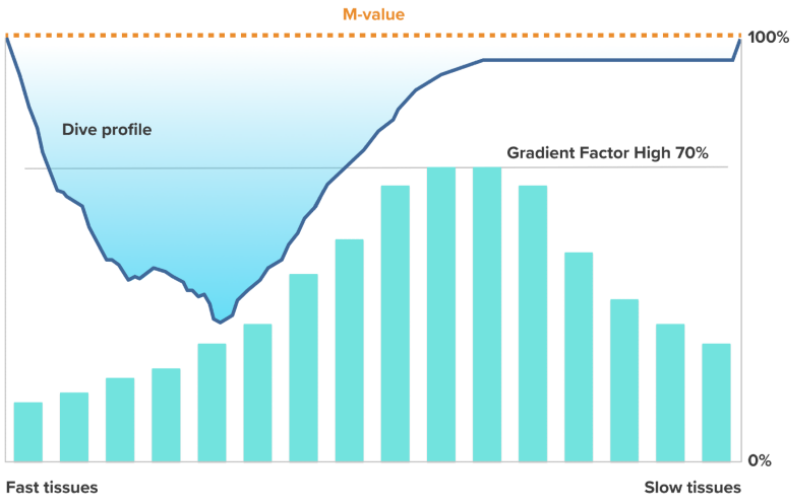
first stop is required when you are deeper. A Gradient Factor of 0% represents the ambient pressure line and a Gradient Factor of 100% represents the M-value line.

In the following illustration, GF Low is set to 30% and the leading tissue compartments react to the 30% limit of the M-value. At this depth the first decompression stop takes place.

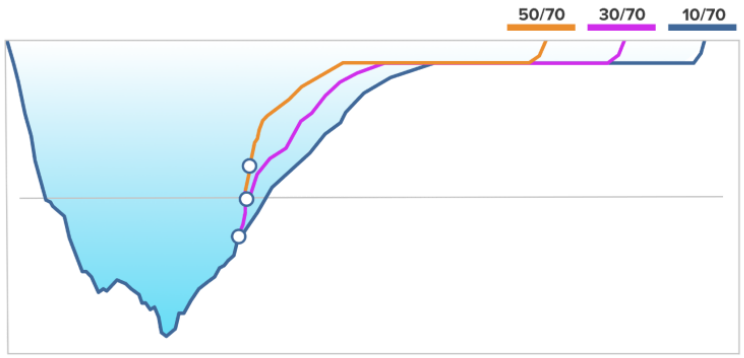


When the ascent continues, the GF moves from 30% to 70%. GF 70 indicates the amount of supersaturation allowed when you get to the surface. The lower the GF High value is, the longer shallow stop is needed to off-gas before surfacing. In the following illustration, GF High is set to 70% and the leading tissue compartments react to the 70% limit of M-value.

At this point you can come back to the surface and finish your dive.

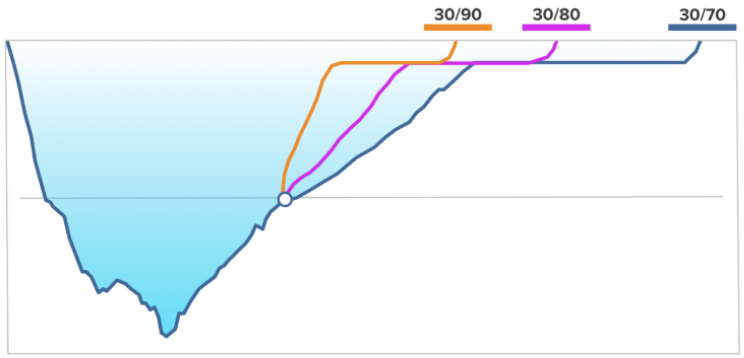


GF Low % effect on dive profile is illustrated in the following picture. It shows how GF Low % determines the depth where the ascent starts slowing down and the depth of the first decompression stops. The illustration shows how the different GF Low % values change the depth of the first stop. The higher the GF Low % value is, the shallower the first stop occurs.



NOTE: *If GF Low % value is too low, some tissues may still on-gas when the first stop occurs.*

GF High % effect on the dive profile is illustrated in the following picture. It shows how GF High % determines the decompression time spent in the shallow phase of the dive. The higher the GF High % value is, the shorter the total dive time is, and the less time the diver spends in shallow water. If GF High % is set to a lower value, the diver spends more time in shallow water and the total dive time gets longer.



You can adjust the gradient factors. The default conservatism setting in the Suunto Ocean dive computer is set to medium (40/85). You can adjust the setting to more aggressive or more conservative than the default value. Select from the preset levels or set your own custom level.

The preset values are the following:

- Low: 45/95
- Medium: 40/85 (default)
- High: 35/75

For recreational dives, a high conservatism setting (35/75) gives you more buffer to avoid decompression requirements. Low conservatism setting (45/95) gives you more NDL time but also a lower buffer so it is a more aggressive setting.

There are several risk factors that can affect your susceptibility to DCS, such as your personal health and behavior. Such risk factors vary between divers, as well as from one day to another.

The personal risk factors which tend to increase the possibility of DCS include the following:

- exposure to low temperature – water temperature less than 20 °C (68 °F)
- below average physical fitness level
- age, particularly over the age of 50
- fatigue (from over exercising, lack of sleep, exhausting travel)
- dehydration (affects circulation and may slows down off-gassing)
- stress
- tight fitting equipment (may slows down off-gassing)
- obesity (BMI that is considered obese)
- patent foramen ovale (PFO)
- exercise before or after dive
- strenuous activity during a dive (increases bloodflow and brings additional gas to tissues)

⚠ ***WARNING:*** *Do not edit Gradient Factor values until you understand the effects. Some Gradient Factor settings can cause a high risk of DCS or other personal injury.*

5.7.3. Deco profile

Deco profile can be selected in **Dive options** > **Algorithm** > **Deco profile**.

Continuous decompression profile

Traditionally, since Haldane's 1908 tables, decompression stops have always been deployed in fixed steps such as 15 m, 12 m, 9 m, 6 m and 3 m. This practical method was introduced before the advent of dive computers. However, when ascending, a diver actually decompresses in a series of more gradual ministeps, effectively creating a smooth decompression curve. The advent of microprocessors has allowed Suunto to more accurately model the actual decompression behavior. During any ascent involving decompression stops, Suunto dive computers calculate the point at which the control compartment crosses the ambient pressure line (that is the point at which the tissue's pressure is greater than the ambient pressure), and off-gassing starts. This is referred to as the decompression floor. Above this floor depth and below the ceiling depth is the decompression window. The range of the decompression window is dependent on the dive profile.

The optimal decompression occurs in the decompression window, which is displayed by both upward and downward arrows next to the depth value. If the ceiling depth is violated, a downward pointing arrow and an audible alarm will prompt the diver to descend back to the decompression window.

Off-gassing in the leading fast tissues will be slow at or near the floor because the outward gradient is small. Slower tissues may be still on-gassing and given enough time, the decompression obligation may increase, in which case the ceiling may move down and the floor may move up. The decompression floor represents the point at which the algorithm is seeking to maximize bubble compression, while the decompression ceiling is maximizing off-gassing.

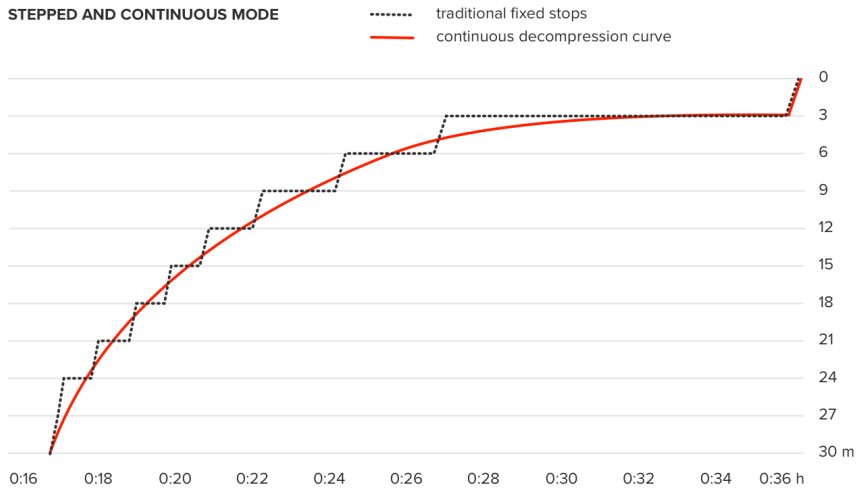
The added advantage of having a decompression ceiling and floor is that it recognizes that in rough water, it might be difficult to maintain the exact depth to optimize decompression. By maintaining a depth below the ceiling but above the floor, the diver is still decompressing, although slower than optimal, and provides an additional buffer to minimize the risk that waves will lift the diver above the ceiling. Also, the continuous decompression curve used by Suunto provides a much smoother and a more natural decompression profile than the traditional “step” decompression.

Stepped decompression profile

In this decompression profile, the ascent has been divided into traditional 3 m (10 ft) steps or stages.

In this model the diver decompresses at traditional fixed depths. The ceiling value in the switch window will show the depth of the next step and once the diver reaches the decompression window, a timer starts showing the needed length of the decompression stop.

See *5.8.6. Example - Multigas mode* for an example decompression dive.



*The graph is an example of a typical decompression dive profile. Several variables affect decompression calculations.

5.7.4. Altitude setting

The Altitude setting automatically adjusts the decompression calculation according to the given altitude range. You can find the setting under **Dive options** » **Algorithm** » **Altitude** and select from three ranges:

- 0 – 300 m (0 – 980 ft) (default)

- 300 – 1500 m (980 – 4900 ft)
- 1500 – 3000 m (4900 – 9800 ft)

As a result, the allowed no decompression stop limits are considerably reduced.

The atmospheric pressure is lower at high altitudes than at sea level. After traveling to a higher altitude, you will have additional nitrogen in your body, compared to the equilibrium situation at the original altitude. This 'additional' nitrogen is released gradually over time and equilibrium is restored. Suunto recommends that you acclimatize to a new altitude by waiting at least three hours before making a dive.

Before high-altitude diving, you need to adjust the altitude setting of your dive computer so that the calculations take into account the high altitude. The maximum partial pressures of nitrogen allowed by the mathematical model of the dive computer are reduced according to the lower ambient pressure.

⚠ ***WARNING:*** *Traveling to a higher elevation can temporarily cause a change in the equilibrium of dissolved nitrogen in the body. Suunto recommends that you acclimatize to the new altitude before diving. It is also important that you do not travel to a significantly high altitude directly after diving to minimize the risk of DCS.*

⚠ ***WARNING:*** *SET THE CORRECT ALTITUDE SETTING! When diving at altitudes greater than 300 m (980 ft), the altitude setting must be correctly selected in order for the computer to calculate the decompression status. The dive computer is not intended for use at altitudes greater than 3000 m (9800 ft). Failure to select the correct altitude setting or diving above the maximum altitude limit will result in erroneous dive and planning data.*

NOTE: *If you are doing repetitive dives at an altitude other than the previous dive altitude, change altitude setting to correspond to the next dive after the previous dive ended. This ensures more accurate tissue calculations.*

5.7.5. Safety stop time

A safety stop is always recommended for every dive over 10 meters (33 ft). You can adjust the safety stop settings as follows:

3 min: The safety stop is always a 3-minute stop, even after the last decompression stop. The safety stop time is not included in TTS (time to surface).

4 min: The safety stop is always a 4-minute stop, even after the last decompression stop. The safety stop time is not included in TTS (time to surface).

5 min: The safety stop is always a 5-minute stop, even after the last decompression stop. The safety stop time is not included in TTS (time to surface).

Always OFF: No safety stop is shown during the dive.

Adjusted: A 3-minute safety stop is added after decompression, but the duration of the stop is adjusted based on the dive profile. This means that it can be shorter if the time is spent in the shallow. The predicted time is included in TTS (time to surface).

NOTE: *Ascent speed violation during dive does not make the safety stop time longer.*

See *5.8.1. Safety stops*.

5.7.6. Last stop depth

You can adjust the last stop depth for decompression dives under **Dive options** » **Algorithm** » **Last deco stop**. There are two options: 3 m and 6 m (9.8 ft and 19.6 ft).

By default, the last stop depth is 3 m (9.8 ft).

NOTE: *This setting does not affect the ceiling depth on a decompression dive. The last ceiling depth is always 3 m (9.8 ft).*

TIP: *Consider setting the last stop depth to 6 m (19.6 ft) when you dive in rough sea conditions and stopping at 3 m (9.8 ft) is challenging.*

5.8. Diving with Suunto Ocean

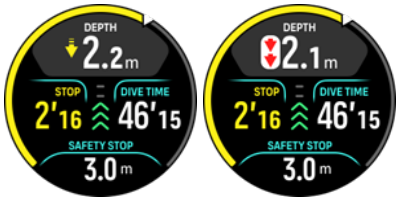
5.8.1. Safety stops

A three (3) minute Safety stop is always recommended for every dive over 10 meters (33 ft). When a safety stop is required, the minimum ceiling value (3 m) appears in the switch window.

The time for a safety stop is calculated when you are between 2.4 and 6 m (7.9 and 20 ft).

This is presented with up and down arrows on the left side of the stop depth value. Safety stop time is shown in minutes and seconds. The preferred safety stop time can be set in the **Algorithm** menu under **Dive options**.

There are two types of safety stops: voluntary and mandatory. Safety stop is mandatory if exceeding the suggested maximum ascent speed during the dive. If the stop is mandatory, ascending shallower than 2.4 m will trigger red arrows in the window indicator. If the stop is non-mandatory, only the yellow arrow is used.



If the depth goes below 6 m (20 ft), the safety stop timer will stop and resume counting once you are again inside the safety stop window. Once the timer shows zero, the stop is done and you can ascend to the surface.

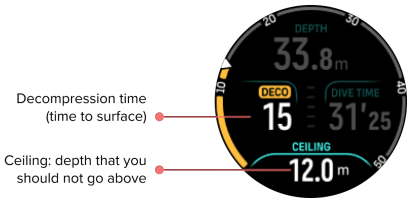
NOTE: *If you ignore the safety stop, there will be no penalty. However, Suunto always recommends that you perform a safety stop for every dive to minimize the risk of DCI.*

NOTE: *If you set the safety stop setting to off, there will be no safety stop indications when you arrive to the safety stop window.*

5.8.2. Decompression dives

When you exceed the no-decompression limit, Suunto Ocean provides the decompression information required for ascending. Ascent information is always presented with two values:

- Decompression time (also referred to as Time to surface): optimum ascent time in minutes to surface with given gases
- Ceiling: depth that you should not go above



WARNING: *NEVER ASCEND ABOVE THE CEILING! You must not ascend above the ceiling during your decompression. In order to avoid doing so by accident, you should stay somewhat below the ceiling.*

Once the **No deco time** is at 0 min, the display area will change to show the **Deco time**, the ceiling value will be displayed in the switch window and the arch will turn to orange indicating the same deco time. An alarm is also triggered that can be confirmed with any button press.

Deco time is referring to the recommended ascent time in minutes to the surface (TTS).

WARNING: *YOUR ACTUAL ASCENT TIME MAY BE LONGER THAN DISPLAYED BY THE DIVE COMPUTER! The ascent time will increase if you: (1) remain at depth, (2) ascend slower than 10 m/min (33 ft/min), (3) make your decompression stop deeper than at the ceiling, and/or (4) forget to change the used gas mixture. These factors might also increase the amount of breathing gas required to reach the surface.*

NOTE: *Diving with multiple gases and dismissing a gas switch prompt will provide you with inaccurate Time to surface values and longer decompression stops than predicted.*

The ceiling value indicates the first decompression stop depth.

You can set the last stop depth to 3.0 m or 6.0 m (the default depth is 3.0 m) in the Algorithm settings. See *5.7.6. Last stop depth*.

On a decompression dive, different stop types can be present:

- **Decompression stop**: A compulsory stop if diving with a Stepped decompression profile (see *5.7.3. Deco profile*). Decompression stops occur at fixed 3 m (10 ft) intervals.
- **Safety stop**: If safety stop time has been set, you will have an extra safety stop after the last decompression stop. Safety stop is always non mandatory for decompression dives.

There is a decompression window at 3 m (9,8 ft) between the decompression floor and decompression ceiling. The closer to the ceiling you stay, the more optimal the decompression time is.

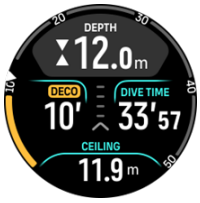
When you ascend close to the ceiling depth and enter the decompression window area, two arrows appear next to the depth number.

If diving with a Stepped deco profile, a timer will start the countdown when entering the decompression window and the ceiling is the same for a specific time and then moves upwards 3 m (9.8 ft) at a time.

Inside the decompression window (Stepped profile):

In the Continuous ascent mode, the ceiling is constantly decreasing while you are near the ceiling depth, providing continuous decompression with optimum ascent time.

Inside the decompression window (Continuous profile):



If you ascend above the ceiling depth, there is still a safe margin area, equalling to the ceiling depth minus 0.6 meters (2 ft). In this safe margin area, decompression calculation still continues, but you are advised to go down below the ceiling depth. This is indicated with a downward pointing yellow arrow next to the depth value.

The following is displayed using the Stepped decompression profile:

The following is displayed using the Continuous decompression profile:

If you go above the safe margin area, the decompression calculation is paused until you go back down below this limit. An audible alarm and a downward pointing red arrow in front of the ceiling depth value indicate unsafe decompression. If you ignore the alarm and stay above the safe margin for three minutes, the stop is considered missed and an algorithm violation notification will appear.

Suunto Ocean does not lock after you confirm the algorithm deviation trigger alert. Suunto Ocean continues showing the original decompression plan even if the decompression stop is violated. A red warning will appear in the window and it will stay in the diving window until the required decompression stops are cleared or after 48 hours.

Algorithm violation can also occur in the following situations:

- End of battery
- Software crash
- Exceeding the maximum depth limit of device (60 m).

In all of the cases, the algorithm deviation icon will appear in the dive window, but the algorithm will function as normal. If an algorithm deviation has occurred during the dive, you will also see a header in the dive log and in Suunto app.

⚠ ***WARNING:*** *Only perform decompression diving if you have received proper training to do so.*

5.8.3. Surface and no-fly time

After a dive, Suunto Ocean displays surface time since the previous dive and a countdown time for recommended no-fly time in the watch face and in the dive stats widgets. You will see a red airplane icon and a red arch on the watch face as long as the no-fly time is present. The arch shows the estimated time for when the no-fly time will end.

The following screen shows that 5 hours and 5 minutes have passed since the last scuba dive, and the no-fly time will end at 2.30:

The following screen shows that the no-fly time has ended.

No-fly time is the minimum surface time after a dive which is recommended to wait before entering and flying with an airplane. It is always at least 12 hours and equals desaturation time when it is more than 12 hours. For desaturation times shorter than 75 minutes, no-fly time is not displayed.

If an algorithm deviation has occurred during the dive, the no-fly time is always 48 hours.

⚠ ***WARNING:*** *YOU ARE ADVISED TO AVOID FLYING ANY TIME THE COMPUTER COUNTS DOWN THE NO-FLY TIME. ALWAYS ACTIVATE THE COMPUTER TO CHECK THE REMAINING NO-FLY TIME PRIOR TO FLYING! Flying or traveling to a higher altitude within the no-fly time can greatly increase the risk of DCS. Review the recommendations given by Divers Alert Network (DAN). There can never be a flying-after-diving rule that is guaranteed to completely prevent decompression sickness!*

5.8.4. Compass use during diving

The Suunto Ocean device has a gyro-assisted compass that allows you to orient yourself in relation to magnetic north. While diving, you can access the compass by pressing the middle button (compass seen on arch) or see the heading in degrees with cardinal and inter cardinal direction in the bottom switch window by pressing the lower button.

You can set the bearing by long pressing middle button. Once the bearing is set, a notification is displayed and the bearing pointer appears on the compass arch to indicate the set heading. When the bearing is set, the bearing pointer is locked on the compass arch to indicate the set heading. The orange slot located on the opposite side of the pointer is to indicate the reciprocal direction (180 degrees).

The bearing can be cleared at any time by long pressing the middle button again.

The heading value is available in the switch window and can be used independently without the compass arch. If the heading value visible in the switch window and the set heading are aligned, the switch window value turns yellow or orange (reciprocal direction).

NOTE: *The margin of the switch window color change is +/-5° compared to the set value so that the state is visible.*

The compass calibrates itself when in use, but if a recalibration is needed, a prompt pops up in the switch window. To calibrate the compass, turn and tilt the watch in a figure-8.

5.8.5. Example - Single gas mode

The following example shows a no-decompression dive in Single gas mode with Air and a Suunto Tank POD.

1. Pre-dive screen:

   Always start your dive from the pre-dive screen to ensure you'll have a GPS signal, enough battery and tank pressure (if linked to Suunto Tank POD), diving with the right gas and you understand the MOD of the active gas. If the Suunto Tank pod battery is low or you have forgotten to change tanks and the tank pressure is low, you'll see warnings on the pre-dive screen.

2. Once descending over 10 m, a safety stop indication will appear in the switch window, indicating a safety stop ceiling of 3 m. No deco time shows > 99, meaning the maximum time you can spend at this depth is greater than 99 min.

   Once you continue the descent, the No deco time will show a smaller value. No deco time is always in minutes.

3. If your No deco time reaches 5 min, a yellow caution alarm will be triggered. When ascending and the No deco value is increased, the alarm will be resolved. You can also mute the alarm with any button press. Continuing to stay at deeper depths despite the No deco alarm can cause decompression obligation. Do not dive decompression dives unless you've sufficient training.

4. You can set your own tank pressure alarms to help you keep track of critical limits, like turn pressure. If set, Suunto Ocean alerts you when reaching 100 bar (1450 psi).

5. You can follow the ascent speed from the Ascent speed indicator. If passing the suggested maximum of 10 m/min, the indicator will turn red and trigger an audible and vibration alarm. This can be acknowledged by pressing any button.

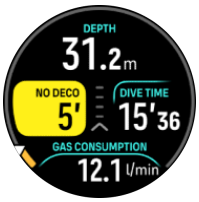
6. When you are between 2.4 and 6 m (7.9 and 20 ft), a safety stop timer will appear and count down until the suggested stop. Once the stop is performed, a Stop done notification will appear.

5.8.6. Example - Multigas mode

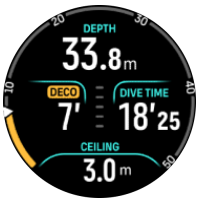
The following example shows a decompression dive to 40 m in Multigas mode and with the following gases: NX28 (main gas), NX99 decompression gas.

1. Pre dive screen – showing the active gas (NX28), set ppO2 and MOD.

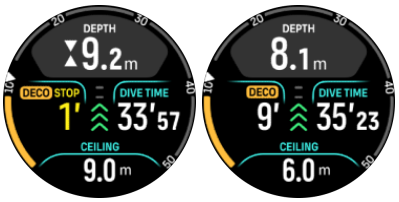
2. NDL alarm at 5 min.



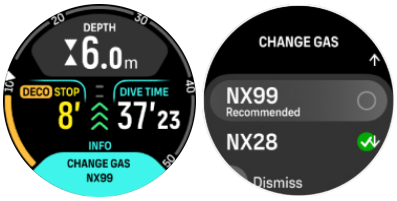
3. NDL reaches 0 and decompression is needed. The gauge changes to orange indicating Deco time. The NDL area shows the TTS value including deco stops and safety stop. The ceiling value is displayed in the switch window.



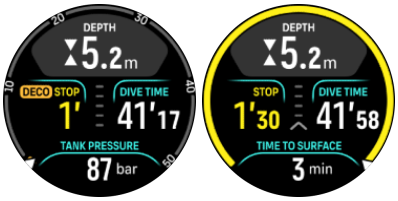
4. The ceiling value is 9 m so you can ascend to this depth within the ascent speed limits. Once arriving close to the ceiling depth and entering the decompression window area, two arrows appear next to the depth number and a timer appears in the Deco field indicating a deco stop of 1 min. Once the countdown is 0, the TTS value is displayed again and the ceiling value has changed 3 m shallower, to 6 m.



5. Gas change at 6 m. The decompression time is always calculated with the assumption that you use all the gases found in the Gas list. Once ascending to 6 m, a gas change to NX99 will be suggested. Once switch is made, the information of the current gas appears. If you decide to dismiss the gas change, the decompression information will not be accurate.



6. Arriving at the last stop. Once the decompression time is cleared, the deco badge disappears and the stop turns into a safety stop. In this example, the safety stop is set to Adjusted, so the countdown starts at 1'30 due to longer time at 6 m.

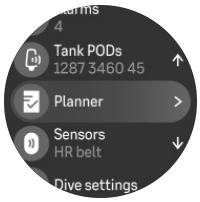


7. If you ascend above the decompression or safety stop window, an arrow and a warning will be triggered and prompt you to descend back to the window.

8. Once all stops are done, the Stop done info will appear in the switch window and it is then safe to ascend to surface.

5.9. Dive planner

The dive planner helps you quickly plan your next dive. The planner displays the available no decompression time for your dive based on depth, algorithm settings and current surface time.



5.9.1. How to plan a dive

Before you start planning your next dive in the Planner menu, set the following:

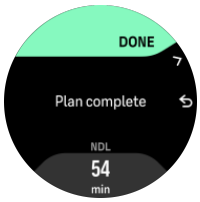
- the active gas planned for the dive
- algorithm settings: conservatism and altitude settings

The planner displays the active gas defined for the dive mode. You can modify the gas settings under the Gases menu (see *5.5. Gases*).

The surface interval is calculated automatically from the end of the previous dive. Use the upper and lower buttons to adjust the value in 10-minute increments to reflect the planned surface interval. The maximum value is 48 hours.

Use the upper and lower buttons to adjust the planned depth. You can see the NDL time for the specific depth at the bottom of the screen.

Press the upper button to return to the pre-dive menu or press the middle button to return to the beginning of the planner.



NOTE: *The NDL planner can only be used for planning dives without the need for decompression stops.*

6. Freediving

With the **Freedive** mode, Suunto Ocean can be used as a freediving instrument. You can find the freedive mode from the shortlist called **Freediving (Depth)**. Many of the functions are the same as in the other diving modes, but there are also many functionalities specific only for freediving.

⚠ ***WARNING:*** *Freediving is not recommended after scuba diving. Wait at least 12 hours after a single scuba dive before doing a freedive.*

6.1. Freedive views

In the pre-dive screen of Freediving, a set of icons appears. See *5.2.4. Pre-dive screen and dive options* for the meaning of the icons.

Freedive mode has different displays that focus on dive related data. Once you start the exercise, you can scroll through the surface views by pressing the middle button. Suunto Ocean has water contact functionality that recognizes when the device is submerged in water and will automatically switch to dive state from any surface screen. You can define the dive start depth under the exercise option list. The default start depth is 1.2 m (4 ft).

NOTE: *Automatic start is not available for freediving. Freediving should always start by selecting Start after entering Freediving mode.*

The displays are the following:

Surface: The display shows the surface time, a switch window with changeable data and arch showing the elapsed surface time.

Dive: The display shows the depth, the ascent and descent speed in m/s (ft/s), dive time and a switch window with changeable data.

Navigation view: See *8. Navigation* for available navigation options.

Timer: Start and reset stopwatch.

Dive sessions: Dive count, dive time, max depth, surface time.

6.2. Button functions during freediving

Your Suunto Ocean has three buttons that have different functionalities when short pressing or long pressing them during the exercise.

In Freediving mode, the buttons have the following functions:

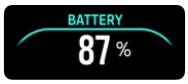
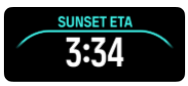
- Upper button long press: Adjust brightness level (Low/Medium/High)
- Upper button short press: Access the freedive options menu to stop exercise, use flashlight or discard exercise.

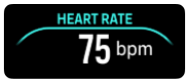
  NOTE: *The menu is not accessible underwater.*
- Middle button short press: Change view (above surface only)
- Lower button short press: Change switch window item
- Lower button long press: Lock and unlock buttons

  See *3.1. Button and screen lock*.

6.3. Switch window for freediving

Similarly to scuba dive, the switch window at the bottom of the dive screen can contain different types of information that can be changed by short pressing the lower button. The following data can be found in the switch window:

Switch window	Switch window content	Explanation
	**Temperature**	The current temperature in degrees Celsius or Fahrenheit, depending on unit settings.
	**Max depth**	The maximum depth reached during the current dive.
	**Clock**	The time in a 12- or 24-hour format, based on the set time format under Time/date settings in the watch.
	**Battery**	The remaining battery level as percentage. See *5.4.1. Mandatory dive alarms* for battery alarms.
	**Average depth**	The average depth of the current dive is calculated from the moment the start depth is exceeded until the dive ends.
	**Sunset ETA**	The estimated time until sunset expressed in hours and minutes. Sunset time is determined via GPS, so your watch relies on the GPS data from the last time you used GPS.
	**Dive count**	The number of sets during one freedive exercise.

Switch window	Switch window content	Explanation
	**Total dive time**	The total time underwater.
	**Heart rate**	Your wrist-based heart rate.

6.4. Freedive alarms

There are three configurable alarms for freedive: depth, dive time and surface time. For each alarm, you can customize the audio tone to short or long or have all tones off. In addition to the audio option, you can also choose to have a vibration alert or if you prefer to have all tones silent, you can have only vibration on.

In addition to the audible and vibration options, you can choose between two different appearance options: Notify (cyan) or Caution (yellow). You can define a maximum of five alarms for each configurable alarm and once an alarm appears, you can clear it by pressing any button.

Depth

You can define a depth alarm between 3.0 m and 59.0 m. Depth alarms are convenient to have especially when freediving to notify you of different phases of the freedive. You can also set a depth alarm to notify you when reaching your personal depth limit during diving.

Dive time

Dive time alarms can be defined in minutes and seconds to a maximum of 99 min.

Surface time

Surface time alarms can be set to notify you when a certain surface time has elapsed.

6.5. Snorkeling and mermaiding

You can use your Suunto Ocean for snorkeling and mermaid diving. These two activities are normal sport modes and are selected just like any other sport mode, see *4. Recording an exercise*.

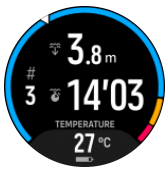
These sport modes have four exercise displays that focus on dive related data. The four exercise displays are:

Surface

Navigation

Dive session

Underwater



NOTE: *The touch screen is not activated when the watch is underwater.*

The default view for Snorkeling and Mermaiding is the Surface view. While recording the exercise, you can browse between the different views by pressing the middle button.

Suunto Ocean automatically switches between surface and dive state. If you are more than 1 m (3.2 ft) below the surface, the underwater view is activated.

When using the Snorkeling mode, the watch relies on GPS to calculate distance. Because GPS signals do not travel under water, the watch needs to come out of the water periodically 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 Suunto app before you go snorkeling to optimize your GPS with the latest satellite orbit data.
- After you selected the Snorkeling mode, wait at least three minutes on land before starting your activity. This gives the GPS time to establish strong positioning.

TIP: *During snorkeling we recommend resting your hands on your lower back for efficient water movement and optimal distance measurement.*

7. Dive logs

Dive logs can be found under the **Logbook** together with your other training activities.

Dives are listed by date and time, and each entry listing shows the max. depth and dive time of the log.

Selecting a dive, by pressing the middle button, provides you with a more detailed version. Dive log details and profile can be browsed by scrolling through the logs with the upper or the lower button and selecting a log with the middle button.

Each dive log contains data samples with fixed 10-second intervals. Freedive sample rate is 1 second.

The dive log contains the following data:

- Dive time
- Start and stop times
- Average and max depth
- An algorithm deviation alert if present during the dive
- Maximum and average temperature
- Gas list of active and enabled gases
- Start and end pressure if linked with Suunto Tank POD
- Avg gas consumption for each gas if linked with Suunto Tank POD
- Current Gradient Factors
- CNS and OTU values
- Average heart rate if enabled
- Surface time

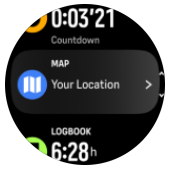
When the logbook memory gets full, the oldest dives are deleted to make space for new ones.

8. Navigation

You can use your watch to navigate in various ways. You can, for example, use it to orient yourself in relation to magnetic north, navigate a route or to a point of interest (POI).

To use the navigation feature:

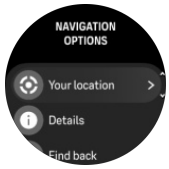
1. Swipe up from watch face or press the lower button.
2. Scroll down to **Map** and select it.



3. The map display shows your current location and the surroundings.

NOTE: *If the compass is not calibrated, you are prompted to calibrate the compass when you enter the map.*

4. 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.



8.1. Offline maps

With Suunto Ocean, you can have offline maps downloaded on your watch, and leave your phone behind and find your way just by using your watch.

Before you can use offline maps in your watch, you need to set up a wireless network connection in Suunto app and download the selected map area to your watch. You will get a notification on your watch when the map download is complete.

A more detailed instruction on how to setup a wireless network and download offline maps in Suunto app is available *here*.

Select offline maps before exercise:

1. Select a sport mode that uses GPS.
2. Scroll down and select **Map**.
3. Select which map style you want to use and confirm with the middle button.
4. Scroll up and start your exercise as normal.
5. Press the middle button to go to the map view.

***NOTE:** If **Off** is selected in map menu, no map will be shown, only a breadcrumb trail.*

Select offline maps without exercising:

1. From watch face, swipe up or press the lower button.
2. Scroll down to **Map** and select it.
3. To exit the map, press the middle button or press the lower button and select **Exit**.

Map gestures

Lower button

- Press to open navigation options

Upper button

- Short press to zoom in
- Long press to zoom out

Swipe and tap (if enabled)

- Touch and drag the map to pan
- Tap to center the map around your current location
- Flick to scroll the map

8.2. 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. During the exercise, 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.

8.3. Bearing navigation

Bearing navigation is a feature that you can use outdoors to follow the target path for a location you see or have found on a map. You can use this feature stand alone as a compass or together with a paper map.

If you set the target distance and altitude while setting the direction, your watch can be used to navigate to that target location.

To use bearing navigation during an exercise (only available for outdoor activities):

1. Before you start an exercise recording, swipe up or press the lower button and select **Navigation**.
2. Select **Bearing**.
3. If needed, calibrate the compass by following the on-screen instructions.
4. Point the blue arrow on the screen towards your target location and press the middle button.
5. If you do not know the distance and altitude to the location, select **No**.
6. Press the middle button to acknowledge the set bearing.
7. If you know the distance and altitude to the location, select **Yes**.
8. Enter the distance and altitude to the location.
9. Press middle button to acknowledge the set bearing.

To use bearing navigation without exercising:

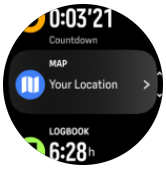
1. Scroll to **Map** by swiping up or pressing the lower button from watch face.
2. Press the lower button to open navigation options.
3. Select **Bearing navigation**.
4. If needed, calibrate the compass by following the on-screen instructions.
5. Point the blue arrow on the screen towards your target location and press the middle button.
6. If you do not know the distance and altitude to the location, select **No** and follow the blue arrow to the location.
7. If you do know the distance and altitude to the location, select **Yes**.
8. Enter the distance and altitude to the location and follow the blue arrow to the location. The display will also show the distance and altitude left to the location.
9. Press the lower button and select **New Bearing** to set a new bearing.
10. Press the lower button and select **End navigation** to end the navigation.

8.4. Routes

You can use your Suunto Ocean to navigate routes. Plan your route with Suunto app and transfer it to your watch with the next sync.

To navigate on a route:

1. From watch face, swipe up or press the lower button and select **Map**.



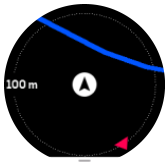
2. In the map display, press the lower button.
3. Scroll to **Routes** and press the middle button to open your list of routes.
4. Scroll to the route you want to navigate to and press the middle button.

5. Select the route by pressing the upper button.
6. Select **Start exercise** if you want to use the route for exercising or select **Navigate only** if you only want to navigate the route.

NOTE: *If you only navigate the route, nothing will be saved or logged in Suunto app.*

7. If you only navigate the route, press the lower button and select **End navigation** to stop navigating. If you navigate during an exercise, press the lower button and select **Breadcrumb** to stop navigating without quitting the exercise.

If the offline maps are off, only the route is shown. Keep the middle button pressed to activate/deactivate the zoom in and zoom out functions. Adjust the zoom level with the upper and lower buttons.



While you are in the route navigation display, you can press the lower button to open navigation menu. The menu gives 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 *4.2. 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.

The guidance field shows the distance to the next waypoint (if there are no waypoints on your route, the distance to the end of the route is shown). Once you approach a waypoint or POI on the route, you get an informative popup showing the distance 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.*

Turn-by-turn navigation

When creating routes in Suunto app, you can choose to activate turn-by-turn instructions. When the route is transferred to your watch and used for navigation, it will give you turn-by-turn instructions with a sound alert and information on which way to turn.

8.5. 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 app from a map and do not have to be at the POI location. Creating a POI in your watch is done 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.

8.5.1. Adding and deleting POIs

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

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.

To add a POI with your watch:

1. Swipe up or press the lower button and select **Map**.
2. Press the lower button to open **Navigation options**.
3. Select **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 Suunto app.

Deleting POIs

You can remove a POI by deleting the POI from the POI list in the watch or removing it in Suunto app.

To delete a POI in your watch:

1. Swipe up or press the lower button and select **Map**.
2. Press the lower button to open **Navigation options**.
3. Select **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.

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

8.5.2. 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 up or press the lower button and select **Map**.
2. Press the lower button to open **Navigation options**.
3. Select **POIs** and press the middle button.
4. Scroll to the POI you want to navigate to and press the middle button.
5. Press the upper button or tap **Select**.
6. Select **Start exercise** if you want to use the POI for exercising or select **Navigate only** if you only want to navigate to the POI.

   NOTE: *If you only navigate to the POI, nothing will be saved or logged in Suunto app.*
7. If you only navigate the route, press the lower button and select **End navigation** to stop navigating. If you navigate during an exercise, press the lower button and select **Breadcrumb** to stop navigating without quitting the exercise.

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)

- Press the middle button, to switch between views.

  NOTE: *If offline maps are activated the map view will display a detailed map of your surroundings.*

In the map view, other POIs nearby are shown in gray. In the map view, you can adjust the zoom level by pressing the middle button and then zooming in and out with the upper and lower buttons.

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).*

While navigating, you can 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.

8.5.3. POI types

The following POI types are available in Suunto Ocean:

	Begin
	End
	Car
P	Parking
	Home
	Building
	Hotel
	Hostel
	Lodging
	Bedding
	Camp
	Camping site

	Camp fire
	Aid station
	Emergency
	Waterpoint
	Information
	Restaurant
	Food
	Cafe
	Cave
	Mountain
	Peak
	Rock
	Cliff
	Avalanche
	Valley
	Hill
	Road
	Trail
	River
	Water
	Waterfall
	Coast
	Lake
	Kelp forest

	Marine reserve
	Coral reef
	Big fish
	Marine mammal
	Wreck
	Fishing spot
	Beach
	Forest
	Meadow
	Coast
	Stand
	Shot
	Rub
	Scrape
	Big game
	Small game
	Bird
	Prints
	Crossroads
	Danger
	Geocache
	Sight
	Trailcam

8.6. Climb guidance

When you navigate a route, **Climb guidance** provides you with elevation data.

When you plan a route in Suunto app, the app shows the route as sections, each marked with colors based on their elevation data. The five section categories are the following:

- Flat
- Uphill
- Downhill
- Climb
- Descent

While navigating with the watch, press the middle button to change between displays. The climb guidance view shows an overview of the elevation of the route you are navigating on. The following information is displayed:

- top: your current altitude
- below the top window: the total duration of the exercise
- center: route elevation graph
- below the graph: the remaining distance of the planned route
- bottom left: the ascent/descent done
- bottom right: the remaining ascent/decsent

Press the upper button to zoom into the section you are currently on. On the section display, you see the following information:

- top: the average acsent/descent grade of teh current section
- below the top window: the total duration of the exercise
- center: route elevation graph of the current section
- below the graph: the remaining distance of the current section
- bottom left: the ascent/descent done on the current section
- bottom right: the remainings ascent/descent of the current section

You can set climb guidance settings before and during exercise. To change the settings before starting an exercise, scroll down from the start view and open **Climb guidance**. To change the settings during exercise, pause the exercise and press the lower button. Open Control panel where you find **Climb guidance**. Toggle **Notifications** on or off according to your preferences. Open **Grade value** to select if you want to see the elevation data in degrees or percentages.

If you turn notifications on, the watch will notify you about the upcoming ascents and descents and provides you with a summary of the next the climb or descent before it starts.

9. Widgets

Widgets give you useful information of your activity and training. The widgets are accessible from the watch face by swiping up or by pressing the lower button.

It is possible to pin a widget for quick and easy access. Select **Customize** from the **Control panel** or in the **Settings** to pin a widget.

The widgets can be turned on/off from the **Control panel** under **Customize** » **Widgets**. Select which widgets you want to use by turning the toggle on.

You can select which widgets you want to use in your watch by turning them on and off in Suunto app. You can also select in which order you want the widgets to show in your watch by sorting them in the app.

9.1. Weather

From the watch face view, swipe up or press the lower button to scroll to the weather widget.

The weather widget provides you with information of the current weather. It shows the current temperature, wind speed and direction and current weather type both as text and icon. Weather types can be, for example, sunny, cloudy, rainy etc.

Swipe up or press the lower button to see more detailed weather data such as humidity, air quality and forecast data.

TIP: *Make sure that you sync your watch with Suunto app regularly to get the most accurate weather data.*

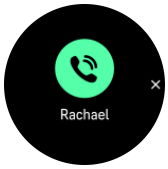
9.2. Notifications

If you have paired your watch with Suunto app, you can get notifications of, for example, incoming 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**.

NOTE: *Messages received from some apps used for communication might not be compatible with Suunto Ocean.*

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



Press the middle button to remove the popup. If the message doesn't fit on the screen, press the lower button or swipe up to scroll through the full text.

Below **Actions**, you can interact with the notification (the available options vary depending on your phone and which of your mobile apps sent the notification).

For apps used for communications, you can use your watch to send a **Quick reply**. You can select and modify the predefined messages in Suunto app.

Notification history

If you have unread notifications or missed calls on your mobile device, you can view them on your watch.

From the watch face, swipe up and select the notification widget and then press the lower button to scroll through the notification history.

The notification history is cleared when you check the messages on your mobile device or if you select **Clear all messages** in the notification widget.

9.3. Media controls

Your Suunto Ocean can be used to control the music, podcast, and other media played on your phone or being cast from your phone to another device.

NOTE: *You need to pair your watch with your phone before you can use Media controls.*

To access the media controls widget, press the lower button from watch face or, during an exercise, press the middle button until the media control widget is shown.

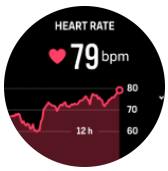
In the media control widget, tap play, next track or previous track to control your media.

Swipe up or press the lower button to enter the complete setup of the media controls.

Press the middle button to exit the media control widget.

9.4. Heart rate

From the watch face view, swipe up or press the lower button to scroll to the heart rate (HR) widget.



The HR widget provides a quick snapshot of your heart rate and a 12-hour graph of your heart rate. The graph is plotted using your average heart rate based on 24-minute time slots.

Your minimum heart rate from the last 12 hours is a good indicator of your recovery state. If it is higher than normal, you probably are not yet fully recovered from your last training session.

If you record an exercise, the daily HR values reflect the elevated heart rate and calorie consumption from your training. But keep in mind that the graph and consumption rates are averages. If your heart rate peaks at 200 bpm while exercising, the graph does not show that maximum value, but rather the average from the 24 minutes during which you hit that peak rate.

Before you can see the daily HR widget values, you need to activate daily HR feature. You can toggle the feature on or off from the settings under **Activity**.

With this feature on, your watch activates the optical heart rate sensor on a regular basis to check your heart rate. This slightly increases battery power consumption.

Once activated, your watch needs 24 minutes before it can start display heart rate information.

Swipe right or long press the middle button to return to the watch face view.

9.5. Recovery, HRV (Heart Rate Variability)

Heart Rate Variability (HRV) is a measure of the variation in time between heartbeats and its value is a good predictor of overall health and well-being.

HRV helps you to understand your recovery state and it measures your physical and mental stress and implies how ready your body is to train.

To be able to get an effective average HRV, you need to track your sleep at least three times a week over a longer period to establish your HRV range.

Different situations and conditions such as a relaxed holiday, physical and mental exertion or developing flu can lead to changes in HRV.

TIP: *Please refer to www.suunto.com or Suunto app to learn more about HRV recovery.*

9.6. Progress

The progress widget provides you with data that helps you to increase your training load over a longer period of time, whether it is the training frequency, duration or intensity.

Every training session gets a Training Stress Score (TSS) (based on the duration and the intensity) and this value is the base for calculating the training load for both short and long-time averages. From this TSS value, your watch can calculate your fitness level (defined as VO_2max), CTL (Chronic Training Load) and also provide you with an estimation on your lactate threshold and a prediction on your running pace on various distances.

The ramp rate is a metric that monitors your rate of increase or decrease in your fitness over a set time.

Your aerobic fitness level is defined as VO_2max (maximal oxygen consumption), a widely recognized measure of aerobic endurance capacity. In other words, VO_2max shows how well your body can use oxygen. The higher your VO_2max, the better you can use oxygen.

The estimation of your fitness level is based on detecting your heart rate response during each recorded running or walking workout. To get your fitness level estimated, record a run or walk with a duration for at least 15 minutes while wearing your Suunto Ocean.

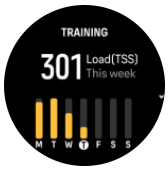
The widget also views your estimated fitness age. Fitness age is a metric value that reinterprets your VO_2max value in terms of age.

NOTE: *Improvement of VO_2max is highly individual and it depends on factors such as age, gender, genetics and training background. If you are already very fit, increasing your fitness level will be slower. If you are just starting to exercise regularly, you may see a quick increase in fitness.*

TIP: *Please refer to www.suunto.com or Suunto app to learn more about Suunto's training load analysis concept.*

9.7. Training

The training widget provides you with information on the training load for the current week and also the total duration on all of your training sessions.



This widget also gives you guidance on how your form is, if you start losing fitness, if you are maintaining it or if you currently do productive training.

The CTL (Chronic Training load) value is a weighted average on your long term TSS (Training Stress Score), the more you train the higher your fitness is.

The ATL (Acute Training Load) value is the 7-day weighted average of your TSS and basically tracks how fatigued you currently are.

The TSB (Training Stress Balance) value shows your form which is basically the difference between long-term, chronic training load (CTL) and short-term, acute training load (ATL).

TIP: *Please refer to www.suunto.com or Suunto app to learn more about Suunto's training load analysis concept.*

9.8. Recovery, training

The recovery training widget shows your current form and your workout feelings the last week as well as your last 6 weeks. Please note that you need to register you feeling after each workout to get this data, see *4.10. Feeling*.

This widget will also tell you how your recovery matches your current training load.

TIP: *Please refer to www.suunto.com or Suunto app to learn more about Suunto's training load analysis concept.*

9.9. Blood oxygen

WARNING: *Suunto Ocean is not a medical device and the blood oxygen level indicated by Suunto Ocean is not intended for diagnosing or monitoring medical conditions.*

You can measure your blood oxygen levels with Suunto Ocean. From the watch face view, swipe up or press the lower button to scroll to the Blood oxygen widget.

Blood oxygen level can provide an indication of overtraining or fatigue and the measurement can also be a helpful indicator of high altitude acclimation progress.

Normal blood oxygen levels are between 96% and 99% at sea level. At high altitudes, healthy values can be slightly lower. Successful acclimation to high altitude makes the value increase again.

How to measure your blood oxygen level:

1. From the watch face, swipe up or press the lower button to scroll to the Blood oxygen widget.
2. Select **Measure now**.
3. Hold your hand still while the watch is measuring.
4. If the measuring failed, please follow the in-watch instructions.
5. When the measuring is complete, your blood oxygen value is displayed.

You can also measure your blood oxygen level during your *9.10. Sleep*.

9.10. Sleep

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 get on average.

When you wear your watch while sleeping, Suunto Ocean tracks your sleep based on accelerometer data.

To track sleep:

1. From watch face, scroll down and select **Sleep** .

2. Toggle on **Sleep tracking**.

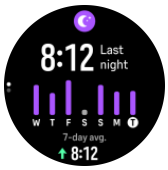
You can choose to have your watch in Do Not Disturb mode during your sleeping hours and also choose if you want to measure your Blood oxygen and HRV tracking during your sleep.

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 widget. From the watch face, swipe up or press the lower button until you see the **Sleep** widget. The first view shows your last sleep and a graph of the last seven days.



While in the sleep widget, you can swipe up to see the sleep details for your last sleep.

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

Measuring heart rate, blood oxygen and heart rate variability (HRV) while sleeping

If you wear your watch during the night, you can get additional feedback on your heart rate, HRV and blood oxygen level while sleeping.

Automatic Do Not Disturb mode

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

9.11. Steps and calories

Your watch keeps track of your overall activity level 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.

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.

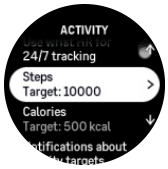
The top value in the widget shows the total step count for that day and the bottom value is the estimated amount of active calories you have burned so far during the day. Below this you see the total calories burned. The total includes both active calories and your Basal Metabolic Rate, BMR (see below).

The half rings in the widget indicate 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 steps and calories burned over the last seven days by swiping up from the widget.

Activity goals

You can adjust your daily goals for both steps and calories. From the settings, select **Activity** 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.

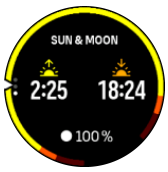
Your BMR is the amount of calories your body burns while at rest. These are the calories your body needs to stay warm and perform basic function like blink your eyes or beat your heart. This number is based on your personal profile, including factors such as age and gender.

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.

9.12. Sun & Moon

From watch face, swipe up or press the lower button to scroll to the Sun & Moon widget. Your watch will give you the time until the next sunset or sunrise, depending on which one comes next.

If you select the widget, you get more details such as the time when the sun rises and sets, and also the current moon phase.



9.13. Logbook

Your watch provides an overview of your training activity via a logbook.

In the logbook you can see a summary of your current training week. The summary includes the total duration and an overview of which days you have exercised.

Swiping up gives you information on which activities you have performed and when. Selecting one of the activities, by pressing the middle button, provides you with even more details and also the possibility to delete the activity from your logbook.

9.14. Resources

Your resources are a good indication of your body's energy levels and translate into your ability to handle stress and cope with the day's challenges.

Stress and physical activity deplete your resources, while rest and recovery restore them. Good sleep is an essential part of ensuring your body has the resources it needs.

When your resource levels are high, you will likely feel fresh and energetic. Going for a run when your resources are high means you'll probably have a great run, because your body has the energy it needs to adapt and improve as a result.

Being able to track your resources can help you manage and use them wisely. You can also use your resource levels as a guide to identify stress factors, personally effective recovery boosting strategies, and the impact of good nutrition.

Stress and recovery uses optical heart sensor readings and to get those during the day, daily HR must be enabled, see *9.4. Heart rate*.

It is important that your Max HR and Rest HR are set to match your heart rate to ensure that you get the most accurate readings. By default, the Rest HR is set to 60 bpm and the Max HR is based on your age.

These HR values can easily be changed in the settings under **General** » **Personal**.

TIP: *Use the lowest heart rate reading measured during your sleep as your Rest HR.*

From the watch face, press the lower button to scroll to the resources widget.

The color around the widget icon indicates your overall resource level. If it is green, it means you are recovering. The status tells you your current state (active, inactive, recovering or stressed). The bar chart shows your resources over the last 16 hours and the percentage value is an estimate of your current resource level.

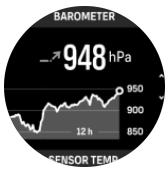
9.15. Alti & Baro

Suunto Ocean 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 two air pressure sensor holes located at six o'clock on the side of your watch free of dirt and sand. Never insert any objects into the holes as this may damage the sensor.*

From watch face, swipe up or press the lower button to scroll to the alti & baro widget. The widget has three views that can be accessed by swiping up and down. The first view displays the current altitude.

Swipe up to see the barometric pressure and the barometer trend graph.



Swipe up again to see the temperature.

Swipe down or press the lower button to go back.

Be sure to have your altitude reference value set correctly (see *3.18. 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.

Automatic alti-baro profile

Weather and altitude changes both cause a change in air pressure. To handle this, Suunto Ocean 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.

9.16. Compass

Suunto Ocean has a gyro-assisted 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 by swiping up from the watch face or by pressing the lower button.

The compass widget includes the following information:

- Arrow pointing to magnetic north
- Heading cardinal
- Heading in degrees
- Altitude
- Barometric pressure

To exit the compass widget, swipe right or use the middle button.

While you are in the compass widget, 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.

9.16.1. Calibrating compass

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

NOTE: *The compass calibrates itself when in use, but if the watch has been affected by strong magnetic fields or a hard knock, the compass might show the wrong direction. Do a new calibration to resolve this issue.*

9.16.2. 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**.

9.17. Timer

Your watch includes a stopwatch and countdown timer for basic time measurement. From the watch face, swipe up or press the lower button until you reach the timer widget.

When you first enter the widget, 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 and stop the stopwatch by pressing the upper button. You can resume by pressing the upper button again. Reset by pressing the lower button.

Exit the timer by swiping right or use the middle button.

Countdown timer

In the timer widget, 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 upper and lower buttons.

Exit the timer by swiping right or by pressing the middle button.

9.18. Dive stats

The **Scuba stats** and **Freedive stats** widgets provide you with information regarding your previous dive and interesting statistics of your dives done with Suunto Ocean.

After a dive, Suunto Ocean displays surface time since the previous dive and after scuba diving, a countdown for the recommended no-fly time is displayed. The widget also shows the date and time of when your previous dive has ended and the timestamp when the no-fly time ends.

NOTE: *During the no-fly time, flying or traveling to higher altitude should be avoided.*

Previous dive gives you an overview of your latest dive. If you select the activity, Suunto Ocean provides you with more details and also the possibility to delete the activity from your logbook.

Statistics show the number of dives, cumulative dive hours, maximum depth and dive time reached in all dives of that dive mode.

10. SuuntoPlus™ guides

SuuntoPlus™ guides bring real-time guidance on your Suunto watch from your favorite sports and outdoor services. You can also find new guides from SuuntoPlus™ Store or create new ones with tools such as Suunto app workout planner.

For more information regarding all available guides and how to sync 3rd party guides to your device, visit *www.suunto.com/suuntoplus/#HowToGuides*.

To select SuuntoPlus™ guides in your watch:

1. Before you start an exercise recording, swipe up or press the lower button and select **SuuntoPlus™**.
2. Scroll to the guide you want to use and press the middle button.
3. Go back to the start view and start your exercise as normal.
4. Press the middle button until you reach the SuuntoPlus™ guide, which is shown as a separate display.

NOTE: *Ensure that your Suunto Ocean has the latest software version and that you have synced your watch with Suunto app.*

11. SuuntoPlus™ sports apps

SuuntoPlus™ sports apps equip your Suunto Ocean with new tools and new insights to give you inspiration and new ways to enjoy your active lifestyle. You can find new sports apps from SuuntoPlus™ Store where new apps are being published for your Suunto Ocean. Select the ones you find interesting and sync them to your watch and get more out of your exercises!

To use SuuntoPlus™ sports apps:

1. Before you start an exercise recording, scroll down and select **SuuntoPlus™**.
2. Select the sports app you want.
3. If the sports app is using an external device or sensor, it will make the connection automatically.
4. Scroll up to the start view and start your exercise as normal.
5. Press the middle button until you reach the SuuntoPlus™ sports app, which is shown as a separate display.
6. After you have stopped the exercise recording, you can find the SuuntoPlus™ sports app result in the summary, if there was a relevant result.

You can select which SuuntoPlus™ sports apps you want to use in the watch in Suunto app. Visit *Suunto.com/Suuntoplus* to see which sports apps are available for your watch.

NOTE: *Ensure that your Suunto Ocean has the latest software version and that you have synced your watch with Suunto app.*

12. Care and support

12.1. 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.

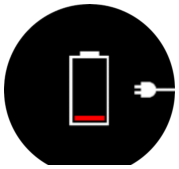
Use only original Suunto accessories - damage caused by non-original accessories is not covered by warranty.

12.2. 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.*

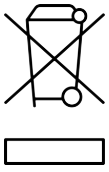
When the battery charge level is less than 20% and later 5%, your watch displays a low battery icon. If the charge level gets very low, your watch goes into a low power mode and display a charge icon.



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

12.3. 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.



13. Reference

13.1. Compliance

For compliance related information and detailed technical specifications, see “Product Safety and Regulatory Information” delivered together with your Suunto Ocean or available at *www.suunto.com/userguides*.

13.2. CE

Hereby, Suunto Oy, declares that the radio equipment type DW223 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*.

SUUNTO CUSTOMER SUPPORT

www.suunto.com/support
www.suunto.com/register

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