SUUNTO D5

USER GUIDE

2020-04-08

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.*

⚠ ***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. Only divers trained in proper use of diving equipment should use this dive device! YOU MUST READ the leaflet and user guide for your dive computer before use. Failure to do so may lead to improper use, serious injury or death.*

Before you dive

Make sure that you fully understand the use, displays and limitations of your dive instruments. If you have any questions about this manual or dive instrument, contact your Suunto dealer before diving. Always remember that YOU ARE RESPONSIBLE FOR YOUR OWN SAFETY!

Before leaving on a dive trip, inspect your dive computer thoroughly to make sure everything is functioning properly.

At the dive site, perform your manual pre-checks on each device before entering the water.

Dive Computer Pre-check

Ensure that:

1. Suunto D5 is in the correct dive mode and the display is working as expected.
2. Altitude setting is correct.
3. Personal setting is correct.
4. Deep stops are set correctly.
5. Unit system is correct.
6. Compass is calibrated. Start the calibration manually in the menu under **General** » **Compass** » **Calibrate** to also confirm that the dive computer audible sounds are working. After successful calibration, you should hear a sound.
7. The battery is fully charged.
8. All primary and backup gauges for time, pressure and depth, both digital and mechanical, are showing correct, consistent readings.
9. If Suunto Tank PODs are in use, check that Suunto Tank POD is properly installed and the tank valve is open. Please see the Suunto Tank POD User Guide for detailed information and proper use.

10. If Suunto Tank PODs are in use, check that connections are working and gas selections are correct.

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

Safety precautions

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

WARNING: *THERE IS ALWAYS A RISK OF DECOMPRESSION SICKNESS (DCS) FOR ANY DIVE PROFILE EVEN IF YOU FOLLOW THE DIVE PLAN PRESCRIBED BY DIVE TABLES OR A DIVE COMPUTER. NO PROCEDURE, DIVE COMPUTER OR DIVE TABLE WILL PREVENT THE POSSIBILITY OF DCS OR OXYGEN TOXICITY! 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 instrument to minimize the risk of DCS. As an added measure of safety, you should consult a physician regarding your fitness before diving.*

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: *If you have a pacemaker, consult a doctor before using this device. The inductive frequency used by the device may interfere with pacemakers.*

WARNING: *Allergic reactions or skin irritations may occur when 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: *Not for professional use! Suunto dive computers are intended for recreational use only. The demands of commercial or professional diving may expose the diver to depths and conditions that tend to increase the risk of decompression sickness (DCS). Therefore, Suunto strongly recommends that the device not be used for any commercial or professional diving activities.*

⚠ ***WARNING:*** *USE BACKUP INSTRUMENTS! Ensure that you use backup instrumentation, including a depth gauge, submersible pressure gauge, timer or watch, and have access to decompression tables whenever diving with a dive computer.*

⚠ ***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:*** *PERFORM PRE-CHECKS! Always check that your dive computer is functioning properly and has the correct settings before diving. Check that the display is working, the battery level is OK, tank pressure is correct, and so forth.*

⚠ ***WARNING:*** *Check your dive computer regularly during a dive. If you believe or conclude that there is any problem with any computer function, abort the dive immediately and safely return to the surface. Call 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 IT IS IN OPERATION! 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. If it is left on the surface during any dive, the dive computer will give inaccurate information for subsequent dives. 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:*** *DO NOT EXPOSE ANY PART OF YOUR DIVE COMPUTER TO ANY GAS MIX CONTAINING MORE THAN 40% OXYGEN! Enriched air with greater oxygen content presents a risk of fire or explosion and serious injury or death.*

⚠ ***WARNING:*** *DO NOT DIVE WITH A GAS IF YOU HAVE NOT PERSONALLY VERIFIED ITS CONTENTS 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:*** *Using a dive planner software such as in Suunto DM5 is not a substitute for proper dive training. Diving with mixed gases has dangers that are not familiar to divers diving with air. To dive with Triox, Heliox and Nitrox or all of them, divers must have specialized training for the type of diving they are doing.*

⚠ ***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 60950-1 standard for limited power supply. 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.*

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 to your device. When it 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.*

Emergency ascents

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.

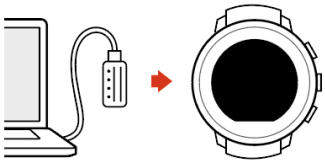
2. Getting started

2.1. Set Up

To get the most out of your Suunto D5, use some time to customize features and dive views. Make absolutely sure that you know your computer and have it set up as you want before getting into the water.

To get started:

1. Wake up the device by connecting the USB cable to a PC/Mac or a power source. Use a USB port of 5 Vdc, 0.5A.



2. Follow the startup wizard to set up the device. When ready, the device goes to surface state.

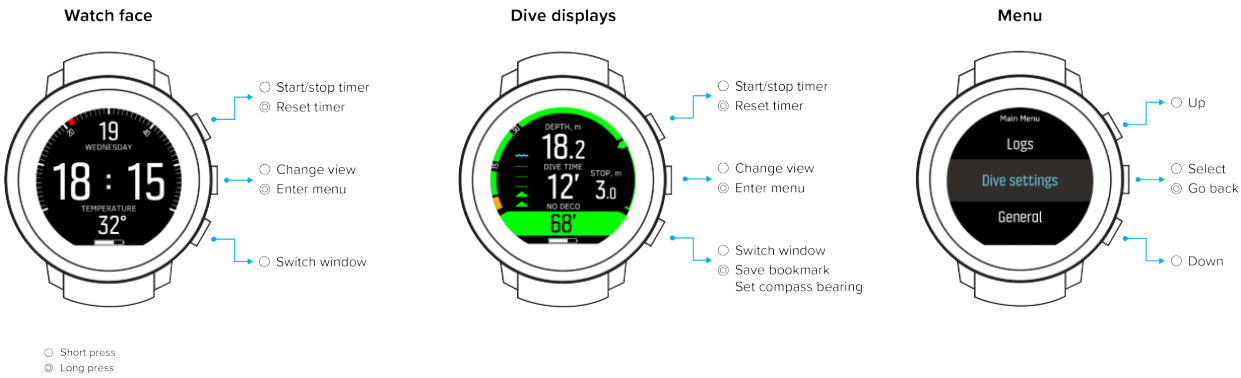
3. Fully charge before first dive.

The startup wizard guides you through:

- Language
- Units
- Time format (12h/24h)
- Date format (dd.mm / mm.dd)
- Time and date
- Connecting with Suunto app (optional)

2.2. Display - modes, views, and states

Your Suunto D5 has three buttons that have different functions in different views. Short pressing or long pressing them gets you to different functionalities.



Suunto D5 has three main dive **modes**: **Air / Nitrox**, **Gauge** and **Free**.

Press and hold the middle button to enter **Main menu** and select the appropriate mode for your dive under **Dive settings** » **Mode**. Select **Off** if you want use Suunto D5 as a regular watch. In this case all dive functionalities are switched off.

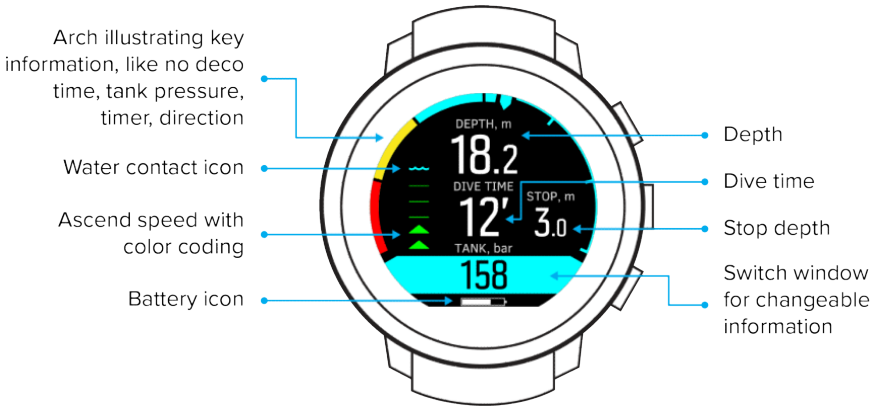
Suunto D5 automatically restarts to change mode.

Different dive modes have different **views**. Some views are available by default, some of them can be made available through customization in DM5. See *3.8. Customizing with Suunto DM5*.

For more detailed information on the views availabe in the different modes, see *3.14. Dive modes*.

Suunto D5 automatically switches between surface and dive **state**. If you are more than 1.2 m (4 ft) below the water level and water contact is on, the dive state is activated.

In a default dive display, you see the following information:



The switch window has diferrent information that can be changed by short pressing the lower button.

For a complete map of the available menu items within your Suunto D5, see *6.7. Menu*.

2.3. Icons

Suunto D5 uses the following icons:

	Water contact
	Device is functioning abnormally (e.g. water contact is not working as expected)

	No-fly time
	Surface (interval) time
	Bluetooth
	Airplane mode
	Alarm clock
	Battery status (for device: ok, charging, low, low-recharge needed; for Tank POD: low)
	Battery level - number indicates remaining diving time
	Vibration alarm on
	Sound and vibration alarm on

2.4. Product compatibility

Suunto D5 can be used together with Suunto Tank POD for wireless transmission of tank pressure to the dive computer. Multiple Tank PODs can be paired with the dive computer.

This dive computer can also be paired with the Suunto app over Bluetooth. With the app you can transfer dive logs to Suunto app.

You may also connect this dive computer to a PC or Mac with the supplied USB cable and use Suunto DM5 to modify device settings, plan dives, as well as update the dive computer software when an update is available.

Do not use this dive computer with any unauthorized accessories or attempt to connect wirelessly with mobile apps or equipment not authorized or officially supported by Suunto.

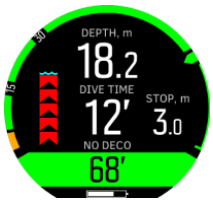
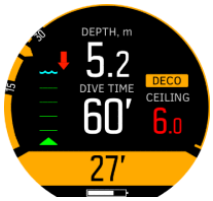
3. Features

3.1. Alarms, warnings and notifications

Suunto D5 has color-coded alarms, warnings and notifications. They are shown prominently on the display with an audible alarm (if tones are on). Alarms are always red. Warnings may be red or yellow. Notifications are always yellow.

Suunto D5 has vibration alarm. The vibration can be turned on or off for dive alarms, notifications and warnings.

Alarms are critical events that always require immediate action. When an alarm situation comes back to normal, the alarm will stop automatically.

Alarm	Explanation
	Ascent speed exceeds safe speed of 10 m (33 ft) per minute for five seconds or more.
	Decompression ceiling broken by more than 0.6 m (2 ft) on a decompression dive. Immediately descend back below ceiling depth and continue to ascend normally.
	Partial pressure of oxygen exceeds safe level (>1.6). Immediately ascend or change to a gas with lower oxygen percentage.

Warnings alert you to events that can impact your health and safety if you do not take action. Acknowledge the warning by pressing any button.

Warning	Explanation
CNS 100%	Central nervous system toxicity level at 100% limit
OTU 300	Recommended daily limit for Oxygen tolerance unit reached
Depth	Depth exceeds your depth alarm limit
Dive time	Dive time exceeds your dive time alarm limit

Warning	Explanation
Gas time	Gas time is below your gas time alarm limit, or tank pressure is below 35 bar (~510psi), in which case gas time is zero.
Safety stop broken	Mandatory safety stop ceiling broken by more than 0.6 m (2 ft)
Tank pressure	Tank pressure is below your tank pressure alarm limit. There is a built in 50-bar alarm that cannot be changed. In addition to it there is a configurable tank pressure alarm, you can set to any value and your dive computer also shows an alarm when that value and 50 bar pressures are reached. The tank pressure number is forced onto the display and turns yellow after the value you set and red after 50 bar.

Notifications indicate events that require preventive actions. Acknowledge the notification by pressing any button.

Notification	Explanation
CNS 80%	Central nervous system toxicity level at 80% limit
OTU 250	Approximately 80% of recommended daily limit for OTU reached
Change gas	On multi-gas dive when ascending, it is safe to switch to next available gas for optimum decompression profile
Battery low	Approximately three hours of dive time left
Recharge needed	Approximately two hours of battery time left; re-charging required before next dive
Tank POD low battery	Tank POD battery life low; battery change required

3.2. Algorithm lock

Breaking the decompression ceiling

When you ascend above the ceiling by more than 0.6 m (2 ft), the ceiling parameter turns red, a red arrow pointing down appears, and an audio alarm is generated.

In such event, you should descend below the ceiling level to continue the decompression. If you fail to do so within three (3) minutes, Suunto D5 locks the algorithm calculation and displays **Locked** instead, as shown below. Note that the ceiling value is no longer present.

Algorithm locked

Suunto Fused™ RGBM 2 algorithm is locked for 48 hours if you omit to take decompression stops for longer than three (3) minutes. When the algorithm is locked, no algorithm information is available and **Locked** is shown instead. Locking the algorithm is a safety feature, highlighting that the algorithm information is no longer valid.

Algorithm locked in **Timer view**:

Algorithm locked in **No Deco view**:

In this state, you significantly increase your risk of decompression sickness (DCS). Decompression information is not available for the next 48 hours after surfacing.

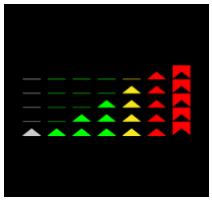
It is possible to dive with the device when the algorithm is locked, but instead of the decompression information, **Locked** is shown. Diving while the algorithm is locked resets the algorithm lock time back to 48 hours when you surface.

3.3. Ascent rate

During a dive, the bar on the left indicates ascent rate. One bar step corresponds to 2 m (6.6 ft) per minute.

The bar is also color coded:

- **Green** indicates ascent rate is ok, less than 8 m (26.2 ft) per minute
- **Yellow** indicates ascent rate is moderately high, 8-10 m (26-33 ft) per minute
- **Red** indicates ascent rate is too high, over 10 m (33 ft) per minute



When maximum allowed ascent rate is exceeded for five seconds, an alarm is generated. Ascent rate violations result in longer safety stop times and mandatory safety stops.

⚠ ***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. If this mandatory safety stop is not completed the decompression model will penalize your next dive(s).*

3.4. Battery

Suunto D5 has a rechargeable lithium-ion battery. Charge the battery by connecting Suunto D5 to a power source with the included USB cable. As a power source use a USB port of 5Vdc, 0.5A.

The battery icon in the bottom of the display shows the battery status.

Icon	Explanation
	Battery level is OK.
	Battery level is low. Less than 3 hrs left.
	Battery level is low. Less than 2 hrs left. Recharge needed.
	Battery is charging.

For Suunto D5 the battery and charging notifications are as follows:

When USB is connected for charging and every time you press a button during that time, the following pop-up notification appears:

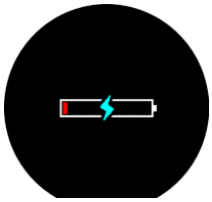
When charging from a wall outlet you will see the following screen:

In watch view, dive views (but not during dives), and during dives a yellow 'Battery low' pop-up appears (see below) when there is less than 3 (three) hours left from battery time. If you press any button the pop-up disappears.

When the time left decreases to 2 (two) hours a 'Recharge needed' red pop-up notification appears. The red pop-up will stay on the screen on top of everything else and you cannot make it disappear until the device is charged or you change to time view. In case of scuba diving, when the charge level drops below 2 (two) hours, you cannot start a dive with Suunto D5. For freediving the limit is 30 minutes.

During a dive the red battery icon (see above) is displayed. The notification pop-up comes only on the surface so it will not cover information on the display during a dive.

When the battery runs empty, a charging symbol on a blank screen notifies you to recharge your Suunto D5.



3.5. Bookmark

Adding a bookmark (timestamp) to an active log is really easy in Suunto D5. See *4.11. How to add bookmarks* for the procedure.

3.6. Clock

Suunto D5's time and date settings are found under **Device settings**.

Time and date formats are found under **Units & formats**. For setting, see *4.4. How to set time and date*.

A daily alarm can be activated under **Main menu** » **Alarm clock**. For more information, see *4.5. How to set the alarm clock*.

Sound and vibration are always on by default. This setting cannot be changed for the alarm clock.

3.7. Compass

By repeatedly short pressing the middle button brings up the compass. First calibrate the compass, for more information see *3.7.1. Calibrating compass*.

The information on the display depends on which mode you are in.

In **Air / Nitrox** mode, you will see the following information in compass view:

In the switch window, you see the heading in numeric format.

In the **Compass** menu you can turn the bearing on or off, calibrate the compass, and set declination.

3.7.1. Calibrating compass

When you first start using Suunto D5, and after each charging, the compass needs to be calibrated and it is required to do so to activate it. Suunto D5 displays the calibration icon when you enter the compass view.

During the calibration process, the compass adjusts itself to the surrounding magnetic field.

Because of changes in the surrounding magnetic field, it is recommended to re-calibrate the compass before each dive.

To manually start calibration:

1. Take off your Suunto D5.
2. Keep the middle button pressed to enter the menu.
3. Browse to **General** / **Compass**.
4. Press the middle button to enter **Compass**.
5. Scroll up or down to select **Calibrate**.
6. Start calibrating the device by trying to move it around the xyz axels of the coordinate system (like you were drawing a small circle) so that the magnetic field is as stable as possible during the calibration. To achieve this, try to keep Suunto D5 in the same location and do not move it around using large movements.
7. Repeat the rotation as long as the compass calibration is successful.

8. A sound indicates when the calibration succeeded, and the screen goes back to **Compass** menu.

NOTE: *If the calibration fails several times in a row, you may be in an area with strong sources of magnetism, such as large metal objects. Move to another location and try to calibrate the compass again.*

3.7.2. Setting declination

You should always adjust your compass declination for the area where you are diving to get accurate heading readings. Check the local declination from a trusted source and set the value in Suunto D5.

To set declination:

1. Keep the middle button pressed to enter the menu.
2. Browse to **General** » **Compass**.
3. Press the middle button to enter **Compass**.
4. Press the middle button again to enter **Declination**.
5. Scroll up/down to set the angle of declination: Starting from 0.0° scroll up towards East or down towards West declination. To turn declination off, set declination angle to 0.0°.
6. Press middle button to save changes and go back to the **Compass** menu.
7. Keep the middle button pressed to exit.

3.7.3. Locking the bearing

A bearing is the angle between north and your target. In simple terms, it is the direction you want to travel. Your heading, on the other hand, is your actual direction of travel.

You can set a bearing lock to help you orientate yourself underwater and ensure you maintain your direction of travel. For example, you can set a bearing lock for the direction to the reef before leaving the boat.

You can reset the bearing lock at any time, but you can only clear a bearing lock while at the surface.

To lock the bearing:

1. Press the middle button to change to compass view.
2. Hold your Suunto D5 in level in front of you, with the top pointing in the direction to your target.
3. Keep the lower button pressed until you see the **Bearing locked** notification.

After you locked the bearing, you can see yellow bars to indicate the angle where you locked the bearing:

When the bearing is at 0°, no arrows are shown beside the value, as above. When the bearing is at 180°, two yellow arrows are shown beside the value:

One yellow arrow indicates the direction you need to turn:

If you want to set a new bearing lock, just repeat the same procedure above. Each bearing lock is recorded in your dive log with a time stamp.

To clear the bearing lock from your compass view, you need to return to the surface.

To clear a bearing lock:

1. While in surface state, keep the middle button pressed to enter the main menu.
2. Scroll to **General** with the upper or lower buttons and press the middle button.
3. Press the middle button to enter **Compass**.
4. Select **Clear bearing** with the middle button.

3.8. Customizing with Suunto DM5

You can customize Suunto D5 views and features with Suunto DM5. Create up to 10 different dive modes with up to five custom views each.

NOTE: *When creating or modifying dive modes, you need to synchronize the changes with your Suunto D5 before disconnecting the USB cable to save the changes to your device.*

Customization can be done in four categories:

- Dive mode name
- Dive algorithm
- Gas settings
- Customize views

Dive mode name has a 15-character limit, you can select Suunto Fused™ RGBM 2 or no algorithm for **Dive algorithm**.

For **Gas settings**, the **GAS** menu content can be configured.

For each dive mode, you can create up to five custom views.

For more details, see *4.8. How to customize dive modes with DM5*.

3.9. Decompression algorithm

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.

In the late 1990s, Suunto implemented Dr. Bruce Wienke's RGBM (Reduced Gradient Bubble Model) to work with the earlier M-value based model. The first commercial products with the feature were the iconic Suunto Vyper and Suunto Stinger. With these products the improvement of diver safety was significant as they addressed a number of diving circumstances outside the range of dissolved-gas-only models by:

- Monitoring continuous multiday diving

- Computing closely spaced repetitive diving
- Reacting to a dive deeper than the previous dive
- Adapting to rapid ascents which produce high microbubble (silent-bubble) build-up
- Incorporating consistency with real physical laws for gas kinetics

The Suunto Fused™ RGBM 2 combines and improves widely respected Suunto RGBM and Suunto Fused™ RGBM decompression models developed by Suunto together with Dr. Bruce Wienke. (Suunto dive algorithms are a culmination of expertise and knowledge accumulated over decades of development, testing and thousands upon thousands of dives.)

In Suunto Fused™ RGBM 2 the tissue half-times are derived from Wienke's FullRGBM where human body is modeled by fifteen different tissue groups. FullRGBM can utilize these additional tissues and model the on-gassing and off-gassing more accurately. The amounts of nitrogen and helium on-gassing and off-gassing in the tissues are calculated independently from each other.

The Fused™ RGBM 2 supports open-circuit and closed-circuit diving up to a depth of 150 meters. Compared to previous algorithms, Fused™ RGBM 2 is less conservative on deep air dives, allowing shorter ascent times. In addition, the algorithm no longer requires tissues to be completely free of residual gases when calculating no-fly times, thereby reducing the required time between your last dive and flying.

The advantage of Suunto Fused™ RGBM 2 is additional safety through its ability to adapt to a wide variety of situations. For recreational divers it may offer slightly longer no- deco times, depending on the chosen personal setting. For open-circuit technical divers it allows use of gas mixes with helium - on deeper and longer dives helium based gas mixes provide shorter ascent times. And finally, for rebreather divers the Suunto Fused™ RGBM 2 algorithm gives the perfect tool to be used as a non-monitoring, set point dive computer.

NOTE: *Suunto D5 does not have Trimix diving or CCR support.*

3.9.1. Diver safety

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. Experimentally it has been shown that the body adapts to decompression to some degree when diving is constant and frequent. Two personal adjustment settings (P-1 and P-2) are available for divers who dive constantly and are ready to accept greater personal risk.

CAUTION: *Always use the same personal and altitude adjustment settings for the actual dive and for the planning. Increasing the personal adjustment setting from the planned setting as well as increasing the altitude adjustment setting can lead to longer decompression times deeper and thus to larger required gas volume. You can run out of breathing gas underwater if the personal adjustment setting has been changed after dive planning.*

3.9.2. Altitude diving

WARNING: *Traveling to a higher elevation can temporarily cause a change in the equilibrium of dissolved nitrogen in the body. It is recommended that you acclimatize to the new altitude before diving.*

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. It is recommended 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 settings 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.

This setting automatically adjusts the decompression calculation according to the given altitude range. You can find the setting under **Dive settings** » **Parameters** » **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.

⚠ ***WARNING:*** *SET THE CORRECT ALTITUDE SETTING! When diving at altitudes greater than 300 m (1000 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 (10000 ft). Failure to select the correct altitude setting or diving above the maximum altitude limit will result in erroneous dive and planning data.*

3.9.3. Oxygen exposure

The oxygen exposure calculations are based on currently accepted exposure time limit tables and principles. 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) are based on 1991 NOAA Diving Manual limits.
- The OTU monitoring is based on the long-term daily tolerance level and the recovery rate is reduced.

Oxygen related information displayed by the dive computer is also designed to ensure that all warnings and displays occur at the appropriate phases of a dive. For example, the following information is provided before and during a dive when the computer is set in Air/Nitrox:

- The selected O_2% (and possible helium %)
- CNS% and OTU
- Audible notification when CNS% reaches 80%, then notification when 100% limit is exceeded
- Notifications when OTU reaches 250 and then again when 300 limit is exceeded
- Audible alarm when pO_2 value exceeds the preset limit (pO_2 high alarm)

⚠ ***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.*

3.10. Decompression dives

When on a decompression (deco) dive you exceed the no-decompression limit, Suunto D5 provides the decompression information required for ascent. Ascent information is always presented with two values:

- **Ceiling**: depth that you should not go above
- **Asc. time**: optimum ascent time in minutes to surface with given gases

⚠ ***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.*

⚠ ***WARNING:*** *When diving with multiple gases, remember that the ascent time is always calculated with the assumption that you use all the gases found in the Gases menu. Always check that you have only the gases for your current planned dive defined before you dive. Remove the gases that are not available for the dive.*

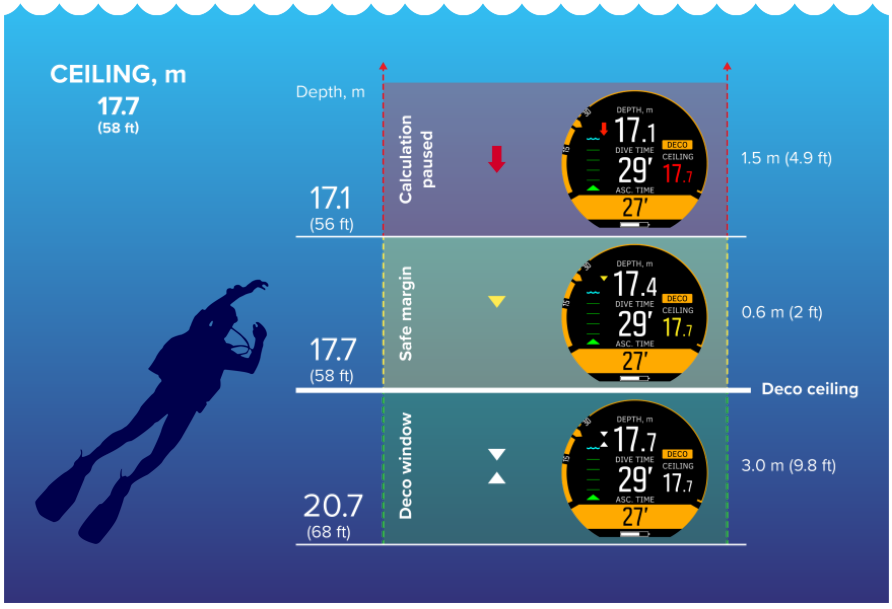
On a decompression dive, there could be three kinds of stops:

- **Safety stop**: this is a recommended three-minute stop for every dive over 10 meters (32.8 ft).
- **Deep stop**: this is a recommended stop when you dive deeper than 20 m (65.6 ft).
- **Decompression stop**: this is a compulsory stop on your decompression dive that is for your safety, preventing decompressions sickness.

In **Dive settings** » **Parameters**, you can

- turn deep stops on or off (it is on by default)
- adjust the safety stop time to be 3, 4 or 5 minutes (default is 3 minutes)
- set last stop depth to 3.0 m or 6.0 m (default is 3.0 m)

The following illustration shows a decompression dive where the ceiling is at 17.7 m (58 ft):



From bottom to top you see the following in the above image:

1. There is a decompression window (*Deco window*) that is the distance between the decompression ceiling (*Deco ceiling*) plus 3.0 m (9.8 ft) and the decompression ceiling. So the decompression window in this example is between 20.7 m (68 ft) and 17.7 m (58 ft). This is the area where decompression takes place. 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 in front of the depth number. The downward and upward pointing white arrows indicate that you are within the deco window.
2. If you ascend above the ceiling depth, there is still a safe margin area, equaling to ceiling depth minus 0.6 meters (2 ft). So in this example, it is between 17.7 m (58 ft) and 17.1 m (56 ft). In this safe margin area, decompression calculation still continues, but you are advised to go down below ceiling depth. This is indicated by the ceiling depth number turning yellow with a downward pointing yellow arrow in front of the depth number.
3. 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 red downward arrow in front of the depth number indicate unsafe decompression.

   If you ignore the alarm and stay above the safe margin for three minutes, Suunto D5 locks the algorithm calculation, and decompression information will not be available anymore on the dive. See *3.2. Algorithm lock*.

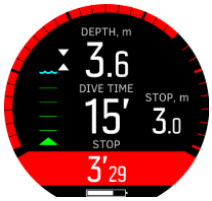
Decompression display examples

Below is a typical decompression dive view showing ascent time and the first required deep stop at 20.3 meters:

Suunto D5 shows the ceiling value always from the deepest of these stops. Deep stop and safety stop ceilings are always at constant depth when you are at the stop. Stop time is counted down in minutes and seconds.

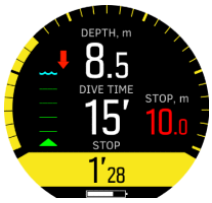
In the below display, the stop depth is set to 9.0 m and the diver is currently at 9.1 m. White arrows beside the depth value show the diver is inside the stop window. 1' 28 is shown in a yellow field in the switch window as the time for an optional stop:

The below display shows that the stop depth is set to 3.0 m and the diver is at 3.6 m. The white arrows indicate again that the diver is inside the stop window. 3' 29 is shown in a red field in the switch window as the time for a compulsory stop:



The next example shows that the diver is at 2.4 m (stop depth is still set to 3.0 m), so inside the stop window but above the limit. A yellow downward pointing arrow indicates the diver is recommended to descend to be at optimal depth. The optimal depth (the stop depth) of 3.0 m is displayed in yellow:

Now the stop depth is set to 10.0 m and the diver is at 8.5 m. The diver is outside of the stop window and must descend. A red arrow prompts the diver to dive deeper and the stop depth is indicated in red:



NOTE: *If the ceiling is broken for more than 3 minutes, the decompression algorithm gets locked.*

Below is an example of what Suunto D5 displays during deep stop:

With decompression stops, the ceiling is always decreasing while you are near the ceiling depth, providing continuous decompression with optimum ascent time.

NOTE: *It is always recommended to keep close to the decompression ceiling when ascending.*

Ascent time is always the minimum time needed to reach the surface. It includes:

- Time required for deep stops
- Ascent time from depth at 10.0 m (32.8 ft) per minute
- Time needed for decompression

⚠ ***WARNING:*** *When diving with multiple gases, remember that the ascent time is always calculated with the assumption that you use all the gases found in the Gases menu. Always check that you have only the gases for your current planned dive defined before you dive. Remove the gases that are not available for the dive.*

⚠ ***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.*

3.10.1. Last stop depth

You can adjust the last stop depth for decompression dives under **Dive settings** » **Parameters** » **Last stop depth**. There are two options 3 and 6 m (10 and 20 ft).

By default, the last stop depth is 3 m (10 ft). This is the recommended last stop depth.

NOTE: *This setting does not affect the ceiling depth on a decompression dive. The last ceiling depth is always 3 m (10 ft).*

3.11. Device info

Information about your Suunto D5 can be found in your device. This information includes device name, serial number, device history, software and hardware versions and radio compliance information. See *4.1. How to access device info*.

3.12. Display

Display LED backlight is on by default.

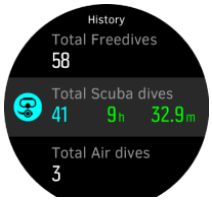
You can significantly extend battery life by turning down the display brightness when there is ambient light available. The display is still easily readable.

For display brightness adjustment, see *4.2. How to change display brightness*.

3.13. Dive history

Dive history is a summary of all the dives done with your Suunto D5. The history is divided according to the dive mode used for the dive. Each dive type summary includes the number of dives, cumulative dive hours and maximum depth reached in all dives of that dive mode.

Enter History under **General** » **About D5**:



NOTE: *If there is more history information available than can be shown in a single screen, you can scroll through the additional information with the upper and lower buttons.*

3.14. Dive modes

By default, Suunto D5 has three dive modes: Air / Nitrox, Free and Gauge (bottom timer). Select the appropriate mode for your dive under **Dive settings** »**Mode**. If you select **Off**, your Suunto D5 can be used as a regular watch. In this case, all dive functionalities are switched off.

3.14.1. Air / nitrox mode

Air mode is for diving with regular air.

Nitrox mode is for diving with oxygen-enriched gas mixtures.

Diving with Nitrox allows you to increase bottom times or reduce the risk of decompression illness. However, when the gas mix is altered or depth increased, the oxygen partial pressure is generally increased. Suunto D5 provides you with information to adjust your dive and stay within safe limits.

In Nitrox mode, both the percentage of oxygen in your tank and the oxygen partial pressure limit must be entered into Suunto D5.

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 (O_2%) setting is 21% (air) and oxygen partial pressure (PO_2) setting is 1.6 bar (20 psi).

Air/ Nitrox mode has four views:

- No deco - The arch shows the no deco time.

- Compass

- Tank Pressure - For more information on what is shown on the display, see *3.30. Tank pressure*.

- Timer (visible after customizing with DM5 - The green triangles going up indicate one second.

3.14.1.1. Multi-gas diving

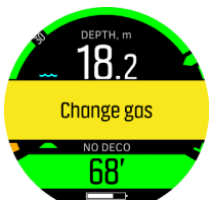
Suunto D5 allows gas changes during a dive between the gases defined in the **Gases** menu. When ascending, you are always notified to change gases when a better gas is available.

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 (19.7 ft) according to the maximum operating depth (MOD) of the gas.

A pop-up notifies you when to change gases, as shown below:



NOTE: *When Suunto D5 recognizes a better gas is available in the gas list, a pop-up message appears to change gas.*

WARNING: *When diving with multiple gases, remember that the ascent time is always calculated with the assumption that you use all the gases found in the* ***Gases*** *menu. Always check that you have only the gases for your current planned dive defined before you dive. Remove the gases that are not available for the dive.*

NOTE: *Air/Nitrox dive mode has only one gas in the gas list by default. The* ***Gases*** *menu under this mode will not allow you to add more than one gas. You can activate it by turning multigas diving on in the menu. See also 4.8. How to customize dive modes with DM5.*

To add more gases, activate the multi gas diving by setting **Multiple gases** 'On' under **Dive settings** » **Mode** » **Parameters**. Your Suunto D5 will restart to save changes. When multiple gases are activated, you can add three gases in total.

You can create additional dive modes using Suunto DM5. See *4.8. How to customize dive modes with DM5*.

3.14.1.2. Modifying gases during a dive

Modifying gases is for emergency cases only. For example, due to unforeseen events, a diver might lose a gas mixture, in which case the diver could adjust to the situation by deleting that gas mixture from gas list Suunto D5. This allows the diver to continue to dive and get correct decompression information calculated the dive computer.

In another case, if for some reason a diver runs out of gas and needs to use a gas mixture from a dive buddy, it is possible to adapt Suunto D5 to the situation by adding the new gas mixture to the list. Suunto D5 re-calculates decompression and shows the correct information for the diver.

NOTE: *This feature is not enabled by default, it must be activated and creates an additional step to the gas menu during the dive. It is only available if multiple gases are selected for the dive mode.*

To enable modifying gases, turn the feature on in the settings menu under **Dive settings** » **Parameters** » **Modify gases**.

When enabled, during a multi-gas dive, you can add a new gas as well as select an existing gas from the gas list to remove it.

3.14.2. Gauge mode

Use Suunto D5 as a bottom timer with **Gauge mode**.

The timer in the center of the display shows dive time in minutes and seconds and activates at the start of the dive.

NOTE: *Gauge mode is a bottom timer only and thus includes no decompression information or calculations.*

Gauge mode has three views:

- Timer

- Compass

- Tank Pressure - For more information on what is shown on the display, see *3.30. Tank pressure*.

- ***NOTE:*** *After diving in gauge mode, decompression calculation is locked for 48 hours. If during this time you dive again, there is no decompression calculation available and* ***Locked*** *is shown in decompression information fields.*

3.14.3. Freedive mode

With **Free** mode, Suunto D5 can be used as a freediving instrument.

Go to **Main menu** » **Dive settings** to activate Free Mode. Suunto D5 will restart to change mode. When you activate Free Mode the display shows you data in white color. Depth is indicated in the unit you set (see *4.3. How to set language and unit*), dive time in minutes and seconds in the center of the display. Temperature information is at the bottom of the display. With the lower button you can change the window at the bottom of the display.

The freedive starts at 1.2 m (4 ft) with water contact or 3.0 m (9.8 ft) without water contact and ends when your depth is less than 0.9 m (3 ft) with water contact or 3.0 m (9.8 ft) without water contact. For more information on the water contact sensor see *3.32. Water contacts*.

Freedive mode has three views by default:

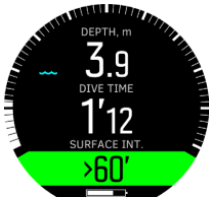
- Time
- Depth
- Compass
- Timer (only available after customizing)

You can change the views with short pressing the middle button.

Time

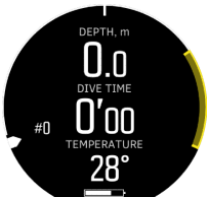
Before dives:

During dives:

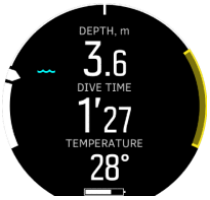


Depth

Before dives:



During dives:



It is the default view. The white arrow on the left side of the arch moves according to the depth. The yellow arch shows the depth between the max depth (defined by Depth notify 5) and the next deepest active depth notification.

Compass

Before dives:

During dives:

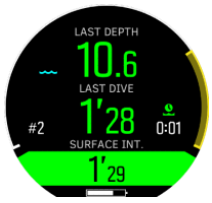
Timer

This view is only available after customization.

Before dives:

During dives:

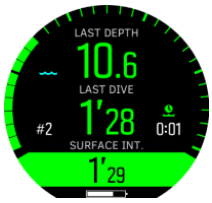
On the surface after freediving



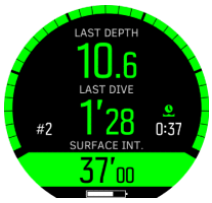
When you are on the surface after freediving, the data on the display turns green. You can view your last depth, the time of your last dive, and the number of dives you have done (white number with a hashtag).

Surface notify

In **Timer** view the surface interval time is being counted in minutes and seconds at the bottom of the display in a green field until the value you set in **Main menu** » **Dive settings** » **NOTIFICATIONS** » **Surface notify**.



If **Surface notify** is off, the surface interval counter runs for 4 hours, after that, or after the previously set surface interval time has passed, the counter disappears from the display. Your Suunto D5 will show the following data:



Under the surface time icon , the time spent on the surface is shown in hours and minutes in white color.

For setting depth notifications, see *4.10. How to set depth notifications (freedive only)*.

3.14.3.1. Surface timer

While freediving, you can use the surface timer to help you prepare yourself for you next dive. Suunto D5 starts the counter as soon as you reach 0.9 m (2.9 ft).

3.15. Dive planner

The dive planner in Suunto D5 helps you to quickly plan your next dive. The planner displays available no decompression time and gas times for your dive based on depth, tank size and gas consumption set.

The dive planner can also help you plan dives in series, taking into account the residual nitrogen from your previous dive(s) based on the planned surface time you enter.

NOTE: *It is important to adjust tank size, tank pressure and personal gas consumption to get the gas calculations right.*

See *4.7. How to plan a dive using the Dive planner* for details on planning your dives.

3.16. Gas consumption

Gas consumption refers to your real-time consumption rate of gas during a dive. In other words, it is the amount of gas a diver would use in one minute on the surface. This is commonly known as your surface air consumption or SAC rate.

Gas consumption rate is measured in liters per minute (cubic feet per minute). This is an optional field and needs to be added to your custom dive mode views in DM5.

For enabling gas consumption metering, see *4.9. How to enable gas consumption metering*.

3.17. Gas mixtures

If Air / Nitrox dive mode is selected, you need to define the gas(es) for the decompression algorithm to work properly. You define the gases under **Gases**. In Air / Nitrox mode you can change O_2 percentage and PO_2 value.

NOTE: *When you have analyzed your gas, you should round the result down when entering it for Suunto D5. For example, if the analyzed gas is 31.8% oxygen, then define the gas as 31%. This makes the decompression calculations safer.*

WARNING: *THE DIVE COMPUTER WILL NOT ACCEPT FRACTIONAL PERCENTAGE VALUES OF OXYGEN CONCENTRATION. DO NOT ROUND UP FRACTIONAL PERCENTAGES! Rounding up will cause nitrogen percentages to be understated and will affect decompression calculations.*

NOTE: *You can customize what you see in the* ***Gases*** *menu. See 3.8. Customizing with Suunto DM5.*

3.18. Gas time

Gas time refers to remaining air (gas) left with current gas mixture, measured in minutes. The time is based on tank pressure value and your current breathing rate.

Gas time is also highly dependent on your current depth. For example, all other factors being the same, including breathing rate, tank pressure and tank size, depth affects gas time as follows:

- At 10 m (33 ft, surrounding pressure 2 bar), gas time is 40 minutes.
- At 30 m (99 ft, surrounding pressure 4 bar), gas time is 20 minutes.
- At 70 m (230ft, surrounding pressure 8 bar), gas time is 10 minutes.

Gas time can be viewed at the bottom of dive mode screens. If you have not paired a Suunto Tank POD, the gas time field shows N/A. If you have paired a POD but there is no data 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: *It is important to adjust tank size, tank pressure and personal gas consumption to get the gas calculations right.*

3.19. Idle and deep sleep

Idle and deep sleep are functions that are designed to prolong battery life.

Idle

When you press any button on your Suunto D5, it goes to active mode and the display backlight is activated (if turned on) and the seconds become visible on the watch face (red rectangle moving). After two minutes, the device goes to idle mode: the number of colors is reduced to save power and moving elements are turned off.

Deep sleep

Deep sleep is a function that prolongs battery life when Suunto D5 has not been used for some time. Deep sleep is activated when one day has passed since:

- No buttons have been pressed
- Dive calculation has ended

Suunto D5 wakes up when it is connected to a PC/charger, when a button is pressed, or when the water contact gets wet.

When not used, your Suunto D5 goes from active mode to idle mode and finally to deep sleep.

Wake up your Suunto D5 by pressing any button, or connecting to a computer / charger, or activating the water contact by immersing the device in water.

NOTE: *If your Suunto D5 runs out of battery when in deep sleep, you can only wake up your device by connecting to a charger or a computer with a USB cable of 5Vdc.*

3.20. Language and unit system

You can change the device language and unit system at any time. Suunto D5 refreshes immediately to reflect the changes.

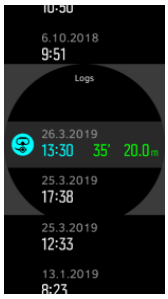
To set these values, see *4.3. How to set language and unit*.

3.21. Logbook

Dive logs can be found under **Logs**. By default, they are listed by date and time, and each entry listing shows the max. depth and dive time of the log.

Dive log details and profile can be browsed by scrolling through the log with upper or lower button and selecting it with the middle button.

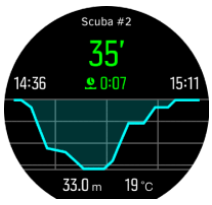
Each dive log contains data samples with fixed 10-second intervals. Freedive sample rate is 1 second.



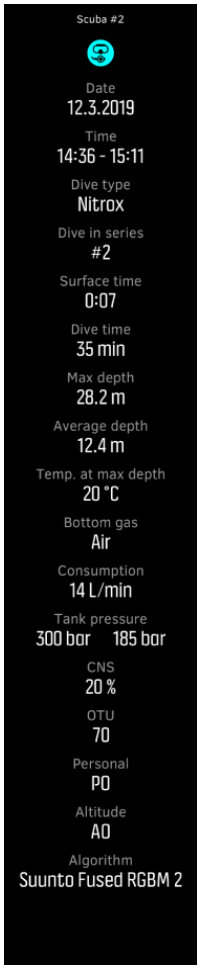
For more detailed log analyses, upload the dive(s) to Suunto DM5 (see *3.28. Suunto DM5*) and the Suunto app (*3.27. Suunto app*).

In the image below you can see information on the:

- start and stop times (14:36, 15:11)
- depth profile
- surface time (0:07)
- max depth and temperature at max depth (33.0 m, 19 °C)



As an example, the logbook info display gives you the following information on your logged Nitrox dive:



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

NOTE: *If you surface and then dive again within five minutes, Suunto D5 counts this as one dive.*

3.22. Mobile notifications

If you have paired your watch with the Suunto app on your smartphone, you can receive notifications such as incoming calls and text messages on your watch.

NOTE: *Messages received from some apps used for communication might not be compatible with Suunto D5.*

When you pair your watch with the app, notifications are on by default. You can turn them off under **General** » **Connectivity**.

Text and call notifications

When a text notification arrives, a pop-up appears on the screen. You can see the message for 10 seconds, during which period current time is visible on the top of the watch face.

If the message is too long to fit on the screen, you can scroll through the full text by pressing the lower button.

If you get a call on your phone, you see a notification of an incoming call on your watch.

If you want to mute your device and stop vibration, press the lower button. You cannot answer or dismiss a call on your Suunto D5.

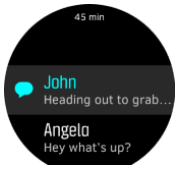
In case you missed a call, its sign is visible on the watch face for 2 seconds, while your watch is vibrating.

NOTE: *Tones and vibration can be turned on and off under* ***General*** *»* ***Device settings****.*

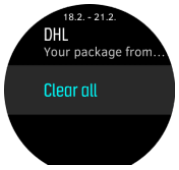
Notification history

You can find unread notifications and missed calls in the notification history on your watch.

After entering the main menu, scroll to **General** » **Notifications**. There you see the 10 most recent notifications. Data on the top of the screen shows when you received the text or the call.



If you want to delete the notifications, choose **Clear all**.



3.23. Oxygen calculations

During a dive, Suunto D5 calculates partial pressure of oxygen (pO_2), central nervous system toxicity (CNS%) and pulmonary oxygen toxicity, tracked by OTU (oxygen toxicity units). The

oxygen calculations are based on currently accepted exposure time limit tables and principles.

By default in Air/Nitrox dive mode, CNS% and OTU values are not displayed until they reach 80% of their recommended limits. When either value reaches 80%, Suunto D5 notifies you and the value stays in the view.

NOTE: *You can customize views to always show CNS% and OTU. See 4.8. How to customize dive modes with DM5. See also the Suunto Support for Q and A on DM5 at https://www.suunto.com/Support/software-support/dm5/dm5-faq/*

3.24. Personal adjustments

Suunto Fused™ RGBM 2 algorithms provide 5 personal setting options (+2, +1, 0, -1, -2). These options refer to decompression models, which can be conservative (+2 and +1) or aggressive (-2, -1, 0). Generally speaking, conservative means safer. In practice it means that a dive at a given depth is shorter due to the decompression obligation (the no decompression time is short).

Conservative also means that the time the diver needs to spend on decompression is longer. For recreational divers, a conservative model means less time in the water in order to avoid decompression requirements. For technical divers, however, conservative means more time in the water because of the longer decompression requirements imposed during ascent.

Aggressive models, on the other hand, increase the potential health risks of a dive. For recreational divers, an aggressive model allows more time at depth, but may significantly increase the risk of decompression sickness (DCS).

The default setting for the Suunto Fused™ RGBM and Fused™ RGBM 2 is to use a compromise (0 setting) between conservative and aggressive. With the personal setting, you can select gradually more conservative or more aggressive calculations.

There are several risk factors that can affect your susceptibility to DCS like 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:

- exposure to low temperature – water temperature less than 20 °C (68 °F)
- below average physical fitness level
- age, paricularly over the age of 50
- fatigue (from over exercising, lack of sleep, exhaustive travel)
- dehydration (affects circulation and may slow down off-gassing)
- stress
- tight fitting equipment (may slow 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: *SET THE CORRECT PERSONAL SETTING! Whenever it is believed that risk factors that tend to increase the possibility of DCS exist, it is recommended that you use this option to make the calculations more conservative. Failure to select the correct personal setting will result in erroneous dive and planning data.*

The five-step personal setting can be used to adjust the algorithm conservatism to fit your DCS susceptibility. You can find the setting under **Dive settings** » **Parameters** » **Personal**.

Personal level	Explanation
More aggressive (-2)	Ideal conditions, excellent physical fitness, highly experienced with a lot of dives in the near past
Aggressive (-1)	Ideal conditions, good physical fitness, well experienced with dives in the near past
Default (0)	Ideal conditions (default value)
Conservative (+1)	Some risk factors or conditions exist
More conservative (+2)	Several risk factors or conditions exist

⚠ ***WARNING:*** *Personal adjustment setting 0, -1 or -2 causes a high risk of DCS, or other personal injury, and death.*

3.25. Safety stops and deep stops

Safety stops

A three (3) minute safety stop is always recommended for every dive over 10 meters (32.8 ft).

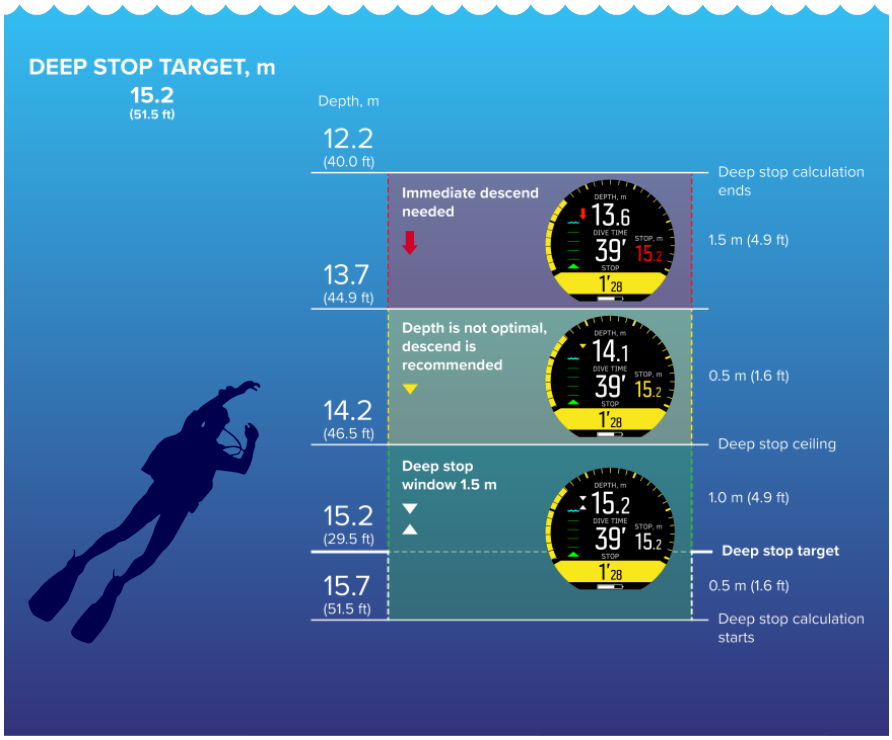
The time for a safety stop is calculated when you are between 2.4 and 6 m (7.9 and 19.7 ft). This is presented with up/down arrows on the left side of the stop depth value. The safety stop time is shown in minutes and seconds. The time may exceed three (3) minutes if you ascend too fast during dive. Safety stops can be set to 3 (three), 4 (four), or 5 (five) minutes.

Deep stops

Deep stops activate only when you dive deeper than 20 m (65.6 ft). During ascend, deep stops activate when you are halfway up from your maximum depth. Deep stops are presented like safety stops. You are in the deep stop area when the deep stop depth has up/down arrows in front of it and deep stop time is running. The deep stop window is +/- 1.5 m (4.9 ft). Calculation starts at deep stop target depth plus 0.5 m (1.6 ft). Calculation ends - 3 m (- 9.8 ft) away from deep stop depth.

There can be more than one deep stop during ascend. For example, if you dive to 42 m (137.8 ft), the first deep stop is prompted at 21 m (68.9 ft) and the second is at 10.5 m (34.4 ft) The second deep stop is 2 minutes long.

In the following example the diver dives down to maximum 30.4 m (99.7 ft) and has a deep stop at 15.2 m (49.8 ft):



Below 20.0 m (65.6 ft), deep stop gets activated. In this case, as the diver ascends, the deep stop is necessary at halway of the maximum depth, so at 15.2 m (49.8 ft).

If the deep stop depth is 15.2 m (49.8 ft), the calculation starts at 15.7 m (51.5 ft) and stops at 12.2 m (40.0 ft). The deep stop window is +/- 1.5 m (4.9 ft) and when the diver is within the deep stop window, it is indicated with two white arrows pointing at each other on the display.

When the diver ascends above the deep stop window ceiling - in this case above 14.2 m (46.5 ft) - a downward pointing yellow arrow signals that the depth is not optimal, it is recommended to descend. The deep stop target depth number also turns yellow.

If the diver keeps ascending, after 0.5 m (1.6 ft), a downward pointing red arrow and an alarm notifies the diver to descend immediately. The deep stop calculation keeps running for another 1.5 m (4.9 ft) up but stops after that. In the above example it stops at 12.2 m (40.0 ft).

3.26. Sample rate

Suunto D5 uses a fixed sample rate of 10 seconds for all log recordings except in free mode. Free mode uses a sample rate of 1 second.

3.27. Suunto app

With the Suunto app, you can easily transfer your dive logs to the app where you can follow and share your diving adventures.

To pair with Suunto app on iOS:

1. Download and install Suunto app on your compatible Apple device from the iTunes App Store. The app description includes the latest compatibility information.
2. Start Suunto app and turn on Bluetooth if it is not on already. Leave the app running in the foreground.
3. If you have not yet set up your Suunto D5, do so now (see *2. Getting started*).

4. Tap the settings icon in the upper right and tap on the ' + ' icon to add a new device.
5. Tap on your dive computer from the list of found devices and enter the passkey shown on the Suunto D5 display.

To pair with Suunto app on Android:

1. Download and install Suunto app on your compatible Android device from Google Play. The app description includes the latest compatibility information.
2. Start Suunto app and turn on Bluetooth if it is not on already. Leave the app running in the foreground.
3. If you have not yet set up your Suunto D5, do so now (see *2. Getting started*).
4. A pop-up screen opens on your Android device. Select [Pair] .
5. Enter the passkey shown on your dive computer display into the paring request field on your mobile device and tap [OK] .

3.28. Suunto DM5

The Suunto DM5 software program allows you to track and analyze all of your dive logs and plan your future dives. With DM5 you can customize your Suunto D5 and update the device firmware. Download Suunto DM5 from *www.suunto.com/dm5*.

NOTE: *Mono framework is required when using DM5 on a Mac.*

3.28.1. Synchronizing logs and settings

To be able to synchronize logs and settings, you need to first install Suunto DM5 (see *3.28. Suunto DM5*).

To download logs from your Suunto D5 and sync settings:

1. Start DM5.
2. Connect Suunto D5 to a computer with a USB cable.
3. Wait for the syncing to complete.

New dive logs appear in the DM5 **DIVES** list on the left sorted by date and time.

3.28.2. Updating firmware

Suunto DM5 is required to install new firmware for your Suunto D5. If a new firmware version is available, you are notified when connection is established between your Suunto D5 and DM5.

Before updating the firmware, make sure the USB is securely connected. The cable must not be unplugged until update process is completed.

Watch the video on *YouTube*.

To update firmware:

1. Select Suunto D5 from the devices list in DM5.
2. Synchronize if needed.
3. Click update and wait for the update process to complete. This may take up to 10 minutes.

3.29. Surface and no-fly time

After a dive, Suunto D5 displays surface time since the previous dive and a countdown time for recommended no-fly time. During the no-fly time, flying or traveling to higher altitude should be avoided.

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.

Once the no-fly time cacluated by your Suunto D5 with Suunto Fused™ RGBM 2 has ended, you can enter and fly with a normal airplane which is pressurized up to 3000 m.

If decompression is omitted during a dive so that Suunto D5 enters permanent error mode (see *3.2. Algorithm lock*), the no-fly time is always 48 hours. Similarly, if dive is done in gauge mode (bottom timer), the no-fly time is 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!*

3.30. Tank pressure

Your Suunto D5 can be used with the total number of three Suunto Tank PODs for wireless tank pressure transmission.

To install and pair a Suunto Tank POD, see *4.6. How to install and pair a Suunto Tank POD*

In tank pressure view you can see the below screens.

The following example has the tank pressure alarm set to 100 bars. The tank pressure is 75 bars as indicated in the switch window at the bottom, and also shown by the blue arrow in the arch. When the tank pressure alarm is turned on, the arch is colored yellow between 50 bars and the value you defined (100 bars).

In the switch window, the actual tank pressure is shown in a blue field by default. This is also shown with a blue arrow in the arch. The blue part of the arch indicates the range between the value you set for the tank pressure alarm and the actual tank pressure:

When the tank pressure alarm is turned on and the value is between the value you set and 50 bars, the tank pressure value is indicated in a yellow field in the switch window and the range is also shown in the arch with yellow:

When the tank pressure drops below 50 bars (so within the red area in the arch) the actual tank pressure value is indicated in a red field in the switch window and a mandatory alarm is triggered:

3.31. Timer

Suunto D5 has a timer that can be used for timing specific actions during surface or dive. The timer is shown in bottom-right corner as scrollable item.

To use the timer:

1. While diving, press upper button to start the timer.
2. Press again the upper button to pause the timer.
3. Keep the upper button pressed to reset the timer.

Timer start and stop actions are saved to the dive log.

3.32. Water contacts

Suunto D5 has water contact functionality that recognizes when the device is in contact with water. When submerged, the water contact poles are connected by the conductivity of the water.

Suunto D5 switches to dive state when water is detected. Dive starts

- when the water contact is on, at 1.2 m (4 ft), or
- when the water contact is not on, at 3.0 m (9.8 ft)

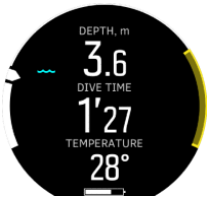
and ends

- when the water contact is on and your depth is less than 0.9 m (2.9 ft) in case of freedive, and 1.2 m (3.9 ft) in case of scuba dive, or
- when the water contact is not on and your depth is at 3.0 m (9.8 ft).

A wave icon appears on the left, above the ascend indicator when the device is under water. See *2.2. Display - modes, views, and states* for an overview of dive screen icons.

Water contact icon:

Water contact icon in **Free** mode **Depth view**:



⚠ ***CAUTION:*** *If you see a question mark in a yellow square appear, that means the device is functioning abnormally. E.g. it can signal that the water contact is not working as expected. Start using your backup instrument, abort the dive immediately and safely ascend to the surface. Call Suunto Customer Support and return your computer to an authorized Suunto Service Center for inspection.*

4. Use

4.1. How to access device info

To access Suunto D5 information:

1. Keep middle button pressed to enter the main menu.
2. Scroll to **General** with the upper or lower buttons and press the middle button.
3. Press the middle button to enter **About D5**.
4. Scroll to **D5 info**, press to enter.

5. Scroll with the lower button to see all information.
6. Keep middle button pressed to go back and exit from the menu.

4.2. How to change display brightness

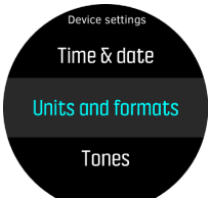
To change brightness level:

1. Go to **General** » **Device settings** » **Brightness**.
2. Select from default, high, very high, low, or very low.
3. Turn the display brightness down or switch it off when there is ambient light available to save battery life significantly.

4.3. How to set language and unit

To change the device language and unit system:

1. Go to **Main menu** » **General** » **Device settings** » **Language** and select your language.
2. Go to **Main menu** » **General** » **Device settings** » **Units & formats**.



3. Select **Date format**, or **Units**, or **Time format**.
4. Use the upper or lower button to select from the available formats.

NOTE: *Under the unit settings, you have the option of selecting metric or Imperial as a global setting: it will affect all measurements.*

5. To set the unit system for specific measurements select **Advanced**. For example, you could use metric for depth, and Imperial for tank pressure.

4.4. How to set time and date

To change time and date

1. Keep the middle button pressed to enter menu.
2. Browse to **General** » **Device settings** » **Time & date**.
3. Scroll to **Set time** or **Set date** with the upper or lower button.
4. Press the middle button to enter the setting.
5. Adjust the setting with the upper or lower button.
6. Press the middle button to move to the next setting.
7. Press again the middle button when last value is set to save and go back to **Time & date** menu.
8. Keep middle button pressed to exit when done.

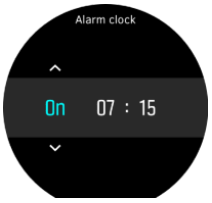
To change time and date formats

1. Keep the middle button pressed to enter menu.
2. Browse to **General** » **Device settings** » **Units & formats**.
3. Scroll to **Time format** or **Date format** with the upper or lower button.
4. Follow steps 5-8 as above to change and save formats.

4.5. How to set the alarm clock

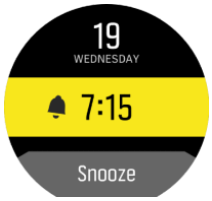
Activate the alarm clock under **Main menu** » **Alarm clock**:

1. Use the upper or lower button to set the alarm on or off.



2. Change fields with the middle button and use the upper or lower buttons to set the hours and minutes.
3. Press and hold the middle button to exit.

In the below example you set the alarm to 7:15 a.m.:



NOTE: *The alarm clock will be active every day until it is set to off.*

4.6. How to install and pair a Suunto Tank POD

To install and pair a Suunto Tank POD:

1. Install the Tank POD as described in the Tank POD quick guide or in *Installing Type A air restrictor* and *Installing Type B air restrictor* in the Tank POD user guide .
2. After installing the Tank POD and opening the valve, wait for green LED on Tank POD to flash.
3. If your Suunto D5 has a blank screen, press any key to activate it.
4. Use proximity pairing: Hold your Suunto D5 close to the Tank POD. Make sure you follow the instructions in *Tank POD alignment*.
5. After a few seconds, a menu pops up on the screen showing the Tank POD serial number, battery status and the tank pressure. From the menu, select the correct gas for that Tank POD.

NOTE: *The battery level indication shown when pairing the Tank POD is an approximation only.*

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

Alternatively you can pair the Suunto Tank POD(s) from the menu:

1. Select which Tank POD to use with each gas by selecting a Tank POD for the gas in question in the **Gases** menu.

2. Make sure the Tank POD has been activated by ensuring there is tank pressure reading in screen and that it is within range. In the menu, the Tank POD is identified by the serial number printed on the Tank POD.

In the dive main views, only one tank pressure is shown and corresponds to the active gas. When the gas is changed, the displayed tank pressure is also changed accordingly.

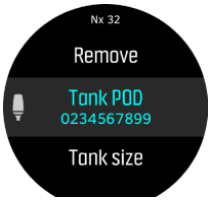
WARNING: *If there are several divers using Tank PODs, always check before you dive that the POD number of your selected gas corresponds to the serial number on your POD.*

TIP: *Remove pressure from the Tank POD when not diving to save battery life.*

To unpair and remove your Tank POD from a specific gas through the menu:

1. Select the gas you want to remove the Tank POD from in the **Gases** menu:

2. Select the Tank POD you want to remove (check the serial number):



3. Select **Unpair**:

4. Your Tank POD is removed from the selected gas list:

To unpair and remove your Tank POD from a specific gas using proximity:

1. Hold your Tank POD close to your dive computer in Tank pressure view:

2. Scroll to the gas you want to remove your Tank POD from:

3. Select **Unpair**:

4. Your Tank POD is removed from the selected gas list:

4.7. How to plan a dive using the Dive planner

Before planning your first dive, go through the planner settings and configure them according to your personal preference. Access the planner and adjust settings under **Main menu** » **Dive planner**.

1. First set the values for:
   - personal gas consumption (default value: 25 L/min / 0.90 ft^3)
   - tank pressure (default value: 200 bar / 3000 psi)
   - tank size (default value: 12 liters / 80 ft^3, 3000 psi)

   NOTE: *It is important to adjust these values first to get the gas calcualtions right.*
2. Use the lower or upper buttons to decrease or increase the values. If you are not sure what your personal gas consumption is, we recommend using the default value of 25 L/min (0.90 ft^3/min).

   NOTE: *Estimated gas time is calculated based on tank pressure at start minus 35 bar (510 psi).*

   In **View planner** you can see the calculated plan for your dive.

The calculated no decompression time is based on dive depth and gas mixture. Any residual nitrogen from previous dives, as well as surface time, is taken into consideration. **Gas time** is dependent on the dive depth, personal consumption and tank size/pressure.

Planning the first dive in a series

1. Edit depth and mixture in **View planner**.

2. As an example, enter 18 meters, use a mixture of 21% oxygen, and you will see the following:

In this example, the calculated values are:

a. Dive number in the dive series: 1
b. Available no decompression time: 51 minutes
c. Remaining gas time: 41 minutes

Planning additonal dives

1. The dive planner allows you to adjust surface time in 10-minute increments. 48:00 hours is the maximum value to be set.

   In the example below, the surface time before the second dive is 1:37 minutes. Adjust surface time to see how it impacts no decompression time.

4.8. How to customize dive modes with DM5

To customize Suunto D5:

1. Download and install Suunto DM5 from *http://www.suunto.com/DM5*.
2. Connect your Suunto D5 to a computer with a USB cable.
3. In the devices window, select Suunto D5.
4. Select the **Customization** tab. You can create new dive modes and modify existing ones.

NOTE: *When creating or modifying dive modes, you need to synchronize the changes with your Suunto D5 before disconnecting the USB cable to save the changes to your device.*

Customization is divided into four categories:

- Dive mode name
- Dive algorithm
- Gas settings
- Customize views

To customize categories:

Dive mode (name)

- Use something short and simple that helps you identify easily the features and information that you have customized on this mode.
- Maximum length of the name is 15 characters.

Dive algorithm

- Select to use **Suunto Fused RGBM 2** or **No algorithm** (see *3.9. Decompression algorithm*).
- If you select **No algorithm**, Suunto D5 functions as a gauge (bottom timer) in that mode. Further option to set is only:
  - Dive type
- If you select **Suunto Fused RGBM 2**, you have additional options to set:
  - Dive type: OC (Open Circuit Diving) / Free / Off
  - Personal (algorithm conservatism - for more information see *3.24. Personal adjustments*)
  - Altitude (For more information see *3.24. Personal adjustments*)

Gas settings

Configure what you see under the **Gases** menu in Suunto D5.

- Turn the **Multiple gases** option on or off. When on, the **Modify gases while diving** option becomes active.

  When turned off, the gas menu is simplified and easier to use with only one gas.
- Set the **Gas max pO_2** to manual or fixed:
  - Set to fixed to have the selected value used for all gases. You cannot manually edit them in the **Gases** menu as it is disabled. You can select from:
    - Fixed to 1.2
    - Fixed to 1.3
    - Fixed to 1.4
    - Fixed to 1.5
    - Fixed to 1.6
  - Set to manual to edit the gas max pO_2 for each gas individually in the **Gases** menu.

Customize views

For Air / Nitrox, Gauge, and Free dive modes, you can create up to four custom views in addition to the fixed **All day** view. For Off mode you can only have a single **All day** view.

NOTE: *To customize the visual style of the mode is not possible for Suunto D5.*

1. For each mode you have the fixed **All day** view in **View 1** which is the watch or time view.
2. You have **Default** as **View 2** that you can change to **Tank pressure**, **Timer**, or **Compass**.
3. Add further views in the **Add new view** field and select from the drop-down.
4. Modify, delete or add new customizable fields within each view of the mode. The maximum number of switch windows (switchable fields) is 15 for each view. When editing the view in DM5, you get a preview of how it will look on your Suunto D5.

5. When you added the desired view(s), click **Done**.
6. **Synchronize** your device to save the customizations to your Suunto D5.
7. When you use the view in Suunto D5, press the lower button to cycle through these switch windows.

4.9. How to enable gas consumption metering

When you customize your Suunto D5 in DM5 to include the gas consumption info field in the switch window (see *3.8. Customizing with Suunto DM5*, this information will always be avalable and visible during a dive where you use the gas to which the Tank POD is attached.

TIP: *Make sure the tank size is correct.*

To enable gas consumption metering:

1. Add the gas consumption field to your custom dive mode in DM5. See *3.8. Customizing with Suunto DM5*.
2. Install and pair a Suunto Tank POD. See *3.30. Tank pressure*.
3. After you have selected the correct gas and returned to the main time view, keep the middle button pressed to enter menu.
4. Scroll to **Gases** with the lower button and select with the middle button.
5. Scroll to the gas you just selected from your Tank POD and select with the middle button.
6. Scroll to **Tank size** and select with the middle button.
7. Check the tank size and change the size with the upper or lower button as needed. Confirm change with the middle button.
8. Keep the middle button pressed to exit the menu.

NOTE: *For accurate gas consumption, you must define the tank size. Not defining the tank size leads to incorrect gas consumption readings.*

4.10. How to set depth notifications (freedive only)

You can define a surface notification and five independent depth notifications for freediving, for example, to alert you to start free falling or mouth filling. Each notification has a defined depth and can be turned on or off.

In Free Mode go to **Main menu** » **Dive settings** » **NOTIFICATIONS**.

With the upper or lower button select Surface notify or Depth notify 1, 2, 3, 4, or 5.

The notifications are off by default. To define depth notifications:

1. Turn the notifications on with the upper button.
2. Use the middle button to switch among the fields horizontally to select the alarm type and the depth of the notification. You can select sound, vibration or both for the notification.

3. Move to the rightmost field with the middle button to set the depth in meters.

Note: The depth notifications can be set between 3 - 99 m. By default

- Depth notify 1 is set to 3.0 m
- Depth notify 2 is set to 5.0 m
- Depth notify 3 is set to 10.0 m
- Depth notify 4 is set to 15.0 m
- Depth notify 5 is set to 20.0 m showing you the max value of the depth gauge.

When you reach the notification depth, the alarm you selected (sound, vibration or both) will alert you.

4.11. How to add bookmarks

Keep the lower button pressed to add a bookmark (timestamp) to the active log for later reference.

If you keep the lower button pressed while the compass view is active, both a timestamp and the current compass heading are stored to the active log.

5. Care and support

5.1. Handling guidelines

Handle Suunto D5 with care. The sensitive internal electronic components may be damaged if the device is dropped or otherwise mishandled.

When travelling with this dive computer, ensure that it is packed securely in check-in or carry-on luggage. It should be placed in a bag or other container where it cannot move around bumped or easily hit.

When flying, turn your dive computer to airplane mode under **General** » **Connectivity**.

Do not try to open or repair Suunto D5 by yourself. If you are experiencing problems with the device, please contact your nearest authorized Suunto Service Center.

⚠ ***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.*

Wash and dry the dive computer after use. Rinse very carefully after any salt-water dive.

Pay special attention to the pressure sensor area, water contacts, pushers, and USB cable port. If you use the USB cable before washing the dive computer, the cable (device end) should be rinsed as well.

After use, rinse it with fresh water, mild soap, and carefully clean the housing with a moist soft cloth or chamois.

NOTE: *Do not leave your Suunto D5 in a bucket of water (for rinsing). The display stays on under water and consumes battery life.*

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

⚠ ***WARNING:*** *Do not use compressed air or high pressure water hoses to clean your dive computer. These can permanently damage the pressure sensor in your dive computer.*

TIP: *Remember to register your Suunto D5 at www.suunto.com/register to get personalized support.*

5.2. Installing scratch guard

Use the provided scratch guard to help protect your Suunto D5 from scratches.

To install the scratch guard:

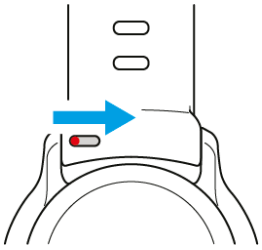
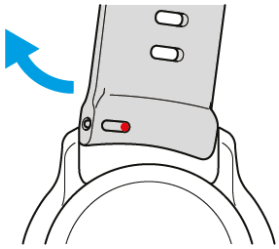
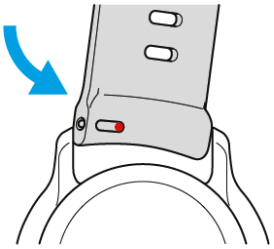
1. Ensure the display glass is clean and dry.
2. Peel back the protective layer from one end of the scratch guard.
3. Place exposed adhesive side down squarely on one end of the display.
4. Pull back the protective layer from the scratch guard.
5. Press out any air bubbles with a soft, straight edge tool.

Watch the video on *YouTube*.

5.3. Quick release strap

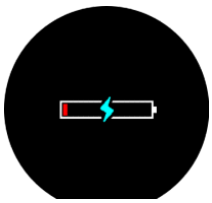
Suunto D5 has a quick release strap made of durable silicone. This quick release strap is comfortable to wear and easy to change without any additional tools.

Slide the little pin button to the right, as shown below, to release the strap.

1. 
2. 
3. 

5.4. Charging battery

Charge Suunto D5 with the supplied USB cable. For charging, use a USB port of 5Vdc, 0.5A as a power source. If the battery is very low, the display remains dark while charging until the battery has reached an adequate charge level.



NOTE: *You cannot use buttons on your Suunto D5 when the USB cable is connected to a computer. When charging from a wall outlet, or if your computer goes to sleep mode, the buttons work again.*

WARNING: *You must only charge your device using USB adapters that comply with the IEC 60950-1 standard for limited power supply. Non-compliant adapters are a fire hazard and a risk to personal injury and might damage your Suunto device.*

⚠ ***CAUTION:*** *DO NOT use the USB cable when Suunto D5 is wet. This may cause an electrical failure. Ensure the cable connector and connector pin area on the device are both dry.*

⚠ ***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.*

Rechargeable batteries have a limited number of charge cycles and may eventually need to be replaced. The battery should be replaced only by authorized Suunto Service Centers.

5.5. Getting support

To get additional support, visit *www.suunto.com/support/suunto-d5/*.

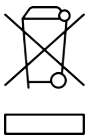
Our online support provides a comprehensive range of support materials, including the user guide, frequently asked questions, how-to videos, service and repair options, our dive service center locator, warranty terms and conditions as well as contact details for our customer support.

If you could not find answers to you questions on our online support, please contact our customer support. We are happy to assist you.

5.6. Disposal and recycling

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

The symbol below indicates that within the European Union, this device must be disposed of according to the directive for Waste Electrical & Electronic Equipment (WEEE). Please follow the local practices of member states for the collection of electronic waste.



The proper collection and recycling of batteries and electronic devices helps conserve resources and minimizes their impact on the environment.

6. Reference

6.1. Technical specifications

Dimensions and weight:

- Length: 53 mm / 2.08 in
- Width: 53 mm / 2.08 in
- Height: 16.5 mm / 10.65 in
- Weight: 90 g / 3.17 oz

Operating conditions

- Normal altitude range: 0 to 3,000 m / 10,000 ft above sea level
- Operating temperature (diving): 0 °C to 40 °C / 32 °F to 104 °F
- Operating temperature (non-diving): -20 °C to +50 °C (-4 °F to +122 °F)
- Storage temperature: -20 °C to +50 °C / -4 °F to +122 °F
- Recommended charging temperature: 0 °C to +35 °C / +32 °F to +95 °F
- Maintenance cycle: 500 hours of diving or two years, whichever comes first

NOTE: *Do not leave the dive computer in direct sunlight!*

Depth gauge

- Temperature compensated pressure sensor
- Accurate to 100 m / 328 ft complying with EN 13319 and ISO 6425
- Depth display range: 0 to 300 m /0 to 984 ft
- Resolution: 0.1 m from 0 to 100 m / 1 ft from 0 to 328 ft

Temperature display

- Resolution: 1 °C / 1.5 °F
- Display range: -20 to +50 °C/-4 to +122 °F
- Accuracy: ± 2 °C/± 3.6 °F within 20 minutes of temperature change in temperature range of 0 °C to 40 °C / 32 °F to 104 °F.

Displays in Air / Nitrox dive mode

- Oxygen %: 21–99
- Oxygen partial pressure display: 0.0–3.0 bar
- CNS%: 0–500% with 1% resolution
- OTU: 0-1000

Other displays

- Dive time: 0 to 999 min
- Surface time: 0 to 99 h 59 min

- Dive counter: 0 to 99 for repetitive dives
- No-decompression time: 0 to 99 min (>99 above 99)
- Ceiling depths: 3.0 to 200 m / 10 to 656 ft
- Ascent time: 0 to 999 min (>999 after 999)

Calendar clock

- Accuracy: ± 5 s/month (0 °C to 50 °C / 32 °F to 122 °F)
- 12/24 h display

Compass

- Accuracy: +/- 15°
- Resolution: 1°
- Max. tilt: 45 degrees
- Balance: global

Timer

- Accuracy: 1 second
- Display range: 0’00 – 99’59
- Resolution: 1 second

Logbook

- Sample rate. 10 seconds
- Sample rate freedive: 1 second
- Memory capacity: approximately 200 hours of diving or 400 dive logs, whichever comes first

Tissue calculation model

- Suunto Fused™ RGBM 2 algorithm (developed by Suunto and Bruce R. Wienke, BSc, MSc, PhD)
- 15 tissue compartments
- Tissue compartment halftimes for nitrogen: 1, 2, 5, 10, 20, 40, 80, 120, 160, 240, 320, 400, 480, 560 and 720 min. The on-gassing and off-gassing halftimes are the same.
- Tissue compartment halftimes are divided by a constant factor to obtain helium halftimes.
- Reduced gradient (variable) M-values based on diving habit and dive violations. The M-values are tracked up to 100 hours after a dive
- The exposure calculations (CNS% and OTU) are based on recommendations by R.W. Hamilton, PhD and currently accepted exposure time limit tables and principles.

Battery

- Type: rechargeable lithium-ion
- Battery life:

  fully charged: up to 6-12 h diving or 6 days in time mode

The following conditions have an effect on the expected battery lifetime:

- The conditions in which the unit is operated and stored (for example, temperature/cold conditions). Below 10°C/50°F the expected battery lifetime is about 50- 75% of that at 20°C/68°F.
- The quality of the battery. Some lithium batteries may exhaust unexpectedly, which cannot be tested in advance.

NOTE: *Rechargeable batteries have a limited number of charge cycles and may eventually need to be replaced. The battery should be replaced only by authorized Suunto Service Centers*

NOTE: *Low temperature may activate the battery warning even though the battery has enough capacity for diving in water with higher temperatures (40 °C or less)*

Radio transceiver

- Bluetooth® Smart compatible
- Frequency band: 2402-2480 MHz
- Maximum output power: <4 dBm
- Range: ~3 m/9.8 ft

Underwater radio receiver

- Frequency band: single channel 123 kHz
- Range: 1.4 m / 4.6 ft

Manufacturer

Suunto Oy

Tammiston kauppatie 7 A

FI-01510 Vantaa FINLAND

6.2. Compliance

6.2.1. EU radio directive

Hereby, Suunto Oy, declares that the radio equipment type DW182 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*.

6.2.2. EU Personal Protective Equipment

The combination of Suunto D5 and Suunto Tank POD is a personal protective equipment under the PPE Regulation (EU) 2016/425. The notified body no. 0078, Institut National de la Plongée Professionnelle, Entrée 3 - Port de la Pointe Rouge, 13008 MARSEILLE, France, has completed the EC type-examination to the combination mentioned above and assured the conformity with the European standard EN250:2014. The certification is up to the depth of 50m as defined in the EN250:2014.

6.2.3. EU depth gauge standard

EN13319 is a European diving depth gauge standard. Suunto dive computers are designed to comply with this standard.

6.2.4. FCC / ISED regulatory notices

Modification Statement

Suunto has not approved any changes or modifications to this device by the user. Any changes or modifications could void the user's authority to operate the equipment.

Interference Statement

This device complies with Part 15 of the FCC Rules and Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Wireless Notice

This device complies with FCC/ISED radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines and RSS-102 of the ISED radio frequency (RF) Exposure rules. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC Class B Digital Device Notice

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

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

CAN ICES-3 (B) / NMB-3 (B)

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

6.3. Trademark

Suunto D5, its logos, and other Suunto brand trademarks and made names are registered or unregistered trademarks of Suunto Oy. All rights are reserved.

6.4. Patent notice

This product is protected by pending patent applications and their corresponding national rights: US 13/803,795, US 13/832,081, US 13/833,054, US 14/040,808, US 7,349,805, and US 86608266.

Additional patent applications may be filed.

6.5. International Limited Warranty

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

Warranty Period

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

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

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

For all Suunto Spartan watches purchased in 2016 the Warranty Period has been extended to three (3) years.

The Warranty Period is five (5) years for failures attributable to the depth measurement (pressure) sensor on Suunto Dive Computers.

Exclusions and Limitations

This International Limited Warranty does not cover:

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

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

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

1. has been opened beyond intended use;

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

Access to Suunto warranty service

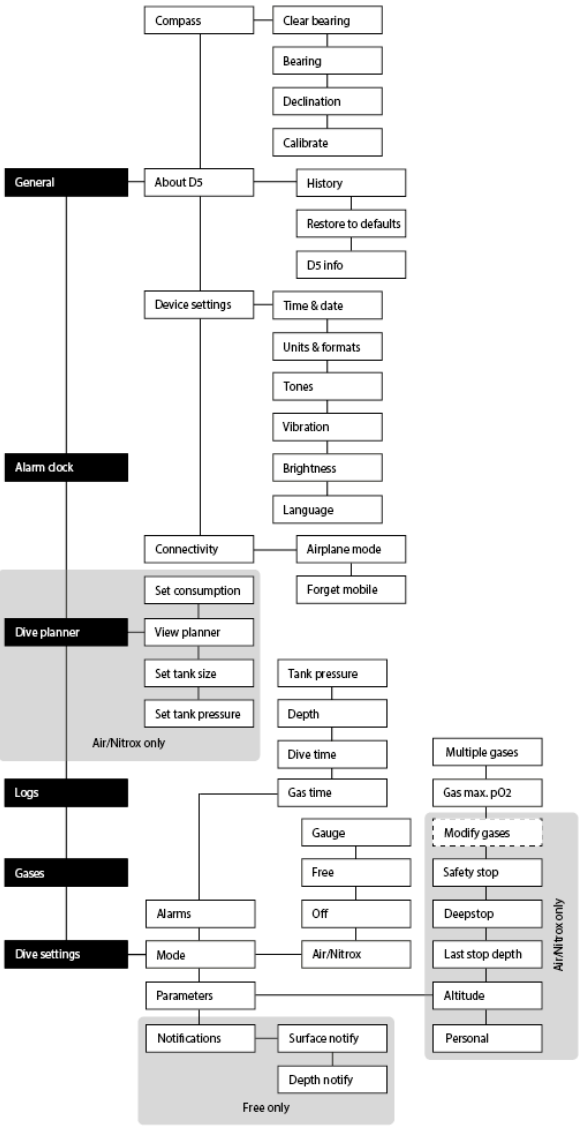
You must provide proof of purchase to access Suunto warranty service. You must also register your product online at *www.suunto.com/register* to receive international warranty services globally. For instructions how to obtain warranty service, visit *www.suunto.com/warranty*, contact your local authorized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

Limitation of Liability

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

6.6. Copyright

6.7. Menu



6.8. Dive Terms

Term	Explanation
Altitude dive	A dive made at an elevation greater than 300 m (1000 ft) above sea level.
Ascent rate	The speed at which the diver ascends toward the surface.

Term	Explanation
Ascent time	The minimum amount of time needed to reach the surface on a decompression stop dive.
Ceiling	On a decompression stop dive, the shallowest depth to which a diver may ascend based on computed inert gas load.
CNS	Central nervous system toxicity. Toxicity is caused by oxygen. Can cause a variety of neurological symptoms. The most important of which is an epileptic-like convulsion which can cause a diver to drown.
CNS%	Central nervous system toxicity limit fraction.
Compartment	See Tissue group
DCS	Decompression sickness/illness. Any of a variety of maladies resulting either directly or indirectly from the formation of nitrogen bubbles in tissues or body fluids, as a result of inadequately controlled decompression.
Decompression	Time spent at a decompression stop, or range, before surfacing, to allow absorbed nitrogen to escape naturally from tissues.
Decompression range	On a decompression stop dive, the depth range between the floor and the ceiling within which a diver must stop for some time during ascent.
Dive series	A group of repetitive dives between which the dive computer indicates some nitrogen loading is present. When nitrogen loading reaches zero the dive computer deactivates.
Dive time	Elapsed time between leaving the surface to descend, and returning to the surface at the end of a dive.
Floor	The deepest depth during a decompression stop dive at which decompression takes place.
MOD	Maximum operating depth of a breathing gas is the depth at which the partial pressure of oxygen (pO_2) of the gas mix exceeds a safe limit.
Multi level dive	A single or repetitive dive that includes time spent at various depths and therefore has no decompression limits that are not determined solely by the maximum depth reached.

Term	Explanation
Nitrox (Nx)	In sports diving, refers to any mix with a higher fraction of oxygen than standard air.
No deco	No decompression stop time. The maximum amount of time a diver may remain at a particular depth without having to make decompression stops during the subsequent ascent.
No decompression dive	Any dive which permits a direct, uninterrupted ascent to the surface at any time.
No dec time	Abbreviation for no decompression time limit.
OTU	Oxygen tolerance unit. Used to measure the whole-body-toxicity, caused by prolonged exposure to high oxygen partial pressures. The most common symptoms are irritation in the lungs, a burning sensation in the chest, coughing and reduction of the vital capacity.
O_2%	Oxygen percentage or oxygen fraction in the breathing gas. Standard air has 21% oxygen.
pO_2	Partial pressure of oxygen. Limits the maximum depth to which the nitrox mixture can be safely used. The maximum partial pressure limit for enriched air diving is 1.4 bar. The contingency partial pressure limit is 1.6 bar. Dives beyond this limit risk immediate oxygen toxicity.
Repetitive dive	Any dive whose decompression time limits are affected by residual nitrogen absorbed during previous dives.
Residual nitrogen	The amount of excess nitrogen remaining in a diver after one or more dives.
RGBM	Reduced gradient bubble model. Modern algorithm for tracking both dissolved and free gas in divers.
Scuba	Self-contained underwater breathing apparatus.
Surface time	Elapsed time between surfacing from a dive and beginning a descent for the subsequent dive.
Tissue group	Theoretical concept used to model bodily tissues for the construction of decompression tables or calculations.

SUUNTO CUSTOMER SUPPORT

1. **www.suunto.com/support**
   www.suunto.com/register

2.

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