

# User Manual



heinrichs  weikamp



# Contact

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**For any questions relating to your OSTC sport please contact us via ...**

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# Your OSTC sport

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Thank you for choosing a heinrichs weikamp dive computer!

The OSTC sport is specially adapted to sportdiving, it offers a simplified handling and big letters on the display in dive mode. Thereby the OSTC sport benefits from the permanent further development of the technical dive computer from heinrichs weikamp, because all models are based on the same platform.

Data like logbook information or updates can be easily transferred with Bluetooth. Take also notice of the large supply of logbook programs and other software.

The development of heinrichs weikamp dive computer is permanently going on. Use the firmware updates to keep your OSTC sport always up to date. Get it for free at:

[www.heinrichsweikamp.com](http://www.heinrichsweikamp.com)

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You can use the OSTC sport intuitively. But to become familiar with its functions and to use it in the best way, we recommend you to read this manual carefully.

Additionally you find some videos on our homepage and facebook page which offer some easy explanations (for example how to change the battery, calibrate the compass or change the bungees).

We hope you enjoy diving with your new OSTC sport dive computer!



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# Common advices

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## Technischer Stand

This manual corresponds to the technical status of OSTC sport and its firmware as of June 2016.

OSTC sport, its firmware and the documentation are subject to technical changes without notice.

The OSTC sport firmware is an ongoing development. To make the best use of OSTC sport, we advise you to use the latest stable firmware available on the heinrichs weikamp website:

[www.heinrichsweikamp.com](http://www.heinrichsweikamp.com)

## Standard settings

Unless noted differently, the information in this manual refers to OSTC standard settings.

For important settings, the OSTC sport shows an asterisk \* behind the current setting, if the current setting is different from the default setting.





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## About this manual

### Special markings

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#### **Warning**

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indicates a situation that carries a significant risk or injury.

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#### **Caution**

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indicates a situation that carries a risk of damage to the device.

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### Note

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indicates additional information for advanced OSTC users.

### Terms of use

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## Functions overview

Your dive computer OSTC sport assists you with the following functions:

### Display

- Diving depth and duration according to EN 13319
- Maximum diving depth
- Ambient temperature
- Ambient pressure
- Bottom time
- Duration and depth of planned decostops
- Time to desaturation based on diving depth and duration

- Additional informations (e.g. tilt-compensated compass, average depth, stopwatch, ppO<sub>2</sub>, CNS)

### Planning

- Configure and check gas mixtures
- Calculate a decoplan in the simulator

### Recording

Time, duration, depth profile, temperature, reference pressure and time of desaturation

# Safety advices

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## Requirements

The most important factor for safe diving is a competent and well trained diver.

This dive computer is intended for experienced divers. That implies:

A diving education including de-compression diving is mandatory. Sufficient knowledge about the laws of physics in diving is required. It may harm your health if you rely on a wrong configured dive computer.

Do not use this dive computer, if you don't know or understand the settings

and displayed information of OSTC sport. If necessary, you must be able to finish your dive safely without a dive computer.

Don't adjust decompression parameters if you are not aware of their meanings.

---

## **Before every dive**

### **Plan your dive.**

Set up a dive plan independently from OSTC sport and take it with you when diving.

**Make sure that your OSTC sport is ready for use and correctly configured.** Always confirm the following questions before diving:

### **Stable firmware?**

Use only stable firmware provided by heinrichs weikamp. It has been tested and allows a proper and reliable performance of OSTC sport.

### **Configured correctly?**

Check the settings of your OSTC sport. If necessary, adjust the settings according to your dive plan and equipment.

### **Battery full?**

Check the battery status using the battery indicator on the display. To ensure reliable performance throughout your dive, the battery must be sufficiently high. A new lithium primary cell (SAFT LS14500) allows up to 50 hours of diving, a quality alkaline AA battery (e.g. Duracell Ultra Power) about 20 hours. a lithium 1,5V AA battery (e.g. Energizer E2) about 30 hours.



### **Device waterproof?**

Ensure that the battery compartment is properly closed and watertight. Check the housing for cracks or damages which might allow water to intrude

### **Safely attached?**

Make sure that your OSTC sport can be fastened safely using either the bungees or a suitable alternative.

### **Display messages?**

Check the signals of OSTC sport. Do not dive if your dive computer displays a warning. Check the cause of the warning.

---

## **While diving**

### **Take a backup system with you**

While diving, always carry a backup system to measure duration and depth of your dive independently from OSTC sport.

### **Take a sufficiently long surface break before diving again.**

The OSTC sport doesn't indicate how long to wait before the next dive. Please follow the guidelines you were taught during your dive training.

### **Take the OSTC sport with you on every repeat dive – don't lend it to anyone.**

A correct calculation of tissue saturation requires that your OSTC sport is:

- configured correctly
- used on every dive
- only used during your own dives (and not shared with other divers).



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## Caution

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Saturation data is lost when updating the OSTC sport firmware or in the unlikely event of a failure. In these cases, do not dive any further until tissue saturation has returned to normal level.



## Safe use of the OSTC sport

Do not modify the hardware. Modifications to the hardware of OSTC sport can damage its proper function and can have bad influence on the watertightness of its housing.

Only the cap of the battery compartment and the bungee backplate can be removed. There is no other way to open the housing without damaging the device.

Only open the battery compartment when the battery has to be replaced.

Keep your OSTC sport out of children's reach. Small parts such as the battery cap may represent a choking hazard.

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### Caution

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Surpassing the maximum water depth may cause malfunction or permanent damage of the device.





## Environmental conditions

Store the OSTC sport in a cool, dry place.

Permissible temperature range for use and storage: between -5 °C and 40 °C.

Make sure that the used battery is suitable for the ambient temperature to be expected in your dives. For **cold water** diving (under 10°C) we recommend the use of a Lithium battery.

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### Note

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Decompression calculations and depth display are always based on the actual surface pressure. So if you are diving in **mountain lakes**, no further settings are needed. OSTC sport automatically adapts to the actual surface pressure.

Maximum water depth for operation: 70 meter.

## Before first use

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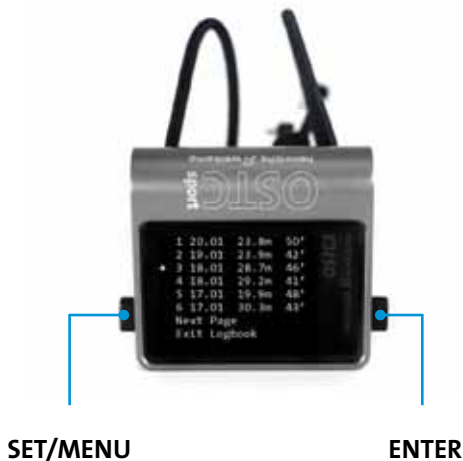


heinrichs weikamp delivers the OSTC sport ready for use with a high quality lithium battery (Saft LS14500). If the OSTC sport has not been used for a long time (more than one year), it may be necessary to replace the battery first.

Before diving, you need to adjust some settings as described in this manual.


Familiarize yourself with the OSTC sport and read this manual carefully.

## Handling



Operate the OSTC sport with the two buttons Set/MENU and ENTER on the left and right side of the housing. The force required to push the buttons is independent to ambient pressure. You can push and hold the button in order to change a data. You always have to push only one button.

Push the left button SET/MENU to enter the menu. To select a menu entry, push SET/MENU repeatedly until the cursor marks the required menu item. From the item on the bottom, the cursor jumps back to the top with the next push. To confirm push ENTER.



In some menus you will find the entry **more**. Select this entry to access the next menu page with more menu items.

To change the setting of a menu item, push ENTER repeatedly until the required value is displayed. You can also hold-down the ENTER button in order to change a value.



## Modes of operation

OSTC sport has three modes of operation and switches automatically between them: Surface mode, dive mode and sleep mode.

### Surface mode

In surface mode you can adjust the settings for the next dive, adjust the base settings of the OSTC sport and read recorded dive data.

To wake up the OSTC sport, push one of the buttons SET/MENU or ENTER.

In surface mode the display shows general information as time, date, temperature, ambient pressure and battery status. After a dive the display also shows tissue saturation and the no-fly-time..

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## Dive mode

The OSTC sport automatically switches into dive mode when it is at least 1,6 meter below the surface for five seconds.

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### Note

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For a pre-dive-check of the functions and settings, we recommend to switch on the dive computer manually before every dive

In dive mode the display shows current diving depth, elapsed time since starting the dive, maximum depth, the currently selected gas, decompression information and additional information.

It is not possible to switch underwater from dive mode to surface mode. You cannot change the base settings while diving. Note that exceptions apply to the **apnea** mode.



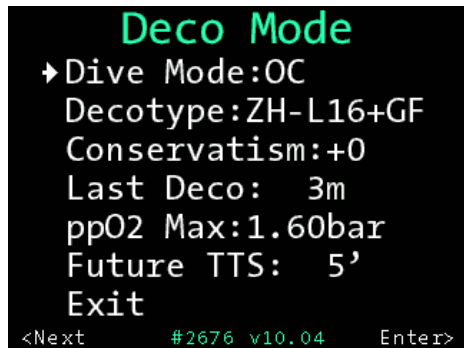
## Sleep mode

When the OSTC sport isn't operated at the surface, it switches into sleep mode after two minutes to save battery.

In sleep mode the display is turned off. Ambient pressure is measured at regular intervals. After a dive, decompression calculation continues.

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## Modes of diving



The screenshot shows a black screen with green and white text. At the top, 'Deco Mode' is written in large green letters. Below it, a list of settings is shown in white: 'Dive Mode:OC', 'Decotype:ZH-L16+GF', 'Conservatism:+0', 'Last Deco: 3m', 'ppO2 Max:1.60bar', 'Future TTS: 5'', and 'Exit'. At the bottom, there is a status bar with '<Next' on the left, '#2676 v10.04' in the center, and 'Enter>' on the right.

```
Deco Mode
→Dive Mode:OC
Decotype:ZH-L16+GF
Conservatism:+0
Last Deco: 3m
ppO2 Max:1.60bar
Future TTS: 5'
Exit
<Next      #2676 v10.04      Enter>
```

In the main menu you can choose under **Deco mode**, if you want to use the OSTC sport for scuba diving or apnea diving.

**OC (open circuit):** Use this dive setting with regular dive equipment (open circuit). This setting is pre-set on your OSTC sport.

The decompression calculation model is Bühlmann ZH-L16 without or Bühlmann ZH-L16+GF with gradient factors (read more on page 58). You can switch from ZH-L16 to ZH-L16+GF under **Decotype**





**Apnea:** Use this dive setting for apnea diving or snorkeling.

In apnea mode the OSTC sport serves as a depth gauge. Additionally displayed are ambient temperature and elapsed time since starting the dive. Decompression and saturation calculation are switched off. In apnea mode the OSTC sport remains in dive mode even when diving at low depths. You can switch into surface mode at any time by pushing SET/MENU. Push ENTER to confirm the **QUIT?** question.

The OSTC sport switches automatically from apnea mode into surface mode after a 15 minutes delay and above a depth of 1 meter.

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## Compass calibration



OSTC sport has a tilt-compensated electronic compass. Like all other electronic compasses it must be calibrated before use. The calibration compensates aberration that can be caused by the battery.

It is recommended to compensate the compass after battery change (it is not necessary if you use the same battery type) or your dive computer shows big deviations in the heading reading.

For an exact heading, the calibration of the compass is absolutely necessary.



After starting the calibration in the menu, move the dive computer slowly around each axis. Do this a number of times within 60 seconds. After this while the calibration ends automatically. During the calibration routine the OSTC sport shows X-, Y- and Z-axis.

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### Note

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The order of the axis rotation is not important.  
Keep OSTC sport away from any metallic object during the calibration process (at least 50 centimeters).

# Surface mode

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## Display in surface mode



## Permanent items

In the surface mode the OSTC sport shows the following items:

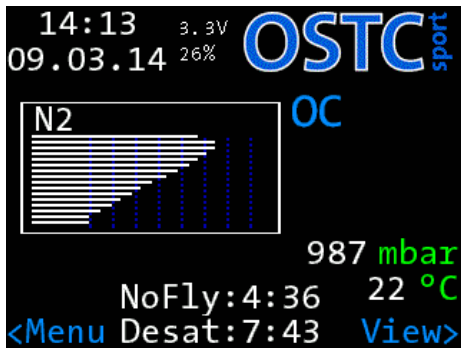
- Ambient pressure, clock, date
- Temperature
- Battery level
- Dive mode: Open circuit (OC) or Apnea
- After the dive: No fly time, desaturation, surface interval, warnings for missed deco and too high CNS

## Selectable items

In the middle part of the display you can see extra information in the custom view. You can switch them with the right button.

- Personal text (upt to 60 characters)
- Compass
- Gaslist
- Current settings: Deco type, time of future TTS, last deco, salinity
- Desaturation diagram (After the dive you can see the approximate tissue saturation in the desaturation diagram. The 16 types of tissue according to the Bühlman model are

arranged horizontally. The fastest tissue is on top, the slowest is below. The longer the line, the more saturated is the tissue.



---

## Menu functions

In surface mode you can adjust the settings to prepare the next dive, adjust the base settings of OSTC sport and review your dives in the logbook

To open the menu in surface mode push SET/MENU. With the left button you can scroll through the menu. To select an item push ENTER.





**Logbook:** Recorded data from recent dives

**Gas setup:** Shows your actual gas mix and allows you to configure three gases

**Start Bluetooth:** Start Bluetooth to connect the OSTC sport to any kind of personal computer

**Simulator:** Calculate deco and simulate the dive mode

**Deco mode:** Settings for deco calculation and dive modes (open circuit or apnea) of the OSTC sport.

**Settings:** Settings for time, language, display brightness, compass

**Exit:** Exit the menu

These functions are described in the following chapters of this manual.

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## Settings

In this menu you can set up basic configurations, calibrate your compass and reset settings.



### Information

Shows some device specific information as serial number, number of total dives, kind of battery and the actual used firmware.



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## Set Time and Date

Menu to set time and date. With **set time** you can set the time, with **set date** you can set the date of the internal clock of the OSTC sport. You can set up time and date with the ENTER button.



```
Set Time & Date

➔ Set Time
  Set Date
  Date:DDMMYY
  Exit

<Next      #2676 v10.04      Enter>
```

Choose a date format:

**YYMMDD**: year, month, day

**DDMMYY**: day, month, year

**MMDDYY**: month, day, year

---

## Language

The OSTC sport can be set up in four languages: English, German, French and Italian. Choose your language with the ENTER button

## Compass calibration

In this menu you can calibrate your digital compass. How to do exactly, look for page 26.

## Display settings

Settings for display and other settings.

**Brightness:** Display brightness in OSTC sport is controlled automatically with an ambient light sensor. The three settings Eco, Medium and High set different maximum and minimum values for this control loop. In most cases the default **Eco** is recommended. Only if OSTC sport is used often in low depths and bright sunlight, a higher setting is recommended.

**Units:** Display of depth and temperature in metric (m/°C) or imperial (ft/°F) units.



**Logbook-Offset:** With the **logbook-offset** you can adjust the dive number shown in the logbook to match your actual number of dives. In the detail view of the logbook the last dive isn't shown as dive number 1 but as number 349, if you have made 349 dives in total yet. This value will be increased after every dive automatically (Not for simulated dives).

**Salinity:** This setting allows you to adjust if you dive in salt water or in fresh water. This value has a slight effect on the display of the actual and maximum depth. The default salinity is 0%. To increase this value, select the **salinity** menu and press ENTER repeatedly until the required

value is displayed. The value range is from 0 % to 4 %

Decompression information is based on absolute pressure and not on relative pressure. Therefore salinity does not effect this calculation.

**Colour scheme:** Choose the colour of display in dive mode. You can choose the schemes red, green, blue and standard.

**Rotate screen:** The display can be also shown upside down. Choose "Yes" for this action. After exiting the menu, the selection will be active.

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**Variable speed:** The warning for the rate of ascent is adjusting to the depth. It varies from 7 to 20 meter per minute.

**Speed graph:** Shows the rate of ascent in a graph, otherwise only in numbers.

## **Reset menu**

The **reset menu** allows resetting options in the OSTC sport to its default values, clear the logbook and change the information for the battery.

**Reset all:** Resets all settings (not time and date) to factory defaults. You'll be prompted to confirm the action. Dives in the logbook and the dive counter will not be reset.



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## Caution

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**Reset all** really resets **all** settings in the OSTC sport to their factory defaults, it also occurs to the compass calibration and the personal text. Once confirmed this can't be undone! Saturation and no-fly-time will stay on the dive computer.

**Reset Logbook:** Deletes all data in the logbook. The counter starts again with zero. If you want your personal number of dives to be shown in the logbook, you have to set up (again) the number via logbook offset

## Reset Battery Reset battery

When replacing the battery you have to choose the battery type. If you were wrong, you can correct your information in this menu (how to change the battery, page 75).

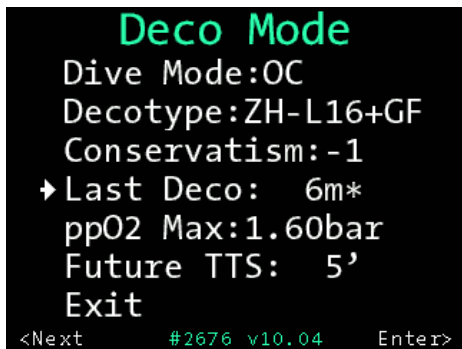
---

## Deco mode

In **deco mode** you can configure the dive mode of your OSTC sport (open circuit or apnea) and select important settings for the decompression calculation.

**Dive mode:** Choose if you want to go scubadiving (OC, open circuit) or apnea diving.

**Decotype:** Toggles between decompression calculation using the classical Bühlmann ZH-L16 algorithm or the more modern Bühlmann ZH-L16+Gf with gradient factors.



```
Deco Mode
Dive Mode:OC
Decotype:ZH-L16+GF
Conservatism:-1
➔ Last Deco: 6m*
  ppO2 Max:1.60bar
  Future TTS: 5'
Exit
<Next      #2676 v10.04      Enter>
```



The classical algorithm Bühlmann **ZH-L16** calculates with maximum values (M-values) which should not be exceeded. As safety margin to the M-values (100 percent) this decomodell uses saturation factors. The OSTC sport is pre-set to a value for saturation of 112 percent and a value for desaturation of 88 percent. Thereby there is a safety margin of 12 percent to the M-value.

The more modern algorithm Bühlmann **ZH-L16+GF** with gradient factors calculates with deeper decostops and a much bigger safety margin to the M-value. So you have less micro bubbles in your tissues. The **GF low** controls

the allowed saturation for the deepest decostop, the **GF high** does it with the highest decostop. OSTC sport is set up to a GF low of 30 percent and a GF high of 80 percent (GF 30/80). With a GF low of 30 percent, you start your decompression with a safety margin of 70 percent to the M-value. The GF high comes closer with 80 percent, until you can stop your dive. We suggest to use the algorithm ZH-L16+GF with gradient factors.

.....

**Conservatism:** With levels of conservative (+2) or progressive (-2). The levels correspond to the following values:

Value	Description	Saturation factors (ZH-L16)	Gradient factors (ZH-L16+GF)	Distance to de-costop
+2	very conservative	80%/120%	20/70	1,5 meter
+1	conservative	85%/115%	20/75	1,0 meter
<b>0</b>	<b>normal</b>	<b>88%/112%</b>	<b>30/80</b>	<b>1,0 meter</b>
-1	progressive	90%/110%	30/85	1,0 meter
-2	very progressive	95%/105%	50/90	0,5 meter



---

If you want to adjust the gradient factors by yourself, choose in the menu **conservatism** the value **GF**. Then scroll down the menu until you get to **GF high** and **GF low**. Here you can adjust the gradient factors (GF).

The GF high can be set from 45 to 95 %, the GF low from 20 to 95 %. You can also set the values with your PC.

**Last Deco: Last deco:** Setting for depth of last decompression stop. Choose here if the OSTC sport shall calculate its last stop at 3, 4, 5 or 6 meter (default: 3m). If you have heavy waves, a deeper last decostop can be better.

**ppO2 max:** Settings for the maximum partial pressure of oxygen (ppO2 from 1,20 bar to 1,60 bar). This value is used for warnings and the calculation of EAD and MOD in gas setup. Your OSTC sport is set up to a ppO2 of 1,60 bar..

**Future TTS:** The future TTS makes a deco forecast. You can set this value between 0 (disabled) or 10 minutes. It shows you the total time to surface (TTS) in xx minutes if you stay on the actual depth. For example: "Future TTS @5" shows your TTS in five minutes.

**Safety stop:** The safety stop can be switched on or off. After a dive within the

---

no deco limit (NDL) the OSTC 3 shows a safety stop of 3 minutes in 5 meter. It is displayed as a countdown split to the second. More settings on the safety stop can be done with the personal computer.

---

## Gas setup

```
Gas List

→ Gas1: *Air      0m
  Gas2: Nx50      21m
  Gas3: O2        0m
  Exit

<Next      #2676 v10.04      Enter>
```

Use **gas setup** to configure presets for up to three gases. You can switch between these presets when you change your gases while diving.

The presets are marked like this: **Air** for compressed air (21% oxygen) and **Nx** for Nitrox (e.g. a mix of Nitrox 31 is shown as Nx31). 100% oxygen are shown as **O2**.

Choose a gas in the menu **gas setup** and push ENTER to see details or to change values.

## Type

Each mix can be set to the following type:

**First:** The first gas which is used when the dive starts. Only one gas can be marked as *first*. If there is only one gas active, it will be automatically first gas. In the view the first gas is marked with a \*. Each gas can be marked as first gas.

**Travel:** Gases used for descending or as bottom gas.

**Deco:** Gases used for decompression

```
      Edit Gas
Gas1:*Air      0m
MOD: 66m
→Type: First
  Setup Mix
  Change depth
  Exit
<Next      #2676 v10.04      Enter>
```



**Disabled:** Gas is disabled and is not taken into account for the decompression prognosis.

Disabled gases are shown in blue letters.

The change of deco gases with configured change depth will be advised underwater (the change depth of travel gases is not shown, it is only a reminder for the diver and is relevant for the log-book).

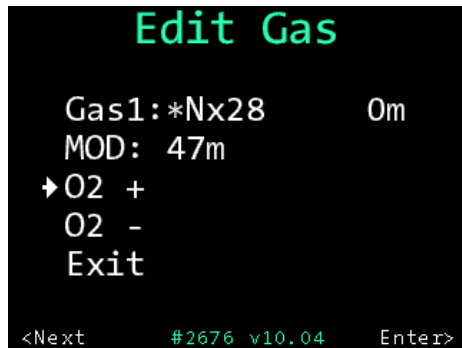
---

### Note

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- The first gas is used when starting the dive.
- All gases (even disabled ones) can be chosen underwater.
- The OSTC sport always computes the tissue load and the decompression scheme using the selected gas. It takes all *deco* gases in account for the decompression phase.

## Setup mix



For every of the three gases you can set the percentage of oxygen.

Select **O2+** or **O2-** to make the percentage of oxygen higher or lower. Repeatedly push ENTER (or hold down the ENTER button) until the required value is displayed. For reference, the OSTC sport displays the calculated maximum operating depth (**MOD**) for your mix.



## Change depth

To set the operation depth for your gas mix, select **Depth+** or **Depth-**. The chosen operation depth will be shown in the first line of the display. It will turn red if the change depth is larger than the maximum operation depth (**MOD**). Use **Reset to MOD** to reset the value to the MOD.

## Examples

Dive with only **one gas**: Configure one gas, for example gas 1 as first. Set up the mix using the submenu setup mix. Disable the other two gases (Type: disabled).

Dive with **one additional decompression gas**: Setup the first gas. Enable one other gas as deco and setup your gas mix. Disable the remaining gas.

Dive with **two decompression gases**: Setup another gas to deco and configure the second deco mix.

## Gas List

Gas1: Air	0m
→ Gas2: *Nx30	0m
Gas3: O2	0m
Exit	

<Next      #2676 v10.04      Enter>

---

### Note

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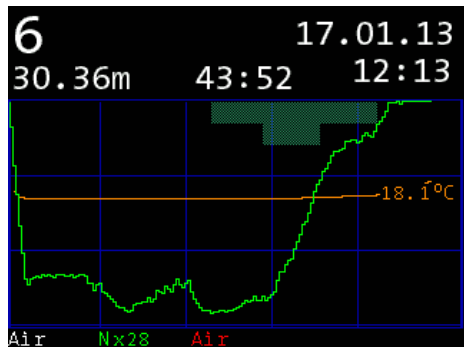
In surface mode the actual gas list is shown via the custom view (right button). Underwater you can only see the gaslist via the menu (left button SET/MENU).

If you only dive with one gas and only switch from air to nitrox, you can store the two gases in your gaslist – now you can easily choose your actual gas with first.





## Logbook



1	20.01	23.8m	50'
2	19.01	23.9m	42'
→ 3	18.01	28.7m	46'
4	18.01	29.2m	41'
5	17.01	19.9m	48'
6	17.01	30.3m	43'
Next Page			
Exit Logbook			

---

The OSTC sport records data during every dive. It can be retrieved from the logbook. The OSTC sport stores data of up to 255 dives with a total duration of 500 to 1000 hours. The exact number of records depends on the overall size of data. If the memory is full, existing records will be overwritten, starting with the oldest.

Logbook entries are sorted in chronological order, starting with the most recent entry. Every entry shows position index, date, maximal depth and dive time.

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### Note

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If you want to secure your recorded dive data, you can connect the OSTC sport via Bluetooth to a computer and readout the data (page 69).



To see details of the selected dive, press ENTER. The dive profile and details page shows up. The details page also shows position index, date, maximum diving depth, duration, minimum ambient temperature, ambient pressure above water, desaturation time, the used gases and additional information of the dive. Switch from depth diagram to details page with the left button.

---

## Note

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Via **Settings > Display Settings > Logbook Offset** you can put in your own number of dives. It will be shown instead of the numbers of dives which are stored in the dive computer (page 35).

---

## Simulator

Use the simulator to simulate the dive mode of the OSTC sport or to calculate the decoplan for your next dive. Using the simulator you can get familiar with your dive computer even before the first dive.

A screenshot of a black terminal window with green text. The title 'Simulator' is at the top. Below it are menu options: 'Start Simulator', 'Interval : 60'\*', 'Bot. Time: 25'\*', 'Max Depth: 30m\*', '→ Calculate Deco', and 'Exit'. At the bottom, there is a status bar with '<Next', '#2676 v10.04', and 'Enter>'.

```
Simulator  
Start Simulator  
Interval : 60'*  
Bot. Time: 25'*  
Max Depth: 30m*  
→ Calculate Deco  
Exit  
  
<Next      #2676 v10.04      Enter>
```

## Calculate decoplan

```
Dive Plan: 6m | 1'  
            3m | 3'  
ZH-L16+GF  
30%/80%  
OC  
  
TTS: 8'  
CNS: 0%➔12%
```

As a planning aid, the OSTC sport can calculate decompression stops in advance to planned dive. Hereby all settings of the OSTC sport and the tissue load of previous real dives are taken into account.

If you are planning a repetitive dive, set up the surface interval in minutes.

First set the values for **bottom time** and **maximum depth**. Select the menu entry and push ENTER (or hold down the ENTER button) until the required value is displayed.

---

To start calculation, select **calculate deco** and push ENTER.

Wait while the calculation is going on. Depending on the bottom time, the calculation may take a moment. While calculating, the green LED is blinking.

When the calculation is finished, the display shows the decoplan with the planned decostops. Depth is displayed in meters, duration in minutes. The duration is additionally represented graphically. If there are more than eight stops, more stops can be shown with the ENTER button.

- **Interval:** Increase interval in 10 minutes steps up to 240 minutes.

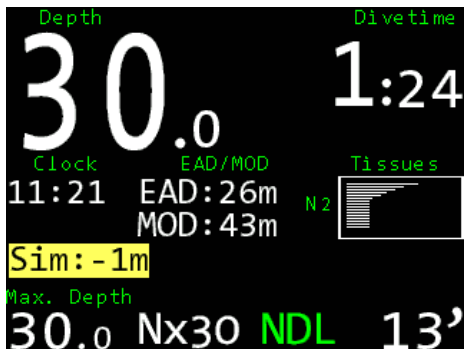
- **Bottom time:** Can be increased in steps of 2 minutes up to maximum of 59 minutes.

- **Maximum depth:** Can be increased in steps of 3 meters up to a maximum of 60 meters.

Additionally you can enter your respiratory minute volume (in liter per minute) for the first gas/travel gas and the deco gas with **Settings**. Then the deco calculation will show your gas usage (in liter) for the planned dive.

---

## Start simulator



Simulated dives can be maximum 90 minutes long and are not stored in your logbook. The maximum depth for the simulation is 60 meters. Simulated dives don't affect any settings of the OSTC sport. Of course there will be no influence on the tissue loads from real dives.

Select the **maximum depth** and select **start simulator** to start the simulation of the dive mode.

.....

**Change diving depth:** In the simulator you can also change the depth and dive time while the dive computer is in dive mode. Push repeatedly SET/MENU to get into the depth menu. Select the desired value with SET/MENU and confirm with ENTER.

**Sim: -1m:** descend 1 meter

**Sim: + 1m:** ascend 1 meter

**Sim: +5':** extend divetime for 5 minutes

**Quit?:** Quit dive mode simulation. The simulation will stop after a short delay.

All other functions are similar to the dive mode and are described there (page 58).

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### Note

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The OSTC sport stays 90 minutes in the simulation mode until it switches to sleep mode. Stop the dive mode manually not to waste battery.





# Dive mode

---

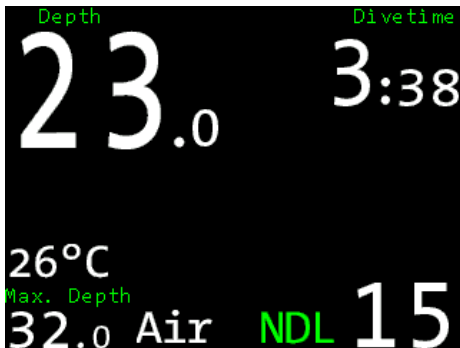
## Displays in dive mode

### Permanently shown items

In dive mode the OSTC sport shows the following items permanently on the display:

- depth in meter or feet
- maximum depth
- divetime in minutes and seconds
- NDL (no deco limit) or TTS (time to surface including all decostops) in minutes.
- actual used gas
- water temperature in °C or °F

- Future TTS (@+xx): shows your deco in xx minutes at the same depth. Future TTS is only displayed, when the OSTC sport is in deco and no longer in the NDL (no deco limit).



## Selectable items

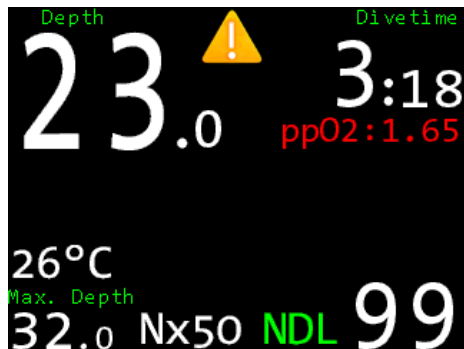
Selectable items can be monitored on the center of the display. You can scroll through with the right button.

- Stopwatch with average depth
- Decoplan: Display of all decompression stops. If there are no decostops necessary, there will be displayed “---”. If there are decostops, the next decostop is permanently shown on the main display.
- Time, MOD/EAD and graphical indication of tissue saturation
- Compass
- no information



---

## Warnings



Warnings appear permanently on the display. If there are critical warnings, a yellow warning sign is displayed additionally. Warnings are shown for the following items:

- Low battery level
- Too high ppO2
- CNS warning (risk of oxygen poisoning)
- Missed deco stop (the missed deco stop is marked red)
- Violation of MOD
- Too fast ascent

---

## Safety stop

If you go diving within the no deco limit (NDL) and have no decostops, there will be displayed a safety stop of three minutes in five meter. It is shown as a countdown to the split second. For safety stop settings look for page 42.



---

## Menu functions



In dive mode (OC) you can select your preset gases (**gaslist**), reset the calculation of your average depth (**reset avr./stopwatch**) and set a **marker** in your logbook.

To open the menu, push the left button SET/MENU. On the display appears **Menu?**. Push ENTER to confirm. The pre-menu **Menu?** avoids that you push the button by accident. Confirm within five seconds or the OSTC sport returns to normal display.

---

## Gaslist

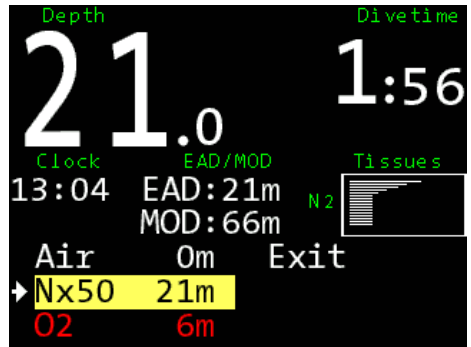


In the menu **gaslist** you can make your gas change and select the actual gas. You can choose the gas mixes that you prepared in **gas setup** in the surface mode. The actual gas appears on the main display.

Gases in **red** have too high ppO<sub>2</sub> to be used in the current depth (They can be selected by the user anyway).

Gases in **blue** are disabled (They can be selected by the user anyway, but they haven't been part of the decompression calculation).

A gas turns **yellow**, when you get close to the configured change depth of the gas. Then push SET/MENU and the dive computer proposes you the fitting gas (e.g. Nx50?). So you see at once which gas you shall use. Just confirm with ENTER.





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## Reset average

Restarts the stopwatch and calculates the average depth from new.

In dive mode you can select the average depth and stopwatch with the right button. **Total avr** indicates the average depth since the start of the dive. **Stopped avr** indicates the average depth for a period of time that you choose.

The stopwatch starts with the beginning of the dive. While diving you can restart it in the **menu** function **reset avr**. The stopwatch starts from new and shows

the average depth since the start of the stopwatch (stopped avr).

## Set marker

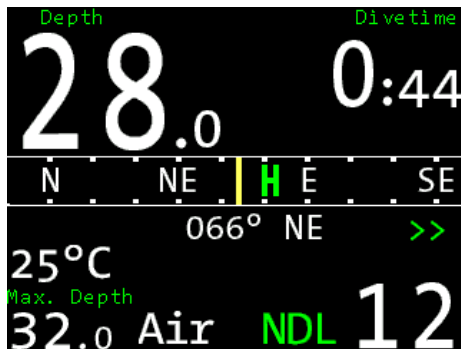
If you push **Marker** there will be a small yellow marker in your logbook from that point.

## Bearing

To make a bearing with the compass at first go to the compass view with the right button. Then push the left button twice until **bearing** is displayed. With the right button you confirm the compass course you want to use. It will be marked green. The opposite heading will be marked red.

You can also make a bearing in the surface mode, just before diving. Put the custom view to compass and push the left button. It appears **Bearing**. Push the button another time to store the actual

bearing. But it only is stored as long as the dive computer is on.

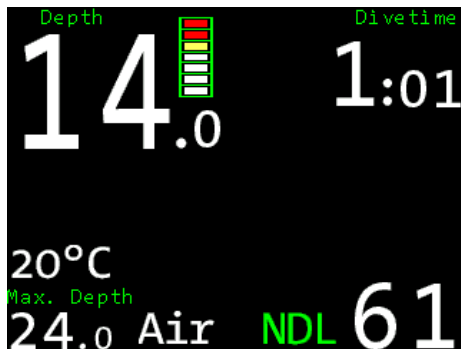


## Rate of ascent

The rate of ascent is displayed when it is higher than six meter per minute (e.g. +15). When the rate of ascent is higher than 10 m/min it is displayed in red as warning. The rate of descent is displayed when it is higher than 6 m/min (e.g. -15). Settings for the display of the rate of ascent can be done in display settings, there you can select if it is shown in numbers or graphically (page 36).

After diving the OSTC sport shows a countdown of five minutes. When you descend again within this period, the

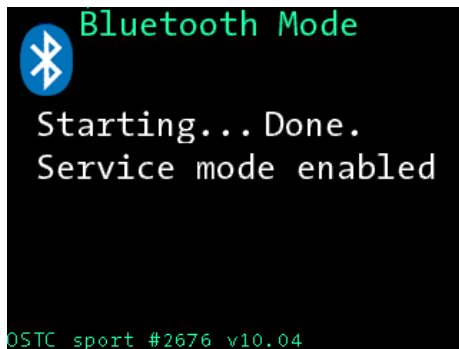
whole time of diving will be saved in the logbook as only one dive.



# Readout the dive computer

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You can connect your OSTC sport easily via Bluetooth to your personal computer, notebook or smartphone. You can upload software and readout your logbook. All you need is a computer that is able to work with Bluetooth.





## Bluetooth

Activate the Bluetooth interface in the main menu with **start bluetooth**. After a short while the Bluetooth is active. After activating you have two minutes to connect the OSTC sport with your computer. When there is no connection, the Bluetooth menu stops automatically. You can also stop it with the right button ENTER.

When connecting your OSTC sport to a computer the first time, you need to do some settings. This process depends on the operation software of the computer. In Windows: Click the Bluetooth symbol

in the system tray and select the option “add device”. A PIN code is not necessary.

When the connecting is done, the PC creates a virtual COM-port. Via this the PC software communicates with the OSTC sport. You don't need any special drivers.

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## Software for the OSTC sport

Data transfer with the OSTC sport is supported by many software applications for all common platforms. The applications provide easy-to-operate functions for transferring recorded dive data, and for configuring and remotely controlling your OSTC sport.

On our website you'll find a list of all OSTC sport supporting programs and applications:

[www.heinrichsweikamp.com](http://www.heinrichsweikamp.com)

## Updating the firmware

The OSTC sport firmware (integrated software) is in a constant process of improvement. To make the best of your OSTC sport, use the latest stable firmware that is available at the heinrichsweikamp website

[www.heinrichsweikamp.com](http://www.heinrichsweikamp.com)



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## Note

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We recommend you to upgrade the firmware regularly - at least ones a year. Updates for the OSTC sport are free of charge, of course. On the homepage you can download the **OSTC companion**. With this software you can upload the newest firmware easily. You can also upload the firmware with the logbook software **Subsurface** (free of charge).

# Maintenance and care

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## Housing



Wash your OSTC sport after every dive with fresh water, especially after diving in seawater. If the housing is very dirty, put your OSTC sport over night in fresh water. Don't use any cleaning agents or solvents. .

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### **Warning**

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If there is some sea water in the battery compartment, rinse it immediately with fresh water. Let it dry completely before using the OSTC sport again.



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## Bungee

The OSTC sport is delivered with bungees. The bungee wristband can be set to your arm diameter individually. To tighten the bungee, make a reef-knot above the circular cavity (tighten knot very strong). Cut remaining bungee after about 1cm and use a lighter to melt the small remains of nylon.



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The bungees are hand washable and can be replaced if necessary. In order to replace the bungee, remove the four screws and detach the lower housing plate. Align the new bungee in the compartment and put the ends through the two holes in the lower housing plate. Only use the screws supplied with the OSTC sport (Torx M3x6 and M3x8 V4A). They are non-corrosive.

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## Changing the battery

You can easily replace the battery of the OSTC sport by yourself.

When you replace your battery, the desaturation time and no-fly-time are still remaining. You can change the battery between two dives without losing any important information. After a replacement of battery please check time and date.

- Open the battery compartment and remove the old battery.
- Insert a new battery of the size AA with the plus pole ahead.
- Check the battery compartment o-ring. From time to time apply a very small amount of o-ring grease to it.
- Close the battery cap until it is completely inserted in the housing.

After the replacement the menu **new battery** appears on the display. Select if you have inserted the old battery again, a new 3,6V battery or a new 1,5V Battery. With this information the OSTC sport can calculate the remaining battery capacity.

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## Note

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If you put in wrong value, you can change it in the menu **reset** under **reset battery**.

**Important:** Only use good quality AA Batteries, e.g. Lithium (“Photo”) or Alkali-Mangan (“Alkaline”) batteries. Simple Zinc–Carbon batteries should be avoided. Leaking Zinc–Carbon batteries may permanently damage the OSTC sport battery compartment.

A new lithium primary cell (SAFT LS14500) allows up to 50 hours of diving, a quality alkaline AA battery (e.g. Duracell Ultra Power) about 20 hours. a lithium 1,5V AA battery (e.g. Energizer E2) about 30 hours.



## Spare parts

Bungees, batteries (Saft LS14500 3.6V) and caps for the battery compartment are available in the online shop of heinrichs weikamp (**shop.heinrichs-weikamp.com**) or at your dealer.

# Technical data

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<b>Display</b>	High resolution IPS LCD monitor with ambient light sensor, field of view: 160°, Resolution: 320 x 240 pixel, status display: 2 LEDs
<b>Connections</b>	Bluetooth Smart Ready (2.0 and 4.0)
<b>Sensor</b>	Combined depth/temperature sensor 3D compass (fully tilt-compensated)
<b>Power supply</b>	AA battery of any type Up to 50 hours of operation, 2 years standby
<b>Operating elements</b>	Two push buttons
<b>Housing</b>	Milled from a single block of alloy. Scratch resistant borosilicate-glass panel
<b>Dimensions</b>	64 mm x 62 mm x 22 mm
<b>Weight</b>	160 gr.
<b>Max. usage depth</b>	70 meter



## Disposal

According to the European WEEE directive, electrical and electronic devices must not be disposed with consumer waste. It's components must be recycled or disposed apart from each other. Otherwise contaminative and hazardous substances can pollute our environment. You as the consumer are committed by law to dispose electrical and electronic devices to the producer, the dealer or public collecting points at the end of the lifetime for free. Particulars are regulated in national right.



